



2019 National HIV PREVENTION CONFERENCE

Getting to No New HIV Infections

Atlanta, GA | March 18 – 21, 2019

Abstract Book

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The 2019 NHPC Abstract Book contains conference abstracts in order of their presentation date and time, organized by track. Almost 800 abstracts were submitted by authors from the United States and other countries. Each abstract was reviewed by three peer reviewers, then by Subtrack Committees comprised of CDC subject matter experts. Conference Co-chairs and Track Chairs prepared the overall program by combining abstracts and invited speaker presentations into concurrent sessions. Late breaker abstracts and special sessions were finalized by CDC conference Co-chairs. We are grateful for the time and effort that Co-Chairs, Track Co-chairs, and abstract reviewers dedicated to this important task.

TUESDAY, MARCH 19 | CONCURRENT SESSIONS | 10:30 AM – 12:00 PM

Track A

Session A03 - CDC Funded HIV Testing Trends: Accomplishments in the Context of High Impact Prevention, 2012-2017

Room: Imperial A (Atlanta Marriott Marquis)

Abstract 5626 - HIV testing, diagnosis, and linkage to care and prevention services among transgender women tested in CDC-funded sites, 2012-2017

Author(s): *Mesfin Mulatu, Wei Song, Guoshen Wang, JoAnne Keatley, Hui Zhang Kudon, Choi Wan*

Background: The number of persons identifying as transgender is increasing in the U.S. Recent estimates indicate that transgender women have the highest rate of HIV infection compared to other gender groups. Studies also suggest that transgender persons are less likely than cisgender persons to access HIV care and prevention services due to socio-economic barriers including HIV- and gender-related stigma, discrimination and lack of gender-sensitive services. However, existing data tend to come from smaller and geographically limited studies, and as a result are unable to provide national trends. We examine trends in HIV testing, diagnosis of HIV infections, and linkage to care and prevention services among transgender women tested in CDC-funded HIV testing programs nationally.

Methods: We re-analyzed the March 2018 released HIV testing data (19.7 million tests) reported to CDC by 61 local and state health departments and approximately 150 directly funded community-based organizations for the period 2012-2017. Transgender women were defined as those whose assigned sex at birth was male and currently identify as female or male-to-female transgender. The estimated annual percent change (EAPC) in the number of HIV tests and rates of diagnoses of new HIV infections, linkage to HIV medical care within 90 days of diagnosis, interview for partner services, and referral for prevention services among all and subgroups of transgender women were calculated by taking the exponentiation of the parameter estimate for year of HIV testing. We calculated EAPC and its 95% confidence interval (CI) using linear regression with a log link function.

Results: From 2012-2017, a total of 58,310 of CDC-funded tests were conducted among transgender women. The number of tests conducted among transgender women increased significantly from 8,962 in 2012 to 12,758 in 2017 (EAPC=10.6%, 95% CI=9.9%–11.3%, $p < .001$). Rates of newly diagnosed HIV infections declined slightly but significantly from 2.3% in 2012 to 2.1% in 2017 (EAPC=-7.0%, 95% CI=-10.6%–-3.3%, $p < .001$). Linkage to HIV medical care within 90 days of diagnosis increased from 35.6% in 2012 to 65.4% in 2017 (EAPC=5.0%, 95%CI =1.8%–8.3%, $p < .001$). Similarly, interview of newly diagnosed transgender women for partner services increased from 21.0% in 2012 to 53.5% in 2017 (EAPC=5.3%, 95%CI=1.6%–9.1%, $p < .001$). However, the rate of referral to HIV prevention services remained relatively stable – changing non-significantly from 61.0% in 2012 to 63.9% in 2017 (EAPC=1.1%, 95%CI=-1.7%–4.0%, $p = .455$). Trends in HIV testing, linkage to care and partner services among transgender women varied by age, race/ethnicity, and geographic region.

Conclusions/Implications: CDC-funded HIV testing data show that transgender women continue to have high rates of HIV infection, with only a slight decrease from 2012 to 2017. Although rates of linkage to care and interview for partner services increased, this may be partially attributable to improvements in data completeness. Regardless, rates are below national objectives. Expanding gender-sensitive HIV prevention and care may help remove social and structural barriers to services, promote sexual health, and reduce the disproportionate burden of HIV among transgender women.

Abstract 5565 - HIV testing, diagnosis, and linkage to care and prevention services among persons who inject drugs tested in CDC-funded sites, 2012-2017

Author(s): *Shubha Rao, Wei Song, Aba Essuon, Mesfin Mulatu, Janet Heitgerd*

Background: Sharing needles, syringes, and other injection equipment puts people who inject drugs (PWID) at high risk for getting HIV and other infections. About 1 in 10 new HIV diagnoses in the United States are attributed to injection drug use (IDU) or male-to-male sexual contact and IDU. Timely HIV testing and early diagnosis is associated with effective disease management and reduction in HIV transmission among PWIDs. The Centers for Disease Control and Prevention (CDC) recommends that persons at increased risk of HIV infection, including PWID and their sex partners, undergo HIV screening at least annually. We examine trends in CDC-funded HIV testing outcomes among PWIDs for the period 2012 through 2017.

Methods: We analyzed CDC-funded HIV testing data submitted by 61 local and state health departments and approximately 150 directly funded CBOs for the period 2012-2017 (updated March 2018). Trends were assessed for HIV testing, linkage to HIV medical care, interviewed for partner services, referrals to HIV prevention services among PWIDs. CDC requires information about HIV-related risk behaviors, including using injection drugs or sharing injection equipment during the 12 months prior to testing for all tests in non-health care settings and for HIV-positive tests in health care settings, which is included in the analyses. Estimated annual percentage change (EAPC) was calculated using linear regression with log link function and no covariates. Significance of a trend change was determined by whether the 95% confidence interval included zero.

Results: From 2012-2017, a total of 19,739,857 CDC-funded HIV tests were conducted. Of these, 529,349 (2.7%) were among PWIDs. The number of tests conducted among PWIDs remained relatively stable from 88,701 in 2012 to 88,037 in 2017 (EAPC = -.93%, CI = -1.09%–0.77%). The rates of newly diagnosed HIV infections among PWIDs increased from 0.7% in 2012 to 0.8% in 2017 (EAPC = 4.15%, CI = 2.41%–5.53%). Similarly, increases in rates of linkage to HIV medical care within 90 days of diagnosis from 35.8% in 2012 to 57.0% in 2017 (EAPC = 6.84%, CI = 5.17%–8.54%); interviewed for partner services from 29.5% in 2012 to 52.4% in 2017 (EAPC = 5.19%, CI = 3.39%–7.02%); and referral to HIV prevention services from 55.5% in 2012 to 69.8% in 2017 (EAPC = 2.58%, CI = 1.16%–4.02%) were seen among PWIDs.

Conclusions/Implications: Among CDC-funded HIV tests, PWIDs continue to have higher rates of HIV infection with a slight increasing trend from 2012 to 2017. Although the rates of linkage to care within 90 days of diagnosis, interview for partner services, and referral to HIV prevention services have increased, national prevention goals were not met. The increases in these outcomes may be partially

attributable to improvements in data completeness from 2012-2017. Prevention efforts that increase testing and enhance linkage and partner services among PWIDs could lead to reductions in HIV transmission and improved health outcomes for this group.

Abstract 5554 - HIV testing, diagnosis, and linkage to care and prevention services among persons tested in CDC-funded sites, 2012-2017

Author(s): *Guoshen Wang, Lisa Belcher, Wei Song, Janet Heritage, Jennifer Smith*

Background: In 2012, the Centers for Disease Control and Prevention (CDC) implemented a high-impact approach to HIV prevention that included conducting HIV testing to increase knowledge of HIV status in geographic areas and in populations that have the highest disease burden. Jurisdictions were expected to implement an HIV testing strategy that included routine HIV screening and targeted testing among priority populations in their local jurisdiction.

Methods: We analyzed CDC-funded HIV testing data submitted by 61 local and state health departments and approximately 150 directly funded CBOs for the period 2012-2017 (updated March 2018). Trends were assessed for all CDC-funded HIV tests, newly and previously diagnosed HIV infections, linkage to care within 90 days, interviewed for HIV partner service, and referral to HIV prevention by age group, gender, race/ethnicity, region, and test settings. Estimated annual percentage change (EAPC) was calculated using linear regression with log link function and no covariates. Significance of a trend change was determined by whether the 95% confidence interval included zero.

Results: A total of 19,739,857 CDC-funded tests were conducted from 2012 to 2017. Tests conducted decreased from 3,375,639 in 2012 to 3,115,838 in 2017 (EAPC=-1.8%, 95% CI -1.9% to -1.8%). However, increases were found for persons 30-39 years of age, those 50 years of age and older, and transgender persons. There were 69,062 persons newly diagnosed with HIV. New positivity decreased from 0.52% in 2012 to 0.48% in 2017 (EAPC=-0.8%, 95% CI -1.1% to -0.4%). Increases in new positivity were found for persons 20-29 years of age and in non-health care settings. Increases were found in linkage of newly diagnosed persons to HIV medical care (2012: 36.0%, 2017: 66.2%; EAPC=11.1%, 95% CI, 10.6% to 11.7%), interview for partner services (EAPC=5.9%, 95% CI, 5.3% to 6.4%), and referral to HIV prevention services (EAPC=3.1%, 95% CI 2.6% to 3.6%). Overall, there were 37,036 persons testing HIV-positive who had a previous positive HIV test. The EAPC for previous positivity was stable over time. Increases in previous positivity were found for persons 20-29 years of age and in non-health care settings. Increases were observed in linkage of previous positive persons to HIV medical care (EAPC=13.7%, 95% CI, 13.2% to 14.2%), interview for partner services (EAPC=4.1%, 95% CI, 3.5% to 4.7%), and referral to HIV prevention services (EAPC=9.4%, 95% CI 8.9% to 9.8%).

Conclusions/Implications: The number of HIV tests funded by CDC, as well as the number of new diagnoses attributable to CDC funding, decreased between 2012 and 2017, with some increases shown for age, gender, and test setting. Decreases in CDC-funded testing may result from efforts to shift payment of HIV testing services to third party payers to allow for CDC funds to be used for testing, linkage and navigation services for those without coverage. Additionally, improvements in key linkage and referral outcomes for persons testing HIV- positive may be partially attributable to increases in data

completeness from 2012-2017. CDC will continue to monitor its funded testing efforts to ensure high-impact programs.

Abstract 5599 - HIV testing, diagnosis, and linkage to care and prevention services among MSM tested in CDC-funded sites, 2012-2017

Author(s): *Jerris Raiford, Guoshen Wang, Renee Stein, Wei Song, Lisa Belcher*

Background: While gay, bisexual and other men who have sex with men (MSM) make up an estimated 2% of the U.S. population, in 2016 they accounted for 70% of new HIV diagnoses in the U.S. High-Impact Prevention (HIP), CDC's approach to reducing HIV infections in the U.S., uses a combination of scientifically proven, cost-effective, and scalable interventions targeted to the right populations in the right geographic areas. HIV testing, linkage to care and HIV prevention services are examples of scalable interventions. Given MSM are disproportionately affected by HIV, it is important to assess implementation of these activities in this population.

Methods: We analyzed HIV testing data submitted by 61 CDC-funded health departments and approximately 150 directly-funded CBOs for the period 2012-2017 (updated March 2018). Trends were assessed for HIV testing, linkage to medical care, and referrals to HIV prevention and partner services among MSM and associations between these outcomes and demographic and setting characteristics. CDC requires information about HIV-related risk behaviors, including males who reported male-to-male sexual contact in the past 12 months, for all tests in non-health care settings and for persons testing positive in health care settings. However, we also include data from healthcare settings (e.g., STD clinics) that provided MSM behavior data for persons testing HIV-negative. Estimated annual percentage change (EAPC) was calculated using linear regression with log link function and no covariates. Significance of a trend change was determined by whether the 95% confidence interval included zero.

Results: A total of 1,670,899 tests with valid MSM risk behavior data were submitted by 61 CDC-funded health departments and CBOs between 2012 and 2017. Overall, HIV tests among MSM increased from 251,640 in 2012 to 305,061 in 2017 (EAPC=4.5%, 95% CI = 4.4%-4.6%; $p \leq .001$), with significant decreases among MSM ≤ 18 years and 40-49 years old. Overall, newly diagnosed HIV infections decreased by 5.1% per year from 3.1% in 2012 to 2.5% in 2017 ($p \leq .001$). Among newly diagnosed HIV-positive MSM, linkage to medical care within 90 days increased by 8.4% (from 43.3% in 2012 to 71.1% in 2017; $p \leq .001$), referrals to and interviews for partner services increased by 1.6% and 4.8%, respectively (from 78.0% in 2012 to 86.4% in 2017 for referral; $p \leq .001$ and from 44.0% in 2012 to 61.8% in 2017 for interviewed; $p \leq .001$), and referrals to HIV prevention services increased by 3.5% (from 61.5% in 2012 to 76.3% in 2017; $p \leq .001$).

Conclusions/Implications: Between 2012 and 2017, CDC-funded health departments and CBOs increased the number of tests provided to MSM overall and reported significant reductions in newly diagnosed infections. For MSM diagnosed with HIV infection, health departments increased linkage to HIV medical care, referrals to HIV prevention services, and provision of partner services; however, this may be partially attributable to improvements in data completeness. The number of testing events among the subpopulation of young MSM, a group at great risk for HIV, has decreased, suggesting that

more targeted testing for this group is needed to increase knowledge of HIV status and subsequent linkage to care or HIV prevention services.

Abstract 5223 - The contribution of testing funded by the Centers for Disease Control and Prevention to new HIV diagnoses in the United States, 2012-2016

Author(s): *Weston Williams, Amy Krueger, Guoshen Wang, Deesha Patel, Lisa Belcher*

Background: The Centers for Disease Control and Prevention (CDC) funds HIV testing across the United States. The number of tests conducted and those resulting in new HIV diagnoses are reported regularly. However, quantifying the number of new HIV diagnoses resulting from a CDC-funded test sometimes relies upon client-reported responses to questions related to testing history, which can result in misclassification due to invalid self-report or omission due to missing data. Beginning in 2012, CDC introduced a new variable for grantees to complete by checking data from the National HIV Surveillance System (NHSS) to more reliably assess new diagnoses. Using this information, we sought to estimate the number of new diagnoses resulting from CDC-funded tests from 2012-2016.

Methods: For individuals diagnosed in 2015-2016 whose surveillance status was checked and reported to CDC, generalized hierarchical linear models were used to identify and estimate individual- and jurisdiction-level correlates of having a new diagnosis according to the surveillance-based categorization algorithm. Model parameter estimates were then used to calculate weights assigned to individuals for whom data were collected prior to fully implementing the new variable and cases where surveillance records were not checked or not reported. Multiple imputation was used to account for missing data. The count of newly diagnosed individuals overall and by race/ethnicity, age, and transmission risk group were calculated using weights. The percent of new diagnoses resulting from CDC-funded tests was calculated by dividing the estimated number of diagnoses by the total number of diagnoses reported through NHSS.

Results: Preliminary results indicate that from 2012-2016, CDC-funded tests accounted for 32% of all HIV diagnoses in the United States. CDC-funded tests accounted for a higher proportion of new diagnoses among individuals who reported being black/African American (38% were CDC-funded compared to 28% among other races), 20-29 year-olds (39% compared to 28% among other age groups), and individuals reporting heterosexual risk (33% compared to 26% among male-to-male sexual contact (MSM), 14% among persons who inject drugs (PWID), and 22% among MSM-PWID). MSM accounted for 52% of all new diagnoses from CDC-funded tests.

Conclusions/Implications: These findings reflect the first effort to estimate the number of new diagnoses resulting from CDC-funded tests and compare them to the total number of new diagnoses in the United States as reported in the National HIV Surveillance System. CDC-funded HIV testing was responsible for nearly a third of all new HIV diagnoses in the United States from 2012-2016 according to our estimates. With regard to transmission risk, CDC-funded new diagnoses accounted for a higher proportion of diagnoses among heterosexuals than MSM, although more than half of the CDC-funded new diagnoses were among MSM. CDC-funded new diagnoses were more concentrated among populations at higher risk of infection with regards to race/ethnicity and age, indicating that CDC successfully reached high-risk target populations. Diagnosing HIV infection is the first step toward linking

individuals to medical care and obtaining viral suppression to improve health outcomes and prevent transmission. CDC-funding for HIV testing is a crucial component of the nation's effort to end the HIV epidemic.

Session A05 - Testing Out of the Box: New Technology and New Partnerships to Improve Testing Among Priority Populations

Room: A703-A704 (Atlanta Marriott Marquis)

Abstract 5898 - Implementation of centralized mailed-out HIV self-test and STI self-collected specimen testing services

Author(s): *Maria Zlotorzynska, Travis Sanchez, Jennie McKenney, Candace Meadows, Brandi Williams, Patrick Sullivan*

Issue: Though great strides have been taken in implementing HIV/STI research and services for sexual minority populations, some subgroups, such as youth and those living in rural areas, remain underserved. Barriers include stigma, low facility coverage, privacy concerns and physical isolation. The presentation will review methods used to implement a centralized mailed HIV self-test kits and specimen collection kits for sexually transmitted infection (STI) testing, participant communications, specimens and laboratory tracking, data management, and results linking.

Setting: The Emory University Center for AIDS Research (CfAR) implemented a system to conduct mailed-out HIV and STI testing to support multiple US programs and research studies.

Project: The system allows study participants to request OraQuick HIV self-test kits, STI specimen collection kits, condoms and lubricants to be shipped to any mailing address in the US. Inventory is stored and shipped through Amazon Fulfillment Services using their logistics processes, allowing for rapid fulfillment of participant orders. The STI specimen collection kit can be customized for each program/study and can include materials to collect whole blood, dried blood spot (DBS), urine, rectal and oropharyngeal swab samples for HIV confirmatory, syphilis, gonorrhea and chlamydia testing. Procedures for monitoring of tenofovir diphosphate and creatinine levels in DBS collected from participants taking PrEP have also been developed. Written and video instructions guide participants in collecting specimens and shipping them back for testing at Emory's Clinical Virology Research Laboratory. Data processes allow results to be linked to individual clients so program/study teams can deliver results and link clients to care. For programs/studies using OraQuick self-test kits, processes have been created for participants to report their HIV test result, including the option for photo upload/verification of test result. Validation of other limited interaction biological testing, such as HIV viral load in DBS, is currently underway.

Results: The mailed-out HIV and STI testing service is currently being implemented for a number of studies, and has mailed out almost 500 test kits. One ongoing pilot study has sent kits to 200 MSM participants across the US and of the 111 sample sets submitted thus far, 24 (21.6%) tested positive for syphilis exposure. Testing of these samples has identified cases of rectal and genital chlamydia, as well as oral and rectal gonorrhea. Self-reported Oraquick HIV test results were verified with a high degree of

accuracy using user-submitted test kit photos. The presentation will share other preliminary findings on HIV and STI testing uptake and process measures.

Lessons Learned: A centralized, modular mailed-out HIV and STI testing service was successfully developed and implemented to service a range of HIV research studies. Several logistical and data management challenges were overcome, including rapid and on-demand fulfillment of participant requests for kits, delivery tracking and participant communication, linking laboratory data with participants and verifying self-reported HIV test results. This novel mailed-out HIV and STI testing service provides for collection and testing of biological specimens with limited staff interactions and has potential to improve the reach and scale of these procedures for HIV/STI programs and research.

Abstract 5863 - Use of a mobile app to promote routine HIV self-testing by men who have sex with men, United States

Author(s): *Patrick Sullivan, Jeb Jones, Rob Stephenson*

Background: CDC recommends men who have sex with men (MSM) test for HIV at least annually and suggests that screening every 3-6 months should be considered for MSM at highest risk for acquiring HIV. However, behavioral surveillance systems show that <60% of MSM test at least annually for HIV. Increasing HIV testing frequency for MSM would increase prompt identification and linkage to care for MSM living with HIV, and knowledge of negative HIV status is pre-requisite for men to consider pre-exposure prophylaxis. Distribution of HIV self-test kits to MSM by mail has been shown to increase HIV testing frequency for MSM.

Methods: We developed and evaluated HealthMindr, a mobile app that facilitates MSM developing a plan for routine HIV testing, finding HIV testing locations in their community, and ordering at-home self-test kits for HIV. We evaluated the app in a sample of 121 MSM with self-reported negative HIV status living in Atlanta and Seattle; participants downloaded the app, were encouraged to use it for 4 months, and completed a followup assessment four months after they downloaded the app. We evaluated the proportion of men who had a plan for routine HIV testing at baseline versus at 4-month followup and the proportion of men who ordered at least one at-home HIV self-test kit during the study.

Results: Of 121 MSM who enrolled in the study, 72 were enrolled in Atlanta and 49 were enrolled in Seattle; median age was 31, 49% were non-white, 87% identified as gay, and 26% were either never tested for HIV, or were unsure of their last HIV test result. 99 completed the followup assessment. About half (53%) had a plan for HIV testing at a regular interval at baseline. Of those who did not have a regular HIV testing plan at baseline, 62% developed a plan for regular HIV testing during the 4-month period of app use. Among men who had not tested in the year before the study, most (68%) tested during the 4-month study period. Nearly two-thirds of men (65%) ordered at least one HIV self-test kit by mail. Of those, most (68%) used the kits to test themselves; fewer (10%) used kits to test a friend or partner. Eleven participants (22% of those who ordered kits) reported not using the HIV self-test kit by the end of the study period. Most respondents said they would probably or definitely download the app again (69%), recommend it to a friend (71%), and continue to use it as part of their HIV prevention plan (66%).

Conclusions/Implications: In an uncontrolled study of a mobile app, app users ordered HIV self-test kits for home delivery and developed plans for routine HIV testing. Facilitating HIV screening and distributing HIV self-test kits through a mobile app is feasible and should be evaluated as an effective public health strategy.

Abstract 5597 - Using home-based HIV testing and telehealth to provide HIV testing to transgender youth

Author(s): *Rob Stephenson, Stephen Sullivan*

Background: Transgender youth experience some of the highest HIV rates in the United States, and experience a number of structural barriers that may limit their engagement in HIV testing, prevention and care. Telehealth may provide an opportunity for transgender youth to experience HIV testing in their own home. This project aims to examine whether the addition of counseling provided via a secure video chat service coupled with home-based HIV testing can create gains in routine HIV testing among transgender youth.

Methods: Project Moxie involves a pilot randomized control trial (RCT) of 200 transgender- identified youth ages 15-24, who are randomized to a control or intervention arm. Participants are recruited online via social media from across the US. Participants in the control arm are sent a home HIV testing kit and are asked to report their test results through a study portal. Participants in the intervention arm receive a home HIV testing kit plus a video-chat counseling session with a remotely located counselor. The video-chat session provides pre and post prevention counseling and examines barriers to future HIV testing. Motivational interviewing techniques are used to problem solve barriers to future HIV testing. Preliminary positive results in both arms are actively linked to local care. The pilot study aimed to examine acceptability, willingness and safety of the intervention.

Results: 201 transgender youth aged 15-24 are enrolled, with study assessments at baseline, 3 and 6 months. Retention was high, over 90% at all study assessments. All participants ordered HIV testing kits and all were successfully delivered. Participants reported high levels of satisfaction (>95%) with the telehealth intervention, willingness to regularly repeat the intervention (92%) and willingness to recommend the intervention to others (91%). No dropped calls were experienced during the video-chat sessions. A small number of participants selected to have kits delivered to addresses other than their familial home, and conducted the video-chat sessions from other locations. The RCT was successful in recruiting transfeminine, transmasculine and gender non-binary individuals, and there was uniform uptake of the intervention and satisfaction with the intervention across gender identities. The presentation also outlines the social media approach that was used to recruit a large sample of transgender youth who were diverse in gender identity.

Conclusions/Implications: A low bandwidth, HIPPA compliant video-chat software offers a unique opportunity to provide counseling coupled with home-based HIV testing for transgender youth. Youth reacted favorably to the ease of the telehealth intervention. Telehealth may provide an opportunity not only to provide counseling for those testing at home, but to also provide the behavioral skills to encourage future participation in HIV prevention and care.

Abstract 5279 - How Wisconsin brought pharmacy-based testing to Milwaukee: a partnership between the Wisconsin Division of Public Health and Walgreens

Author(s): *Sara DeLong, Hester Simons, Ron Hazen, Ambrose Delpino*

Issue: Stigma and lack of accessibility continue to prevent some people at risk for HIV from seeking HIV testing at community-based organizations. Retail pharmacies, in partnership with local health departments, provide a convenient and accessible location for people at risk for HIV to seek HIV testing and other HIV preventive services. The Virginia Department of Health collaborated with Walgreens to provide free HIV testing and was successful in reaching a high percentage of first-time testers. This presentation will describe how the Wisconsin Division of Public Health adapted the Virginia model to reach people at risk for HIV in Milwaukee, Wisconsin and results from the first year of the program.

Setting: The Wisconsin Division of Public Health has collaborated with five Walgreens pharmacies in 2018 located in Milwaukee, Wisconsin to offer free HIV testing in zip codes with a high burden of new HIV diagnoses. HIV testing at these locations is performed by pharmacists with additional training in HIV counseling and testing.

Project: In 2017, the Wisconsin AIDS/HIV Program adapted a model for pharmacy-based HIV testing developed by the Virginia Department of Health in partnership with Walgreens. The Wisconsin model includes assurance of linkage to care, information on how to access PrEP, and advertising on bus shelters, dating apps, and online. The Wisconsin HIV Program hosted a Linkage to Care Specialists work group that collaboratively designed the linkage to care protocol specific to pharmacy testing. In 2018, the model was implemented at five Walgreens pharmacies in Milwaukee, Wisconsin with funding from the Office of Minority Health through a State Partnership Initiative to Address Health Disparities grant. The project aims to normalize HIV testing and make it more accessible by providing a free, one-minute HIV test at pharmacies in zip codes with a high burden of new HIV diagnoses.

Results: This presentation will (1) describe the process for adapting and implementing the testing program, (2) provide a model for other health departments interested in pharmacy-based HIV testing, and (3) provide results from the first year of testing data from the five pharmacy-based testing locations. Testing results include the number of tests performed, the positivity rate, the number of first-time testers, and linkage-to-care outcomes. It will also outline adaptations made from the Virginia model and describe lessons learned.

Lessons Learned: Implementing a pharmacy-based HIV testing program requires extensive procedure development and strong partnerships, particularly for linking those who test positive to confirmatory testing and care. Pharmacy-based testing is one method for normalizing and increasing access to HIV testing. We request that this abstract be paired in the same session with the Virginia Department of Health's presentation on Walgreens pharmacy testing.

Abstract 5891 - Characteristics and outcomes of pharmacy testing clients in Virginia's capital region

Author(s): *Bryan Collins, Heather Bronson*

Issue: The Commonwealth of Virginia contains separate HIV epidemics in its Northern, Eastern, Central, and Southwest regions. Prior to 2014, the Virginia Department of Health (VDH) provided funding to Local Health Department (LHD) offices and approximately one dozen Community-Based Organizations (CBO) across the state. However, stigma related to HIV testing, limited resources for outreach, and individual client barriers such as lack of transportation and schedule conflicts prevented many individuals with low socio-economic status from accessing free HIV testing. Meeting the objectives of the National HIV/AIDS Strategy required expanding access to HIV testing beyond traditional clinical and community-based providers of the service.

Setting: The Virginia Department of Health funded thirty-two Walgreens retail pharmacies across Virginia through a Centers of Disease Control and Prevention demonstration project to conduct pharmacist-provided rapid HIV testing. This presentation focuses on outcomes at five retail pharmacies located in the Richmond Metropolitan Statistical Area.

Project: VDH trained pharmacists to perform the bioLytical INSTI rapid HIV test, and conduct pre-, and post-test counseling. Clients who received a positive test result were referred to a local LHD or CBO for confirmatory testing via a 24-hour triage line staffed by VDH. The client was then linked to care by the confirming agency following diagnosis.

Results: Between June 1, 2014 and May 30, 2018, the five Richmond-metro pharmacies conducted 1,826 HIV tests, and identified 19 new cases of HIV. This accounted for 30% of the total number of HIV tests conducted by retail pharmacies, but 42% of all new positives identified by the program. Fifty-seven percent of clients received a test after regular business hours (9am-5pm Monday through Friday). Sixty percent of clients in these pharmacies were Black/African American, compared to 46% in non-Richmond MSA pharmacies. Clients were also more likely to have previously received an HIV test (61% in the Richmond MSA, compared to 48% in non-Richmond MSA pharmacies). Preliminary Positive clients were also more likely to successfully link to confirmatory testing (84% in the Richmond MSA, compared to 75% in non-Richmond MSA pharmacies) through a CBO or LHD.

Lessons Learned: The characteristics of test clients varied between pharmacies in the Richmond MSA and pharmacies in other areas of the state. This may have been due to several factors which we did not analyze, including the locations of participating pharmacies, the number and distribution of other providers (both as an alternative for an initial test, and as a resource for confirmatory testing), and other socioeconomic factors such as regional poverty rates, and availability of public transportation. These results may have implications for replicating pharmacy-based HIV testing in other mid-size metropolitan areas.

Track B

Session B03 - PrEP Navigation and Media Evaluations: Findings and Lessons Learned from the PrIDE Demonstration Project

Room: International North (Hyatt Regency Atlanta)

Abstract 5998 - PrEP navigation: does it work?

Author(s): *Yamir Salabarría-Pena, Cynthia Prather*

Issue: In HIV, Navigation is a service meant to help a person obtain timely, essential and appropriate HIV-related medical and social services to optimize his or her health and prevent HIV transmission and acquisition. In the PrIDE Demonstration Project, Navigation has been used by grantees as a strategy to (1) link persons from priority groups (i.e., men who have sex with men, mainly of color) into HIV care, (2) provide health education on pre-exposure prophylaxis (PrEP) and link persons to PrEP providers and services, and (3) assess and reduce barriers to care and link persons to supportive services (e.g., health insurance, PrEP adherence counseling, transportation, employment services, housing options). In PrIDE, PrEP Navigation services have been provided at different venues (e.g., STD clinics, community-based organizations) and at present, evaluation of this promising strategy is very limited. In this panel focused on PrEP Navigation, evaluation findings from the PrIDE Demonstration Project will be presented regarding how PrEP Navigation fits in local settings, whether there have been disparities in linkages to PrEP, and how well the navigation strategy works for linking clients to PrEP providers in the health department versus CBO settings.

Setting: The Centers for Disease Control and Prevention (CDC) awarded PS15-1506, a 3-year multi-site demonstration project called “PrIDE”, to 12 health departments to build their capacity to implement PrEP. Priority groups include men who have sex with men (MSM) and transgender women, with a special focus on black/African Americans and Hispanic/Latinos.

Project: A unique feature of this demonstration project is the allocation of funding to implement robust local process and outcome evaluations for which grantees developed protocols utilizing the American Evaluation Association standards of practice and engaged multiple stakeholders, including members of priority populations. In addition, this local evaluation component evolved from being an individual grantee activity to a Cluster Evaluation activity where both grantees and CDC are learning about evaluations that fall into five thematic clusters (i.e., Social Determinants of Health, Media, Navigation, Providers capacity activities, and Community Engagement). This panel presentation will focus on two evaluations of PrEP Navigation services.

Results: The panel presentation will share evaluation findings from two mixed methods evaluations: New York City Department of Health and Mental Hygiene will present results on linkage to PrEP from various navigation programs based in both the Sexual Health Clinics and in funded CBOs. Tennessee Department of Health will present findings pertaining to PrEP linkage, satisfaction of clients with PrEP services, timeliness of linking clients to PrEP providers, and client access to supportive services when using PrEP Navigation program in CBOs compared to when using similar services at the health department.

Lessons Learned: Including an enhanced evaluation requirement in multi-site demonstration projects allows grantees to respond to local evaluation questions while assuring use of appropriate methodology that is essential for making sound and timely decisions. In addition, results on the PrEP Navigation strategy will allow health departments to fine-tune the strategy to strengthen PrEP navigation services in both CBOs and health department settings

Abstract 5727 - A tale of two models: outcomes of PrEP navigation performed by community-based organization staff in CBO settings and embedded in sexual health clinics

Author(s): *Lena Saleh, Christine Borges, Trevor Hedberg, Jessica Klajman, Zoe Edelstein, Kelly Jamison, Aparna Shankar, Preeti Pathela, Julie Myers*

Background: New York City Health Department's publicly-funded Sexual Health Clinics (SHCs) are safety net providers serving vulnerable populations, including Black and Latino MSM and transgender persons. Local community-based organizations (CBOs) also have vast experience engaging these same populations. In this context, NYC's Health Department funded two CBOs to address barriers to effective engagement in HIV prevention services through two models of PrEP navigation: (1) CBO-contracted navigators and social workers embedded in the SHCs (CBO-contracted staff comprised a subset of all SHC navigation staff), and (2) CBO-employed navigators as outreach workers in the community. For each model, we examined key outcomes (PrEP linkage and/or initiation) among patients for whom navigation was provided by CBO-funded staff.

Methods: We used data collected and entered into SHC's electronic medical record and the Health Department's contract-monitoring tool from April through December 2017. Navigation included screening for possible indications for PrEP based on current guidelines or client interest; brief PrEP-focused education; insurance navigation; screening and referral to social services; and linkage to PrEP services and PrEP initiation. The SHCs rolled out PrEP initiation during 2017. All staff across both models completed the same PrEP-related trainings. We explored engagement with the populations prioritized for this project (i.e., Black and Latino MSM, hereafter referred to as MSM of color, and transgender individuals). We also report on subsequent PrEP-related outcomes, for which the sequence and protocol differ by model.

Results: In the SHC-based model, 38% (82/218) of patients who were indicated for PrEP and met with a navigator belonged to priority populations. Overall, 78% (171/218) were eligible for a PrEP referral and among them, 33% (56/171) accepted referral to local PrEP providers for ongoing PrEP (including 46 who initiated in SHCs). Of patients who accepted referrals, 54% (25/56) were known to have linked to an external provider for either PrEP initiation or ongoing PrEP care; among them, 76% (19/25) were known to have been prescribed PrEP. In the community-based model, 77% (118/154) of clients who were preliminarily screened for PrEP and met with a navigator belonged to priority populations. Overall, 97% (149/154) were eligible for a PrEP referral and 7% (11/149) were known to be linked to a clinical provider; among those, 2 were known to have been prescribed PrEP. In the SHC-model, 52% (13/25) of those linked to external PrEP providers were MSM of color and in the community-based model, 27% (3/11) of those linked to PrEP were MSM of color. Overall, 7 transgender persons were seen for PrEP navigation services (all in CBO settings).

Conclusions/Implications: Two navigation models involving CBO-contracted navigators were successful in engaging priority populations for potential PrEP services, particularly MSM of color. Engagement of transgender persons who may benefit from HIV prevention services was low in both models. While, it is not possible to make direct comparisons between these two models due to a number of differences (e.g., eligibility criteria, data collected, and context for engagement in PrEP services), both represent promising approaches to addressing PrEP-related disparities.

Abstract 5718 - PrEP navigation in the mid-South: preliminary local site evaluation findings

Author(s): *Latrice Pichon, Michelle Teti, Christopher Mathews, Allison Sanders, Meredith Brantley*

Background: Increasing access, uptake, and adherence to pre-exposure prophylaxis (PrEP) in the Mid-South via client navigation is the goal of a CDC-funded demonstration project (Project PrIDE) led by the Tennessee Department of Health and implemented by Memphis community-based organizations and the Shelby County Health Department. Prior to this demonstration project, accessing PrEP was solely done independent of support from HIV service providers. The purpose of this presentation is to describe qualitative program evaluation findings exploring factors that facilitate and impede successful PrEP navigation. The information gathered will assist with implementing similar HIV prevention programs across Tennessee.

Methods: Individual interviews (n=9) were conducted using a semi-structured discussion guide with PrEP Navigators employed across 5 agencies for the Project PrIDE local site evaluation. PrEP Navigators affiliated with Project PrIDE aged 18 or older were eligible to participate. All interviews for the local site evaluation took place in Memphis, TN between February – March 2018. Domains explored included facilitators, challenges, and suggestions to improve PrEP Navigation used by state and local health departments to increase PrEP uptake and adherence. All discussions were audio taped and a graduate research assistant took copious notes. Each interview was transcribed and verified by the primary interviewer. A codebook was developed to code data and to determine common themes using constant comparison techniques.

Results: Facilitators of PrEP navigation were building trusting relations with clients, PrEP providers and their staff, and addressing other social determinants (e.g., food insecurity, employment). Emerging themes negatively influencing PrEP navigation were the limited number of PrEP providers for uninsured clients, client transportation and work schedules, lag time for scheduling appointments, and religious overtones expressed by PrEP providers. PrEP Navigators suggested strengthening provider cultural sensitivity training on working with LGBT community and undocumented clients; increasing PrEP access at the local health department (e.g. one stop shop); hiring a PrEP navigator at the 1 clinic serving uninsured clients; and not considering PrEP expansion until Memphis has a full grasp of PrEP Navigation.

Conclusions/Implications: These findings will be used to refine ongoing PrEP Navigation efforts in Memphis and inform the development and implementation of additional PrEP service models across Tennessee and the greater Mid-South.

Abstract 5972 - Raising awareness of PrEP: social marketing campaign aimed towards MSM and transgender women of color

Author(s): *Petera Reine Diaban, Christopher Adkins, Tina Hoff, Jennie Anderson, Robbyn Kistler, William Robinson*

Background: Several national studies have documented relatively low levels of awareness, use, and acceptability of PrEP among MSM and other high-risk individuals despite Truvada (TDF) being recommended by the CDC for men at substantial risk of acquiring HIV since 2012. In 2016, New Orleans MSA has a high rate of HIV transmission (33.3 per 100,000 case rates), particularly among MSM and transgender women (62% and 1%, respectively of persons living with HIV). As a part of Project THRIVE and Project PRIDE we have prioritized outreach and access for PrEP to these populations. From 2016 and 2017, LAOPH worked with the Kaiser Family Foundation (KFF) as part of the localized Greater Than AIDS initiative NOLA>AIDS to develop a targeted social marketing to reach priority audiences in NOLA. KFF placed social media ads on outlets such as Grindr, Jack'd, and Facebook to increase awareness, acceptability, and adoption of PrEP among young gay/bisexual men of color and transgender women.

Methods: Qualitative methods were used to help shape and evaluate the NOLA>AIDS social marketing campaign. KFF provided a literature review and conducted four focus groups in April 2017 to develop insights into the awareness and acceptability of PrEP use for the target audience for the PrEP campaign. Three of the focus groups were conducted with men who have sex with men, including one of PrEP users, and a fourth convened transgender women.

Results: Focus groups indicated that participants who had not tried or were not on PrEP were familiar with it, and had at least a basic understanding of PrEP, which aligned with the messaging goals of the first wave of the social media campaign. Many of the gay and bisexual men reported having concerns about the medication and risks associated with use. All groups discussed the social stigma associated with PrEP and its relation to HIV and STD stigmas, with some viewing PrEP as an option for those who were engaged in doing something “wrong”, alluding to “promiscuous” behaviors, as opposed to doing something “smart” such as using condoms.

Conclusions/Implications: Social media campaigns promoting PrEP and other HIV prevention strategies should consider messaging that counters existing negative attitudes and stigma when seeking to encourage priority populations move through stages of change from pre-contemplation to action.

Session B06 - Institutionalizing PrEP Implementation and Access: Strategies for Multi-Level Jurisdictional Capacity Building and Medicaid Financing

Room: International South (Hyatt Regency Atlanta)

Abstract 5605 - Florida PrEP institutes: a novel capacity building strategy

Author(s): *Mara Michniewicz, Jonathan Fuchs, Jeffrey Beal, Shelley Facente, Tom Webster, Harold Thomas, Kimberly Carlson, A.D. McNaghten*

Issue: Florida faces significant HIV morbidity, having the 3rd highest HIV diagnosis rate nationally in 2016. The Florida Department of Health (FDOH) has launched four key strategies to tackle the HIV

epidemic which includes the promotion of PrEP for at-risk individuals. To expand PrEP access, FDOH will make PrEP available in sexually transmitted infection, family planning, and specialty clinics within all 67 county health departments (CHDs) by the end of 2018. To meet this ambitious goal, targeted capacity building efforts are needed to rapidly scale PrEP implementation.

Setting: In the fall of 2017, FDOH partnered with the Centers for Disease Control and Prevention-supported Capacity Building Assistance Provider Network (CPN) to pilot the PrEP Institute: an interactive, multi-day implementation workshop that brings together CHDs with local community-based organizations (CBOs) and health care organizations (HCOs) to consider regional approaches to PrEP scale-up. For the Institute pilot, FDOH prioritized attendees from high HIV incidence counties in Central and North Florida that were not already providing PrEP.

Project: CPN partners conducted qualitative interviews with participating CHDs, CBOs, and HCOs to determine needs and to inform a health equity-focused meeting agenda that 1) was grounded in the PrEP user-experience; 2) engaged organizational “PrEP champions” who were experienced in PrEP delivery; 3) fostered skills building to navigate patients/clients to PrEP services; 4) focused on PrEP awareness building and education at the individual and community levels; and 5) highlighted the importance of jurisdiction-level collaboration to meet the needs of priority populations. A post-institute evaluation was conducted to inform future institutes.

Results: Fifty-two participants (~2 per organization) were engaged in the 2.5 day Institute in January 2018: 34 (66%) from CHDs, 9 (17%) from CBOs and 9 (17%) from HCOs. Thirty-eight completed evaluations (73% response rate). Participants reported a 43% improvement in knowledge of the Institute-focused topics, 44% increase in confidence in their ability to perform practices taught, and 32% increase in the intention to use skills addressed. Self-identified barriers to applying new skills included perceptions of limited funding and training of existing staff, lack of needed partnerships, and time required to add PrEP to existing services. Respondents commented that interactive activities and the intra- and cross-county networking opportunities were the most valuable aspects of the Institute. Participants highlighted the need for additional CBA focused on PrEP financing and delivery and recruiting diverse staff; most participants desired opportunities for ongoing communication and skills-building.

Lessons Learned: A highly tailored, collaborative workshop that brings together diverse stakeholders who can adopt a regional approach to PrEP delivery is a promising capacity building strategy. The PrEP Institute is a model that actively encourages participants to work together in new ways to identify organizational and systems-level factors that can promote, or impede, PrEP expansion. Lessons from this pilot have informed the delivery of three additional PrEP Institutes in Florida as well as other jurisdictions across the South in 2018.

Abstract 5809 - South Carolina PrEP Institute: a novel capacity building model to engage, educate, and expand PrEP services

Author(s): *Ali Mansaray, Juhua Wu, Patricia Coury-Doniger, Bobby Rogers, Greg Rebchook, Azul DelGrasso, Kyan Lynch*

Issue: PrEP use for HIV prevention has been available since 2012; however, its uptake among at-risk individuals in the US remains limited. In South Carolina (SC), PrEP is offered primarily in specialty and academic clinics with use largely by insured white gay men in urban centers. SC Department of Health and Environmental Control (DHEC) intends to expand awareness and access to PrEP across the state, including to rural areas and other at-risk populations. Targeted capacity building efforts are needed to address challenges of geographic, economic, cultural factors that influence PrEP uptake.

Setting: SC has a population of nearly 5 million, approximately 15% without health insurance. African-Americans are disproportionately impacted by HIV, comprising 28% of the state's population but 71% of individuals living with HIV. In 2017, DHEC engaged with the CBA Provider Network (CPN) to conduct a PrEP Institute led by UR-CCP and its CBA partners. The Institute is an interactive, three-day implementation workshop bringing together health departments (HD), community-based organizations (CBOs) and health care organizations (HCOs). It was held in Columbia, with participation from all regions in the state: Upstate, Midlands, Pee Dee, and Lowcountry.

Project: The PrEP Institute process spans several months and includes: determination of needs; tailored content planning; pre-Institute capacity building; 3-day workshop (didactic presentations, facilitated discussions/breakouts); evaluation and follow-up. CPN partners conducted qualitative interviews with participating HD, CBOs, and HCOs to determine needs and inform the Institute agenda that 1) was grounded in the PrEP user-experience; 2) engaged "PrEP champions" experienced in PrEP delivery; 3) fostered knowledge around PrEP implementation models; 4) explored resources and strategies to address challenges in offering PrEP services; 5) focused on increasing PrEP awareness and education at the provider and community levels; and 6) highlighted the importance of regional collaboration and coordination to meet the needs of priority populations. A post-institute evaluation was conducted to inform future institutes.

Results: Fifty-four participants engaged in the 3-day Institute in March 2018: 26 (48%) from DHEC central and regional health centers, 28 (52%) from HCOs and CBOs. Thirty-eight completed evaluations (70% response rate). All (100%) respondents reported highly satisfied or satisfied with their learning experience; 87% reported moderate (41%) to high (46%) confidence in applying information from the Institute; 94% reported moderate (23%) to high (71%) intent to use the information. Self-identified barriers to expand PrEP included low levels of leadership buy-in, staffing, funding, insurance, client buy-in and high stigma. Respondents reported that learning about challenges and successes with PrEP from others, networking, fostering collaborations with one another were some of the most valuable aspects of the Institute. Additional capacity building needs focused on integrating PrEP into existing programs, developing partnerships with other organizations, agency-specific implementation planning, support in policy, procedures, evaluation and monitoring of PrEP programs.

Lessons Learned: A highly tailored, collaborative workshop that engages multiple stakeholders regionally is a promising capacity building strategy to catalyze PrEP implementation. Engaging existing and potential PrEP service providers through focused education and discussions informed by a system-building approach fosters partnerships and collaboration for PrEP expansion.

Abstract 5871 - Mississippi PrEP Institute: a novel capacity building model to engage, educate, and expand PrEP services

Author(s): Kendra Johnson, Melanie Graham, Kim Johnson, Robin Kelley, Tamara Combs, Mazdak Mazarei, Brandon Harrison, Sarah Blust

Issue: Southern states in the United States (US) accounted for more than half of new HIV diagnoses in 2016. Jackson, MS is the metropolitan statistical area with the fifth highest diagnosis rate among adults and adolescents in 2016. HIV pre-exposure prophylaxis (PrEP) is an important prevention tool that may help reduce new HIV infections. The Mississippi State Department of Health (MSDH) seeks to expand awareness and access to PrEP in Mississippi. Targeted capacity building efforts are needed to address the unique challenges of PrEP implementation in Mississippi.

Setting: Mississippi is located in the southern tier of the US. Populations most impacted by HIV in MS are males, young adults, Blacks, and men who have sex with men. In 2017, MSDH engaged with CBA Provider Network (CPN) partners to conduct a PrEP Institute. The Institute was an interactive, two-day workshop in Jackson in April 2018 that brought together health department (HD), community-based organizations (CBOs) and health care organizations (HCOs).

Project: The Institute planning process spanned several months. CPN partners conducted qualitative interviews with participating HDs, CBOs, and HCOs to determine needs and inform a health equity-focused meeting agenda that 1) was grounded in the PrEP-user experience; 2) incorporated the role of local history and culture in the delivery of PrEP services; 3) engaged “PrEP champions” experienced in PrEP delivery; 4) fostered skill building to navigate patients/clients to PrEP services; 5) explored resources and strategies to support PrEP services in a non-Medicaid-expansion state; 6) focused on PrEP awareness building and education at the individual and community levels; and 7) highlighted the importance of building partnerships for collaboration and coordination to meet the needs of priority populations. HD staff attended the first day of the Institute with other organizations joining on the second day. Evaluations were conducted at the end of each day to inform future institutes.

Results: There were 25 HD participants on the first day and 60 participants on the second day of the Institute. Institute evaluation response rates were 100% and 58% for days 1 and 2. Participants reported a 44% improvement in knowledge of Institute-focused topics, 39% increase in confidence in their ability to perform practices taught, and 41% increase in the intention to use skills addressed. Self-identified barriers to applying new skills included perceptions of limited funding, need for training of other key personnel, lack of needed partnerships, and difficulty in recruiting patients. Respondents commented that increased knowledge of PrEP, examples of other agencies’ programs, intra- and cross-county networking opportunities were the most valuable aspects of the Institute. Participants highlighted the need for continued updates on existing detailing programs, tools to increase prevention capacity, additional skill-building workshops, and further support for developing protocols and program plans.

Lessons Learned: A highly tailored, collaborative workshop that engages multiple stakeholders within and across counties is a promising capacity building strategy to catalyze PrEP implementation. Addressing social determinants of health and how to pay for PrEP medications in a non-Medicaid expansion state contributed to Institute success. Follow-up data will inform future Institutes.

Abstract 5738 - Medicaid strategies to improve PrEP intervention services

Author(s): *Daniel Lentine, Shanna Dell, William Pearson, Abigail Viall, Ijeoma Ihiasota, Susan Kennedy, Enrique Martinez-Vidal, Raul Romaguera*

Issue: HIV pre-exposure prophylaxis (PrEP) has been shown to be effective in preventing HIV acquisition and cost effective when targeted toward those who are HIV-negative and at substantial risk for contracting HIV. CDC guidelines recommend patients on PrEP have periodic follow-up visits that include several adjunctive services including HIV and multi-site STD testing, adherence and risk reduction counseling, and renal function assessment. Providers and patient advocates have suggested that barriers exist to providing and obtaining these recommended adjunctive PrEP services and could contribute to the discontinuation of PrEP. Medicaid is the largest source of insurance for those living with HIV, and is thought to cover many people most at risk for HIV. Thus, Medicaid beneficiaries are a particular population of interest when examining barriers to PrEP initiation and adherence.

Setting: This is a national project that includes representatives from health departments, Medicaid programs, and Medicaid managed care organizations serving both Medicaid expansion and non-expansion states.

Project: This project aims to improve the understanding of key issues and challenges affecting the availability and delivery of recommended PrEP intervention services to Medicaid beneficiaries. A steering committee was convened to inform the goals of this project. Key issues regarding barriers to the delivery of PrEP adjunctive services were discussed with the steering committee over the course of two conference calls. These were further distilled through key informant interviews with members of the steering committee and other subject matter experts. This project will be used to inform white papers, a meeting, and a toolkit packaging project findings.

Results: Through steering committee meetings and key informant interviews, three major topic areas were identified for further research, resulting in the development of separate white papers. The first topic concerns Medicaid benefit coverage and financing issues; subtopics include coverage of adjunctive services such as multi-site STD testing, PrEP prior-authorization requirements, risk score adjustments, and payment models. The second topic identified during this project concerns patient education and engagement as it relates to access and adherence to PrEP intervention services. The finally topic identified over the course of this project relates to provider education and engagement, particularly in regards to provider knowledge of optimal adjunctive PrEP services and provider knowledge of billing and reimbursement for these services.

Lessons Learned: While initial access to and engagement in PrEP remains a great concern, there are also issues with adjunctive PrEP services to safely and effectively continue the medication and management. There are several financing issues that exist, and patient and provider education and engagement are considered key in the effective delivery of and adherence to on-going services. This project will inform white papers to explore these issues more deeply and potentially result in additional insights into care delivery enhancements and solutions for Medicaid programs to ensure comprehensive PrEP treatment is provided to their beneficiaries. Additionally, the resulting white papers will inform discussions on this

topic at a meeting of state Medicaid and public health stakeholders and, ultimately, provide input in the creation of a toolkit packaging project finding for use by stakeholders.

Abstract 5938 - Increasing collaboration between state Medicaid and public health officials to improve PrEP program implementation

Author(s): *Marissa Tonelli, Michael Shankle*

Issue: According to research presented at CROI 2018, only 5% the 1.2 million people in the U.S. that could benefit from HIV pre-exposure prophylaxis (PrEP) are receiving it. Health departments play an essential role in scaling up PrEP use, including educating consumers and providers of PrEP, understanding and influencing payer systems, and integrating PrEP services into core public health functions. However, health departments planning to implement PrEP programs also face a range of implementation challenges, such as inadequate funding and reimbursement mechanisms, lack of provider capacity, incomplete data to track PrEP utilization, and administrative issues navigating insurance coverage and/or patient assistance programs. Collaboration between state Medicaid and health departments is needed to overcome the financial, regulatory, policy, and administrative challenges to PrEP program implementation.

Setting: Virtual community of practice comprised of representatives of three state health departments and state Medicaid offices.

Project: HealthHIV led the “PrEP Policy Learning Series” for state Medicaid and public health officials from October 2017 to July 2018, providing participants with practical strategies on health policy, data sharing principles, and financing for starting or expanding PrEP programs. State teams applied to participate and were given the opportunity to: access exclusive technical assistance opportunities during a highly-interactive webcast series; engage with peer organizations from different states/jurisdictions who have developed innovative strategies for PrEP program implementation; and engage with one another using a web-based platform to facilitate sharing of implementation tools and resources.

Results: The learning series brought state teams together bi-monthly to address PrEP implementation barriers by facilitating conversations between national leaders, subject matter experts, and peers implementing PrEP programs. Jurisdictions’ key challenges to expand access to PrEP included: overcoming community mistrust and stigma; addressing policy changes on PrEP coverage; and limited availability of data to monitor PrEP utilization. While collaborations with state Medicaid have increased due to “End AIDS” initiatives, health departments experience communication barriers, i.e. the Medicaid office speaking in health financing terms and health departments in program implementation terms. The learning series offered regular opportunities for state teams to collaboratively report on continued challenges, successes and lessons learned as they expanded their PrEP programs.

Lessons Learned: State public health and Medicaid officials were interested in PrEP topics including: coordinated strategic planning and policy development, such as establishing, maintaining and strengthening relationships between Medicaid and public health agencies; navigating practical and legal challenges of HIV data sharing; financing and reimbursement through Medicaid, manufacturer patient assistance programs, and PrEP assistance programs; and, workforce training for primary care physicians

and other providers. States have developed effective strategies to finance PrEP by leveraging the AIDS Drug Assistance Program and Medicaid expansion, and are developing data sharing agreements with state Medicaid to analyze PrEP utilization and health outcomes. For many state teams, the learning series was the first opportunity to share their best practices with peers experiencing similar challenges in PrEP implementation. Increasing engagement opportunities for health departments and state Medicaid officials, like HealthHIV's learning series, will facilitate innovative strategies that improve effectiveness of PrEP programs and the uptake of PrEP nationwide.

Session B13 - HIV 101: Adolescent School-Based HIV Prevention, Surveillance and Interventions

Room: Regency V (Hyatt Regency Atlanta)

Abstract 5285 - School district policies related to HIV prevention and treatment—United States, 2000-2016

Author(s): *Nancy Brener*

Background: By providing health education and health services to students, schools can play a critical role in the prevention and treatment of HIV among youth. School district policies can influence the extent to which such education and services are available to students. To understand how school district policies related to HIV prevention and treatment have changed over time, this study assessed the prevalence of such policies in the United States between 2000 and 2016.

Methods: We analyzed data from four cycles (2000, 2006, 2012, and 2016) of the School Health Policies and Practices Study (SHPPS), a national survey periodically conducted by the Centers for Disease Control and Prevention to assess school health policies and practices. SHPPS collected data related to HIV prevention and treatment among nationally representative samples of school districts using online or mailed paper-and-pencil questionnaires. Secular trend analyses took into account all years of available data and were performed using logistic regression to determine whether changes over time were statistically significant.

Results: In 2016, 82.4% of districts required high schools to teach about HIV prevention; this percentage has not changed significantly since 2000. The percentage of districts with this requirement for elementary and middle schools was lower and decreased significantly between 2000 and 2016 (from 58.6% to 29.0% for elementary schools and from 81.0% to 70.6% among middle schools; $p < .01$). In addition, the percentage of districts requiring schools to provide HIV prevention in one-on-one or small-group settings decreased from 47.4% in 2000 to 31.7% in 2016 ($p < .01$). In 2016, 0.3% of districts required schools to provide HIV testing to students, although 14.3% of districts required schools to provide referrals for HIV testing and 9.0% of districts required schools to provide referrals for non-occupational post-exposure prophylaxis for HIV (nPEP). Further, 8.1% of districts had arrangements with organizations or healthcare professionals to provide HIV testing to students, 7.3% had such arrangements for HIV treatment, and 5.8% had such arrangements for nPEP. Previous cycles of SHPPS did not include questions about HIV testing, treatment, or nPEP, so trends over time could not be calculated.

Conclusions/Implications: Decreases in the percentage of districts requiring HIV prevention education is concerning. Room for improvement also clearly exists in district policies that can help students obtain HIV testing, HIV treatment, and nPEP. This is a missed opportunity given the amount of time young people spend in school.

Abstract 5413 - A school-centered project to prevent HIV among black and Latino adolescent sexual minority males

Author(s): *Catherine Raspberry, Valerie Sims, James Parker, Susan Hocevar Adkins*

Issue: In the U.S., sexual minority males have disproportionately high rates of HIV, with gay and bisexual males accounting for approximately 70% of new HIV infections in 2014. And although estimated HIV infections declined in white gay and bisexual men between 2010 and 2014, infections remained stable among black gay and bisexual men and increased 14% among Hispanic/Latino gay and bisexual men. In this context, the Centers for Disease Control and Prevention's (CDC) Division of Adolescent and School Health began a 5-year innovation project exploring school-centered structural and behavioral approaches to preventing HIV among black and Latino sexual minority males ages 13-19.

Setting: Schools provide an important opportunity for reaching youth who may need health education messages, as well as information about and connections to critical health services. This innovation project was designed to build on the opportunities provided by schools to reach black and Latino ASMM with HIV prevention messages and interventions. The project was funded in three large, urban school districts: Broward County Public Schools (Broward County, Florida), Los Angeles Unified School District (Los Angeles, California), and San Francisco Unified School District (San Francisco, California). Advocates for Youth, a national non-governmental organization, also was funded to help provide support for program activities implemented in the participating school districts.

Project: The project used a school-centered approach to implementing HIV prevention activities, and incorporated a variety of critical community partnerships to offer key services, shape school and clinic environments, and enhance HIV prevention education. The project goal was to reduce HIV/STD infections among black and Latino ASMM ages 13-19 through school- and community-based partnerships by 1) increasing the number of teen ASMM who are tested and treated for HIV/STDS; 2) decreasing sexual risk behaviors among teen ASMM; and 3) reducing rates of absenteeism and school dropout among teen ASMM.

Results: Key activities included providing HIV/STD testing (and treatment, as appropriate) in schools and school-based health centers (SBHCs); creating organizational partnerships, particularly to support testing and treatment; establishing and marketing systems for referring students to testing and treatment; assessing and providing training on policies related to testing, treatment, and prevention interventions; creating safe and healthy school and SBHC environments inclusive of black and Latino ASMM; and implementing targeted evidence-based sexual risk reduction interventions for black and Latino ASMM. These activities were conducted with 21 schools across the three districts that enroll over 36,000 high school students in total. Throughout the project, strategies were evaluated and refined, providing lessons learned and opportunities for scaling up where appropriate.

Lessons Learned: Engaging school administrators, other school staff, and partners with clinical and community-based expertise was essential, opening the doors to opportunities for program success and growth. School districts implemented a number of innovative strategies for reaching program goals, including development and use of tailored youth resource guides, extensive partnerships to improve SBHC environments for sexual minority youth, and tailored programs to open pathways for young men, including ASMM, to engage in thoughtful conversation and education about sexual health.

Abstract 5670 - Innovative approaches to reaching black and Latino adolescent sexual minority males (ASMM) through schools: examples from three urban school districts

Author(s): *Valerie Sims, Kevin O'Connor, Dominic Grasso, Timothy Kordic, Christopher Pepper, Erik Martinez, Catherine Rasberry*

Issue: Approximately 21% of new HIV diagnoses in 2016 were among young people ages 13-24, and 81% of those were among gay and bisexual men. Many programs focus on reaching sexual minority males who are over 18, but few are designed and implemented for younger ASMM. Furthermore, younger ASMM may be less connected to key community resources and challenging to reach. Schools, however, offer unique access to younger ASMM ages 13-19, but require innovative approaches to reaching them effectively. This project implemented and evaluated school-centered innovative approaches for reaching black and Latino ASMM with HIV prevention activities focused on increasing access to sexual health services, including STD and HIV testing, and decreasing sexual risk behaviors.

Setting: Schools are critical in promoting the well-being and safety of ASMM and helping them establish lifelong healthy behaviors. Schools can directly provide or connect ASMM to health services (e.g., HIV/STD testing, other related services) in their communities. Broward County Public Schools (BCPS), Los Angeles Unified School District (LAUSD), and San Francisco Unified School District (SFUSD) each take different school-centered approaches to HIV prevention for black and Latino ASMM.

Project: CDC's Division of Adolescent and School Health funded BCPS, LAUSD, and SFUSD to implement innovative approaches to reduce HIV and STD among black and Latino ASMM in their districts. BCPS developed a Teen Health Resource Guide for students to help connect them with local sexual health services providers that are youth-friendly and meet the needs of black and Latino ASMM. In collaboration with local partners, LAUSD created Providing Inclusive Care for LGBTQ Patients, a toolkit to help clinical settings strengthen their practices by providing recommended resources and best practices. SFUSD collaborated with community based organizations (CBO) to develop a young men's health group curriculum to implement in high schools, exploring topics such as relationships, masculinity, sexuality, LGBTQ issues, allyship, STDs and HIV/AIDS.

Results: The three large, urban school districts have made major strides toward reaching black and Latino ASMM. Since Fall of 2015, BCPS has distributed approximately 27,000 copies of the "Youth Health Guide" to high school students, staff, and families. By July 2017, LAUSD provided multiple in-person and online trainings to nurses and providers ensuring the campus wellness centers are black and Latino ASMM friendly. LAUSD also assisted with developing a free online training version of the Providing Inclusive Care for LGBTQ Patients toolkit reaching over 600 providers. Since August 2015, approximately

230 young men in eight SFUSD high school have participated in young men's health groups. SFUSD has recently expanded their young men's health groups into middle schools.

Lessons Learned: School-centered programs and strategies can make an important contribution to reducing HIV and STD among 13-19 year old black and Latino ASMM. School districts can employ a variety of innovative approaches to develop environments within which black and Latino ASMM can remain healthy and thrive academically. Additional evaluation of these types of school-centered approaches would be useful in further clarifying program successes and challenges.

Abstract 5577 - Get Your Life: preliminary findings from an adapted, evidence-based intervention to support black and Latino adolescent sexual minority males in preventing HIV

Author(s): *Jana Sharp, Louis Ortiz-Fonseca, Sam Greenberg*

Background: With funding from the Centers for Disease Control and Prevention PS13-1308, Advocates for Youth adapted and supported the implementation of an evidence-based intervention for use with black and Latino adolescent sexual minority males (ASMM), ages 16 – 19 years old. From 2015 – 2018, Get Your Life and Get Your Life: Latino were implemented in twenty-one cohorts across four community-based organizations in California and Florida. The purpose of this study was to evaluate the extent to which participants increased their knowledge, attitudes, self-efficacy, and behavioral intentions related to HIV prevention. Aggregate data were analyzed as well as data comparing findings by age bracket and intervention type.

Methods: Following a screening process, eligible participants were invited to participate in a two-day, 7-session Get Your Life or Get Your Life: Latino weekend workshop. Baseline and exit assessments were distributed to participants (n=183) in hard copy; selected analyses were run on the matched participant sample (n=142; 78%). Paired t-tests were used to evaluate each outcome variable and scale; results were stratified by age group (16-17 years vs. 18-19 years) and intervention type (Get Your Life vs. Get Your Life: Latino). P-values <.05 were considered significant.

Results: Across both Get Your Life and Get Your Life: Latino cohorts, there was an increase in the desired direction across a wide range of items. Statistically significant change was found with respect to knowledge of HIV prevention (p<.01), self-efficacy in HIV prevention preparedness (p<.001), beliefs about behavior change (p<.01), and likelihood of participants engaging in protective sexual health services (p<.0001).

Stratified t-tests revealed key differences in the findings by age and cohort. With respect to age, as compared to their older peers (18-19 years), the younger ASMM participants (16-17 years) demonstrated increased gains in HIV prevention knowledge (p<.001), increased likelihood to talk to their partners about safer sex (p<.05) and HIV/STI testing (p<0.01), and increased likelihood to get tested for HIV (p<.001). With respect to cohort, as compared to Get Your Life (African American) participants, Get Your Life: Latino participants demonstrated increased gains in HIV prevention knowledge (p<.001), increased reporting of religious beliefs as a factor to influence a decision to have safer sex (p<.01), and increased likelihood to engage in risk reduction strategies with a man in the next three months (p<.05); on the other hand, Get Your Life (African American) participants demonstrated increased gains in self-

efficacy in HIV prevention behavior ($p < .05$), an increased belief that behavior change is easy ($p < .001$), and an increased awareness that many factors influence identity ($p < .01$).

Conclusions/Implications: Preliminary data from Get Your Life and Get Your Life: Latino indicate they may be promising interventions to increase HIV prevention knowledge, attitudes, and behavioral intent among adolescent sexual minority males. Data suggest the interventions may be particularly promising when reaching younger ASMM, ages 16 – 17. Additional research to explore includes a deeper understanding of the similarities and differences in findings among black and Latino cohorts of ASMM as well as follow-up studies to measure potential behavior change over time.

Abstract 5575 - Preliminary evaluation findings from a five-year, school centered HIV prevention project focused on adolescent sexual minority males: successes and suggestions for future efforts

Author(s): Catherine Rasberry, Ganna Sheremenko, Catherine Lesesne, India Rose, Susan Hocevar Adkins

Background: The Centers for Disease Control and Prevention recently conducted a 5-year school-centered HIV prevention program to address HIV and STD risk-related behaviors and experiences among youth. The purpose of this study was to evaluate changes in these behaviors and experiences throughout the beginning of the project period.

Methods: A cross-sectional, online survey was administered to school staff in the three participating school districts in 2015 ($n=321$) and 2017 ($n=386$) to assess staff perceptions of and experiences with referral for health services, school climate for LGBTQ students, and professional development. A cross-sectional, self-administered survey was administered to students in 2014 ($n=11,681$) and 2016 ($n=10,231$) attending the seven high schools participating in one district's HIV prevention project. For staff and student data, Pearson chi-square tests and t-tests were conducted to examine differences in key variables between 2014 and 2016. P-values $< .05$ were considered significant.

Results: Staff survey results revealed the percentage of staff who reported believing that students feel safe at school decreased from 2015 to 2017 ($\chi^2=4.817$, $p=.028$), but there was no change in the percentage of staff who felt student feel unsafe at school because of their sexual orientation. In 2017 compared to 2015, a greater percentage of staff reported awareness of a referral protocol for linking students to community or school-based health services ($\chi^2=5.303$, $p=.021$), but a lower percentage of staff reporting using the referral protocol during the current school year ($\chi^2=5.480$, $p=.019$). There was an increase from 2015 to 2017 in the percentage of staff who reported receiving professional development (PD) on LGBTQ sensitivity ($t=-3.885$, $p<.0001$) and diversity or cultural competency ($t=-2.123$, $p=.034$).

Among all students from 2014 to 2016, there was an increase in the percentage of students who reported feeling safe at school ($\chi^2=10.646$, $p=.001$) and having been taught in school about condoms ($\chi^2=356.192$, $p<.0001$), and a decrease in the percentage who had ever had sex ($\chi^2=39.216$, $p<.0001$). Among sexually experienced students, there was a decrease in the percentage who used a condom at last sex ($\chi^2=10.842$, $p=.001$), but an increase in the percentage ever tested for HIV ($\chi^2=107.799$, $p<.0001$) or STDs ($\chi^2=7.188$, $p=.007$) or who were referred by school staff for HIV testing/treatment ($\chi^2=142.170$, $p<.0001$) or STD testing/treatment ($\chi^2=54.088$, $p<.0001$). When examining the same variables for the subgroup of ASMM students, significant changes between 2014 and 2016 were only

seen for an increase in the percentage of students taught in school about how to use condoms ($X^2=15.112$, $p<.0001$) and a decrease in the percentage who had ever had sex ($X^2=6.546$, $p=.011$). Several other variables moved in the desirable direction, but changes were not statistically significant.

Conclusions/Implications: Data indicate program strategies may be useful in improving HIV and STD risk-related behaviors and experiences, including school climate, for a broad set of students in schools. Although data suggest movement in protective directions for ASMM, additional research including analysis of final project data will be necessary to determine if current strategies are sufficient for moving these outcomes in measurable ways among ASMM.

Session B25 - Outcomes of School-Based Interventions to Reduce HIV and STD

Room: Embassy A-C (Hyatt Regency Atlanta)

Abstract 5628 - School-based surveillance to monitor trends in risk behaviors for teen pregnancy and sexually transmitted infections, including HIV: National Youth Risk Behavior Survey (YRBS) 2013-2017

Author(s): *J. Michael Underwood, Tim McManus, Lisa Barrios, Kathleen Ethier*

Background: In 2015, young people aged 13-24 accounted for an estimated 22% of all new HIV diagnoses in the United States. Half of the nearly 20 million new STDs reported each year were among young people aged 15-24. The Centers for Disease Control and Prevention's (CDC) Division of Adolescent and School Health utilizes surveillance, research and programmatic collaboration to prevent teen pregnancy and sexually transmitted infections (STIs) including HIV/AIDS. In 2013, CDC implemented FOA PS13-1308, Promoting Adolescent Health through School-Based HIV/STD Prevention and School-Based Surveillance (1308). The 5-year program funded state, territorial, and local agencies to work towards reducing teen pregnancy and STIs including HIV. This presentation will describe national YRBS data from 2013 to 2017, setting the stage for evaluation of program-level changes.

Methods: Data from the 2013-2017 national YRBS, a cross-sectional survey conducted biennially among a nationally representative sample of students in grades 9–12 ($N=43,972$), were used to examine changes in risk behaviors over time. Outcome variables included sexual health behaviors (ever had sexual intercourse, 4+ lifetime sexual partners, currently sexually active, condom use during last sexual intercourse, ever tested for HIV, and used effective hormonal birth control during last sexual intercourse [birth control pills, implant, shot, patch or ring]) and substance use (ever injected illegal drugs and ever used illicit drugs [cocaine, inhalants, heroin, methamphetamines, hallucinogens or ecstasy]). Changes in outcome variables from 2013 to 2017 were calculated using logistic regression analyses, controlling for sex, race/ethnicity, and grade; significant at $p < 0.05$ level.

Results: From 2013-2017 there were improvements in adolescent health behaviors associated with teen pregnancy and STI risk. There was a significant decrease in the prevalence of high school students who ever had sexual intercourse (46.8% [2013], 39.5% [2017], <0.01 [p-value]), had sexual intercourse with 4+ partners (15.0%, 9.7%, <0.01), and were currently sexually active (34.0%, 28.7%, <0.01). There was an increase in students who used effective hormonal birth control (25.3%, 29.4%, 0.01). Some observed behavior changes increase risk for teen pregnancy, STI and HIV among adolescents. There were significant decreases in condom use during last sexual intercourse among sexually active students

(61.5%, 53.8%, <0.01), and HIV testing among all students (12.9%, 9.3%, <0.01). While illicit drug use decreased (17.3%, 14.0%, <0.01), there was no significant decrease in injection drug use (1.7%, 1.5%, 0.19).

Conclusions/Implications: Since 2013, America's high school students are less likely to have initiated sex and have had fewer partners. Unfortunately decreasing condom use and HIV testing raises risks for teen pregnancy and STIs, including HIV/AIDS. CDC will continue working with local stakeholders to promote adolescent health.

Abstract 5751 - Implementation of evidence-based strategies in education agencies

Author(s): *William Potts-Datema, Elizabeth Haller, Malaika Washington*

Issue: In the United States, 56 million students attended elementary and secondary schools in 2017. Of these, 16.5 million adolescent students were in grades 9 through 12. Young people ages 13 to 24 account for 21% of all new HIV infections and half of the 20 million new STDs reported each year are among those aged 15 to 24. Sexual behavior, substance use, violence victimization, and mental health all contribute to risk for HIV and STD but also have common school-based protective factors.

Setting: Education agencies and local school districts. From August 1, 2013 through July 31, 2018, the Division of Adolescent and School Health funded 18 state education agencies (SEAs), 17 local education agencies (LEAs), and 6 national non-governmental organizations across the country to work intensively with 232 local school districts.

Project: This project aimed to implement sexual health education (SHE), increase access to key sexual health services (SHS), establish safe and supportive school environments (SSE) for students and staff, educate decision makers on policy, and help schools implement policies. These state and local education agencies provided hands-on technical support to districts and schools to institutionalize policies, programs, and practices and support school-based HIV/STD efforts. This presentation highlights program examples from the five-year implementation period.

Results: Each of the highlighted agencies and organizations experienced improvements through their implementation work. Examples will be provided from the following seven CDC/DASH funded sites:

- ESHE: California Department of Education and Fort Worth Independent School District, TX
- SHS: Vermont Agency of Education; Duval County Public Schools, FL; and CAI, New York City, NY
- SSE: American Psychological Association and Boston Public Schools, MA

Lessons Learned: State and local education agencies can effectively implement evidence-based HIV and STD prevention strategies. Work funded by DASH can improve the provision of sexual health education in classrooms, strengthen linkages for students to youth-friendly sexual health service providers, expand the number of student-led clubs, and contribute to greater implementation of parent engagement strategies.

Abstract 5672 - Evidence of improved access to programs and services for high school students in a federal HIV, STI, and pregnancy prevention program

Author(s): Leah Robin, Christopher Harper, Diane Orenstein, Michelle Johns, Lisa Barrios

Background: This evaluation assessed whether there was increased delivery of sexual health education, access to sexual health services, and provision of safe and supportive environments for students in districts and schools served by DASH-funded education agencies. State education agencies (SEAs) and local education agencies (LEAs) focused their implementation of these activities in selected priority districts and schools.

Methods: Two data systems were used to measure agency-level outcomes. The Program Evaluation Reporting System (PERS) is a web-based data collection system for program outcome measures. SEAs and LEAs submitted three questionnaires including actions taken by their own agency; by each of their priority districts or schools; and technical assistance provided by and to their agencies. DASH-funded partners collected data from their priority sites and submitted them through the PERS website along with their agency data. PERS data were collected semi-annually from March, 2014 to July, 2018. T-tests were conducted to detect changes in program process and outcome measures over time. Profiles is a system of biennial surveys assessing school health policies and practices in states and large urban school districts, conducted with representative samples of school principals and lead health education teachers in secondary schools. In 2014 and 2016, each SEA surveyed a sample of secondary schools representative of their overall state plus a census of schools in priority districts (with the exception of Florida, which conducted a sample of schools in priority districts). Differences between priority districts/schools and schools districtwide/statewide were examined using a difference-in-difference analysis.

Results: We compared the % of priority schools implementing programs and services compared with the overall % of schools in their SEAs (N=19) and LEAs (N=17) in 2014 and 2016. Results across sites were mixed, and the majority of sites reflected no difference between priority sites and overall state or district implementation of practices within any of the three areas. However, examining in aggregate the change in the median % of priority sites over time (n=236 priority districts and n=357 priority schools) that have implemented practices, PERS data demonstrated significant increases in selecting and implementing quality sexual health education programs, creating systems to refer students to sexual health services, and increased strategies to facilitate student connectedness and parent engagement. Finally, we plotted Profiles against PERS data with items that were parallel between the two systems in implementation of safe and supportive school environments in priority schools. Priority schools as measured by PERS surpassed entire districts in the % of schools providing parents with information about how to communicate with their child about sex, having a student-led club to create a safe and supportive environment, and linking parents and families to health services in their community.

Conclusions/Implications: Overall, priority districts and schools increased implementation of practices funded by DASH. These practices are likely to increase the quality of education, access to sexual health services, and provision of safe and supportive school environments for students. Within-site data are used by DASH to determine needs for individual sites and to improve their implementation of these strategies.

Abstract 5639 - Impact of an education agency-based program on adolescent health risk and protective behaviors

Author(s): *Lisa Barrios, J. Michael Underwood, Timothy McManus, William Harris, Leah Robin*

Background: CDC's Division of Adolescent and School Health funded 18 state education agencies (SEA) and 17 local education agencies (LEA) from August 2013 through July 2018 to implement sexual health education, increase access to key sexual health services, and establish safe and supportive school environments. Each SEA selected priority districts in which to focus their work; each LEA selected priority schools. The purpose of this analysis was to compare priority sites and overall districts or states on a priori behavioral outcome measures.

Methods: This analysis used data from Youth Risk Behavior Surveys (YRBS) conducted among representative samples of students in grades 9 through 12 in states and large urban school districts. In 2015 and 2017, each SEA surveyed a sample of students representative of their overall state plus a sample representative of students in priority districts. Each LEA surveyed a sample of students representative of their overall district plus either a census or sample of schools and students in priority schools. For 2015 SEAs, we concatenated all of the priority district data files together into one data set and then we concatenated the overall data files together in another data set. We did the same for LEAs' priority school data files and overall data files, giving us 4 data sets for 2015. We repeated the process for 2017. T-test comparisons were performed for 2015 versus 2017, first on the priority district aggregated files for SEAs and priority school aggregated files for LEAs and then on the overall aggregated files for SEAs and LEAs.

Results: Fewer students in priority districts had ever had sexual intercourse in 2017 (37.1%) than in 2015 (40.8%; $p = 0.003$) whereas there was no significant change over the same time period in the SEAs overall ($p = 0.804$). A similar result was seen for priority schools in LEAs, with 37.8% of high school students ever having had sexual intercourse in 2015 and 35.4% in 2017 ($p = 0.033$) and no significant difference observed for LEAs overall ($p = 0.772$). Similar to what is observed nationally, the percentage of currently sexually active high school students who used a condom during last sexual intercourse decreased significantly during this time period for both SEAs (58.7% in 2015 and 54.9% in 2017; $p = 0.016$) and LEAs overall (60.7% in 2015 and 57.0% in 2017; $p = 0.009$), but did not change for priority districts ($p = 0.344$) or schools ($p = 0.153$). Results for the percentage of students who had ever received an HIV test were mixed.

Conclusions/Implications: Two of three a priori behavioral outcome measures of DASH's state and local education agency funding program show promising effects for HIV- and STD-related outcomes. The percentage of high school students who had ever had sexual intercourse decreased significantly in priority districts and schools that implemented the program; no such decrease was seen in the overall states or districts. Students in these schools are also less likely to have experienced the drop in condom use being observed across the country.

Session LB02 - Continuing to make PrEP mainstream: barriers, tools, perceptions, and future product preferences

Room: Embassy D-F (Hyatt Regency Atlanta)

Abstract 6193 - HIV pre-exposure prophylaxis (PrEP) prescribers increased five-fold in the United States from 2014-2017

Author(s): *Weiming Zhu, Ya-lin Huang, Karen Hoover*

Background: Preexposure prophylaxis (PrEP) with tenofovir disoproxil fumarate/emtricitabine (TDF/FTC) is highly effective for HIV prevention. The use of PrEP has increased rapidly since CDC recommended it in 2014. However, little is known about the characteristics of PrEP providers. The objectives of this study were to identify PrEP prescribers in the United States, and to describe their type of training, practice location, and patient volume.

Methods: We analyzed data from the IQVIA pharmacy database, which includes >90% of prescriptions from retail outlets in the United States. We identified providers who prescribed TDF/FTC for PrEP at least once during each year from 2014 to 2017. We stratified PrEP providers by type of training (i.e., physician, nurse practitioner [NP], physician assistant [PA]), urban or rural practice location, and practice location by U.S. geographic region. We categorized PrEP prescribers' practice location as urban, partially urban, and rural using the Health Resources and Services Administration's definition of medically underserved areas and populations. We used United States (U.S.) Census definitions of U.S. geographic regions. We also calculated the mean number of PrEP patients for whom each provider prescribed PrEP, also stratified by provider training type and location.

Results: From 2014 to 2017, the number of PrEP prescribers in the U.S. increased from 6,368 in 2014 to 34,337 in 2017. Among PrEP prescribers, physicians were the most common type, comprising 80.6% of all prescribers in 2014, and 73.0% in 2017. The proportion of NPs among all PrEP prescribers increased from 10.4% in 2014 to 16.1% in 2017; and the proportion of PAs increased from 7.0% to 8.3%. In 2017, approximately 74.4% of prescribers practiced in urban areas, 20.7% in partially urban areas, and 4.9% in rural areas. The proportion of rural prescribers increased from 3.3% in 2014 to 4.9% in 2017. In 2017, 24.2% of all prescribers practiced in the northeast region, 16.7% in the Midwest, 29.1% in the South, and 29.9% in the West. The mean number of patients per PrEP prescriber increased from 2.2 in 2014 to 3.5 in 2017 among physicians; from 2.9 in 2014 to 6.5 in 2017 among NPs; and from 3.3 to 5.6 among PAs. It also increased from 1.1 in 2014 to 1.5 in 2017 among rural PrEP providers; from 1.8 to 3.0 among partially rural PrEP providers; and from 2.3 to 3.9 among urban PrEP providers.

Conclusions/Implications: Our findings indicate that capacity for PrEP clinical services is growing, and the number of providers who prescribed PrEP increased more than five-fold in the U.S. during 2014–2017. Both an increasing number of PrEP prescribers, and mean number of patients per prescriber, were observed for all types of provider training, practice locations, and census regions. A continuing increasing trend in the number of NPs and PAs who prescribe PrEP can enhance the capacity for HIV prevention with PrEP for key populations in both urban and rural settings. Pharmacy data are useful to study characteristics of PrEP providers and their health services networks, both at the national and local level.

Abstract 6171 - Development and validation of a PrEP stigma scale among men who have sex with men in the United States, 2018

Author(s): Sarah Wiatrek, Farah Mouhanna, Rivet Amico, Christopher Hurt, Leandro Mena, Rupa Patel, James Brock, Albert Liu, Kenneth Mayer, Aaron Siegler, Jeb Jones, Karen Dominguez

Background: Pre-exposure prophylaxis (PrEP) is an important biomedical tool for controlling HIV transmission. Stigma is one of the many barriers impeding access. Although stigma is a known barrier for many health-seeking behaviors, because has only recently been introduced no validated measurement tools exist to assess PrEP-associated stigma. Measuring PrEP stigma may be especially important for marginalized populations such as men who have sex with men (MSM), because these groups face a disproportionate burden of stigma. This research sought to develop and validate an instrument to quantify stigma associated with PrEP use in the United States.

Methods: In consultation with subject matter experts, we identified three key areas of PrEP stigma that may impact PrEP uptake: shame regarding PrEP use, negative presumptions regarding individuals using PrEP, and perceived social support for taking PrEP. Published literature and surveys from ongoing studies were reviewed to identify existing scale items. We developed two versions of the scale to determine whether PrEP stigma would best be measured with a Likert or semantic differential (SD) response format. The Likert scale measured Earnshaw's model of internalized, experienced, and anticipated stigma, and the SD scale measured participant ratings of PrEP users regarding two polar adjectives (e.g. irresponsible and responsible). With our expert panel, items for both scales were revised for clarity and consistency. Participants were asked to complete both scales and the order of scale presentation was randomized 1:1. Overall scale performance was evaluated based on internal reliability, as measured by Cronbach's alpha, and construct validity, as measured by Spearman's rank-order correlations (r_s) with constructs hypothesized to be associated with PrEP stigma. Participants were sexually active MSM, 18 years or older, and recruited on a social media platform to complete an electronic survey.

Results: Of 276 MSM who completed the survey, conducted in June 2018, a minority of participants anticipated PrEP stigma: 16% believed that PrEP users would be treated unfairly by their doctors and 17% felt that PrEP users would experience problems with sex partners. Both Likert and SD scales had Cronbach alpha > 0.80 , indicating internal reliability. The Likert scale version correlated significantly with six out of six hypothesized constructs, including perceptions of community attitudes towards PrEP ($r_s = -0.37$; $p < 0.0001$) and perceptions of PrEP effectiveness ($r_s = -0.24$; $p = 0.0004$). The SD scale correlated with two out of six hypothesized constructs, and therefore was not considered for further analyses. Factor analysis of the Likert scale identified two factors. Related to Earnshaw's model, one factor centered on internalized stigma and the other on experienced and anticipated stigma.

Conclusions/Implications: In this assessment of a novel, easily-deliverable instrument to assess PrEP-related stigma, we found a Likert scale substantially outperformed a SD scale. The Likert-based PrEP stigma scale demonstrated internal reliability and construct validity. Our analysis also found moderate levels of PrEP stigma among the sample population. We anticipate that a validated PrEP stigma scale will be useful in programmatic and research settings to facilitate an understanding of the impact of PrEP stigma.

Abstract 6152 - Preferences for potential future HIV prevention products among MSM in three U.S. cities, 2018

Author(s): *Gordon Mansergh, Ryan Zahn, Rob Stephenson, Sabina Hirshfield, Heather Saul, Patrick Sullivan*

Background: Men who have sex with men (MSM) continue to be at high risk for HIV infection in the United States as the reality for future HIV pre-exposure prophylaxis (PrEP) product options approaches. This recent mobile app-based study of MSM assessed likelihood of using, and preference for, various prevention products being developed for HIV-negative persons, including a long-acting injectable form of PrEP, as well as sexual event-driven PrEP pills, gels, and suppositories.

Methods: Data are from the 2018 baseline assessment of the Mobile Messaging for MSM (M-Cubed) Study among MSM in Atlanta, Detroit, and New York City. We analyzed the HIV-negative subgroup (n=844) for likelihood of using, and rank order preference for, potential future HIV prevention products of long-acting injectable (every 1 to 3 months); a sexual event-driven pill (2 pills within 24 hours before sex and 2 pills over 2 days after sex); a gel applied to the penis before insertive anal sex; a gel inserted into the rectum with an applicator before receptive anal sex; and a suppository inserted into the rectum 30 minutes before receptive anal sex. Ranking of preferences for use also included currently available products, condoms, and a daily PrEP pill. Analyses compared likelihood of use (definitely or somewhat likely [1-2] vs. less than likely [neutral, somewhat or definitely unlikely, 3-5]) of future products by race/ethnicity (black, Latino, white, other/mixed), age group (18-29, 30-39, 40+ years), education level (<=some post-high school training, 4-year college degree, >=some graduate education), and city. Mean rank ordering of product preference (1-6, from highest to lowest) was also analyzed for demographic variable differences.

Results: Overall, most of the men reported likelihood of using long-acting injectable PrEP (73%), sexual event-based pills (67%), and a penile (65%) or anal (55%) gel to prevent HIV infection during sex; 42% reported likelihood of using an anal suppository product. Differences ($p < .05$) were found for race/ethnicity (e.g., 78% of white men vs. 63% of black men would likely use a long-acting injectable product), age group (e.g., 73% of men age 40+ vs. 62% of men age 18-29 would likely use a penile gel product during sex), and city (e.g., 71% of men from Detroit vs. 60% of men from New York would likely take sexual event-based pills). Overall mean (standard deviation) ranking of product preference was (1=highest rank): long-acting injection (3.11 [2.35]); daily pill (3.48 [2.24]); condom (3.49 [2.54]); sex event-based pills (3.84 [3.05]); and anal gel (5.29 [1.83]) or suppository (5.51 [1.79]) during sex. Differences ($p < .05$) were found by race/ethnicity, age group, education, and city.

Conclusions: Although potential future PrEP formulations of injectable, sexual event-based pills, and penile and anal gels or anal suppositories are generally acceptable to most MSM, there are important differences by race/ethnicity, age, and other demographic variables that have implications for successful uptake and persistence of use. Particular attention should be given to formulations, combinations of products, and related marketing efforts so that HIV prevention protection is used by MSM who can benefit the most.

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important differences by race/ethnicity, age, and other demographic variables that have implications for successful uptake and persistence of use. Particular attention should be given to formulations, combinations of products, and related marketing efforts so that HIV prevention protection is used by MSM who can benefit the most.

Abstract 6153 - Accessing pre-exposure prophylaxis (PrEP): perceptions of current and potential PrEP users in a city in the Deep South

Author(s): *Whitney Rice, Kristi Stringer, Kaylee Crockett, Ghislaine Atkins, Kachina Kudroff, D. Scott Batey, Joshua Hicks, Janet Turan, Michael Mugavero, Bulent Turan*

Background: Compared to other U.S. regions, the Deep South has the lowest levels of pre-exposure prophylaxis (PrEP) use overall, and relative to need. Significant racial disparities are observed in PrEP uptake within this region, with disproportionately low use among population groups with the highest burden of new HIV infections (e.g., Black adolescents and adults). Limited studies assess PrEP uptake and use among diverse socio-demographic groups in the U.S. Deep South. We apply a multidimensional patient-centered access to care model by Levesque, et al., to assess challenges and opportunities throughout the process of perceiving a need for PrEP and benefiting from PrEP services across key populations in Birmingham, Alabama.

Methods: We conducted qualitative interviews with 44 current and potential PrEP users in Birmingham, Alabama. Our study team recruited participants via: (a) referrals from PrEP providers and (b) posted study flyers at PrEP clinics and community organizations serving populations at risk for HIV infection in the Birmingham metropolitan area. Individuals were eligible to participate if they were: HIV-negative, over age 18, not employed at the PrEP clinic recruitment locations, and either on PrEP or PrEP-eligible on the basis of criteria that were informed by U.S. Public Health Service guidelines. In-person interviews were conducted by experienced qualitative researchers using semi-structured guides, which prompted discussion of perceptions of PrEP information dissemination, community norms, personal attitudes, experiences, interests, and motivations related to PrEP. Interviews were audio-recorded and transcribed, and the data were coded using thematic analysis. Codes reflected the five domains of patient-centered access: approachability, acceptability, availability and accommodation, affordability, and appropriateness.

Results: Participants were 32 years old on average, 66% Black, 82% gay, lesbian, bi-sexual or pansexual, 70% male, and 66% single. Interviewees perceived various challenges to uptake and use of PrEP, including: lack of awareness and limited advertisement of PrEP, particularly within communities of color, among non-MSM populations, and outside of cities (approachability); social norms that produce sexuality-related stigma (acceptability); the time and resource demands of initial screening for PrEP and follow-up clinic visits (availability and accommodation); lack of economic capacity to pay for PrEP, even with cost sharing (affordability); and concerns about the adequacy and technical quality of PrEP services (appropriateness). The participants also discussed several perceived facilitators to their uptake or use of PrEP, such as: internet, social media, and close interpersonal connections that facilitate PrEP-related information gathering and sharing (approachability); increased dialogue and visibility around PrEP (acceptability); social support networks, cost assistance programs, and clinical support staff helped many participants to navigate time and resource constraints (availability and accommodation);

affordability). Lastly, participants reported that self-preservation, personal motivation, and self-efficacy helped them to navigate these barriers to accessing PrEP (approachability and other access to care domains).

Conclusions/Implications: Taken together, these data point to opportunities to address individual, community, and structural barriers to facilitate equitable PrEP access in a region where HIV infection is endemic.

Abstract 6134 - Chemsex is not a barrier to PrEP adherence among men who have sex with men in England

Author(s): *Charlotte O'Halloran, Brian Rice, Monica Desai, Mitzy Gafos*

Background: MSM (men who have sex with men) are at a higher risk of HIV infection compared to the general population. Pre-exposure prophylaxis (PrEP) is a novel HIV prevention method where HIV-negative persons at high risk of acquiring HIV take antiretroviral therapies (ART) to prevent them from becoming infected with HIV. A key component to PrEP's efficacy is optimal adherence, hence it is important to assess factors which could affect adherence among MSM. Chemsex (also referred to as "party and play") is a term used to describe sexual activity under the influence of one or more of the three psychoactive drugs; mephedrone, crystal methamphetamine and/or gamma-hydroxybutyrate (GHB) and has been associated with communities of MSM in the UK and with increased risk of HIV transmission. Chemsex drug use has also been associated with poor ART adherence among HIV-positive persons. This project assessed whether self-reported chemsex events affected daily PrEP adherence within the PROUD study cohort.

Methods: The PROUD study was an open-label randomised controlled trial conducted in thirteen English sexual health clinics, which aimed to assess real-world effectiveness of Truvada®-PrEP among 544 high-risk HIV-negative MSM. The study reported a HIV risk reduction of 86% from daily PrEP and further evidence suggested that the 3 participants acquiring HIV in the immediate arm may have already been infected at enrolment or not adhering to their PrEP. Participants were asked whether they engaged in chemsex on quarterly clinic visit forms during follow-up. Self-reports of missed PrEP tablets documented on monthly adherence forms were aggregated to assess adherence within the 90 day periods of chemsex reporting. Univariable and multivariable regression analyses were performed to test for associations between chemsex and sub-optimal (<100%) PrEP adherence

Results: 1,479 quarterly visit forms (including information on chemsex) and 2,260 monthly PrEP adherence forms from 388 eligible participants were included in the analyses. 570/1,479 (38.5%) visit forms reported chemsex in the previous 90 days and 442/1,479 (29.9%) 90-day periods were classified as having sub-optimal PrEP adherence from aggregated adherence forms. Univariable analyses demonstrated significant associations between sub-optimal PrEP adherence and visit forms from participants still in full-time education, aged 18-25 and perceiving at baseline they might have poor PrEP adherence during the trial. We observed no evidence of an association between sub-optimal PrEP adherence and chemsex, which persisted after controlling for age and perceiving poor adherence at baseline (aOR=1.24 [95% CI 0.88-1.75], p=0.227).

Conclusions/Implications: There was no evidence of an association between chemsex and sub-optimal adherence to PrEP among MSM in England. These analyses suggest PrEP remains a feasible and effective HIV prevention method for high-risk MSM engaging in chemsex, a practise which has been associated with an increased risk of HIV transmission. Regular PrEP monitoring visits should be encouraged to provide opportunities to engage with chemsex users in managing their risk. As chemsex is a fairly novel topic area within sexual health research, this project aids understanding of how this behaviour affects HIV prevention, particularly as the majority of literature only reports mephedrone/GHB/crystal methamphetamine drug use as a proxy for chemsex behaviour.

Track C

Session C02 - From Concept to Prevention Program: Understanding, Developing and Implementing Patient Navigation within HIV Care

Room: A706-A707 (Atlanta Marriott Marquis)

Abstract 5668 - Systematic review of HIV patient navigation studies: a health services utilization strategy in search of a definition

Author(s): Linda Koenig, Darrel Higa, Carolyn Leighton, Julia DeLuca, Kate Roland, Yuko Mizuno

Background: Patient navigation is a health care delivery support system designed to assist disadvantaged populations negotiate complex and fragmented social and medical services by addressing financial, cultural, language and other barriers that delay access to and use of effective treatments. Although HIV patient navigation is being employed in the United States with increasing frequency, there is little clarity about the core elements or how it differs in practice from programs with similar services, such as case management or care coordination. We conducted a systematic literature review to identify the unique and shared features across HIV patient navigation interventions to facilitate future program planning.

Methods: A systematic search was conducted utilizing online databases (MEDLINE [OVID], EMBASE [OVID], PsycINFO [OVID], and CINAHL [EBSCOhost]) and manual searches. The search cross-referenced HIV or AIDS and Patient Navigator or Care Coordinator indexing and keyword terms to locate studies published from January 1996 to April 2018. Two coders independently screened all potential citations for relevance. Subsequently, two coders independently reviewed full reports to determine eligibility (use of navigation/navigation-like services, report quantitative data, conducted in the United States and reported in English in a peer-reviewed journal). Using a pilot-tested abstraction form and codebook, pairs of coders independently abstracted study characteristics including descriptions of the intervention and navigational activities.

Results: Searches yielded 789 unique citations, with 88 potentially relevant studies. After review, 63 were excluded (qualitative [23], commentaries [12], reviews/guidelines [12], insufficient intervention description [7], protocols [5], and linked studies [4]), leaving 25 independent intervention studies. Intervention activities conducted by the navigator were categorized into 20 domains, with the most common being: accompanying client to appointments (68%), making referrals to services (56%), providing instrumental support (e.g., transportation funds, child care access) (52%), connecting persons

to HIV care (44%), assessing/addressing needs (40%), educating (36%), coordinating/collaborating (36%), and outreach/locating (32%). Relationship building, reminders and counseling were included in approximately one-quarter of the studies. Other activities included role modeling, adherence or HIV disclosure support, behavioral intervention delivery or skills building, home/jail visits and recreational activities. Interventions that didn't include accompaniment often focused on locating and linking. Case management was not always differentiated from patient navigation, and was a component in 28% of studies.

Conclusions/Implications: In the United States, HIV patient navigation is being utilized most commonly for accompaniment, referrals, and instrumental support. These findings may reflect that HIV patient navigation as a model of care is predicated on a relationship of personal support. Although in theory, roles/strategies such as case management, care coordination and patient navigation may be distinguished by length of time spent with client, whether for newly-diagnosed vs established patients, addressing comorbid conditions vs economic and sociocultural challenges, or practiced by peers vs professionals, in practice, these roles and approaches may overlap. Better understanding about the core components of HIV patient navigation, and which attributes and services are most effective for whom and when, will help facilitate deployment of these services in a way that's most efficient, beneficial to clients, and helps to reduce disparities in HIV outcomes.

Abstract 5395 - Perspectives and experiences of adult persons with HIV who participate in HIV navigation programs: a qualitative meta-synthesis

Author(s): *Kate Roland, Darrel Higa, Carolyn Leighton, Yuko Mizuno, Julia DeLuca, Linda Koenig*

Background: Patient navigation is a patient-centered model of care that provides individualized support to patients to “navigate” the healthcare system. Over the last decade, patient navigation has increasingly been adopted as a method to link and (re)engage persons with HIV (PWH) into HIV care, and provide entry to other health and social systems. Quantitative evaluation of HIV navigation interventions has found evidence of their positive impact on care outcomes for PWH. Collecting qualitative data on PWH experiences and perspectives with HIV navigation can provide necessary context to improve HIV navigation intervention design and translation to evidence-based practice. Therefore, we conducted a meta-synthesis of qualitative studies that focused on client experiences with HIV navigation.

Methods: Studies were identified with searches in MEDLINE (OVID), EMBASE (OVID), PsycINFO (OVID), and CINAHL (EBSCOhost) using a combination of HIV or AIDS and Patient Navigator indexing and keyword terms. Peer-review articles that were published in English from January 1996 to April 2018, of studies conducted in the United States with PWH aged ≥ 18 years of age, that included qualitative data on participant/client perspectives on involvement in a HIV navigation program were included. Book chapters, conference abstracts, dissertation/theses, magazine/newsletter articles, and webpages were excluded. Two coauthors screened abstracts and reviewed full reports to determine eligible studies. Using a pilot-tested abstraction form and codebook, pairs of coauthors independently abstracted study characteristics, assessed study quality using the Critical Appraisal Skills Programme (CASP) qualitative checklist, coded qualitative data, and resolved discrepancies through discussion. Data were entered into nVivo and analyzed using thematic analysis.

Results: We identified eight relevant studies. All studies used in-depth interviews to collect data. Sample sizes ranged from 11 to 80 participants. Participants represented vulnerable populations, including racial/ethnic minorities, men who have sex with men, transgender persons, formerly incarcerated persons, persons with a history of homelessness and substance use, and out-of-care persons. The mean CASP score was 8.4/10. Navigators commonly helped clients access social and healthcare systems, provided education and social support, and linked clients to HIV care and encouraged continuity of care. Analysis revealed the critical role of the relationship between the navigator and the client, how that relationship helped clients address stigma and social barriers in their lives, and client transformation and growth due to their participation in the navigation program and relationship with the navigator.

Conclusions/Implications: HIV navigation is an inter-personal intervention that can address structural barriers and achieve positive HIV outcomes for vulnerable members of society. While consensus is lacking on the essential components of HIV navigation, qualitative findings from this meta-synthesis illustrate the positive, and potentially transformational impact of the social and relational support provided by HIV navigation in the lives of PWH. Although these data are not generalizable, they may provide insights for programs seeking to establish HIV navigation interventions and outreach for their out-of-care and at-risk clients.

Abstract 5676 - Implementing the Science-based Translation of Effective Program Strategies (STEPS) to care model of patient navigation

Author(s): *Aisha Wilkes, Patricia Bessler, Cari Courtenay-Quirk, Julie Rwan, Athi Myint-U, Mary Irvine, Lydia O'Donnell*

Issue: Patient navigation is a strategy used by health care agencies to support and improve patient engagement and adherence in an often fragmented medical system through the involvement of an assigned navigator and a personalized care plan. Standardization of the approach, including the skill set, training and certification of the navigator, is lacking, despite how critical this approach is to HIV management. Thus, there is a strong need for quality, standardized tools that support the translation, dissemination, and implementation of an evidence-informed patient navigation strategy and related services.

Setting: The New York City (NYC) Department of Health and Mental Hygiene (DOHMH) Ryan White Part A Care Coordination Program (CCP) uses patient navigation as a key strategy for medical case management and has demonstrated improved client outcomes in HIV care engagement and viral load suppression.

Project: The Centers for Disease Control and Prevention (CDC) partnered with Education Development Center (EDC) and the NYC DOHMH, to prepare the NYC DOHMH's CCP for national dissemination. Specifically, the goal of the Science-based Translation of Effective Programs (STEPS) to Care project was to translate evidence-informed strategies into web-based tools and training to improve linkage, retention, and reengagement of PLWH in care. For translation, we focused on three strategies of the CCP: (1) Patient Navigation, (2) Care Team Coordination, and (3) HIV Self-Management. The translation process was completed in four steps: (1) review of programs implementing the CCP, (2) translation of

the strategies into an online suite of training and support tools, (3) pilot testing, and (4) refinement of the online toolkit.

Results: Eleven online tools, which include interactive trainings, fillable and downloadable forms, practice guidelines, and orientation and training videos, were developed to support the implementation of patient navigation as part of the larger STEPS to Care toolkit. In addition to the assignment of a navigator and development of a care plan, patient navigation services include case finding; logistics planning; accompaniment to medical appointments; assistance with entitlements/benefits, health care, housing, and social services; health education/promotion; assessment/reassessment; and outreach for patient re-engagement. The tools were developed to guide a patient navigator from the initial intake assessment through the coordination of appropriate services and ongoing reassessment of needs, goals, and medication adherence. In pilot tests with HIV-service agencies, patient navigation services were more likely to be implemented than the other strategies, with a majority of clients receiving at least one patient navigation service.

Lessons Learned: Patient navigators or other front-line community health workers play key roles in successfully moving PLWH along the HIV Care Continuum to viral load suppression. Easily accessible, self-paced, online tools and trainings are critical elements to promote professional development and support sustainability of patient navigation models. The STEPS to Care toolkit will be available at <https://effectiveinterventions.cdc.gov/> in late summer 2018.

Abstract 5671 - Training and technical assistance for HIV navigation services

Author(s): *David Whittier, Marie Johnston, Jonny Andia, Chezia Carraway*

Issue: The White House and Centers for Disease Control and Prevention (CDC) have issued guidelines and recommendations related to HIV treatment as prevention. Examples include the National HIV/AIDS Strategy for the United States: Updated to 2020 and CDC's Recommendations for HIV Prevention with Adults and Adolescents with HIV in the United States, 2014, respectively. The latter includes patient navigation as a strategy to support HIV prevention efforts. The concept and practice of patient navigation overlaps extensively with other care and prevention activities, including case management, care coordination, disease intervention services, and the developing role of the community health worker in the United States. Capacity-building assistance (CBA) providers need a way to define patient navigation in order to provide training and technical assistance to support health departments, community-based organizations, and health care organizations in the delivery of patient navigation services.

Setting: CDC's Capacity-Building Branch (CBB) in the Division of HIV/AIDS Prevention provides funding to 21 CBA providers to support health departments, community-based organizations, and health care organizations.

Project: CBB developed a fact sheet to delineate core elements of patient navigation that would guide the development of a training. CBB staff then collaborated with CBA providers to develop and use a 2-day "HIV Navigation Services" (HNS) blended-learning training. Without guidance on the exact scope of services constituting patient navigation, CBB determined that this training would focus on building

capacity for the delivery of essential navigation services by a variety of providers, rather than delineate a program model or limit this role to a particular job category. A key resource used to develop this fact sheet and training was CDC's Recommendations for HIV Prevention with Adults and Adolescents with HIV in the United States, 2014. Another was Bradford et al.'s (2007) article, "HIV System Navigation: An Emerging Model to Improve HIV Care Access," which focuses on practical support for navigating health systems.

Results: Between January 2017 and May 2018, CBA providers trained HNS 27 times, reaching 193 distinct programs and 425 unique staff. Additionally, CBA providers responded to 36 individualized technical assistance requests for patient navigation. Both health departments and community-based organizations have been recipients of the HNS training and technical assistance on navigation.

Lessons Learned: It has been difficult to define HIV patient navigation as a distinct practice within the diverse and complex prevention and care systems within the United States. Although CBB has emphasized the key functions of navigation within the fact sheet and HNS training, debate continues over which organizations and which job categories should provide navigation services. Health departments and community-based organizations may both have a role in the provision of patient navigation services. The implementation of patient navigation services within a jurisdiction may vary by implementation model and available resources. There is a continued need for research to define HIV patient navigation as an emerging practice in the United States.

Abstract 5833 - Patient navigation practice: NYC Ryan White Part A HIV care coordination program

Author(s): *Julie Rwan*

Issue: Patient navigation is a strategy used by health care agencies to support and improve patient engagement and medication adherence in an often fragmented medical system through the involvement of an assigned navigator and a personalized care plan. Patient navigators serve as the bridge between the patient and health care services including medical care and social services. The challenge is to structure patient navigation programs to support effective relationships between patients and navigators to ultimately improve patient health outcomes.

Setting: The New York City (NYC) Department of Health and Mental Hygiene (DOHMH) Ryan White Part A Care Coordination Program (CCP) uses patient navigation as a key strategy for medical case management and has demonstrated improved patient outcomes in HIV care engagement (EiC) and viral load suppression (VLS).

Project: Launched in 2009, CCP is currently funded in 25 hospitals, community health centers, and community-based organizations across all five boroughs in NYC. CCP is an evidence-informed model that improves HIV EiC and VLS, and aims to meet the needs of hard to reach patients to reduce health disparities and promote whole health in an integrated partnership with medical providers. A key tenet of the program is using field-based patient navigation to meet patients where they're at to supplement clinic-based services. CCP patient navigators deliver navigation support on health promotion, medication adherence counseling, benefits and health coverage, modified directly observed therapy, and care coordination with medical providers and social services providers.

Results: CCP combines elements of patient navigation and chronic care models to improve EiC and VLS. CCP developed the patient navigation components based on the accompaniment model of “walking with” patients used by the Prevention and Access to Care and Treatment project of Brigham and Women’s Hospital and Partners in Health. CCP staff include (1) patient navigators who conduct field visits, health promotion, and the majority of navigation support, (2) care coordinators who supervise patient navigators and develop care plans, and (3) program directors who oversee the administrative aspects of implementation. The CCP team is responsible for care navigation and for coordinating care team meetings with medical providers to review each patient’s progress and discuss relevant clinical and social issues.

Lessons Learned: CCP is an effective model to work with hard to reach and hard to engage patients. Patient navigators are key players on the care team since they have the most interaction with patients, often reflect the community they serve, and bridge the gap between the clinic and the community. Across CCP sites, patient navigators reflect a variety of backgrounds from social workers to case managers to health educators. Organizations with supportive structures and cultures for patient navigation typically include medical provider buy-in, co-located or linked medical and patient navigation teams, dedicated time for case conferences with the care team, reasonable case loads recognizing the added time and effort for field work, and ongoing training and supervision for navigators. These actions are essential to support patient navigators in delivering high quality care coordination.

Session C05 - Better Together: Harnessing Information to Improve Efficiency and Outcomes in Data 2 Care Programs

Room: Imperial B (Atlanta Marriott Marquis)

Abstract 5615 - Chicago data to care pilot: a review of eHARS matching and collaboration

Author(s): *Ryan Judd, Jessica Schmitt, Eleanor Friedman, Michael Cronin, Elexis Wright, Jeffrey Lauritsen, Stephanie Schuette, Jessica Ridgway*

Issue: Many HIV care clinics measure retention rate, but data are often incomplete. Patients may be classified as “lost to follow up” who have actually moved, deceased, or transferred HIV care elsewhere. The Data to Care (D2C) initiative supports data sharing between health departments and HIV providers to confirm patient care status and facilitate reengagement efforts for out of care HIV patients.

Setting: The University of Chicago Medicine (UCM) and The Ruth M. Rothstein CORE Center (CORE) are among two of the largest HIV care and prevention providers in Chicago. UCM is an urban academic hospital, and CORE is a Cook County facility dedicated to HIV prevention, care, and research.

Project: UCM and CORE participated in a pilot D2C program with the Chicago Department of Public Health (CDPH) from April 2017 to June 2018. Over that time, patient lists were submitted 8 times by UCM and 13 times by CORE to CDPH to be analyzed against the city’s enhanced HIV/AIDS reporting system (eHARS). For matched patients, CDPH shared with participating sites the most recent care date and site and lab values, if available. CDPH also searched patients in the Accurant data system to determine vital status and most recent home address. We analyzed aggregate data from UCM and CORE

matched to eHARS by CDPH. We further reviewed patient level data from UCM to identify patterns among out of care patients that might assist with targeted outreach of programming.

Results: UCM and CORE submitted a total of 4592 patient names from April 2017 to June 2018, some multiple times as they continued to be out of care. Of those 3404 (74.1%) patient names matched in eHARS, Soundex, and/or Accurint. Although many patients matched in eHARS, UCM and CORE both identified key information missing regarding patient health outcomes. CORE identified 329 (15.9%) patients with no care information available, and UCM identified 273 (45.9%) unique patients who were missing viral load information. UCM patients with viral load data were divided into three groups based on date of last HIV medical care: <6 months, 6-12 months, and >12 months. Median viral load from eHARS increased between each group with increasing time since last visit (Kruskal-Wallis chi-squared $p=0.003$). There were no demographic differences between groups.

Lessons Learned: As a pilot program in Chicago, D2C served as a useful tool for UCM and CORE to identify patients who were deceased or transferred care and to prioritize patients for outreach. One limitation of the program was missing viral load and medical visit data. Viral load level in eHARS is correlated with time out of care and may be a useful measure to guide prioritization of patients for outreach. Further process improvement and collaboration with CDPH, Illinois Department of Public Health, and reporting institutions may improve quality of health data in eHARS.

Abstract 5719 - Establishing meaningful partnerships to support patient progression along the HIV continuum of care: the P4C case conference process in Maryland

Author(s): *Alyssa Arey, Pamela Kurowski, Kemisha Denny, Hope Cassidy-Stewart, Jeffrey Hitt*

Issue: Data to Care (D2C) is a public health approach that utilizes state surveillance data to identify HIV-positive individuals who are not engaged in care to facilitate linkage to care activities. The Maryland Department of Health (MDH) historically conducted D2C with local health departments (LHDs), using surveillance-generated lists of HIV cases presumed not in care, but this model resulted in low reengagement success and revealed processes that hinder efficient linkage to care investigations. Improved communication and data transmission between MDH and LHDs, along with HIV care providers, is needed to optimize D2C activities and increase reengagement outcomes in Maryland.

Setting: Partnerships for Care (P4C) was a demonstration project that was funded (FY2014-2018) by the federal Secretary's Minority AIDS Initiative Fund to build sustainable partnerships among CDC-funded state health departments and HRSA-funded federally qualified health centers (FQHCs) to support expanded HIV service delivery in communities highly affected by HIV. Participating in the P4C project were four state health departments (Florida, New York, Massachusetts, and Maryland), and 22 health centers within the funded state jurisdictions.

Project: MDH collaborated with four FQHCs and three LHDs on the P4C project. Maryland HIV surveillance data was matched to each FQHC's electronic health record (EHR) system to develop a comprehensive HIV patient dataset, which included patients' HIV care status category. Staff from the FQHC, MDH, and corresponding LHD(s) discussed the patient tables during P4C case conferences, prioritizing not in care or not virally suppressed patients, and jointly determined follow-up actions.

During the case conferences, FQHCs provided qualitative information on barriers influencing patients' care and recommended who should conduct initial outreach. Monthly, MDH updated the case conference tables with the latest surveillance and EHR data, adding any re-linkage outcomes, and the three partners reconvened to assess patient progression towards viral suppression.

Results: The case conferences proved to be a useful method of communication and exchange of qualitative and quantitative information for the MDH, FQHCs, and LHDs. The case assignment determined during the case conferences ensured that linkage to care activities were coordinated for each patient between FQHCs and LHDs, which resulted in higher reengagement in care rates and D2C efficiency. The FQHCs felt the case conferences were valuable and requested to continue them after P4C concluded. Providers benefited from learning whether their patients were in HIV care elsewhere, reducing their list of not in care or not virally suppressed patients to concentrate on. LHDs formed relationships with the providers, who increased their communication outside of P4C. The case conferences enhanced EHR and surveillance data by discussing patient information not documentable in those data systems, and improved data quality by reviewing discordant or missing data, including identifying reporting gaps and expediting sharing of death or cross-jurisdictional information.

Lessons Learned: It was beneficial for health departments and FQHCs to participate in case conferences, which helped organize more efficient and effective D2C processes throughout P4C. The partnerships that were established and the ongoing exchange of information fostered better communication and linkage to care coordination between the partners for the future.

Abstract 6030 - MCO-CBO collaboration: utilizing data and peer navigators to identify and re-engage people living with HIV in care and treatment to increase viral load suppression

Author(s): *Sharen Duke, Erin McKinney-Prupis, Fulvia Alvelo*

Issue: HIV treatment advances contributed to the proven strategy that Undetectable = Untransmittable. Alliance for Positive Change, a NYC organization, partnered with three managed care organizations (MCOs) to create a peer-delivered linkage to care program, to locate and engage HIV-positive Medicaid MCO members who had fallen out of care, and/or were not virally suppressed and move them towards viral load suppression by aligning them with medical providers, care managers, and treatment regimens. Utilizing peer navigators (PN), whose shared lived experience makes them effective messengers of information and resource connection, is a high-impact, low-cost strategy to reengage persons lost to care and improve their health. This presentation will focus on the program design, data sharing techniques, monitoring tools, and lessons learned from the CBO/MCO partnership.

Setting: Alliance for Positive Change serves over 6,000 New Yorkers each year at its six sites across Manhattan and the Bronx. The CBO/MCO partnership project targeted HIV-positive Medicaid managed care members who were out of care and not virally suppressed, and was funded by the New York State End the Epidemic Initiative.

Project: The MCOs used Medicaid utilization data and lab data to generate a target list of MCO HIV-positive members for Alliance to conduct engagement, program enrollment, and linkage to medical care for MCO members who had not seen a doctor in over six months and were not virally suppressed at the

date of the last lab test. Alliance used a variety of data sources to locate clients, including criminal justice databases, zip code maps, and Medicaid Portal (MAPP). Alliance utilized trained HIV PNs to: (1) Locate clients, (2) Screen, consent and enroll clients in the program, (3) Navigate clients to medical care, (4) Engage clients in Alliance support services (e.g., care coordination, food and nutrition, harm reduction, adherence support), and (5) Provide medication adherence services. PeerPlace, an electronic health record system was used to capture outreach efforts and create reports monitoring outreach search attempts and referral outcomes.

Results: PNs were able to find 45% of referred members; and engage and navigate 67% of found members to care. 72% of members were found within two months of outreach. 71% of members were found through face to face interactions compared to phone calls. Members who received a peer escort to their initial PCP appointment were three times more likely to return for follow-ups as compared to those who did not.

Lessons Learned: PNs are effective messengers of information, support and resource connection that contributes to patient alignment with medical care and treatment. The CBO/MCO partnership generated positive outcomes first for the patient, by increasing access to and engagement in care; CBO (Alliance) increased enrollment in other organizational services; and MCO contributed to improved health outcomes and decreased medical expenditures for enrolled program participants. Ongoing and coordinated case conferencing between MCO and CBO enhances capacity to find out-of-care members, and address their social determinants of health with the goal of reengagement and treatment adherence. Shared data systems between MCO and CBO were critical to the effectiveness of the engagement and alignment program intervention.

Abstract 6133 - Understanding virologic suppression of human immunodeficiency virus (HIV) in the era of undetectable equals untransmittable

Author(s): *Jayleen Gunn, Wendy Patterson, Bridget Anderson, Carol-Ann Swain*

Background: Prolonged viral suppression of Human Immunodeficiency Virus (HIV) is a pillar of the “Undetectable=Untransmittable” (U=U) campaign, which operates on the notion that people living with HIV who maintain a suppressed viral load cannot sexually transmit the virus. Despite the empirical evidence in support of U=U, there is little knowledge of the percent of individuals at a population level who sustain viral suppression. The aims of this study are two-fold: 1) establish a baseline of individuals who achieved viral load suppression on the last two viral loads in 2010-2011, and 2) describe the risk of virologic failure among those who previously attained consecutive viral suppression.

Methods: This retrospective cohort study was conducted among persons living with diagnosed HIV in New York State (NYS). Only individuals who 1) were diagnosed with HIV or AIDS prior to 2010; 2) were ≥ 13 and < 90 years old on January 1st, 2012; 3) were residing in NYS at study start; 3) had > 1 viral load test after 2011; and 4) achieved consecutive viral suppression—defined as last two viral load tests from 2010-2011, < 200 copies/ml and < 420 days apart—were included in the study cohort. Kaplan-Meier curves of time to virologic failure—defined as a viral load > 200 copies/ml from 2012-2016—were generated. Participants were censored if there was a gap > 420 days between viral load tests, they

maintained suppression until the end of the study period, December 31st, 2016, or they died during the study. All data were extracted from the NYS HIV surveillance registry.

Results: In 2011, there were 102,339 New Yorkers aged ≥ 13 and < 90 living with HIV; 49,021 (47.9%) were consecutively suppressed. Of consecutively suppressed individuals, 26,637 (54.3%) maintained viral suppression for the entire study period, 16,465 (33.6%) experienced virologic failure during the study period, 3,782 (7.7%) experienced a treatment gap of ≥ 420 days, and 2,137 (4.4%) died. The mean number of days to virologic failure was 1,643.

Conclusions/Implications: Overall, roughly half of the NYS HIV population achieved suppression on their last two viral loads in 2010-2011. Over half of individuals who achieved viral suppression maintained viral suppression for the entire study period; however, one in three individuals experienced virologic failure. Our findings support NYS U=U messaging that emphasizes the need for frequent viral load monitoring and engagement in risk reduction activities prevent forward HIV transmission.

Track D

Session D01 - Galvanizing a Public Health Response: The Importance of Detecting Clusters and Outbreaks Among People who Inject Drugs

Room: Regency VII (Hyatt Regency Atlanta)

Abstract 5703 - Implementing an outbreak response plan and HIV molecular surveillance technology in an HIV cluster investigation; eastern Tennessee, April 2017

Author(s): *Lindsey Sizemore, Mary-Margaret Fill, Samantha Mathieson, Jennifer Black, Mary Evans, Meredith Brantley, Kelly Cooper, Tara Sturdivant, Joy Garrett, Roberta Sturm, Brittany Isabell, Sarah Hall, Stephanie Paul, William Switzer, Hongwei Jia, Wei Luo, Silvina Masciotra, Rendi Murphree, Julia Shaffner, Corinne Davis, Richard Steece, Paula Gibbs, Michael Rickles, Philip Peters, Carolyn Wester*

Background: Eastern Tennessee (TN), located in the Central Appalachian region of the United States, is disproportionately affected by the opioid and hepatitis C virus (HCV) epidemics. This region has historically had low rates of HIV infection, yet the potential for HIV transmission, driven by increases in injection drug use (IDU) associated with opioid abuse, has emerged as a major public health concern. In April 2017, the TN Department of Health (TDH) was notified of an increase in the number of year-to-date individuals newly diagnosed with HIV in eastern TN. Two were identified as persons who inject drugs (PWID), and named each other as syringe-sharing partners, prompting an investigation into a possible HIV cluster among PWID.

Methods: TDH and Eastern TN public health staff collaborated to implement procedures outlined in a previously developed TDH HIV/HCV Outbreak Response Plan, including enhanced interviewing and using REDCap for data collection and management. To complement contact tracing and enhanced interviewing, TDH partnered with CDC to conduct molecular HIV and recency testing, using serum specimens from individuals newly diagnosed with HIV. Serum specimens from all individuals underwent HIV antigen/antibody (4th generation) testing at the TDH State Laboratory in Nashville, and those with positive test results and adequate specimen quantity were sent to the CDC HIV Laboratory Branch for

molecular HIV testing. Partial polymerase (pol) and group-specific antigen (gag) Sanger sequences were amplified from serum samples from persons who met the case definition and had sufficient serum specimen (n=16). Specimens were also tested for recency (defined as new infection within the prior eight months) with the modified avidity-based Bio-Rad assay.

Results: By June 27, 2017, the investigation identified 31 individuals with new HIV diagnoses, including 8 (26%) with a history of IDU (of whom 4 [13%] were also men who have sex with men [MSM/IDU]). The remaining self-reported risk factors were: 10 (32%) non-IDU MSM, 9 (29%) high-risk heterosexual (HRH), and 4 (13%) other/unknown. Of the 31 newly diagnosed individuals, 13 (42%) reported a history of incarceration and 14 (45%) were tested for HCV. HCV testing yielded 3 HCV antibody-positive results (all reporting a history of IDU), and reflex testing confirmed 1 to be HCV RNA-positive. Molecular analysis of the 16 HIV-1 pol and gag sequences (including 7 of the 8 people who reported IDU) revealed 4 molecular clusters, including 1 cluster with 3 MSM/IDU and 1 MSM. Recency testing identified 4 of 7 people who reported IDU were recently infected.

Conclusions/Implications: This investigation highlighted the importance of implementing an established HIV/HCV Outbreak Response Plan, as well as the added value of molecular HIV testing, to cluster and outbreak investigations. Molecular HIV testing results were rapidly received and indicated that a large transmission network did not explain the increase in HIV diagnoses. This information allowed TDH to conclude the focused cluster investigation and shift to community HIV prevention activities. Future enhanced surveillance efforts will include utilizing Global Hepatitis Outbreak Surveillance Technology (GHOST) to identify HCV molecular linkages as a potential harbinger for HIV transmission networks.

Abstract 5690 - Interstate response to a rapid increase of HIV among persons who inject drugs in northern Kentucky and Hamilton County, Ohio

Author(s): David Carlson, Zachary Raney, Alexis Grimes Trotter, Stephanie Vogel, Craig Davidson, Doug Thoroughman, Sara Robeson

Issue: The rise in opioid abuse and injection drug use in Ohio and Kentucky, over the past 3 years, has led to an increase in HIV cases across the Ohio/Kentucky interstate area. From 2016 to 2017, the number of HIV cases among people who inject drugs (PWID) increased from 12 to 42 in Hamilton County, Ohio and from 5 to 21 cases in Northern Kentucky. This presentation will discuss the methodology used in communicating and sharing data among four health jurisdictions conducting a HIV cluster investigation among PWID.

Setting: Two state health departments (Ohio Department of Health and Kentucky Department for Public Health), and two local health departments (LHDs) (Hamilton County Public Health and Northern Kentucky Health Department) were the jurisdictions involved in this project. Northern Kentucky has a population of more than 450,000 and Hamilton County has a population of more than 800,000, including the City of Cincinnati with a population of 300,000. The counties that are within these LHDs' jurisdictions include populations that are living in metropolitan, suburban, and rural areas. These two LHDs are located immediately across the Ohio River from each other. Residents frequently commute between Kentucky and Ohio on a daily basis for many reasons including work and recreation.

Project: The primary objectives of the cluster investigation have been to investigate any commonalities that may exist among the new HIV cases, and to determine the prevention efforts that are best suited to address this spread of HIV among PWID. Both LHDs have utilized expanded interviews that were developed specifically for the PWID population to help ascertain this information. Blood specimens were also collected from new cases and sent to the CDC for viral molecular sequencing. The viral molecular sequences and epidemiological links collected from the expanded interviews were put into a mapping software MicrobeTRACE to help visualize any connections among the new HIV cases. All jurisdictions routinely share data to provide a comprehensive examination of the new HIV cases and their contacts in an effort to identify any cross-jurisdictional connections. The routine data sharing has also spurred programmatic work such as case investigation, prevention and case management strategies to work across jurisdictions as well.

Results: A HIPAA-compliant database for local interstate data sharing and MicrobeTRACE for viral molecular sequencing is assisting with data surveillance and targeted testing. The presentation will show preliminary results how the viral molecular sequencing is helping identify multiple interstate clusters. Epidemiology information from the enhanced interviews will also be discussed.

Lessons Learned: Sharing information and data, as well as planning strategies to prevent and intervene among all jurisdictions involved is crucial to the success of a cluster investigation. Key challenges that occurred during the project include sharing confidential case information between LHDs in different states as well as investigating cases and shared contacts across jurisdictions. This presentation will discuss lessons learned and key strategies to address the sharing of information among inter-state jurisdictions in a timely manner.

Abstract 5556 - New HIV infections among people who inject drugs, northeast Massachusetts, 2015-2018

Author(s): *Kevin Cranston, Erica Dawson, Charles Alpren, Betsey John, Nivedha Panneer, H. Dawn Fukuda, Kathleen Roosevelt, R. Monina Klevens, Janice Bryant, Philip Peters, Sheryl Lyss, William Switzer, Amanda Burrage, Ashley Murray, Christine Agnew-Brune, Tracy Stiles, Ellsworth Campbell, Robert McClung, Courtney Breen, Liisa Randall, Sharoda Dasgupta, Shauna Onofrey, Danae Bixler, Kisha Hampton, Jenifer Jaeger, Alfred DeMaria, Jr.*

Background: Between mid-2016 and late 2017, Massachusetts Department of Public Health (MDPH) identified an increase in diagnoses of HIV infection among people who inject drugs (PWID) centered in the cities of Lawrence and Lowell in northeastern Massachusetts, an area with high rates of fatal opioid overdoses. MDPH initiated an investigation to characterize the outbreak and recommend control measures.

Methods: Cases were defined as HIV infection in a person: (1) who was a PWID whose infection was diagnosed during January 2015–May 2018 and who received medical care, resided, or injected drugs in Lawrence or Lowell; or (2) who was a named injecting or sex partner or was molecularly linked by HIV nucleotide sequences at a genetic distance of $\leq 1.5\%$ to a case meeting temporal and geographic criteria. Cases were interviewed to identify needle-sharing and sexual contacts. Information on local services

was obtained from stakeholders. Qualitative interviews were conducted among a purposeful sample of 34 PWID.

Results: Through May 2018, 122 cases were identified. Males accounted for 71 (58%) cases; 89 (73%) were aged 20-39 years at diagnosis; 80 (66%) were white, and 34 (31%), Hispanic. Most cases reported injection drug use (n=101; 85%). Median CD4+ cell count at diagnosis was 556 cells/uL (range, 1-1470). Molecular analysis aided case identification: 34 (28%) cases had only epidemiological links, 57 (47%) had both epidemiological and molecular links, 31 (25%) had only molecular links to other cases. Three molecular clusters (genetic distance of $\leq 1.5\%$) of ≥ 5 cases were identified; the largest contained 49 and 18 cases.

Stakeholders reported fentanyl use among PWID and absence of heroin in the drug supply, indicated by negative urine toxicology. Fentanyl cost was much lower in Lawrence than other local cities. Syringe services program (SSP) accessibility was higher in Lawrence than Lowell. Available care included medication-assisted therapy and acute detoxification, with referrals from both within and outside the healthcare sector. Providers reported frequent homelessness and incarceration among PWID and observed that stability in a person's life improves care outcomes.

Most PWID reported injecting several times per day. Approximately half used opioids only, one quarter both opioids and stimulants, and one quarter stimulants only. PWID typically knew that area HIV diagnoses had increased, expressed a desire not to share syringes, and acknowledged that sharing injection equipment occurs. All PWID interviewed reported homelessness in the past year; approximately half of females and some males reported exchanging sex for drugs.

Conclusions/Implications: Data indicate several introductions of HIV into this population and recent and rapid HIV transmission alongside detection of longstanding infections. Fentanyl use in northeastern Massachusetts has altered risk behaviors, including increasing injection frequency. In 2016, the City of Lawrence established a state-funded SSP, and in 2018 a privately funded SSP opened in Lowell. MDPH has recently expanded its field epidemiology team to link individuals to care. Services that increase social stability and enable PWID to engage in safe injection practices are essential to reduce HIV transmission.

Abstract 5735 - HIV outbreak related to injection of prescription opioids in Scott County, Indiana: an updated emphasizing the power of partnerships

Author(s): *Joan Duwve, Dennis Stover*

Issue: In January 2015, an outbreak of HIV infection related to injection of prescription opioids was identified in Scott County, Indiana, after 11 infections in people who inject drugs (PWID) were reported that month. At the time of the outbreak, there was little awareness about HIV, limited opportunities for HIV testing and no health care providers trained to treat individuals with HIV or hepatitis C virus (HCV) in the rural county, and syringe exchange programs (SEPs) were illegal in the state of Indiana. To date, 231 individuals with ties to the community have been diagnosed with HIV, with only four diagnoses from January - July, 2018.

Setting: Scott County, population 24,000, in the southeastern corner of Indiana, 40 miles north of Louisville, was ranked lowest of all Indiana counties in the Robert Wood Johnson County Health

Rankings in 2015. Austin, Indiana, an incorporated city of 4,200 people at the northeast edge of the county, was the epicenter of outbreak activity.

Project: The outbreak response included partnerships and collaboration among local, state, academic, and federal entities, and commercial reference laboratories. Together, we built a system to meet people where they are physically and mentally. Outreach included HIV and HCV testing with immediate linkage to treatment services, like syringe exchange and HIV treatment. Care was provided directly to people during outreach, or by facilitating access to care. This outreach created an atmosphere of trust and respect, helping those in need of services engage in a system that had previously seemed inaccessible or unwelcoming.

Results: Measures of success include a local primary care provider who is now treating patients with HIV and HCV; HIV treatment is now provided at the jail; a 75% HIV viral suppression rate for the 231 individuals diagnosed with HIV; a SEP is located in the community and 427 PWID used the SEP in 2017; PEP and PrEP are offered at the SEP and by the primary care provider; over 200 individuals have accessed treatment services for opioid use disorder (OUD) co-located with the SEP; a new inpatient OUD treatment facility for women was opened; advanced practice nurses have joined an HCV ECHO training program and are treating patients for HCV; HAV vaccination rates are high, preventing HAV infections among PWID despite an ongoing outbreak in surrounding counties; admissions for endocarditis at the local hospital decreased by a third from 2013-2014 to 2015-2016, the two years following identification of the outbreak; and only 4 individuals have been diagnosed with HIV during the first six months of 2018. Anecdotally, the public health nurse reports that the social norms among PWID are shifting – it is now socially desirable to be in recovery.

Lessons Learned: Engaging partners across all spectrums facilitated a comprehensive response to an unprecedented syndemic of injection drug use, HIV, and HCV, the magnitude of which had not previously been experienced in rural America. The partnerships were assembled rapidly, but the response has continued to mature over time. Including non-traditional partners (faith communities, elected officials, and criminal justice), was critical to this successful response.

Abstract 5261 - Time-space clusters: a method for identifying localized increases in HIV diagnoses among people who inject drugs

Author(s): *Sheryl Lyss, Chenhua Zhang, Laurie Linley, Alexa Oster*

Background: In 2015, rapid HIV transmission within a rural network of people who inject drugs (PWID) resulted in a large HIV outbreak in Indiana. To increase awareness of vulnerability for rapid HIV and HCV dissemination in the context of the national opioid epidemic, CDC analyzed county-level factors associated with injection drug use and identified 220 counties considered most vulnerable. To identify counties with actual increases in HIV diagnoses among PWID, methods developed by CDC for identifying increases in overall diagnoses in a county can be applied to diagnoses specifically among PWID. We describe geographic characteristics of counties with such increases.

Methods: Analyses included HIV diagnoses occurring in the United States during 2014–2017 and reported to the National HIV Surveillance System through December 2017 with a county of residence at

diagnosis reported and with transmission category reported as injection drug use, either alone or with male-to-male sexual contact. Alerts were defined as increases in the number of 2017 diagnoses among PWID that were both >2 standard deviations and >2 diagnoses above the mean number of annual diagnoses during 2014–2016. Counties were categorized by census region, CDC’s 220 most vulnerable counties, the Appalachian Region, and National Center for Health Statistics’ urban-rural classification scheme (large central metro, large fringe metro, medium metro, small metro, micropolitan, or noncore).

Results: Alerts were detected in 37 counties across 18 states. Eleven counties were in the Midwest, 5 in the Northeast, 15 in the South, and 6 in the West. Three counties were among CDC’s 220 most vulnerable; 2 were in Appalachia. Among all U.S. counties, alerts were detected in 6/68 (9%) large central metro counties, 13/368 (4%) large fringe metro counties, 8/373 (2%) medium metro counties, 4/358 (1%) small metro counties, 4/641 (0.6%) micropolitan counties, and 2/1335 (0.1%) noncore counties. In 2017, these counties reported 383 diagnoses among PWID (median, 6; range, 3–46), accounting for 18% of diagnoses nationally included in this analysis; 152 (40%) diagnoses were in large central metro counties; 136 (36%), in large fringe metro counties; 57 (15%), in medium metro counties; 13 (3%), in small metro counties, 16 (4%), in micropolitan counties; and 9 (2%), in noncore counties.

Conclusions/Implications: Time-space analysis identified geographically dispersed counties of varying levels of urbanicity with statistically significant increases in HIV diagnoses among PWID; urban counties had proportionally more alerts and accounted for more diagnoses than rural counties. This method complements the vulnerability assessment by providing a method that health departments can employ in a timely manner to detect aberrations in diagnoses among PWID in a county or relevant groupings of adjacent counties. Because PWID experience many barriers linking to prevention and treatment services for HIV and substance use disorders, outreach to PWID with new diagnoses is critical. Not all increases in diagnoses detected will represent actual outbreaks or transmission clusters; health departments can use existing surveillance, partner services, or other data — including indicators for drug use — to assess their level of concern and the types of interventions needed to reduce likelihood of rapid HIV dissemination among PWID.

Storytelling

Session ST01 - Humanity n Humility

Room: Learning Center (Hyatt Regency Atlanta)

Abstract 6007 - Queer Eye for the Straight STI: a shock-and-awe approach to LGBTQ+ health education

Author(s): *Kyan Lynch*

Set the Scene: I am a queer trans MD who provides training, capacity building, and technical assistance to health care professionals (HCP) and Health Departments nationally on topics related to HIV/STD/VH prevention through the University of Rochester Center for Community Practice, a CDC-designated Capacity Building Assistance (CBA) Program. This often includes trainings focused on lesbian, gay, bisexual, transgender, and queer (LGBTQ) health. My identity makes me well suited for this role. I offer my perspective as a queer trans man to audiences grappling with the concept of gender identity. I also employ traditional teaching modalities, incorporating data, role-plays, and activities as appropriate.

However, there are times when, despite my best efforts, I know that I am not getting through. I can force participants to memorize data. I can demand that they regurgitate stories. I can lay bare my deepest emotional burdens. I can do all of this and still not make them feel. With this population, you must feel before you can truly understand.

Experience: One day, in a moment of catharsis and inspiration, I had an idea. Asked to create an innovative exhibit for a STD-focused conference, I decided that it was time for straight cisgender (SC) providers to see how the other half lives. I imagined a world in which LGBTQ+ individuals predominate. I invented a clinic where LGBTQ+ patients receive stellar care, and SC people are an afterthought. Then, I had some fun. Drawing from real experiences, I wrote 2 scripts. One script detailed a SC woman's visit to the clinic for complaints of vaginal discomfort, and the other a SC couple requesting birth control. Gleefully, I wrote the lines for the role I would play: a provider deeply uncomfortable with heterosexuality, and unwilling to provide birth control without a letter of support from a licensed mental health provider. I named the exhibit "Queer Eye for the Straight STI."

Lessons Learned: I expected the exhibit to be entertaining. I did not expect it to be transformational. As I acted out my part across from volunteer "patients", I watched my words take effect. I saw the participants progress through distinct emotional stages: amused, bemused, frustrated, angry, outraged. Even though they held the script, they seemed surprised by every line. As my "patients" awoke to an unpleasant reality, I, too, experienced an epiphany: these SC HCPs have no idea what it feels like to be an LGBTQ+ person seeking medical care. For the first time they watched their medical provider fighting back disgust. For the first time they were demeaned, dehumanized, and demoralized. For the first time they were refused care. For the first time, they felt, and so for the first time, they understood.

Implications: LGBTQ+ patients are not going away. If anything, more LGBTQ+ folks are coming out and living authentically. As a result, all HCPs will encounter LGBTQ+ patients, and must be prepared to offer affirming care. Traditional educational methods are not sufficient. Instead, we must lend a Queer Eye to providers so that they can feel.

Abstract 5248 - Defining HIV

Author(s): *Melissa Curry*

Set the Scene: I was 24 years old, had a 5-year old daughter, just got married on September 1 2009, was in my last semester of nursing school and was 8 weeks pregnant. This was supposed to be the best time of my life but little did I know that my world would soon be turned upside down from a simple test that came back positive.

Experience: I was diagnosed with H.I.V. on September 29 2009. On October 14 2009, I was diagnosed with full blown AIDS virus with a CD4 of 126 and a Viral Load of 383,000. My world turned upside down when I was diagnosed. At the time, I felt that it was the worst day of my life. I was told by several physicians to terminate my pregnancy because of the high risk of transmission due to my viral load being so high with a limited amount of time but I struggled with terminating because my instinct told me the baby and myself would be okay. I lost over 20lbs in a matter of weeks, I was skinny, frail, and malnourished, had no appetite, constantly vomiting, developed a horrible skin rash, I lost my job, and

struggled through my final semester of school. My marriage was in shambles because I was positive and my husband was negative. I was up for eviction, almost lost my car, utilities were up for shut-off, and I only had support from my mom and sister. In the end, I had a beautiful, healthy baby girl and had I not listened to my instinct, I would have missed out on one of my greatest blessings.

Lessons Learned: I learned about the power of your mind because prior to my diagnosis, I was not sick, I had no symptoms but the moment that I found out I was sick, my symptoms developed.

I also learned about the importance to get tested in which has inspired me to reach out to others and educate and empower them to know their status because had I tested on a regular basis and had knowledge of the disease, I could have reduced my risk of contracting the disease and could have caught it early on before it progressed to AIDS.

Knowing what it's like to be sick, allowed me to be a better nurse and advocate for my patients. It allowed me to know the importance that we as health care professionals often forget, and that is to meet the patient where they are.

Implications: The stigma is worse than the disease itself. If we get rid of the stigma, we can move closer to "No New Infections."

Your disease does not define you. You define the disease. You can allow it to make you or break you but its truly up to you. I have been able to take the most stigmatized disease and turn it into my greatest asset.

You can take any problem or situation that seems hopeless and run with it and allow it to propel you into greatness.

Abstract 6086 - ACT 1: sharing culture through performance art

Author(s): *Benjamin Ignalino*

Set the Scene: Role: Program Coordinator of prevention program in San Diego, CA.

Background of story: This is a story of how performance art can build cultural understanding.

Experience: October 2005 and I was planning our first Talent Show. It took three months of curating talents and working with vendors. This event was no different and listed a roster of YMSMC talent ranging from poetry, dance, and live singing. This year's cheeky theme was Back to School.

As with most community events, things do not always go as planned. One particular act; a singer, was still undecided about what song he wanted to perform. He was going back and forth with standards from Mariah to Beyoncé. He agreed to have his song ready for me to organize the day before the event. The Talent Show opened and each act ran smoothly. As I was preparing to go on stage, the young man ran demanded for a song change. I obliged and asked him for his CD so I can get it to the sound team. He replied, "I am going to do this a capella." I thought, "Oh lord, please help him."

I walked on stage and introduced the young man and motioned to the sound operator that this would be a song sung a capella. He said hello to everyone and told the audience that this song was his grandmother's favorite. He added that this is a tribute to her. The whole room waited in anticipation of what he would sing and then he began...

"Southern trees bear a strange fruit
Blood on the leaves and blood at the root

Black bodies swinging in the southern breeze
Strange fruit hanging from the poplar trees...”

He ended by holding a note and stood quietly as we clapped. He walked backstage where I met him. He asked me how it went and I replied, “just as it should have...” He said, “my grandmother listened to that song all the time. She lived and survived a lot of things. When I told her I was gay, she told me that’s ok. That’s not the biggest thing you gotta deal with in this here life.” I replied, “She was right and she would have been proud of what you did on that stage tonight.”

Lessons Learned: There are many things passed on to us from previous generations that we don’t truly understand in the moment it is shared. This song, his grandmother, and that moment allowed those in the audience to get a glimpse of both struggle and perseverance. I learned that who he is was formed years before we met and my interactions with him could impact who he will be in the future.

Implications: I would like to challenge service provider to be creative and design activities that allow clients to express themselves and share experiences. Provide a space to be vulnerable and powerful to tell their own story. The honesty that comes from it can build something incredible with your clients.

Abstract 5851 - Rediscovering strength & resiliency: empowering the voices of women in HIV

Author(s): *Vanessa Jacuinde*

Set the Scene: Growing up and being raised by my single mother, she modeled what it meant to be strong and independent and taught me that women are capable of doing so much more than they often get credit for. My lived experiences and my background in Women’s Studies & Public Health paved the way for me to work to address health inequalities for women. Working at APLA, I had the opportunity to facilitate three focus groups for women aging with HIV.

Experience: Going into the focus groups I felt confident handling the heavy topics that often come up in HIV: racism, fear, stigma & discrimination. As the focus groups progressed and women shared their experiences, I started to feel overwhelmed with contradicting feelings; grief and sadness for what these women had endured but also happiness and inspiration as a result of their resiliency. I was upset with myself for being shocked and amazed at their strength because it was proof that I had misplaced a conviction that I’ve believed my entire life; women are strong and resilient. This moment was also a testament to a reality of HIV that I had unconsciously overlooked- women, especially women of color, are affected by HIV and their voices are not part of the overall story of HIV.

Lessons Learned: This experience reinvigorated my passion for women’s well being and for addressing health & gender inequalities but the biggest lesson I received was realizing I had lost sight of women’s resiliency. It was such a humbling experience to know that I had only seen the tip of the iceberg when it comes to resiliency in women. I was naive to think that I knew it all when it comes to women’s strength and empowerment. This moment in my career made me realize there’s still a lot of work that needs to be done to carve out a space for women’s stories to be told and heard.

Implications: Much like our great leaders in the movement of HIV have passed on the baton to new leaders, these women’s stories are the baton I’m bringing with me as I move forward to create

significant change in the field of HIV. As a young provider in the field, I need to acknowledge that I don't have all the answers and that I should continue to bring forth my own questions about the lack of space for women in HIV. Women have a strong drive to help each other and their communities thrive. Their oral testament & resiliency are significant resources that should have an active role in our fight to end HIV.

Abstract 5842 - Finding my voice

Author(s): *Shirley Selvage*

Set the Scene: Growing up in a rural community, I thought I was safe. HIV just was not an issue in Guin, AL. It was in bigger cities, other places. It was not my problem, until 1998 when I received the devastating news that I was HIV positive. A part of my life stopped. I did not understand how this could happen to me. I went through years of experiencing stigma and discrimination in my community.

Experience: My life went into a downward spiral, complete with isolation from family and friends and several overdose attempts. I felt that my life had no purpose. The only support I received was from my providers at the 1917 Clinic, two hours away from my home.

Lessons Learned: Eventually, with the support and encouragement of the 1917 team, I got involved as a volunteer. I started sharing my story in small settings and eventually ventured out into the community. After 16 years of living in silence, I discovered my voice, my purpose. I felt empowered by sharing my story and wanted others to experience that empowerment as well.

Implications: While interning at the 1917 Clinic I developed a personal storytelling workshop to help others to find their voice. I now work at the clinic and have had the opportunity to provide a safe and encouraging place for others to find their voices and share their stories as well. I have witnessed their empowerment and together we are breaking through the stigma barrier. In 1998, I thought my life was over. Twenty years later, I have a BS in Community Health and Human Services, a career in serving others living with HIV, and am now pursuing my Master degree in Community Health.

TUESDAY, MARCH 19 | POSTER SESSION A | 12:30 PM – 1:30 PM

AP01

Abstract 5254 - Barriers and incentives for HIV testing among women in fifteen Brazilian correctional facilities: a cross-sectional survey

Author(s): *Deborah Smith, Carl Kendall, Ligia Kerr, Raimunda Hermelinda Macena, Rosa Maria Mota*

Background: Studies have shown that more than half of the people who are living in prison and are infected with HIV were not aware of their infection. The difficulties in implementing programs to promote health in prisons and reduce the risk of HIV transmission are still precarious, and often are related to the lack of political will, concerns about security and stigma. There is a need to better understand the factors influencing lack of testing for HIV with the aim to contribute to the decrease of the number of undiagnosed people in prison. Therefore, this study aimed to identify the barriers and incentives for HIV testing among women prisoners in Brazil.

Methods: A cross-sectional study was carried out among 1,327 women in 15 female penitentiaries in 9 Brazilian states, selected through multiple-stage sampling, between January 2014 to December 2015. The sample size was calculated based on an expected STD of 30%, with a confidence level (α) of 95%, the power teste of 60%, assuming 10% of refusal. The analysis was performed using SPSS® 22.0.

Results: Sample was diverse. Most prisoners were young, self-identified as mulatto or black, had relatively low levels of education, and were single. Regarding HIV testing, 84.9% of sample had tested previously for HIV but only 62.9% of the sample were tested during incarceration. Barriers to testing for HIV during the incarceration included lack of information about the importance of the HIV test, fear about the results and fear to be discriminated inside the prison. The incentives to testing for HIV included have easy access to the test inside the prison, be able to have the results in the same day and receive health support.

Conclusions/Implications: Even with national and international guidelines for conducting effective way to HIV testing in the prison population, there are still many difficulties to implement these recommendations and to perform the HIV test effectively in Brazilian women's prisons. Strategies for increasing adherence to HIV testing in prison should include health education, counseling, confidentiality regarding test results, and access to treatment.

AP02

Abstract 5255 - Does HIV incidence and linkage to care outcomes in emergency departments of Houston, Texas mimic national demographic disparities?

Author(s): *Mandy Hill, Samuel Prater, Marylou Cardenas-Turanzas, Jeffrey Campbell, Marlene McNeese*

Background: Findings of a Houston-based HIV testing program with emergency departments (EDs) reported HIV incidence of 0.6%. ED clinicians and public health practitioners are consistently in contact with persons at high risk for HIV. We characterized the newly diagnosed HIV cases at Harris County, Texas.

Methods: 564,221 records with 62 variables were reviewed in assessment of HIV incidence data and linkage to care outcomes for individuals tested through EDs, 2010-2014. A vetted codebook was used to assess differences in city-level data, including zip code, race, ethnicity, and gender using IBM SPSS v24.0. Data on income was gathered using zip codes of cases' place of residency and the US Census Bureau 2011-2015 American Community Survey 5-year estimates.

Results: Of 563,473 (99.9%) persons tested for HIV in local EDs, 1,301 were new HIV positive cases. 52.5% were African American (AA), 45.7% were White, and 32.9% were Hispanic ($p \leq .001$). Of those tested, 45.3% attended a follow-up medical appointment. 67.3% of new cases were AA women and 68.2% of those who did not attend a medical appointment were AA women. Among AA women 72.1% lived in households where the annual median income was between \$22,242 and \$31,902 (median income in Harris County: \$54,457) [$p = .01$].

Conclusions/Implications: Socio-demographic-based disparities exist among newly diagnosed persons with HIV in the Houston area; however, there is a difference in populations affected. Locally, the disproportionate burden of disease is on AA women. Tailored prevention strategies are needed in local ED environments to address the needs of AA women, a vulnerable population at most risk for new HIV infections.

AP03

Abstract 5336 - Self-reported HIV testing among U.S. transgender men and women: a systematic review and meta-analysis

Author(s): *Jeffrey Becasen, Marc Pitasi, Christa Denard, Mary Mullins, Darrel Higa, Theresa Sipe*

Background: The U.S. transgender population is disproportionately affected by HIV infection. Transgender people also face numerous potential barriers to HIV testing such as socioeconomic marginalization, stigma and discrimination, and lack of gender affirming-medical care that can hinder routine testing. However, limited data in the Behavioral Risk Factor Surveillance System exist to monitor testing uptake in this population. This systematic review provides additional estimates of self-reported lifetime HIV testing and recent HIV testing among transgender persons living in the United States.

Methods: We searched MEDLINE, EMBASE, PsycINFO, CINAHL, and Sociological Abstracts online databases for eligible reports published between January 2006 and June 2017 and CDC's HIV Prevention Research Synthesis database through May 2017. Eligible reports were U.S.-based studies that included transgender persons (TG) with their data reported separately, reported HIV status, and self-reported measures of HIV testing. Studies were double-coded and quality assessed using a five-point scale (≥ 3 =high quality) with discrepancies resolved by consensus. Random-effects models were used to calculate pooled prevalence of self-reported ever testing and recent (past year) testing for transgender women and men.

Results: We identified 15 eligible studies. All studies measured participants' testing behaviors using subjective self-report measures. Thirteen studies with 14 effect sizes reported ever testing for HIV. Seven studies with nine effect sizes reported HIV testing in the past year. Nine (60%) studies received a high-quality score. Study sample sizes varied from eight to 1,229 and about half (53%) of the studies

were comprised of mostly racial/ethnic minorities. The prevalence of self-reported ever testing was 69.0% (95%CI: 44.7, 86.0) among transgender women and 88.8% (95%CI: 88.8, 97.4) among transgender men. The prevalence of self-reported recent testing was 64.8% (95%CI: 49.6, 77.5) among transgender women and 56.4% (95%CI: 40.0, 71.6) among transgender men. Self-reported ever and recent testing did not significantly differ between transgender women and men ($p=0.45$ and $p=0.18$, respectively).

Conclusions/Implications: Among both transgender women and men, self-reported HIV testing prevalence was higher than previous population-based estimates (transwomen=37.5% ever tested; 11.7% recent test; transmen=36.6% ever tested; 12.4 recent test), but lower than CDC's recommendation of annual testing of persons at risk for HIV infection. A limitation to this study is the inclusion criteria were developed to focus on HIV status, which may have excluded studies that reported HIV testing behavior, but did not report on HIV status. The reliability of the self-reported measure and representativeness of the data cannot be generalized to the entire U.S. transgender population and both are reflected in the less than optimal average quality score. Another limitation is that the analytical sample might have included respondents who already have HIV or are not at risk for HIV and would be less likely to get tested for HIV. Data that better reflect the transgender population and are measured using objective (i.e., medical record review) rather than subjective (i.e., self-report) measures are needed to monitor HIV testing in transgender populations. Efforts are needed to ensure that transgender women and men are tested in accordance with CDC's recommendations.

AP04

Abstract 5360 - Sexual risk-related behaviors and referral to sexual health services among transgender high school students

Author(s): *Jack Andrzejewski, Sanjana Pamapati, Michelle Johns, Anna Sheremenko, Catherine Lesesne, Catherine Rasberry*

Background: Transgender adolescents experience increased risk for negative sexual health outcomes such as HIV and other sexually transmitted diseases (STDs), compared to their cisgender peers. The purpose of this study was to compare sexual behaviors, referral to sexual health services by school staff and HIV testing and STD testing between transgender and cisgender students.

Methods: Using data from a cross-sectional, self-administered survey of students ($n=10,231$) from seven high schools in a large, urban school district, we used propensity score matching to create two comparable samples of transgender and cisgender students, one for all students and one for sexually experienced students. To create the matched dataset of all students, we matched based on age, race/ethnicity, sex, and school using the nearest neighbor method with replacement with 2 to 1 matches. To create the matched dataset of sexually experienced students, we first limited our full data set to those who had ever had sex. In order to retain as many controls as possible while still improving balance, we conducted 5 to 1 nearest neighbor matching with replacement and exact matching on school and race/ethnicity. After matching, we used logistic regression to model how gender identity (i.e., coded 1 for transgender and 0 for cisgender) predicted having ever had sex, condom use at last sex, referral by school staff in the past year for HIV testing or treatment, referral by school staff in the past year for STD testing or treatment, referral by school staff for other sexual health services, having ever tested for HIV and having ever tested for STDs. The outcome ever had sex used the all student matched

sample and the remaining outcomes used the sexually experienced matched sample. Models were adjusted for age, sex, race/ethnicity, and school.

Results: Balance improvements were achieved for all matching covariates and standardized mean values did not exceed the 0.1 threshold. The full matched sample consisted of 542 students including 186 transgender students. The sexually experienced matched sample consisted of 522 students including 94 transgender students. The majority of students were ages 15 and older and identified as Hispanic/Latino or Black/African American in both matched samples. Transgender students were more likely to have ever had sex (AOR=2.40, 95% CI 1.62-3.57), less likely to have used a condom at last sex (AOR=0.47, 95% CI 0.29-0.73), and more likely to have been referred for HIV testing/treatment (AOR=3.42, 95% CI 1.78-6.45), STD testing/treatment (AOR=11.07, 95% CI 4.39-30.72), and other sexual health services (AOR=3.40, 95% CI 1.82-6.27) than their cisgender peers. Gender identity was not significantly associated with ever having tested for HIV or STDs.

Conclusions/Implications: Findings underscore the need for a more in-depth understanding of risk perceptions held by this population. Given less condom use and more referrals for HIV/STD testing, one might expect proportionately more transgender students to have ever tested for HIV/STDs than cisgender students. Our findings contradict this assumption. Research is needed to understand if and when school staff referrals for sexual health services are effective at increasing transgender students' use of those services.

AP05

Abstract 5412 - Previous HIV testing is not associated with greater knowledge about HIV/AIDS and HIV testing

Author(s): *Roland Merchant, Sarah Marks, Melissa Clark, Michael Carey, Tao Liu*

Background: The Centers for Disease Control and Prevention (CDC) recommends that HIV/AIDS and HIV testing information be provided at every testing encounter. The five CDC-recommended topics are: HIV/AIDS basics; HIV transmission; prevention; testing procedures; and test results interpretation. It is not known how often this information is provided, how well it is learned, and how long it is retained. If this information does not need to be repeated at every HIV testing encounter, or if only portions need repeating, testing encounters could be streamlined. For this study, we examined the association of prior and past year HIV testing with HIV/AIDS and HIV testing knowledge among adult patients undergoing HIV testing in the emergency department (ED). We hypothesized that any prior HIV testing, especially if within the past year, would be associated with greater knowledge.

Methods: We recruited a random sample of 18-64-year-old, HIV uninfected, English- or Spanish-speaking patients at four US EDs in Alabama, California, Ohio, and Rhode Island. Participants completed a 25-item assessment of their HIV/AIDS and HIV testing knowledge based on the five topics CDC recommends (five items/topic). The total possible scores on the assessment ranged from 0 (all wrong answers) to 25 (all correct), and each of the five CDC topic scores ranged from 0 to 5. Multivariable linear regression models examined if either (a) any prior HIV testing and (b) testing within the past year was associated with higher total scores on the HIV/AIDS and HIV testing knowledge assessment. These associations also were examined separately for the five CDC recommended topics.

Results: The study sample included 679 Spanish and 660 English speakers; 63% were female; 47% were black; their median age was 44 years-old (IQR: 34-53); and they had a median of 12 years of formal education (IQR: 9-12). Of the 1,339 participants, 74% previously had been tested for HIV (59% as part of a medical evaluation) and 31% tested within the past year. After adjusting for age, language spoken, gender, race/ethnicity and years of formal education in the multivariable models, HIV/AIDS and HIV testing knowledge assessment scores were similar for those with any prior vs. no prior HIV testing (15.3 vs. 15.1, $p=0.64$), and for those tested within the past year vs. over one year ago (15.5 vs. 15.5, $p=0.82$), among those previously tested. For each CDC-recommended topic, model-adjusted scores also were similar for any prior vs. no prior HIV testing and for past year vs. testing more than one year ago, respectively: HIV/AIDS basics (3.4 vs. 3.4, $p=0.57$ and 3.5 vs. 3.5, $p=0.85$); transmission (3.8 vs. 3.7, $p=0.12$ and 3.8 vs. 3.7; $p=0.20$); prevention (3.4 vs. 3.4, $p=0.57$ and 3.3 vs. 3.2, $p=0.36$); testing procedures (2.4 vs. 2.5, $p=0.20$ and 2.6 vs. 2.6, $p=0.38$); and results interpretation (2.4 vs. 2.4, $p=0.87$ and 2.3 vs. 2.4, $p=0.31$).

Conclusions/Implications: CDC-recommended HIV/AIDS and HIV testing information is not being conveyed properly, learned, or retained among those who have been tested for HIV. Further efforts appear necessary to convey this information at time of testing to ensure longer term retention.

AP06

Abstract 5491 - HIV status and risk factors among underserved populations in south Los Angeles

Author(s): *David Lee, John Forbes*

Background: The HIV testing program at Charles Drew University of Medicine and Science in South Los Angeles began in 2008 and has tested almost 16,000 men and women, mostly African American and Latino. In South Los Angeles, 16 out of every 100,000 persons is HIV infected. This is in comparison to 13 out of every 100,000 persons for all of Los Angeles County. Our HIV testing program has successfully captured a higher percentage of HIV positive individuals than the county as a whole. The objective of this study is to describe the sero-prevalence of HIV and the demographics and the risk profiles of individuals testing for HIV at the Charles Drew University of Medicine and Science storefront and mobile testing sites in South Los Angeles. In addition, we describe trends of HIV positive results and risk profiles over time.

Methods: This is a secondary analysis of retrospective, de-identified demographic data, and anonymous HIV testing results collected between in 2011 and 2017 of individuals seeking HIV testing in south Los Angeles. Descriptive analyses include total number of individuals testing and percentages for categorical data and mean and standard deviation for continuous variable data. Bivariate analyses were performed and presented by demographic and risk profile characters.

Results: Between 2011 and 2017, nearly 16,000 individuals were tested for HIV. Of those testing, 7916 (49%) were male, 8019 (50%) were female, and 36 (>1%) were transgender. At least 5304 (34%) were Latino, and 9231 (57%) were African American, and 1743 (6%) were other groups. There was an overall total of 425 cases of HIV detected in both our storefront and mobile testing units, with 353 (83%) males, 64 females (15%), and 9 (2%) transgender, with an overall HIV positivity rate of 2.7%. However, our storefront testing unit alone yielded a positivity rate of 5%. Overall, higher sero-prevalence rates existed among African Americans (7%), men (6%), transgenders (19%), and Black and Latino MSM (10%).

Conclusions/Implications: Sero-positivity rates in South Los Angeles (SPA 6) are higher than all other areas of Los Angeles County, except Central LA and West Hollywood (SPA 4). Additionally, sero-positivity rates for those testing at Charles Drew University are higher among African Americans, transgenders, and black MSM, than other groups. Our storefront testing site has a higher positivity rate than LA County as a whole, pointing to the need for additional resources to encourage individuals to be tested more widely and more frequently to reduce HIV infection rates in south Los Angeles.

AP07

Abstract 5555 - Rate of HIV testing in identified key population: results from the National Health and Nutrition Examination Survey 2009-2016

Author(s): Chamberline Ozigbu, Sunny Ibeneme, Eric Chinaeke, Bankole Olatosi

Background: Human Immunodeficiency Virus (HIV) testing is a critical component of the 90-90-90 goal for ending the HIV epidemic. Estimates show that about 1.1 million people are living with HIV in the United States with approximately 166,000 undiagnosed. Those who are undiagnosed contribute to 30% of all new infections. Men who have sex with men (MSM) and injection drug users are key populations responsible for most of the new infections. To decrease new infections, knowledge of HIV status is crucial in these identified groups to facilitate treatment, care and support, targeted to reduce morbidity, mortality and consequently improve quality of life among them. Evidence from the Expanded Testing Initiative (ETI) established that focused HIV testing initiatives have a positive effect in disproportionately affected populations like MSM. However, recent studies have found otherwise, thereby suggesting more research in this area. We examined the rate of HIV testing by sexual orientation using a population-based survey.

Methods: Pooled cross-sectional data from the National Health and Nutrition Examination Survey (NHANES) 2009-2016 was utilized in this study. Participants were restricted to adults aged 18-64. Appropriate weights were applied to account for multistage sampling in NHANES. Multivariate logistic regression was used to estimate parameters. All analyses were conducted using SAS software (version 9.4).

Results: Out of 21,590 respondents, only 35.40% tested for HIV. HIV testing was prevalent among non-Hispanic whites (60.9%), age group 35-54 years (49.8%), individuals in high-income status (40%) and those with an associate degree (35%). After adjusting for other variables, we found that individuals with <12 grade education were less likely to test for HIV than college graduates [Odds ratio (OR), 0.73 (95% confidence interval (CI): 0.55-0.97)], age group 35-54 years were more likely to test for HIV than age group 55-64 [OR, 1.55 (95% CI: 1.13-2.01)], non-Hispanic Blacks were more likely to test for HIV than non-Hispanic Whites [OR, 2.5 (95% CI: 2.08-3.24)], MSM [OR, 10.1 (95% CI: 4.89-20.8)], and bisexuals [OR, 2.21 (95% CI: 1.04-4.68)] were more likely to test for HIV than heterosexuals.

Conclusions/Implications: The goal of the national HIV/AIDS strategy is to increase the number of people who are aware of their HIV status. Our study found high rates of HIV testing among MSM and bisexuals. This result is in tandem with previous studies that showed increased HIV testing among MSM. Policies that promote focused HIV testing in disproportionately affected populations, like the EPI are

encouraged. This will facilitate the attainment of 90-90-90 goal and support the march towards ending the HIV epidemic.

AP08

Abstract 5634 - Strategies and challenges in recruiting, retaining and meeting the needs of transgender youth in HIV prevention and care trials

Author(s): *Rob Stephenson, Keith Horvath*

Background: Transgender youth (ages 15-24) experience some of the highest HIV rates in the United States, and experience a number of inter-personal and structural barriers that may limit their engagement in HIV testing, prevention and care. These barriers may also limit transgender youth's ability to provide critical input on the design and content of interventions that are meant to be tailored to their needs, as well as their availability to be recruited and actively participate in intervention trials. Here we present the lessons learned from a recently-completed trial (Project Moxie) with transgender youth, describing the methods used to recruit and retain a diverse sample of transgender youth.

Methods: Project Moxie is a recently completed pilot randomized control trial (RCT) of 200 transgender-identified youth ages 15-24, recruited through online social media across the US. The intervention involves home-based HIV testing coupled with video-chat counseling, and is intended to increase skills around repeat HIV testing.

Results: Project Moxie enrolled a sample of 200 youth from June 2017-June 2018 with approximately equal numbers of transfeminine (n=68), transmasculine (n=67) and gender non-binary (n=65) youth. This was achieved by a multi-modal social media recruitment approach, working closely with the transgender community to design and promote recruitment. Recruitment and retention rates varied across social media platforms: Facebook generated the highest number of transgender youth who were recruited (n=69), but had the largest loss to follow-up (n=30). In contrast, Twitter and Instagram yielded lower recruitment (n=5 and n=22, respectively) but higher retention (n=4 and n=9, respectively). Referrals from friends yielded both high recruitment (n=58) and high rates of retention (n=32). Costs for each of the recruitment methods are described, in addition to comparing the rates of recruitment across platforms: Facebook had a faster pace of recruitment than other forms of social media, but participants were more likely to be lost to follow-up.

Conclusions/Implications: Lesson learned from recruiting and retaining transgender youth in HIV prevention and care trials may inform the future design and implementation of both HIV research and programming. Central to the success of including the transgender community in HIV prevention and care trials is including transgender voices at every stage of the research design and implementation. The lessons learned from the implementation of these trials may be extended to HIV research with other vulnerable groups.

AP09

Abstract 5664 - Assessing HIV testing coverage among patients diagnosed with sexually transmitted diseases, STD Surveillance Network, 2017

Author(s): *Eloisa LLata, Jim Braxton, Preeti Pathela, Christina Schumacher, Roxanne Kerani, Kim Toevs, Juli Carlos-Henderson, Robert Kohn, Sonya DuBernard, Laura Tourdot, Heather Elder, Lizzi Torrone*

Background: CDC guidelines recommend all persons in the United States aged 13-64 be screened for HIV infection at least once. Individuals seeking treatment for sexually transmitted diseases (STDs) are at increased HIV risk and should be screened more frequently. We sought to determine the prevalence of HIV screening among STD clinic patients diagnosed with chlamydia, gonorrhea and/or primary and secondary (P&S) syphilis and identify reasons for lack of screening.

Methods: A retrospective assessment was conducted among STD clinics within the STD Surveillance Network, a sentinel surveillance system comprising 10 US jurisdictions (Baltimore, MD (2 clinics); Los Angeles, CA (12 clinics); Miami, FL (1 clinic); Boston, MA (1 clinic); Minneapolis, MN (1 clinic); Multnomah County, OR (1 clinics); New York City, NY (8 clinics); Philadelphia, PA (2 clinics); San Francisco, CA (1 clinic); Seattle, WA (1 clinic)). Participating clinics offer HIV testing services and collect data on patient demographics, lab and self-reported HIV testing and results, STD diagnoses, and risk behavior information as part of routine clinical care. Visits by patients not known to be HIV positive, diagnosed with chlamydia, gonorrhea or P&S syphilis during 2017 were included; patients could be included multiple times if they had >1 visit with a STD diagnosis and the visits were ≥ 30 days apart. Using an inverse variance weighted random effects model to adjust for heterogeneity across jurisdictions, we estimated the prevalence \pm standard error of HIV screening based on evidence of an HIV test ± 14 days from the visit with an STD diagnosis, and the proportion of patients screened who were HIV infected. Reasons for not testing were examined.

Results: In 2017, 123,210 unique patients made 211,012 visits to the 30 STD clinics. After excluding visits of patients ($n=5,007$) known to be HIV positive, we identified 26,721 visits associated with a chlamydia, gonorrhea or P&S syphilis diagnosis. Of these, 19,209 had an associated HIV test within ± 14 days. The overall adjusted estimate of HIV screening coverage was $68.4 \pm 4.8\%$. HIV screening coverage was higher in men who have sex with men (MSM) ($72.0\% \pm 2.1\%$) when compared to men who have sex with women (MSW) ($62.8 \pm 6.6\%$) and women ($60.3\% \pm 8.2\%$). A total of 232 ($0.8 \pm 0.1\%$) persons with HIV infection were identified and $78\% \pm 5.4\%$ were among MSM. Of the eight jurisdictions that provided reasons associated with not screening for HIV ($n= 7076$), $48.4 \pm 6.9\%$ had evidence of a recent HIV test in the last three months (self-report or prior lab test in the STD clinic), $21.8 \pm 5.9\%$ had documented patient refusal with no recent test reported, and $29.7 \pm 8.8\%$ did not have documentation in the SSuN dataset.

Conclusions/Implications: Our results revealed a moderate HIV screening rate among patients diagnosed with an STD, with higher screening coverage in MSM. Patient refusal and recent HIV screening are reasons that a sizable portion of patients are not screened for HIV. STD clinics continue to be an important healthcare setting to identify persons who are infected with HIV.

AP10

Abstract 5815 - HIV self-testing attitudes within a sports-based HIV prevention program framework in Nairobi, Kenya

Author(s): *Caroline Vrana, Danielle Stevens, Enouce Ndeche, Jeffrey Korte*

Background: HIV remains a major health problem in sub-Saharan Africa, and a combination of approaches are required to move toward elimination. One innovation that may help break down barriers to testing is HIV self-testing kits. Sports-based HIV prevention programs have shown overall strong evidence for positive effects on HIV-related knowledge, stigma, communication, self-efficacy, and risk behaviors.

Methods: Therefore, we created and conducted anonymous cross-sectional surveys assessing HIV self-testing knowledge and attitudes among participants 14 and older who attended four sports-based HIV prevention tournaments in Nairobi, Kenya between April 2016 and April 2017. Bivariate analysis using chi-square tests for categorical variables and Cochran-Armitage tests for trends were conducted (p -value <0.05 for significance).

Results: Overall, 1,029 high-quality responses were received (123 from Maringo, 312 from Mukuru, 433 from Mukuru kwa Ruben, and 161 from Dandora). The participants were, on average, 21 years old, male (60.1%), culturally identified as Kamba, Kikuyu, Luhya, Luo, or other, Catholic (47.6%) or Protestant (22.2%), unmarried (78.8%), with no children (77.3%). The majority of participants felt it was against their cultural or religious beliefs to have premarital sex (55.9%), but majority of participants did not feel it was against their beliefs to use condoms (71.2%). Most people had either 0 (39.4%), 1 (21.4%), or 2-5 lifetime sexual partners (21.9%), and 13.9% of participants had ever had a sexually transmitted infection (STI) other than HIV. The vast majority (84.6%) of participants have ever tested for HIV, while 65.7% of participants either tested or were planning to test for HIV that day. HIV prevalence was 10.9% (ranged from 7.1% to 16.9%). For the four HIV self-testing knowledge and attitudes variables, almost half of participants had heard of HST (48.5%), while 70.4% would want to test for HIV in private (assessing willingness to use HST). The majority of participants (87.6%) were comfortable talking about HIV testing with friends and family, and 84.1% would be interested in passing out HST kits to friends and family. We found that participants who had heard of HST were more likely to be male, older, married, with children, and have more sexual partners. Those who wanted to use HST were more likely to be male, older, married, with children, Protestant or not religious, and have more sexual partners. Those who were comfortable talking about HIV testing with their friends and family were more likely to be older, married, and with children. Finally, participants who would be willing to pass out HST kits to friends and family were more likely to be older, Catholic or Protestant, have more sexual partners, and report that both premarital sex and using condoms is against their beliefs.

Conclusions/Implications: These data show that HIV self-testing was found to be an important and novel way to potentially increase testing rates in this population. This poses a unique opportunity for an intervention in these communities aimed to increase knowledge of HIV self-testing, and to increase HIV testing rates of acquaintances of this population using HIV self-testing kits.

AP11

Abstract 6005 - Violence victimization, suicide attempt and HIV testing vary by NHAS HIV risk profile among male high school students who have sexual contact with males

Author(s): Heather Clayton, Norma Harris, Jack Andrzejewski, Mike Underwood

Background: One of the aims of the National HIV/AIDS Strategy (NHAS) is to reduce the percentage of adolescent sexual minority males (SMM) who have engaged in HIV risk behaviors by at least 10% from the 2015 national baseline of 35.2%. This aim was achieved in 2017 when 29.1% of adolescent SMM reported HIV risk behaviors. The impending public health challenge is to ensure continual progress in protecting this vulnerable population by strengthening prevention and programmatic efforts. Sexual minority youth are at increased risk for several risk behaviors, including violence and suicidality when compared to their heterosexual peers. However, we have limited information on health behavior differences by NHAS risk profile. This study aimed to compare violence victimization, attempted suicide and HIV testing status among SMM students who have and have not engaged in HIV risk behaviors.

Methods: Data for this study included the 2015 and 2017 cycles of the national Youth Risk Behavior Survey, a nationally representative, cross-sectional survey conducted among students in grades 9-12. After combining data for the 2015 and 2017 surveys, analyses were restricted to male students who engaged in sexual contact with males only or with both males and females (SMM) (n=484). These students were then dichotomized by NHAS HIV risk according to whether or not they done at least one of the following: (1) had sexual intercourse during the past three months with 3+ persons, or (2) had sexual intercourse during the past three months and did not use a condom during last sexual intercourse, or (3) ever injected any illegal drug. Descriptive analyses compared demographic characteristics (grade, race/ethnicity, sexual identity), six violence victimization indicators, attempted suicide, and HIV testing by NHAS HIV risk profile. Logistic regression analyses estimated prevalence ratios (PRs) and 95% confidence intervals (CIs) for associations between NHAS HIV risk profile and behavioral outcomes.

Results: SMM students were more likely to have engaged in NHAS HIV risk behaviors if they missed school because they felt unsafe (PR=1.87;95% CI:1.34-2.81), had been threatened/injured by a weapon on school property (1.83;1.22-2.76), experienced sexual dating violence (2.00;1.39-2.88), experienced physical dating violence (2.76;1.88-4.06), attempted suicide (1.75;1.19-2.58), and to have ever been tested for HIV (1.56;1.10-2.22).

Conclusions/Implications: Adolescent SMM who engage in NHAS HIV risk behaviors have higher rates of violence victimization and attempted suicide compared to adolescent SMM who do not engage in such behaviors. Fortunately, adolescent SMM at higher risk for HIV are more likely to have ever been tested for HIV compared to adolescent SMM at lower risk. Adolescent SMM at higher risk for HIV may benefit from interventions that address a variety of risk domains. Opportunities for prevention may include increasing protective factors for adolescent SMM (e.g., safe and supportive environments), access to mental health services in schools, as well integrating different content domains (e.g., prevention of suicide, violence and HIV/STDs) into evidence-based health education programs. Research is needed to understand if and when interventions that address HIV risk and violence victimization or mental health are effective at improving outcomes in each domain.

AP12

Abstract 5386 - HIV screening and linkage to care program at Grady's Neighborhood Health Clinics, Atlanta, GA

Author(s): Zena Belay, Wilhelmina Prinssen, Bijal Shah

Background: According to CDC estimates, 1 in 51 Georgians will be diagnosed with HIV in their lifetime. Particularly in Atlanta, the rate of new diagnoses is more than twice the national rate, which places Atlanta fifth among metro areas in the US. In an attempt to cease the HIV epidemic, the Grady FOCUS program was implemented in 2013 at Grady Memorial Hospital (Grady). The Grady FOCUS program centers on routinizing HIV screening and linkage to care as a part of every medical visit at Grady. With successes in Grady's emergency department, primary care, and walk-in clinics, the Grady FOCUS program was expanded to include all six Grady Neighborhood Health Centers (NHCs) in 2015. We aim to assess the impact of implementing the Grady FOCUS program in the NHCs.

Methods: We extracted and reviewed the data for all eligible patients tested at the NHCs between January – December 2016. The eligibility criteria for patients to be screened for HIV were age 18 or older, no prior documented HIV screening test within the past year, and providing opt-out consent for testing. Chart reviews were performed for all patients who tested positive to assess if there were any medical visits at the NHCs two years prior to diagnosis. After data extraction, a t-test was performed to determine any significant differences between the NHC-diagnosed patients and the patients diagnosed at other Grady program sites, as well as descriptive statistical analyses using SAS 9.3.

Results: There were a total of 7,601 patients tested at the NHCs. Of those tested, 71% were African-American and 72% were female. A total of 21 patients (0.28%) tested positive for HIV: 90% being African-American and 57% being male. Most of the diagnosed patients were between the ages of 31 – 60 (81%). Of those diagnosed patients, 13 (62%) were newly diagnosed with an average CD4 count of 323, while the other eight were previously diagnosed based on either patient disclosure or state reported testing data, with an average CD4 count of 548. Based on the chart reviews of all diagnosed patients, six (29%) patients had at least one medical visit at a NHC prior to diagnosis and Grady FOCUS program implementation. All six patients were newly positive diagnoses. There were no statistically significant differences in age, sex, or race between the NHC diagnosed patients and diagnosed patients at other Grady sites.

Conclusions/Implications: Implementing the Grady Focus program at Grady's NHCs led to successful identification of HIV positive patients. Almost one third of the diagnosed patients had a previous encounter at a NHC and over one half had never received any prior HIV testing before program implementation. This highlights the importance of incorporating routine screening at all healthcare settings. It is of importance to note that while males represented only about one quarter of those tested, they represented over one half of those diagnosed with HIV. Therefore, it may be beneficial to incorporate strategies in the Grady FOCUS program to increase screening among males.

AP13

Abstract 5387 - Refocusing testing efforts on the at-risk populations in the U.S. Affiliated Pacific Islands (USAPI)

Author(s): *Choi Wan, Benjamin Puesta, Bernadette Schumann, Vince Aguon, Marcus Henderson*

Issue: HIV testing efforts in the United States Affiliated Pacific Islands (USAPI) have traditionally focused on screening people seeking care in hospital clinics. Targeted testing, focusing on populations who have a high risk of HIV infection, was less common. The at-risk priority populations in USAPI include Men Who

Have Sex with Men (MSM), Commercial Sex Workers (CSW), People Who Inject Drugs (PWID), and Transgender (TG) females. The Centers for Disease Control and Prevention's (CDC) PS13-1301 Funding Opportunity Announcement (FOA), "Accelerating Prevention and Control Services for HIV/AIDS, Viral Hepatitis, STDs and Tuberculosis in the U.S. Affiliated Pacific Islands (USAPI)," required the department/ministries of health from each USAPI jurisdiction to refocus their testing efforts on at-risk priority populations.

Setting: Through PS13-1301, CDC funded six islands of the USAPI to conduct HIV testing and other HIV prevention activities for the period 2013-2017. The six jurisdictions including three U.S. territories - American Samoa, The Commonwealth of the Northern Mariana Islands, and Guam and three freely affiliated Countries - the Federated States of Micronesia, the Republic of Palau, and the Republic of the Marshall Islands.

Project: The purpose of this project was to assess outcomes associated with using a targeted HIV testing approach for at-risk populations in the USAPI, which is also a resource-constrained public health setting. Among the six jurisdictions in the UASPI, Guam was the only island able to shift their testing strategies to concentrate their HIV testing efforts on targeting at-risk priority populations. We collected Guam's HIV testing data for the entire PS13-1301 project period and analyzed the data via Epi Info. A trend analysis was conducted for the number of individuals in the at-risk priority populations tested for HIV and for the percentage of persons with newly diagnosed HIV.

Results: In 2013, the Guam health department conducted 2,861 HIV tests and 8% of those tested were among the above-mentioned at-risk priority populations. In 2017, although fewer tests were conducted (n=1,875), 14% of those tested were among the at-risk priority populations. The percentage of at-risk individuals tested increased between 2013 and 2017. In addition, the number of at-risk individuals with newly diagnosed HIV also increased (0.07% vs. 0.15%) during the project period.

Lessons Learned: The percentage of at-risk individuals tested and with newly identified HIV increased from 2013 to 2017. These findings suggest that implementing a targeted HIV testing strategy in the USAPI can reach and test priority at-risk populations. Shifting HIV testing efforts from conducting almost all HIV testing in hospital clinics to targeted testing in the field resulted in testing more individuals at risk for HIV. In addition, Guam also designed and implemented culturally appropriate strategies to reach these at-risk populations. Guam's efforts are encouraging and provide important lessons learned for other USAPI health departments looking to increase the effectiveness of their HIV testing programs. One challenge however is that the government structures of the other USAPI jurisdictions may not allow them to easily adopt the changes Guam made in order to refocus their testing strategies.

AP14

Abstract 5466 - Project Silk: a youth-centered structural HIV intervention model for black MSM and trans women

Author(s): *Sarah Krier, Mackey Friedman, Adams Brian, Anthony Silvestre*

Issue: In the United States, young black men who have sex with men (YBMSM) and transgender women (YBTW) experience the most sharply increasing rate of new HIV diagnoses. Lowering HIV incidence

among YBMSM and YBTW will require significantly improved identification of HIV positive individuals, and linkage, re-engagement, and retention in care in order to effectuate viral suppression, along with combination prevention efforts tailored for YBMSM and YBTW communities. This presentation describes the core components of Project Silk, an HIV intervention model that was recognized as a best-practice model for engaging YBMSM and YBTW across the HIV prevention and care continuum by the Pennsylvania Department of Health (PADOH) and NASTAD.

Setting: The University of Pittsburgh's HIV Prevention and Care Project, in collaboration with the PADOH, received funding from the Centers of Disease Control and Prevention in 2012-2015 for a demonstration project (Project Silk) to provide HIV /STI testing, linkage to and reengagement in care for YMSM and YTW of color in Pittsburgh. An offshoot, Project Silk-Lehigh Valley, is being implemented in Allentown, Pennsylvania (2016—current).

Project: The Project Silk model pairs recreational activities with HIV/STI prevention, testing, linkage to medical care, onsite broad-spectrum social services and mental health care, and social support and social capital initiatives. The following core components were developed after extensive work piloting and refining the Project Silk intervention with input from staff, peer workers, and participants, technical advice from the CDC and PADOH, and evaluation data.

Project Silk Core Components:

1. HIV testing, prevention and care linkage activities consistent with Ryan White Early Intervention Services.
2. Asset-based youth development in program planning, staffing, recruitment, and engagement.
3. Demonstrated cultural competency in all staffing and volunteer roles.
4. Recreation-based safe space open at times convenient for target population members.
5. Strong agency buy-in and support among collaborating agencies.
6. Harm reduction philosophy.
7. Peer navigation to PrEP/PEP, HIV-related medical care and social services.
8. Social Network Strategy with social media components.
9. Integrated HIV and STI testing, and self-testing.
10. Co-located supportive services and mental health provision.
11. Ability to gather and maintain secure data consistent with HIPAA regulations including HIV seropositivity rates and HIV prevalence and incidence rate estimates.

Results: Project Silk achieved community-level diffusion, reaching over 15% of the estimated total County-level target population per year. HIV/STI seropositivity rates were >5% per year, and overall HIV incidence was estimated to be >10%. On-site mental health care linkage and provision, coupled with supportive services delivery and tracked service navigation across a broad range of services helped reduce incident HIV cases and increase viral suppression among those who are HIV positive. Project Silk's partner agency provided direct social services to 305 youth, with transportation assistance, housing/shelter, and food security being the most requested ancillary services.

Lessons Learned: Project Silk provides a replicable, comprehensive intervention model for cities with YBMSM and YBTW populations that suffer substantial HIV prevalence and lack community infrastructure. By incorporating strongly targeted recruitment and engagement strategies and local

tailoring, this innovative structural model can be deployed at scale for these communities in epidemiological hotspots where programmatic infrastructure is currently lacking.

AP15

Abstract 5514 - Stick To It: pilot study results of an intervention using gamification to increase HIV and sexually transmitted infection screening among young MSM in California

Author(s): *Sandra McCoy, Raluca Buzdugan, Reva Grimboll, Lauren Natoli, Christopher Mejia, Jeffrey Klausner, Mark McGrath*

Background: In the United States, young men who have sex with men (YMSM) experience a disproportionate burden of HIV and sexually transmitted infections (STIs). Mobile health (mHealth) interventions, including those that incorporate elements of games ('gamification'), have the potential to improve YMSM engagement in desirable sexual health services and behaviors. Gamification leverages theory and tools from behavioral science to motivate people to engage in a behavior in a context of fun. The objective of the study is to determine whether an intervention using gamification is acceptable and feasible to YMSM in California and potentially increases repeat HIV/STI screening.

Methods: Eligible YMSM were: 1) 18-26 years, 2) born as and/or self-identified as male, 3) reported male sexual partners, and 4) lived in a zip code adjacent to one of the two study clinics in Oakland and Hollywood, California. The gamification intervention, Stick To It, had four components: 1) recruitment (clinic-based and online), 2) online enrollment; 3) online activities, and 4) 'real-world' activities at the clinic. Participants earned points through online activities that could be redeemed for a chance to win prizes during HIV/STI screening and care visits.

The primary outcomes were acceptability and feasibility measured with participant engagement data and in-depth interviews. The secondary outcome was the intervention's preliminary effectiveness on repeat HIV/STI screening within six months, restricted to the subset of men who provided consent for review of medical records and who had \geq six months of follow-up. Outcomes were compared to a historical control group of similar YMSM who attended study clinics in the twelve months prior to intervention implementation.

Results: Overall, 166 (53%) of 313 eligible YMSM registered. After registration, 93 (56%) participants completed enrollment and 31 (19%) completed \geq one online activity in the subsequent six months. Points were redeemed in clinic by 11% of the 166 users (27% and 5% of those recruited in the clinic and online, respectively). Despite modest engagement with the intervention, participants provided a positive assessment of the program in qualitative interviews, with several stating that they were motivated by the inclusion of game elements in the HIV/STI testing experience.

The analysis of repeat HIV/STI testing was assessed among 31 YMSM who consented to medical record review and who had \geq six months of follow-up. During follow-up, 15 (48%) received \geq two HIV/STI tests compared to 157 (30%) of a historical comparison group of 517 similar YMSM who lived in the same zip codes and who received care at the same clinics before the intervention (OR=2.15, 95% confidence interval: 1.03, 4.47, P=.04).

Conclusions/Implications: The intervention was feasible and acceptable to study participants. Among the subset of participants recruited in the clinic, repeat HIV/STI screening was higher than a comparison group of similar YMSM attending the same clinic in the prior year.

AP16

Abstract 5519 - Using combination prevention planning to locate, engage and motivate: tackling your program's HIV testing recruitment challenges

Author(s): *Brenda Cruz Scotton, Gisele Pemberton*

Issue: It has been established that using a combination of HIV prevention strategies such as behavioral and biomedical interventions, in-reach and community outreach, external referrals and social networks yields the best results in HIV prevention and testing with various populations. Community-based organizations (CBOs) continually struggle with successfully executing recruitment strategies in HIV testing programs. A recent Center for Disease Control and Prevention (CDC) report revealed that less than 40% of CDC funded CBOs are meeting their targets for identifying new HIV-positive persons (CDC, Rapid Feedback Report 2018). These CBOs also fall short on facilitating linkages to HIV medical care with newly-diagnosed and previously identified HIV-positive persons. This presentation will introduce the Locate, Engage and Motivate model for enhanced HIV testing and share best practices from CBOs across the U.S. that have used the model successfully.

Setting: State or federally funded CBOs across the U.S. that conduct HIV testing in non-clinical settings and face challenges with identifying new HIV-positive persons and linking new and previously identified HIV-positive persons to medical care.

Project: The Locate, Engage and Motivate model for recruitment and retention is a 5-phase combination prevention framework that underscores the importance of HIV testing services as a vital point of entry into HIV prevention, treatment and reaching/reengaging persons out of care. The model encompasses several evidence based approaches that can be tailored to diverse target populations to achieve success in HIV testing and linkage to medical care. The model's interconnected cyclical 5 phases include; assess, locate, engage, motivate, and evaluate. Each phase offers menu options of best practices that service providers can select from to help identify new HIV-positive persons and engage/reengage previously identified HIV-positive persons that are out of medical care. The model includes planning steps, specific strategies and program prompts that can be implemented to ensure a multi-pronged approach to HIV testing in non-clinical settings. The Locate, Engage and Motivate model emphasizes proactive and strategic program planning combined with continuous monitoring, quality assurance and program evaluation.

Results: The Locate, Engage and Motivate model and strategic planning tool was used with CBOs that requested capacity building assistance (CBA) from CDC to enhance their HIV testing programs. CBOs completing the CBA sessions developed individualized recruitment and retention strategic plans for their HIV testing programs that focus on their program targets. Data from five CBOs from across the country that have successfully used the Locate, Engage and Motivate model, thereby increasing HIV-seropositivity rates, will be presented.

Lessons Learned: Lack of reliable data, competing priorities and oversaturation of similar community services are often cited as reasons for being unable to identify, diagnose, and engage persons at highest risk of HIV; yet, 25% of the 1.1 million people who are living with HIV are unaware of their HIV status (Bowles, K. et al, 2008). Proactive planning informed by multiple data sources, in combination with the use of evidence-based, culturally competent strategies, can help CBOs achieve greater success in their HIV testing and linkage to care programs. The Locate, Engage, Motivate Model provides CBOs with the framework for doing so.

AP17

Abstract 5607 - Trends in HIV testing and new diagnoses among first-time testers in CDC-funded sites, 2012-2017

Author(s): *Angele Marandet, Guoshen Wang, Lisa Belcher*

Background: In 2016, there were an estimated 40,500 new HIV infections in the United States. Of the approximately 1.3 million people living with HIV in the United States, nearly one of six [about 15%] are unaware of their status. CDC recommends that individuals between the ages of 13 and 64 get tested for HIV at least once as part of routine health care and those with risk factors get tested more frequently. HIV testing and knowledge of status are crucial first steps to linking people with diagnosed HIV to medical care, achieving viral suppression, and reducing HIV transmission.

Methods: We analyzed CDC-funded HIV testing data submitted by 61 local and state health departments and approximately 150 directly funded CBOs for the period 2012-2017 (updated March 2018). We examined trends in the percentage of all tests that were among first-time testers (persons who did not self-report a previous HIV test result or were not identified in the jurisdiction's HIV surveillance system) and demographic characteristics of first-time testers. Measures included HIV tests, first-time testers, and HIV positivity. Estimated annual percentage change (EAPC) was calculated using linear regression with log link function and no covariates. Significance of a trend change was determined by whether the 95% confidence interval included zero.

Results: A total of 19,739,857 CDC-funded HIV tests were conducted between 2012 and 2017. There were 3,782,168 first time testers during this time. The percentage of all tests among first time testers decreased from 20.8% in 2012 to 15.7% in 2017 (EAPC= -4.6%, 95% CI= -4.6% to -4.5%). HIV positivity among first time testers was fairly stable, ranging from 0.6 in 2012 to 0.7 in 2017 (EAPC= 4.6%, 95% CI= 3.8% to 5.4%).

Conclusions/Implications: There was a decrease in the percentage of CDC-funded HIV tests among first time testers from 2012 to 2017. Additional analyses are needed to understand the factors that may contribute to this finding (e.g., repeat testing among people with HIV risk factors, fewer people who have never been tested). Routine HIV testing and targeted testing among populations at risk are important to reduce the time between infection, diagnosis, and initiation of treatment. Understanding the characteristics of first time testers can help public health practitioners improve and tailor HIV service delivery to persons at risk of acquiring or transmitting HIV.

AP18

Abstract 5790 - Health department HIV testing and surveillance data integration for program improvement

Author(s): *Angele Marandet, Ekaterine Shapatava, Amy Krueger, Laura Kearns, Richard Selik*

Issue: Implementation of effective programs for HIV testing and linkage to care is critical to ensure that individuals with diagnosed HIV can receive HIV medical care and achieve viral suppression. The National HIV Surveillance System (NHSS) monitors trends in HIV diagnoses in the United States and receipt of care after diagnosis (based on laboratory test results), while the National HIV Prevention Program Monitoring and Evaluation System (NHM&E) collects data from health departments and community-based organizations about CDC-funded HIV testing outcomes, including linkage to medical care and referrals to prevention services. Matching NHM&E testing data with surveillance data can result in more accurate information on new and previous diagnoses and linkage to care. This in turn improves health departments' ability to make programmatic and funding decisions for maximum public health benefit.

Setting: Fourteen health departments received CDC funding for a two-year period to improve data sharing between their local surveillance and testing programs. Funded health departments were located across the United States and varied by HIV prevalence. Health department organizational structure varied as well, with some surveillance and testing programs integrated within one division (or unit) and others in separate units.

Project: This project, competitively awarded as a supplement to CDC's HIV surveillance funding for health departments, required that each funded health department document proposed data linkage activities in a standardized implementation plan with an accompanying monitoring and evaluation plan. Plans were reviewed and progress monitored during monthly calls between the health department and CDC Project Officer. Additionally, health departments submitted responses to narrative questions about their data linkage activities (accomplishments, facilitators, challenges) in regular progress reports to CDC.

Results: Health departments developed and implemented different processes for matching HIV testing and surveillance data, ranging from manual linkage to automated electronic linkage programs. This led to improved quality and timeliness of NHM&E testing data on new and previous HIV diagnoses, and linkage to care variables; quicker initiation of patient case reporting and linkage to care activities; and improved collaboration between HIV prevention and surveillance units within the health department and with external HIV prevention partners.

Lessons Learned: The majority of health departments reported creating a sustainable foundation for expanding their accomplishments beyond the two-year project period. Facilitators and challenges related to staffing, infrastructure, data sharing, and program coordination learned from this experience may inform future jurisdictional efforts related to integrating HIV prevention and HIV surveillance activities.

AP19

Abstract 5875 - Leveraging US partner services programs to augment development of assisted partner notification services in Ethiopia and Uganda

Author(s): *Anne Sites, Tibebe Shenie, Faridah Akuju*

Issue: To accelerate the identification of undiagnosed people with HIV globally, the World Health Organization in 2017 recommended integration of assisted partner notification services (e.g. provider and contract referral) in routine HIV prevention services. NASTAD represents public health officials who administer HIV and hepatitis programs in the US and around the world. Leveraging partnerships with US Partner Services programs, NASTAD adapted and integrated Partner Services in Ethiopia and Uganda to more efficiently identify people with HIV.

Setting: Through NASTAD Global Technical Assistance support, HIV Partner Services providers from Idaho, Kansas, Maryland, and New York supported Partner Services training and program development activities in Addis Ababa and Oromia, Ethiopia and Kampala and Wakiso, Uganda during April 2017 – March 2018.

Project: Ten health facilities in Addis Ababa and Oromia, Ethiopia and 25 health facilities in Kampala and Wakiso, Uganda began offering Assisted Partner Notification services in August 2017 and January 2018, respectively. Ministries of Health adopted Partner Services program standards where prioritized index clients are interviewed to elicit sex partners and social contacts from preceding 12 months and sex partners and contacts are notified of exposure and supported to access HIV testing services.

Results: In Ethiopia during August 2017 – March 2018, 207 index clients named 204 sex partners, 161 (78.9%) of which were contacted, 119 (73.9%) received HIV testing, and 22 (18.5%) tested HIV-positive. In Uganda, 1,468 index patients named 1,759 sex partners, 1,132 (64.4%) of which were contacted, 666 (58.8%) received HIV testing, and 174 (26.1%) tested HIV-positive during January – March 2018. US Partner Services program staff facilitated adaptation Partner Services training and program monitoring to relate key concepts to the country context and identify strategies to overcome common challenges.

Lessons Learned: Testing of sex partners identified through Partner Services yielded a high rate of positives in Ethiopia and Uganda, a finding that was used to support expansion of the program in both countries. Leveraging service standards and best practices of US HIV Partner Services programs augmented the adaption of Assisted Partner Notification and established a strong foundation for on-going program development. US Partner Services staff's experience delivering technical assistance in Ethiopia and Uganda renewed their commitment to Partner Services, reinforced the adaptive nature of HIV prevention tools and techniques, and allowed for internal consideration of biases or barriers that may hinder delivery of Partner Services in the US and globally. Bi-directional learning among peer Partner Services practitioners offers a unique opportunity to enhance cultural competency among providers and adapt program tools and techniques to better reach disparate populations.

AP20

Abstract 5921 - Opt-out HIV testing: impact on women

Author(s): *Rachel See, Leah Pinholster*

Issue: According to the Georgia Department of Health, in 2016 Georgia ranked third for new HIV diagnoses. As a result, Southside Medical Center implemented an opt-out testing program for all patients receiving care at its 11 locations.

Setting: Southside Medical Center, Atlanta's largest Federally Qualified Health Center (FQHC) spans through numerous health districts and is an access point to an average of 40,000 patients through both urban and rural settings. SMC's patient demographics include 90% African American, 37% uninsured, and majority under the FPL.

Project: SMC initiated an opt-out testing program for HIV in 2015 in response to being located at the heart of the epidemic in Atlanta. SMC initiated hard-stops in the Electronic Health Records (EHR) system it uses so that everyone aged 13-64 would receive a HIV test. Because SMC is a primary care clinic and offers services such as OBGYN and pediatrics, SMC has majority female patients. With data collected through the opt-out testing program, SMC wanted to conduct a review of women who tested positive to see how many were of child-bearing age and how many pregnant women were identified through the opt-out testing program as a means to see if a targeted intervention for women of child-bearing age was needed.

Results: Through July 1, 2016-July 1, 2018, SMC conducted a total of 21,985 tests. During that timeframe, 311 (1.4%) patients were identified as diagnosed with HIV, of which 119 (38%) were female. Of the 119 that were female, 43 (36%) were of childbearing age. 11 were identified as pregnant during the time of diagnosis. Six of 11 were African American, one identified as Asian, one identified as white, and three were unreported. Of the 11, only four had at least one lab at SMC where the viral load was undetectable before delivery.

Lessons Learned: Through opt-out testing, SMC has identified a need for prevention education and PrEP for women, specifically women of child-bearing age. Even though the rates of newly diagnosed HIV are declining among women, there is still a large disparity amongst women of color. Lastly, working with the local Department of Health's perinatal division is key to making sure pregnant women complete labs prior to delivery in order to assess if the viral load is undetectable and that there is not transmission to baby during birth.

AP21

Abstract 5955 - Providers' role in the routine opt-out HIV testing in the emergency department: review of missed testing opportunities

Author(s): *Neha Patil, Catherine Holdsworth, Aviva Joffe, Kimberly Huggins*

Background: The Einstein Healthcare Network Immunodeficiency Center (IDC) has been providing outpatient HIV services in North Philadelphia since 1995. To identify more undiagnosed HIV infection, the IDC implemented the program Everyone Gets One in 2015, collaborating with the emergency department to offer nontargeted HIV testing to all patients. The HIV testing protocol is designed to be nurse-driven whereby triage RN advises patient of Einstein policy to test all patients for HIV, unless they decline. If the patient accepts, a physician must document verbal consent in the electronic medical

records and order the test for the nurse to obtain blood. This interplay of nurses, physicians, and electronic medical records influence whether an HIV test is completed for every patient.

Methods: A cross-sectional survey was administered via Microsoft Outlook to emergency department providers from December 2017 to January 2018. A convenience sample of emergency department physicians was used. The survey contained 22 items which requested responses on three of the following categories a.) knowledge of HIV testing protocol b.) perception of HIV and testing practices, and c.) communication patterns with nursing staff. The responses were entered and interpreted using Excel. Qualitative data was coded into prominent themes pertaining to the three categories. A retrospective chart review was also completed across eight months (August 2017- March 2018) of all patients who accepted but have an incomplete HIV test. The reason for incompleteness was organized into three statuses, a.) cancelled, b.) ordered but incomplete, and c.) not ordered by a provider.

Results: A total of 65 emergency department physicians (53.8% Women, 68.2% White, 53.8% 25-34yr, 32.3% Resident Physician) submitted completed survey data. Item 10 from the survey asked which step of the HIV testing flow posed the most difficulty and among the total of 65 physicians, 40% selected nurses task to draw blood and 26.2% selected documenting verbal consent. Common themes that emerged were nurses not drawing blood, difficulty to document consent, and not knowing HIV testing legal implications. A total of 7,124 patients from Aug 2017 to Mar 2018 accepted but have an incomplete HIV test. The status of 24.2% was cancelled, 8.8% was ordered but incomplete, and 66.6% was not ordered by a provider.

Conclusions/Implications: Although 40% of physicians who completed the survey chose drawing blood as the most difficult step in completing the test, an overwhelming 66.6% of incomplete tests was because of physicians not ordering the test. Einstein's policy for the physician to obtain verbal consent and order the test creates clear barriers to testing. Nurses and physicians are meant to interact collaboratively, but they encounter competing and conflicting priorities. Although the emergency department is a critical place for identifying HIV infection, it's a challenge to make HIV testing a key priority and missed opportunities for testing and potential HIV diagnoses remain. Further research is aimed to systematically identify dynamics and interactions in the HIV testing flow in the emergency department.

AP22

Abstract 5333 - Spice it up! How we made our reports go from bland to bling

Author(s): *Andrea Moore, Songli Xu, Cheng Qi, Jennifer Lyons, Gary Uhl*

Issue: Data reports are often text-heavy and lengthy. They can be time consuming to produce and cumbersome to use.

Setting: The Division of HIV/AIDS Prevention (DHAP) within the Centers for Disease Control and Prevention (CDC) funds community-based organizations (CBOs) across the United States to deliver scientifically proven and cost-effective HIV prevention activities. CBOs are important partners as they have a history in their communities and are able to access hard to reach populations.

Project: DHAP monitors and evaluates CBOs' delivery of the HIV prevention program to assess progress towards program and national goals, optimize performance, and ensure accountability. This includes developing rapid feedback reports (RFRs) to track CBOs' achievements and progress towards HIV testing program goals. RFRs need to meet the diverse needs of CBOs as well as DHAP program staff and leadership.

Results: The RFR development process incorporated feedback from semi-structured interviews with CDC directly-funded CBOs and DHAP program staff, and input from data visualization specialists. This resulted in providing information primarily through effective data visuals and focusing only on key indicators (e.g., % of newly identified HIV-positive persons linked to care within 30 days). The improved reports were generated during the project period so they could be used by CBOs for program improvement.

Lessons Learned: Creating effective and useful reports is a multi-stage process that begins with identifying key indicators and ensuring data quality. Engaging stakeholders about content and design encourages report utility and impact. Data visualizations based on universally understood images (e.g., a speedometer to show progress to a goal) are easy for a variety of stakeholders to understand, use, and share. Modernizing our reports through powerful visuals increased the use of program data, with CBOs using the reports to inform internal evaluation and stimulate discussion of best practices. Our poster will include examples of successful, easy-to-understand data visualizations for showing progress towards program and national HIV prevention goals. We continue to refine our reports so they communicate critical data effectively and stimulate continuous program improvement.

AP23

Abstract 5415 - HIV testing in retail pharmacy settings: curriculum development & HIV testing in action

Author(s): *Azul DelGrasso, Helen Burnside, Terry Stewart*

Issue: The accessibility of pharmacies for HIV testing, monitoring engagement in care, and adherence presents a unique opportunity for pharmacists to contribute to progress in HIV prevention. It is estimated that 70% of rural consumers live within 15 miles of a pharmacy and 90% of urban consumers live within two miles of a pharmacy. HIV testing in retail pharmacies could lead to increases among first-time testers, testing within communities of color, and could be more cost-effective than other traditional HIV testing services. Pharmacies are an untapped resource to expand HIV prevention services across the United States.

Setting: Between April 1, 2017, and March 31, 2018, ten pharmacies were trained in two pilots to provide HIV testing across three states by the Capacity Building Assistance Provider Network. Participants included pharmacists, pharmacy techs, and administrative directors working in pharmacy settings or federally qualified health centers who expressed interest and have a willingness to implement HIV testing services. Participants had varying knowledge of the nuances of HIV transmission, STD infection, behavior risk associated with HIV, and awareness of HIV laws and regulations.

Project: The Denver Prevention Training Center a capacity building assistance (CBA) provider funded by the Centers for Disease Control (CDC) collaborated with Scales Pharmacy, the Virginia Department of Health and subject matter experts to create a blended course titled HIV Testing in Retail Pharmacies to train pharmacy staff on conducting HIV testing. This blended learning course addressed the gaps in knowledge among pharmacists, increased knowledge and skills to use a six-step HIV testing protocol for non-clinical settings, and included action planning for HIV testing implementation.

Results: Through the development of this blended learning course, technical assistance offered to pharmacies in three states, and the development of an HIV testing in pharmacies implementation guide, a compilation of pharmacy-based HIV testing models have been developed to showcase partnerships, billing, and staff utilization to support HIV testing. Also, by supporting implementation efforts in these ten pharmacies, the implementation guide has been refined to navigate common barriers encountered and provide a suggested timeline for implementation.

Lessons Learned: A highly tailored, blended learning course that engages multiple stakeholders including state and local health departments and retail pharmacies in offering HIV testing in retail pharmacy settings could be a cost-effective way to increase HIV testing services in jurisdictions.

AP24

Abstract 5485 - A comprehensive community based strategy to prevent the spread of HIV through prevention and early detection

Author(s): *Bonzo Reddick, MariAnna O'Ree, Jean Wiggins*

Issue: Georgia has the second highest rate of HIV diagnoses in the United States at 31.8 per 100,000 people. Aside from cities in the Atlanta metropolitan area, Savannah has the next highest rate of HIV diagnoses compared to any other city in Georgia. The Savannah-Chatham County area lacked a significant number of health care providers offering HIV prevention services, including pre-exposure prophylaxis (PrEP). In addition, the local Ryan White Clinic was seen as a health care site that was associated with a significant stigma, leading some patients to seek other opportunities for HIV care and prevention. Unfortunately, there were not many opportunities for uninsured or underinsured patients to receive these services from other providers in the area.

Setting: Memorial University Medical Center (MUMC) provides care for 35 counties surrounding Savannah, GA and is the only Safety-Net hospital in the region. Our ED supports 100,000 annual patient visits and serves a spectrum of urban to extreme rural populations, over a third of whom are underinsured and utilize the ED for primary care needs.

Project: MUMC implemented an opt-out universal HIV screening program [the CARE initiative] for patients >age 13 in its Emergency Department (ED) in Savannah, GA. The CARE Initiative (CI) provides routine, annual opt-out HIV screening for ED patients who meet national eligibility guidelines. CI aims to identify new cases and previously diagnosed HIV patients who are unengaged, to provide counseling and linkage to care. CI utilized a computer based EMR algorithm to recognize new and known HIV positive individuals who received care in the ED. This algorithm assists the ED provider by taking away the need for complex medical decision making, and instead, allows the process to be automated. Linkage

specialists perform notification appointments with new HIV patients and link both new and known patients to HIV care in the community. Additionally, CI adapted this algorithm to identify high risk negative patients (HRN) presenting to the ED.

Results: During the first year of testing, 20% of new positive patients were diagnosed with acute HIV infection, a stage of HIV infection characterized by high viral loads and high infectivity. This is a crucial time to initiate antiretroviral therapy to lower the viral load and reduce the burden of disease on the community. The CARE initiative's initial area of concentration was rapid linkage of care to treatment centers for HIV-positive individuals. As the program progressed, additional areas of focus centered on other methods to decrease the spread of HIV. We identified a significant lack of local healthcare providers offering pre-exposure prophylaxis (PrEP) and consequently trained local primary care providers to provide PrEP to high-risk patients.

Lessons Learned: In response to the high rates of acute HIV infection and limited access to preventive services, we realized the need for a comprehensive community-based strategy for the early detection of HIV, increased identification of acute HIV infection, connection of high risk negative patients to PrEP services, and provision of education on HIV risk reduction via a network of community partners. Physician and community champions were key in implementing this comprehensive plan.

AP25

Abstract 5567 - Community-wide campaign to increase HIV awareness

Author(s): *Sian Elmore, Mildred Offor, John Saxon-Barbo, Crystal Garza*

Issue: In 2016, the rate of new HIV infections was 18.7 per 100,000 population in Bexar County, which was approximately 1.2 times higher than the rate of new HIV infections in Texas (16.1 per 100,000 population). The highest rate of new HIV infections was documented among African-Americans (34.8 per 100,000 population) followed by Hispanics (20.4 per 100,000 population). Stigma, access to care and testing continue to remain barriers to addressing HIV in San Antonio, Texas. The #IknowmystatusSA campaign was a collaborative effort by several community based organizations including the local public health department – San Antonio Metropolitan Health District, to remove and/or minimize these barriers.

Setting: The San Antonio Metropolitan Health District, several community-based organizations such as San Antonio AIDS Foundation, BEAT AIDS, Center for Healthcare Services, San Antonio Fighting Back, Alamo Area Resource Center, the University Health System (UHS) Immunosuppression Clinic and the San Antonio City Council came together to promote the #IknowmystatusSA campaign. The goal of the campaign was to have 4,000 completed HIV tests. Multiple testing events were held city-wide in the month of April to achieve the goal of the campaign.

Project: The #IknowmystatusSA campaign aimed at decreasing stigma related to testing, increasing access to care, and increasing testing opportunities in San Antonio. Through this campaign, collaborative opportunities with community partners were maximized to ensure that barriers to testing were alleviated. This was accomplished through significant marketing opportunities such as promotion of events on social media, promotional products, and organized outreach testing throughout San Antonio.

Results: Six different Community based organizations including the San Antonio Metropolitan Health District participated in the campaign. Four thousand one hundred and seventy eight HIV tests were completed during the #IknowmystatusSA campaign which led to the identification of the following cases: nine new HIV infections, twenty-two new chlamydia infections, twenty-three new syphilis infections with nineteen reinfections and six gonorrhea infections. Additionally, several new testing locations and partnerships were developed as a result of this community-wide campaign.

Lessons Learned: When implementing a citywide campaign, buy in from the city governing body is imperative as this contributed to the success of our efforts. City council members were very vocal within their perspective districts in conveying the importance of the campaign, getting tested and knowing one's HIV status. Success relies on an organized timeline, communication between all involved entities and support from stakeholders.

BP01

Abstract 5266 - Agreement with positive perceived norms and self-efficacy for condom use and its association with condomless sex and PrEP awareness among Hispanic/Latino MSM in the U.S.

Author(s): *Ayana Anderson-Stanley, Gordon Mansergh, Matthew Mimiaga, Jeremy Holman, Jeffrey Herbst*

Background: Hispanic/Latino men who have sex with men (H/L MSM) are disproportionately affected by HIV relative to white MSM in the United States. Consistent condom use and awareness of PrEP continue to be challenges in this underserved population. To mitigate the spread of HIV, it is important to better understand how perceived norms and self-efficacy for condom use are associated with actual condom use and PrEP awareness.

Methods: This analysis used data for H/L MSM from the 2014 Message4Men (M4M) study (n=271), a cross-sectional study of MSM in Chicago, Fort Lauderdale, and Kansas City to better understand knowledge and effective messaging for emerging scientific HIV information (e.g., PrEP). A five-item measure assessed perceived norms and self-efficacy for condom use (Cronbach's alpha=0.64). Participants responded to each item on a 5-point Likert scale ranging from 1 = "strongly disagree" to 5 = "strongly agree." Each response was dichotomized to 4-5 (positive agreement) versus 1-3 (less than positive agreement), and averaged across the five items for an overall scale score. We used bivariate and multivariate analysis to assess the association of the perceived norms and self-efficacy for condom use scale with condomless anal sex (Model 1) and PrEP awareness (Model 2), adjusted for the following demographic variables: age, education level, sexual orientation, city, and survey response language.

Results: Among HIV-negative H/L MSM, 55% reported having condomless anal sex in the past 3 months and 52% were aware of PrEP as a prevention method. In bivariate analysis, men with positive agreement on the condom use norms and efficacy scale (vs less than positive agreement) were less likely to engage in condomless anal sex (51% vs 73% respectively, $p < .05$), and were borderline more likely to be aware of PrEP (57% vs 46%, $p = .066$). In multivariable model 1, we found a decreased odds of condomless anal sex among men who had positive agreements on the perceived norms and self-efficacy for condom use (AOR=0.40, 95%CI=0.23-0.71); there was a decreased odds of condomless anal sex among younger (18-

29 years) vs older (40+ years) age groups , and among men with higher vs less education (≥ 4 year college degree vs \leq high school degree) (AOR=0.49, 95%CI=0.26-0.94). In the multivariable model 2, we found no association between PrEP awareness and positive agreements on the perceived norms and self-efficacy for condom use ; there was a decreased odds of PrEP awareness among younger (18-29 years) vs older (40+ years) age groups (AOR=0.44, 95%CI=0.22 -0.89).

Conclusions/Implications: Understanding associations of agreement with perceived norms and self-efficacy from condom use and HIV prevention modalities among HIV-negative H/L MSM is important for developing effective and targeted HIV prevention messaging to reduce risk for HIV infection. Agreement with condom norms and efficacy was associated with recent condom use but was not associated with PrEP awareness in the multivariate analysis. More education about PrEP is needed among H/L MSM overall.

BP02

Abstract 5298 - Increasing trends in injection of methamphetamine and high-risk behaviors among people who inject drugs – 20 U.S. cities, 2009-2015

Author(s): Janet Burnett, Dita Broz, Cyprian Wejnert

Background: Use of methamphetamine has been associated with high-risk behaviors, such as condomless receptive anal sex, and increased HIV infection among men who have sex with men (MSM) but data among non-MSM persons who inject methamphetamine remain sparse. There is evidence that use of methamphetamine is increasing among people who inject drugs (PWID). Given the potential of increased HIV transmission within this population, we used data from the 2009, 2012, and 2015 National HIV Behavioral Surveillance (NHBS) to determine trends in the injection of methamphetamine and associations between use and high-risk behaviors among non-MSM PWID.

Methods: PWID aged ≥ 18 years were recruited in 20 U.S. cities using respondent-driven sampling (RDS), interviewed and offered HIV testing. Analyses excluded men who had ever reported having sex with men. Trends and bivariate analyses were conducted using log-linked Poisson regression with generalized estimating equations to test for associations between injection of methamphetamine and selected characteristics. Models adjusted for network size and clustering by RDS recruitment chain.

Results: Of the 8,635 participants in 2009, 8,550 participants in 2012, and 8,985 participants in 2015, injection of methamphetamine in the previous 12 months was reported by 22%, 28% and 50%, respectively (p -trend= <0.001). Increasing trends in injection of methamphetamine across cycles were significantly stronger among participants aged <30 years [adjusted PR (aPR)=1.4, 95% CI: 1.2-1.5] vs. >30 years and participants residing in the Midwest, West, and Northeast vs. the South (aPR=2.4, 95% CI: 1.5-3.7; aPR=1.3, 95% CI: 1.2-1.5; aPR=2.5, 95% CI: 1.8-3.5, respectively). Among PWID from the 2015 NHBS cycle, injection of methamphetamine in the 12 months was associated with being white (aPR=2.9, 95% CI: 2.3-3.9) or Hispanic (aPR=2.2, 95% CI: 1.7-2.7) vs. being black, being younger than 30 years old (aPR=1.4, 95% CI: 1.2-1.6), and residing in the West (aPR=22.7, 95% CI: 12.4-41.6) or Northeast (aPR=3.7, 95% CI: 2.1-6.7) vs. the South. PWID who inject methamphetamine were more likely to have receptively shared syringes in the last 12 months (aPR=1.5, 95% CI: 1.3-1.6), receptively shared injection equipment in the last 12 months (aPR=1.3, 95% CI: 1.2-1.4), had condomless anal or vaginal sex in the last 12

months (aPR=1.3, 95% CI: 1.2-1.5), and had more than 1 sexual partner in the last 12 months (aPR=1.3, 95% CI: 1.3-1.4).

Conclusions/Implications: There have been significant increases in the injection of methamphetamine among non-MSM PWID particularly among those under the age of 30. PWID who inject methamphetamine are more likely to engage in high-risk sexual and injection behaviors. The results of this analysis highlight a population potentially vulnerable to HIV and HCV infection. PWID, especially young PWID, may benefit from interventions addressing injection of methamphetamine in addition to other drugs.

BP03

Abstract 5335 - “I have a low-risk population:” perceptions of patient HIV risk by primary care providers in high-HIV prevalence areas in the southeastern United States, 2017

Author(s): *Kathryn Drumhiller, Angelica Geter, Zaneta Gaul, Madeline Sutton*

Background: The southern United States (U.S.) accounted for 52% of new HIV diagnoses in 2015. Visits to primary care providers (PCPs) offer opportunities for routine HIV screening. However, of at-risk persons in the U.S. who saw a healthcare provider within the previous year, 75% weren't offered a test for HIV. Perceptions of patient population risk by PCPs could offer insight into these missed opportunities, and inform development of HIV interventions for PCPs.

Methods: During April – October 2017, we conducted online surveys regarding PCP's perceptions of patient HIV risk in six areas of the South with high HIV prevalence. Surveys queried regarding HIV-related knowledge, beliefs, attitudes, and practices. Free-text responses to the question “Are there any unique or special risk factors relating to HIV infection in your patient population?” were analyzed using NVivo for applied thematic analysis.

Results: Characteristics of 526 respondents were as follows: mean age 47 years; 67% white, 13.8% Asian/Other, 13.4% black, 5.7% Hispanic/Latino; 72% female; 93% straight/heterosexual; and 35.1% offering HIV screening correctly based on standard of care. Main themes were 1) misconceptions by PCPs and patients (e.g., “I have a low-risk population”), 2) barriers to testing and care (e.g., “concern for parental notification and cost for treatment”), and 3) characteristics and behaviors of patient population (e.g., “injection drug use is rampant”).

Conclusions/Implications: These findings indicate the need to inform PCPs about the elevated HIV risk in the South and to address concerns related to providing routine HIV screening and prevention services.

BP04

Abstract 5396 - Knowledge, attitudes, and willingness to prescribe PrEP among primary care providers from the the largest suburban HIV epidemic in the United States

Author(s): *Anthony Santella, Spring Cooper, Andrew Spieldenner, Kathleen Rosales, Heidi Jones*

Background: Nassau and Suffolk Counties, New York (subsequently referred to as Long Island) are home to the largest suburban HIV epidemic in the USA. Although HIV pre-exposure prophylaxis (PrEP) was

approved by the FDA in 2012, uptake remains low. Primary care providers have demonstrated reluctance in prescribing the medication. PrEP has the potential to make a significant impact on the HIV epidemic if it can be used by at-risk individuals. There is a dearth of literature on primary care provider knowledge, attitudes, and willingness to prescribe PrEP.

Methods: We conducted a cross-sectional, online survey of primary care providers from the two large academic health centers on Long Island between August and October 2017. Providers were recruited via email with three reminders. The survey assessed PrEP awareness, familiarity and comfort with prescribing PrEP, experience with PrEP implementation, and barriers to prescribing PrEP.

Results: Of the 752 providers recruited, 341 (45%) completed the survey. 40% of participants were resident physicians, 33% attending physicians, 22% physician assistants and 5% nurse practitioners. Respondents self-reported gender as female (53%), non-Hispanic (80%), White (52%), non gay-identifying (n=286, 84%). Over half (53%) reported little to no experience treating LGBT patients. The majority (75%) had not yet begun prescribing PrEP, and 14% had not heard of it. The most commonly reported major/moderate barriers were lack of training (76%), low awareness of PrEP guidance (60%), and lack of patient requests (58%). Participants also strongly agreed/agreed that they were concerned about potential PrEP side effects (38%), that it is more feasible to provide PrEP in primary care clinics vs. HIV clinics (32%), and that behavioural interventions should be attempted before PrEP prescription (28%).

Conclusions/Implications: Although primary care providers are aware and knowledgeable about PrEP; many do not prescribe despite practicing in the largest suburban HIV epidemic in the USA. This phenomenon is mirrored across the United States. Educational interventions are needed to: address concerns about side effects and behavioural interventions (e.g. PrEP as a normal part of gay sexual health rather than a “last resort”); help providers with screening appropriate patients; increase understanding of LGBT health; and become more familiar with clinical PrEP guidelines.

BP05

Abstract 5453 - Prior sexually transmitted infection and HIV risk perception in a diverse at-risk population

Author(s): *Daniel Resnick, Knashawn Morales, Robert Gross, Danielle Fiore, Annet Davis, David Metzger, Ian Frank, Sarah Wood*

Background: We aimed to assess the relationship between history of past sexually transmitted infection (STI) and present HIV risk perception. We hypothesized that a STI diagnosis within the past 12 months would be associated with increased HIV risk perception.

Methods: We performed a cross-sectional study of cisgender men, transgender (TG) and gender non-conforming individuals who have sex with men or TG individuals being screened for eligibility in HIV Vaccine and Prevention Trials Networks clinical trials in Philadelphia. Participants were >18 years of age and met any of the following criteria within the last 6 months: ≥ 2 partners, condomless anal intercourse with a non-mutually monogamous partner, or stimulant drug use. Survey questions measured demographics, sexual behavior, past STI diagnoses, and current perceived risk for HIV. Bivariate analysis

assessed associations between HIV risk perception, prior STI, and PrEP use and consistent condom use in the past six months. To determine effect modification of HIV prevention behaviors and age on the relationship between STI and HIV risk perception, we sequentially tested logistic regression models that included interaction terms for these covariates and prior STI. The final multivariable logistic regression assessed associations between past STI and current HIV risk perception, adjusting for age, race, gender, PrEP use, and condom use.

Results: Participants (n=220) were 87% cisgender males, 8% TG females, 2% TG males, and 3% other gender; 42% were African-American and 20% Latino/a. Median age was 27 (IQR 23-33). An STI within the last 12 months was reported by 26% (n=57) and 45% (n=99) identified themselves as being highly vulnerable to HIV. Use of PrEP in the prior six months was reported by 26% (n=56), and 92% (n=199) indicated inconsistent condom use. In univariate analysis, there was no significant association between prior STI and HIV risk perception (p=0.69), or between recent PrEP use and risk perception (p=0.66). However, prior STI was associated with recent PrEP use, with 56% of recent PrEP users reporting an STI within the past year vs 15% of non-PrEP users (p<0.001). There was no significant effect modification by age, PrEP use, or consistent condom use on the point estimates of association between STI and HIV risk perception. In the final multivariable logistic regression adjusted for age, race/ethnicity, gender, PrEP use, and condom use, there was no statistically significant association between recent STI and high perceived risk of HIV (OR: 1.02, 95% CI:0.51-2.08).

Conclusions/Implications: In this diverse U.S.-based sample, there was no evidence of an association between prior STI and current HIV risk perception after adjusting for demographics and HIV prevention behavior. Participants with STI in the past year had significantly higher rates of PrEP use, which may indicate that PrEP use operates along the STI-HIV vulnerability pathway by decreasing PrEP users' HIV risk perception after an incident STI, or that the STI alerted providers to prescribe PrEP. While our cross-sectional data cannot determine a temporal or causal connection, future research should focus on the dynamic relationships between these factors to determine whether episodes of STI diagnosis may serve as targets for HIV prevention interventions.

BP06

Abstract 5568 - “We started using condoms, but we don’t use ‘em no more”: an exploration of intimate partnerships and HIV risk among HIV negative southern black MSM

Author(s): *Brittany Marshall, Damian Denson, Yamir Salabarría-Pena*

Background: Men who have sex with men (MSM) continue to be the population most affected by HIV in the United States. From 2010 to 2014, annual infections of HIV declined among MSM aged 13-24, but rose among those aged 25-34. In 2014, Black/African American MSM (BMSM) accounted for the largest estimated number of new HIV diagnoses among African Americans, both nationally and in the Deep South. Examining intimate partnerships among HIV-negative BMSM in the Deep South may provide insight into their risk and protective behaviors and help understand how they remain HIV-negative.

Methods: Between July and September 2016, a qualitative study was conducted in five U.S. cities in the Deep South with elevated HIV prevalence among black and Hispanic/Latino MSM: Atlanta, GA; Baton Rouge and New Orleans, LA; Jackson, MS; and Miami, FL. A purposive sampling strategy was used to

recruit 105 black/African American and 45 Hispanic/Latino HIV negative adolescent and adult MSM for an in-person interview covering sociodemographics, perceptions of HIV risk, previous and current relationships, and barriers and facilitators to maintaining an HIV negative status. For the present analysis, we used data from the 31 BMSM who were between the ages of 25-34 and who completed the in-person interview. We used descriptive statistics to examine sociodemographic and testing data and a qualitative content analysis approach to identify patterns and themes related to partner type (main versus casual) and HIV risk and protective factors.

Results: Of the 31 BMSM participants, 20 (65%) were single and 11 (35%) were in a main partnership (defined as “someone that you feel committed to above all others—boyfriend, significant other, life partner, or husband”). Of those in a main partnership, seven (64%) had been in main partnerships for <1 year. In the past six months, 20 (93%) BMSM indicated 1-2 sex partners. A total of 16 main partnerships and 21 casual partnerships (defined as “someone that you do not feel committed to above all others”), with some concurrency, were reported at time of interview among the sample. Twenty-three (90%) reported HIV testing at least every six months. BMSM in main partnerships reported engaging in condomless anal intercourse, while those in casual partnerships reported condom use. Those in casual partnerships reported not knowing their partner’s sexual history and HIV status, while those in main partnerships reported engaging in HIV testing with their partner.

Conclusions/Implications: In this analysis, Black MSM were likely to engage in condomless sex with main partners, which may have to do with trusting main partners. Therefore, understanding the risk and protective factors associated with intimate partner relationships in BMSM aged 25-34 residing in the Deep South is critical for determining how to decrease new HIV infections. Regardless of partnership status, engaging HIV negative BMSM in high impact prevention, such as PrEP, throughout the duration of their intimate relationships could be beneficial.

BP07

Abstract 5614 - Increasing antiretroviral PrEP uptake in a Boston community health center between 2011 and 2017: lessons learned during the diffusion of innovation

Author(s): *Kenneth Mayer, Douglas Krakower, Kenneth Levine, Chris Grasso, Victoria Powell, Juwan Campbell, Julia Marcus*

Issue: For antiretroviral PrEP to significantly decrease HIV incidence, it needs to be widely used, however, less than 20% of at risk Americans have utilized this evidence-based intervention. Analysis of trends in PrEP prescription from centers with early PrEP experience may help inform the development of programs to expand uptake in other centers.

Setting: PrEP was first prescribed in an urban community health center, which offers comprehensive primary care in 2011. In 2017 of more than 30,000 primary care patients, about half are LGBTQ, including more than 2,000 HIV-infected men who have sex with men (MSM), and several-fold more HIV-uninfected MSM. The clinic was one of the 3 sites for the first PrEP safety studies and one of 2 U.S. sites for the iPrEX PrEP efficacy trial.

Project: This abstract describes the transition from PrEP research to its implementation as part of routine primary care for sexually active MSM at one health center. Prior to the FDA approval of antiretroviral PrEP in 2012, the researchers that conducted PrEP trials shared findings with primary care providers in educational sessions, and some began prescribing PrEP in 2011. Many providers expressed concerns about drug safety, adherence, behavioral disinhibition, and sexually transmitted infections (STI). As clinicians underwent more educational sessions about PrEP, its use gradually became normative.

Results: PrEP was first prescribed in 2011 to 6 patients, with 23 in 2012, 104 in 2013, 549 in 2014, 930 in 2015, 1201 in 2016 and 1187 in 2017. In 2017, the mean age of PrEP users was 34 at initiation with 10.2% < 25 and 4.8% >50 years old. Only 1.4% identified as female. Almost 3/4 identified as White; 6.3% Asian/Pacific Islander; 6.0% Black/African-American; 5.9% multiracial, and 11.3% as Latinx. In 2011, of 58 staff prescribers, only 8 (13.8%) had prescribed PrEP, with 4 the maximum number of PrEP patients per provider. By the first half of 2018, 51 of 62 (82.3%) of prescribers had provided PrEP to at least one patient, with the maximum number of PrEP patients per provider being 224, and the median being 30 PrEP patients per provider. Whereas all of the PrEP patients were followed by MDs in 2011, by 2017, almost one fifth were followed by NPs or PAs. Bacterial STI (BSTI) rates in male patients increased more than 8-fold between 2005 and 2015. In 2015, 32.8% of new BSTI in men were diagnosed in PrEP users, who constituted 10.1% of the male clinic population, but 44.5% of the BSTI were among HIV-uninfected men who were not using PrEP. Since 2011, 17 MSM who initiated PrEP subsequently became HIV infected, the majority of whom (59%) had discontinued the medication more than a month prior to seroconversion. No PrEP user discontinued medication because of renal or other toxicity.

Lessons Learned: PrEP was readily implemented in a community health center, though it took several years for the majority of providers to prescribe it. Incident HIV infections were rare, though STI were common, suggesting the need for holistic sexual health care for PrEP users.

BP08

Abstract 5646 - Familismo and HIV prevention fatigue as predictors of PrEP use among Latino men who have sex with men in San Antonio, TX

Author(s): *Moctezuma Garcia, Guan Saw*

Background: HIV incidence continues to grow nationally among Latino Men who have Sex with Men (LMSM). Recent detection of molecular HIV clusters in San Antonio indicated rapid transmission among LMSM ages 20-29. Escalating rates of HIV transmission among LMSM raise the importance of developing effective HIV interventions that are culturally informed for LMSM—a highly marginalized population of color. Familismo, a strong attachment with family, has been identified as a core cultural value affecting wellbeing for Latinos, but there is a significant gap in the literature exploring the implications of family and HIV prevention, particularly the promising PrEP interventions, for LMSM ages 21-30. Moreover, HIV prevention fatigue, which places an emphasis on an individual's awareness relating to reducing HIV exposure, has been associated with HIV-related risk behaviors. Yet, the relationship between HIV prevention fatigue and PrEP use is unclear. This study aims to explore the association between familismo, HIV prevention fatigue, and PrEP use for young LMSM.

Methods: LMSM ages 21-30 in San Antonio, TX were recruited to complete a self-administered Internet survey through convenience-based sampling at gay venues and social applications. Standardized measures for Familismo ($\alpha = 0.90$) and HIV Prevention Fatigue ($\alpha = 0.88$) with a newly developed PrEP Survey were utilized to determine within group comparisons of PrEP decision-making factors for LMSM. A linear probability model was used to quantify the association of PrEP uptake (a binary outcome) and familismo and HIV prevention fatigue, controlling for age, multiracial identity, immigration status, sexuality, self-reported HIV status, education level, and annual household income.

Results: Overall, 115 LMSM (Mean age 25.4) completed the survey and self-reported an HIV negative status (99, 86.1%), unknown (12, 10.4%), or did not disclose (4, 3.5%). Regression results indicated that one standard deviation increase in familismo is associated with an increase in the likelihood of taking PrEP by 9.8 percentage points ($p < 0.05$), whereas one standard deviation increase in HIV prevention fatigue is associated with a decrease in the likelihood of taking PrEP by 9.2 percentage points ($p < 0.10$). The interaction effect between familismo and HIV prevention fatigue on PrEP uptake is significantly negative ($B = -0.184$, $p < 0.01$), suggesting that the relationship between familismo and PrEP uptake is positive for individuals with low HIV prevention fatigue while the relationship is negative for individuals with high HIV prevention fatigue.

Conclusions/Implications: This is the first study to associate high levels of familismo and low levels of HIV prevention fatigue as significant individual predictors for PrEP uptake among LMSM. Our study also found that familismo and HIV prevention fatigue are interdependent in influencing the uptake of PrEP for young LMSM. This study elucidates the importance for taking into consideration factors such as familismo and HIV prevention fatigue in designing culturally informed PrEP interventions for LMSM.

BP09

Abstract 5807 - Validity and reliability of the Kessler 6 scale for serious mental illness among populations at high risk for HIV infection

Author(s): *Rashunda Lewis, Cyprian Wejnert, Monica Adams, Catlainn Sionean*

Background: The Kessler 6 (K6) scale has been widely used to measure serious mental illness (SMI) in general populations.

This 6-item scale asks respondents to report frequency of experiencing various indicators of SMI using a 30 day recall period. Few studies have conducted validation analyses to determine whether the K6 is appropriate for use among those at high risk of HIV infection. Given that those at high risk of HIV infection may be more likely to experience poor mental health outcomes, it is important to validate measures used to assess SMI among these groups. CDC's National Behavioral Surveillance (NHBS) uses the K6 and surveys populations at high risk for HIV infection in annual rotating cycles, including persons who inject drugs (PWID), heterosexuals at high risk for HIV infection (HET) and men who have sex with men (MSM).

Methods: We analyzed NHBS data from 2015 ($n=10,702$ PWID), 2016 ($n=9,671$ HET), and 2017 ($n=10,866$ MSM). Eligible participants were adults ages 18 and older, lived within a funded NHBS city, and were recruited via respondent-driven sampling (PWID, HET) or venue-based sampling (MSM). To examine the psychometric characteristics of the K6 scale among these three populations, we performed

exploratory factor analysis, assessed scale reliability using Cronbach's alpha, assessed construct validity using chi-square tests, and gathered interviewer feedback to explore scale performance in the field. To address feedback that the scale item asking "how often everything is an effort" was difficult for NHBS participants to understand, we repeated analyses with the item deleted to assess whether a 5-item scale might be more appropriate for our populations.

Results: Participants in the PWID cycle had the highest prevalence of SMI (38%), followed by those in the HET (18%) and MSM cycles (12%). Results of exploratory factor analysis confirm the single factor structure reported during the development of the original scale with high factor loadings for all items (≥ 0.6) across cycles, with the exception of the effort item. The scale had high internal consistency (PWID: $\alpha=0.85$, HET: $\alpha=.81$, MSM: $\alpha=0.85$). We hypothesized that SMI would be correlated with self-reported cognitive disability - this held true across all populations with higher percentages of those with a cognitive disability classified as having SMI (PWID: 54% vs 28%, $p<0.001$; HET: 40% vs 11%, $p<0.001$; MSM: 36% vs 8%, $p<0.001$). Although the effort item had lower factor loadings than other items, psychometric properties did not improve significantly when it was removed.

Conclusions/Implications: The results of this analysis suggest that the K6 scale is appropriate for use among PWID, HET, and MSM populations. Although interviewers noted that the effort item is difficult for NHBS participants to understand, psychometric properties were not greatly improved with the deletion of the item. This study contributes to current HIV prevention research by validating the K6 using a large, geographically diverse sample and among populations in which it had not been previously assessed. Future analyses could consider whether the standard classification of "low" versus "high" SMI should be further calibrated for each of these groups.

BP10

Abstract 5853 - A qualitative study exploring the potential impact of PrEP uptake at an HBCU in the southern United States

Author(s): Sharon Parker, Lencola Harrington, Janaye Hargrave, Vanessa Gharbi, Yarnecca Dyson, Padonda Webb, Eric Junious, Lance Okeke, John Mitchell

Background: Individuals between the ages of 15-29 represent nearly half of all new sexually transmitted infections (STIs). Many people in this age group are college or university students. African American students are disproportionately impacted by high rates of STIs, including HIV. This study explored pre-exposure prophylaxis (PrEP), a pill taken daily by HIV-negative individuals to prevent new HIV infections. New knowledge was generated about the awareness, willingness, acceptability, barriers, and facilitators to the uptake of PrEP among students at a Historically Black College/University (HBCU). Students' perceptions about PrEP use and the relationships between social media and sexual contact, provided key information about PrEP uptake within this demographic.

Methods: A qualitative study was used to assess the awareness, willingness, acceptability, barriers, and facilitators to the uptake of PrEP for students attending an HBCU in the southern United States. Recruitment occurred in April 2018, and X undergraduate and graduate students were enrolled in the study. Trained qualitative research assistants recruited students via campus events, student organizations, email announcements, and flyers. We conducted 5 focus groups using a semi-structured

interview guide to understand students' perceptions and knowledge of PrEP and factors associated with the uptake of PrEP. Each focus group lasted 60–90 minutes. Students self-identified as heterosexual, men who have sex with men, or bi-sexual.

Grounded theory was used for qualitative analysis. Audio recordings were transcribed by a professional transcriptionist company, verified and de-identified. Interview transcripts were analyzed using a comprehensive coding process. The first reading was (1) deductive and allowed coders to read and capture participants' answers to individual questions and (2) the second review looked for themes in the text, employed an "open coding" process, and themes were grouped according to topics that arose during the focus groups. Double-coded transcripts were reviewed for concordance, discrepancies were discussed, and resolved among data analysts; which contributed to the reliability and validity of the study findings. We used Dedoose to analyze the data.

Results: Most students were unfamiliar with PrEP but were genuinely interested to learn about new HIV prevention strategies. Students indicated an interest in taking PrEP, but identified barriers such as HIV/PrEP stigma, disclosure to sexual partners, access to medication, perceived sexual risk compensation, and concerns about disclosure of protected health information. Students stated that social media played a major role in the arrangement of sexual encounters. Participants differentiated between hookups and committed relationships and their influence on PrEP uptake, partner disclosure, and sexual health decision making.

Conclusions/Implications: There is a need to develop PrEP health literacy campaigns that address stigma, disclosure, sexual risk behavior, and the impact of social media on PrEP decision-making for college-age students attending HBCUs and other institutions. There is a dearth of PrEP research focusing on this demographic, which could contribute new HIV infections among this age group. The study has shown the importance of future research that includes HBCU students in PrEP clinical trials.

BP11

Abstract 5934 - Connecting Latinos en pareja: a couple-based biobehavioral HIV prevention and treatment intervention for Latino men and their same-sex partners

Author(s): *Omar Valentin, Kristine Kim, Juan Franco, Omar Martinez*

Background: Latino Men who have sex with men (MSM) experienced 13% increase in HIV diagnoses from 2010-2014, more than any other racial/ethnic subgroup of MSM. Although some efficacious HIV prevention interventions for Latino MSM exist, none have focused on couples. Studies of non-Latino MSM show that transmission of HIV infection often occurs within primary couple relationships.

Methods: We describe Phase 1 of Connecting Latinos en Pareja, a randomized controlled trial, which aims to assess the preliminary efficacy of a biobehavioral couple-based HIV prevention intervention for Latino MSM and their same-sex partners. Phase 1 consisted of finalizing the Connecting Latinos en Pareja intervention and assessment measures through the engagement of a Community Advisory Board (CAB), pilot testing them with couples, and conducting necessary preparatory activities to launch the randomized controlled trial.

Results: Six themes emerged from the community advisory board meeting to improve our recruitment/engagement efforts and intervention content: 1) racial, gender, and relationship inclusivity (including non-monogamy); 2) language considerations, visual appeal, and responsive contextual factors; 3) use of simple and concise messaging emphasizing "increasing safety"; 4) make a conscious effort to not hypersexualize Latino men; 5) develop survey measures responsive to the psychological and environmental conditions leading to HIV sexual risk and poor engagement in HIV treatment; and 6) continue investment in the development and implementation of locally-developed homegrown prevention and treatment interventions. We also obtained input from four Latino male couples. The couples examined key intervention components, activities, and homework assignments, reviewed language considerations, and provided input on logistics such as the structure of the intervention. We modified each session based on this feedback and revised the manuals accordingly. In general, the Connecting Latinos en Pareja intervention was well received by Phase 1 couples and improved their knowledge on existing HIV biobehavioral prevention tools, their ability to dispel myths and misconceptions about HIV/AIDS, sexual communication, relationship functioning and their own professional and personal skills.

Conclusions/Implications: Engagement of a CAB, rigorous measures testing and systematic implementation processes are necessary prerequisites for large-scale delivery of peer-led HIV interventions to improve HIV protection among Latino MSM. HIV prevention research trials that directly engage Latino male couples and key stakeholders are vital to inform culturally tailored interventions, improve HIV protection, and reduce HIV-related disparities that disproportionately affect Latino MSM.

BP12

Abstract 5939 - Determining a nationally-representative estimate of sexual partners among men and women engaging in HIV-associated sexual behaviors to improve targeted surveillance and outreach

Author(s): *Spencer Schaff, Emeka Oraka, Iddrisu Abdallah, Felicia Seibert*

Background: Background: Men and women who engage in high-risk sex (i.e., sex with a person: who injects drugs; who is HIV-positive; in exchange for money or drugs; who is a man who has sex with men (MSM), or is an opposite-sex partner with other concurrent sexual partners) have increased risk of HIV infection and are presumed to have more sexual partners than adults who do not engage in these behaviors. HIV risk surveillance and data collection instruments use the number of recent sexual partners as a proxy for elevated risk of HIV infection. Determining the threshold of sexual partners associated with engaging in high-risk sex behaviors could improve HIV risk surveillance and outreach efforts. Therefore, we assessed the average number of recent sexual partners among sexually active men and women by reported high-risk sexual behaviors. These results address the gap in nationally-representative estimates and can be used to further the knowledge around HIV risk and testing practices among this population.

Methods: Methods: We analyzed data from the 2006-2015 cycles of the National Survey of Family Growth for men (N=14,124) and women (N=17,923) ages 18–44 who reported at least one opposite-sex partner in the past 12 months. Respondents reported the number of opposite sex partners in the past 12 months and “yes/no” answers to questions regarding HIV-related risk behaviors (i.e., sex with a person who injects drugs, is HIV-positive, exchanged sex for money or drugs, men who have sex with

men (MSM), or a partner with other concurrent sexual partners). Study covariates included age, race/ethnicity, education, income, marital status, urban residence, and sexual orientation. Multivariate linear regression models determined the association between reporting a high-risk sex partner in the past 12 months and the number of opposite-sex partners.

Results: Results: Approximately 13.8% (CI=12.6–15.1) of sexually active men and 12.1% (CI=11.3–13.0) women engaged in high-risk sexual behaviors in the past 12 months. After adjusting for study covariates, sexually active men reporting high-risk sexual behaviors had an average of 3.2 (SD=0.1) opposite sex partners in the past 12 months, 1.9 (CI=1.7–2.1) more opposite sex partners than men who did not engage in these behaviors ($p < 0.001$). Sexually active women reporting high-risk sexual behaviors had an average of 2.4 (SD=0.1) opposite sex partners in the past 12 months, 1.2 (CI=1.1–2.3) more opposite sex partners than women who did not engage in these behaviors ($p < 0.001$).

Conclusions/Implications: Conclusions: Sexually active men and women who engaged in recent high-risk sexual behaviors have more opposite sex partners than adults who do not engage in these behaviors. Given that HIV surveillance and outreach efforts often include the number of sexual partners as a component of overall risk of HIV infection, correlating the average number of sexual partners to those who engage in high-risk behaviors will improve future targeted HIV testing and prevention efforts. Future studies might determine the rate of confirmed HIV or other STIs attributable to an increased number of sexual partners.

BP13

Abstract 6000 - Using community-based and participatory mixed-methods research approaches to inform the implementation of biomedical HIV prevention strategies in Puerto Rico

Author(s): *Carlos Rodriguez-Diaz, Jose Martinez-Velez, Marijulie Martinez-Lozano, Damian Cabrera-Candela, Vivian Tamayo, Souhail Malave-Rivera*

Background: HIV continues to disproportionately affect otherwise socially vulnerable populations. Globally, epidemics of HIV in men who have sex with men (MSM) continue to expand in most countries. In Puerto Rico (PR), an unincorporated territory of the USA, MSM represent 39% of all the new cases and is the only group in which HIV incidence has increased over the last decade. PrEP is changing the HIV prevention landscape; however, PR's current political and economic crisis has limited the access to PrEP among those at increased risk for infection. Currently, PR is structurally unable to provide new resources to the HIV prevention response (e.g. PrEP) due to multiple factors including a \$100 billion debt that represents nearly 70% of the GDP and a cap on funding for healthcare established by the USA Congress. Under these circumstances is difficult to adequately respond to the HIV prevention needs in the island. Considering this scenario, community-based initiatives have been responding by assessing the needs of populations at increased risk of infection and incorporating best practices in the implementation of biomedical HIV prevention services.

Methods: An academic institution in collaboration with community-based organizations used a community-based participatory research (CBPR) approach incorporating exploratory mixed-methods to inform the implementation of biomedical HIV prevention strategies in PR. Semi-structured life-history interviews with HIV-negative MSM were conducted, followed by an on-line survey targeted to assess

biomedical HIV prevention, including awareness and perceived access to PrEP, among HIV-negative MSM. Following CBPR principles, research instruments, data collection, and interpretation has been conducted. The software NVivo and SPSS were used for data management and to conduct content and descriptive statistical analysis, respectively.

Results: 16 HIV-negative MSM participated in semi-structure interviews, and 256 completed an on-line survey. During the interviews, participants expressed unawareness or limited knowledge of PrEP, not having had discussions about PrEP with healthcare providers, trust issues with a new pharmacological intervention, and anticipated potential challenges with adherence. In the on-line survey, 64% of the sample could not assert on the proper use of PrEP, and 47% reported that PrEP was among the HIV-prevention services perceived as least accessible in PR. Overall, low PrEP knowledge and awareness were documented along with perceived barriers to access.

Conclusions/Implications: Current grass-root strategies to make biomedical HIV prevention available are targeting increasing PrEP awareness and building collaborations for access to PrEP in PR. These strategies include increasing awareness of HIV prevention tools among MSM, including condom use and PrEP. Similarly, partnerships are being elaborated to increase primary healthcare providers' capacity to address the sexual health and HIV prevention needs of MSM. Using CBPR and mixed-methods research approaches demonstrate to be promising tools for the design of evidence-based interventions to reduce social inequities and increase the effectiveness of current and future HIV response strategies.

BP14

Abstract 6020 - Examining sociosmographics, HIV risk behaviors and self-perceived HIV risk in U.S. women seeking pre-exposure prophylaxis in a PrEP demonstration project

Author(s): *Jill Blumenthal, Raphael Landovitz, Sonia Jain, Feng He, Margaret Caplan, Rivet Amico, Sheldon Morris, Jamila Stockman, Katya Corado, David Moore*

Background: Rates of pre-exposure prophylaxis (PrEP) uptake have been low among cisgender women in the US due to in part to limited PrEP awareness, low self-perceived HIV risk, and questions about PrEP efficacy. From one of the first US PrEP clinical trials designed for women, we describe the sociodemographics, motivations for seeking PrEP and HIV risk behaviors among women who screened for participation in the demonstration project, and identify differences between those who enrolled versus women who did not go on to participate.

Methods: Adherence Enhancement Guided by Individualized Texting and Drug Levels (AEGiS) is an ongoing PrEP clinical trial of 139 HIV-negative cisgender women 18 years or older at-risk for HIV in Los Angeles and San Diego Counties. Of 166 women who completed a screening visit, 139 were enrolled in the study and 27 were screen failures. Reasons for screen failure included: not presenting for baseline visit (n=18), not meeting risk criteria (n=7) and having unacceptable labs (n=2). At screening, women provided sociodemographic information and completed measures of HIV risk behaviors and perception; PrEP awareness, efficacy and motivations; and intimate partner violence (IPV) on a computer-assisted self-interview (CASI). Based on reported risk behaviors meeting study inclusion criteria, women were grouped into three primary risk groups: (1) women in serodiscordant partnerships, (2) sex workers, and (3) women whose risk is attributable to known and unknown partner behavior. Fisher's exact test or

Wilcoxon rank sum test were used to determine differences between enrolled versus screen-failed groups.

Results: Of 166 women completing a screening visit, median age was 39 (IQR 31-47) with 41% non-Hispanic Black, 22% non-Hispanic White and 19% Latina. Forty-five percent completed high-school/GED or less, nearly 69% earned <\$2000 per month, with half reporting full- or part-time employment. Fifty-percent were single, and 49% reported history of IPV in the last year. The most common reasons for wanting to take PrEP were protection from acquiring HIV (65%) and being in a serodiscordant relationship (26%). There were no differences in those who enrolled versus screen-failed by sociodemographics, history of IPV or motivations for taking PrEP. Of 139 women enrolled, 47% were in serodiscordant relationships, 16% were sex workers and 37% had high-risk partners; among 17 screen-failed women who had HIV risk group information, none reported sex work ($p=0.05$). Compared to those that screen failed, women who enrolled were more likely to have previously heard of PrEP (63% vs 36%, $p=0.02$), had higher HIV risk perception (mean score (SD) 27 (5.8) vs 22 (6.6), $p=0.003$) and reported higher perceived PrEP efficacy (mean VAS (SD): 85% (17%) vs 77% (15%), $p=0.019$).

Conclusions/Implications: Cisgender women screening for a PrEP demonstration project in Southern California had demographic and social risk factors associated with increased risk of HIV acquisition. While there were no differences in sociodemographic factors, women who enrolled had higher PrEP awareness, perceived PrEP efficacy and HIV risk perception compared to individuals that screen failed. These findings suggest that empowering women with PrEP knowledge and sexual risk awareness may increase PrEP uptake.

BP15

Abstract 6041 - Effects of a PrEP adherence intervention on sexual risk behavior and substance abuse in black MSM and transgender women in Harlem

Author(s): Justin Knox, Paul Colson, Frieda Winterhalter, Yingfeng Wu, Yael Hirsch-Moverman, Julie Franks, Hugo Ortega, Wafaa El-Sadr

Background: In a trial to assess the effectiveness of scaling up Pre-Exposure Prophylaxis (PrEP) in community medical practices serving populations at risk for HIV, we compared the effectiveness of an enhanced PrEP adherence package (EPrEP) to standard of care (SOC) PrEP to reduce HIV risk behavior and substance abuse in Black men who have sex with men (MSM) and Transgender Women (TGW) in Harlem.

Methods: A total of 204 participants (194 MSM and 10 TGW) were enrolled, randomized to EPrEP or SOC PrEP, and followed for one year. EPrEP included peer navigation, live and online support groups, and SMS text messages. Interviews at baseline and 12-months assessed HIV risk behavior (defined as unprotected anal intercourse (UAI) in the past month), alcohol problems (assessed using the Alcohol use Disorders Identification Test (AUDIT) in the past 3-months) and drug problems (assessed using the TCU Drug Screen II in the past 3-months). Those with missing interviews at follow-up were excluded; thus study arm was analyzed as-treated. Multivariable analyses controlled for all other factors associated with respective outcomes at $p<0.2$ in crude analyses.

Results: At baseline, 64.2% of participants reported UAI, 17.7% reported alcohol problems and 15.7% reported drug problems. There was no difference by study arm ($p=0.22$, 0.42 , 0.48 , respectively). Of the 204 participants, 132 (64.7%) completed the 12-month interview; there was no difference by study arm ($p=.29$). At follow-up, lower proportions of participants reported UAI (51.5%) alcohol problems (11.4%) and drug problems (6.1%). Of the EPrEP group, 18 (27.0%) reduced UAI, compared to 17 (26.1%) in the SOC PrEP group ($p=.91$). Of the EPrEP group, 7 (10.1%) reduced alcohol problems, compared to 8 (12.7%) in the SOC PrEP group ($p=.64$). Of the EPrEP group, 11 (15.9%) reduced drug problems, compared to 7 (11.1%) in the SOC PrEP group ($p=.42$). In multivariable analysis, study arm was not significantly associated with reductions in UAI, alcohol problems or drug problems ($p=0.22$, 0.42 , 0.48 , respectively). Results of sensitivity analyses that used intent-to-treat were nearly identical to these results.

Conclusions/Implications: A trial aimed at assessing the effectiveness of an enhanced PrEP adherence package saw a reduction in levels of sexual risk behavior and substance abuse, although no differences were observed between those in the treatment arm and those receiving SOC.

BP16

Abstract 6062 - Cumulative violence exposure across the life course is associated with sexually transmitted infections (STIs) among black women at increased risk for HIV in Baltimore, MD

Author(s): *Kiyomi Tsuyuki, Christina Catabay, Argentina Servin, Jacquelyn Campbell, Jamila Stockman*

Background: Black women continue to be disproportionately affected by HIV and sexually transmitted infections (STIs) in the United States. Moreover, numerous studies have confirmed the link between HIV/STIs and violence against women with previous research indicating that women exposed to gender-based violence have an increased risk of acquiring HIV/STIs. However, few studies have investigated which type of violence and at what point in a woman's life course confers the most risk for acquiring STIs. This study examines the relationship between lifetime cumulative violence and past-year STIs among Black women in Baltimore, MD.

Methods: From November 2014 to December 2017, Black women at increased risk for HIV ($n=279$) were recruited from low-income health clinics into a retrospective cohort study in Baltimore, MD (R01HD077891; PI: Stockman). By study design, at least one-third of the sample have experienced forced sex since age 18 and two-thirds have not experienced any abuse since age 18 years. Survey data was collected on past-year violence (CTS-2: physical and sexual violence) and STI diagnosis (past-year). Cumulative violence was a summation of the lifetime experience of one or more types of (physical and/or sexual) violence experienced before age 18, since age 18, and recent (past-year). Logistic regression models were used to examine whether cumulative violence was associated with having past-year STIs. Negative binomial regression models were estimated to examine whether cumulative violence was associated with number of past-year STIs.

Results: In our sample, 58% had an STI in the past year, 11% had 1 to 3 cumulative violence experiences, and 26% had 4 to 6 cumulative violence experiences. The most common STI reported was bacterial vaginosis (39%), followed by chlamydia (28%), gonorrhea and trichomoniasis (18% each), herpes (3%), syphilis (2%), and hepatitis B or C (1% each). Among women with 1-3 cumulative violence experiences,

28% experienced child sexual abuse, 59% experienced adult physical abuse, and 22% experienced past-year adult sexual abuse. Among women with 4-6 cumulative violence experiences, 76% experienced child sexual abuse, 75% experienced child physical abuse, and 96% experienced adult physical abuse. We found that women with 1-3 cumulative violence experiences (OR=3.71, 95% CI: 1.46-9.44) had increased odds of reporting a recent STI. While sexual assault since age 18 had increase odds of reporting a recent STI, the results were not significant. Additionally, women with 1-3 cumulative violence experiences (IRR=1.72, 95% CI: 1.16-2.54) had a significantly greater incidence rate ratio in the number of STIs reported in the past year.

Conclusions/Implications: Having 1-3 cumulative violence experiences was significantly associated with increased odds of having a recent STI. These findings suggest the importance of trauma-informed STI treatment for abused women, as well as screening abused women for STIs. Future research are needed to better understand the mechanistic factors responsible for the association between cumulative violence and STI acquisition.

BP17

Abstract 6069 - Creating Representative Advertisements Zone [C.R.A.ZE]: HIV/STI media messages for black women who attend historically black colleges/universities

Author(s): *Rasheeta Chandler, Nikita Toppin, Natalie Hernandez, Omar Sims*

Issue: One in 32 African American (AA) women will be diagnosed with Human Immunodeficiency Virus (HIV) in their lifetime. AA women ages 18-25 have higher rates of Sexually Transmitted Infection (STI) acquisition and unintended pregnancies and are almost five times more likely to have had an abortion than white women. These disproportionate rates, often linked to risky sexual behaviors, are comparable in the general AA female population and in the AA female college student population. Over half of all Black women ages 18-25 are pursuing higher degrees and approximately 81% of students who attend HBCUs are Black. Consent (active or passive) to multiple/shared sexual partnerships, a predictive variable for HIV/STI infection among all populations, is a noted characteristic of the college environment. Sexual compromise (e.g. impaired or uninitiated condom navigation) may result from an exaggerated perception of female-to-male ratios (statistical proportions are nearer to 1.61 females per male) and limited dating availability in the college environment: this is a particular concern among Black college females. HIV risk behavior in this population, including effective sexual HIV risk assessment, is impacted by the extensive effects of sexual trauma from intimate partner violence (IPV) and sexual coercion/rape. Childhood sexual abuse among Black women has been reported as high as 44%. Low self-esteem, conflicted HIV partner communication, and extensive socio-psychological/post-traumatic damage portend greater risk vulnerability. HIV/STI transmission and other negative health outcomes have also been attributed to gender-based disparities, including marginalization and economic vulnerability.

Setting: Focused in Atlanta, GA, this proposed pilot HIV/STI prevention social media campaign sought to solicit peer-produced content that is contextually college-specific and speaks to this subculture of young Black women who exist in the HBCU university microenvironment.

Project: Once the research team has selected II audio-only/ II audio-visual, we proceeded with production of representative vignettes. XX participants [II focus groups with X participants each] will provide commentary on the audio-video & audio for relevance to the target population. The chosen audio-video & audio only products from this study will be used in a larger study to determine effectiveness for outcomes like improved normative condom-use negotiation expectancies, increased HIV testing, increased sex refusal self-efficacy.

Results: Nods to culture references were most receptive. Having scenes specifically tailored to the HBCU scene in Atlanta was more appreciated and resonated. The catchy jingle was least liked and memorable, while the #getout challenge video was most memorable and impactful.

Lessons Learned: Almost all participants were in agreement that social media is a major influencer of stigma, but reality-TV is moving into a more permanent position of influence working congruently with social media. From this study we quickly realized that you cannot have one conversation about social media and not include reality-TV conversations at the same time. Reality-TV is a mainstay in pop culture and must be in direct alignment with advertisement and PSA messaging on HIV.

BP18

Abstract 6080 - Awareness of PrEP in an urban community health center population, 2017

Author(s): *Helena Kwakwa, Mayla Jackson, Oumar Gaye*

Background: TDF/FTC was approved for HIV pre-exposure prophylaxis (PrEP) by the FDA in July 2012. PrEP uptake has since increased substantially overall. However there remain subsets of the population with modest to high prevalence of HIV and low PrEP uptake rates. These groups include African Americans, Hispanics and women. It has been shown that previous awareness of PrEP is associated to significantly greater uptake. We examine the awareness of PrEP among subsets of Philadelphians.

Methods: Between January and December 2017 all persons undergoing HIV testing at the city health centers of the Philadelphia Department of Public Health were administered a brief survey. The survey included a question about awareness of PrEP as an HIV prevention method. Data were analyzed by sex, age, race and ethnicity, and by nativity. Specific data for men who have sex with men (MSM) were analyzed separately.

Results: A total of 4098 persons participated in HIV testing at the city health centers in 2017 and completed the survey. A slight majority (53.1%) were male and 46.5% female. The male group included 134 (6.2%) MSM. Non-Hispanic Blacks constituted the largest racial group represented (61.8%), 4.8% were non-Hispanic White, and 10% were of Hispanic ethnicity. The foreign-born made up 20.9% of the cohort. Young adults aged 18-24 years represented 27.6%. Overall 12% of women and 16.8% of men had previously heard of PrEP. Among non-Hispanic Blacks, non-Hispanic Whites, and Hispanics, 17.0%, 20.2% and 13.7% respectively were aware of PrEP, while of the foreign-born only 7% were PrEP-aware. Among the 18-24 year age group, 14.7% of females and 17.2% of males were aware of PrEP. For the 25-39 year group, 12% of women and 21.2% of men had heard of PrEP. Awareness was 10.1% in women aged 40-60 years, and 10.4% for their male counterparts. In the over 60 population awareness among women fell to 5% while it remained steady for men at 10.4%. MSM reported the highest levels of awareness; 63.4%

reported having heard of PrEP. Awareness levels trended higher but not statistically so for non-Hispanic White MSM (66.7%). Awareness was high for all racial and ethnic groups (61.1% for Hispanic MSM, and 60.8% for non-Hispanic Black MSM), and for the foreign-born (61.1%).

Conclusions/Implications: Information about PrEP has been effectively communicated to Philadelphia's MSM communities regardless of race, ethnicity or nativity. However awareness levels remain low among women and in non-MSM of all age strata, as well as in the general foreign-born community. Raising awareness of PrEP in non-MSM populations while maintaining the momentum of awareness campaigns among MSM is one strategy to improve uptake in non-MSM communities. This study also supports a recommendation of routine HIV risk assessment in the primary care setting, with PrEP recommendation where indicated.

BP19

Abstract 5359 - National post-exposure prophylaxis hotline (PEpline) emergency response to neural tube defect alert for women given dolutegravir in pregnancy

Author(s): *Ronald Goldschmidt, Carolyn Chu, Brenda Goldhammer, Lealah Pollock*

Issue: In May, 2018 the U.S. Food and Drug Administration alerted health care providers and the public that cases of neural tube defects (NTD) had been reported among babies born to women living with HIV who were treated with dolutegravir (DTG) in early pregnancy. Dolutegravir also is commonly prescribed as part of post-exposure prophylaxis (PEP) to prevent HIV transmission after occupational and non-occupational exposures. Therefore, special approaches to PEP are warranted for women of childbearing potential who sustain possible exposures to HIV.

Setting: The National Post-Exposure Prophylaxis Hotline (PEpline) of the Clinician Consultation Center (CCC) is one of six national telephone consultation services (PEpline, HIV Warmline, PrEpline, Perinatal HIV Hotline, HEpline and Substance Use Warmline) for clinicians across the US.

Project: Immediately following the Alert and other HHS agencies' (CDC and HRSA) announcements, the PEpline implemented a multipronged approach to provide guidance and education for clinicians nationwide in managing post-exposure care of women of childbearing potential to prevent acquisition following occupational and non-occupational exposures. The effort included tele-consultation and website updates. PEpline tele-consultation was modified to include: explanation of preliminary findings regarding NTD and DTG exposure; relevance of these findings to PEP decision-making; recommendations against DTG-containing PEP in specific instances (pregnancy less than 8 weeks gestation, women who desire pregnancy in the post-exposure period, or women without effective contraception); instances in which DTG can be considered if PEP is indicated (pregnancy beyond 8 weeks gestation, or women taking effective contraception); discussion whether use of other PEP medications in the same class, i.e. raltegravir, warrants similar concern; and alternate PEP regimens. The CCC website was updated with advisories about (and link to) the safety Alert, and links to relevant articles and guidances.

Results: In the first 3 weeks after the Alert the PEpline received 608 calls, of which 215 (35.4%) concerned exposures involving women of childbearing potential or early in pregnancy. Of these 215

consultations, preliminary findings indicate specific discussions of DTG occurred in 109 (50.7%). Seven (7%) of these 109 discussions were caller-initiated. Additional topics commonly discussed included: risk assessment; source person and exposed person testing; PEP and other management decisions; PEP selection; and [other] adverse drug-related events. Updated data from the subsequent 6 months will be provided at time of abstract presentation.

Lessons Learned: Safety alerts regarding new findings, especially toxicities or evidence of risk/ benefit affecting clinical practices require immediate broad dissemination. Because many PEP providers (e.g., emergency departments, urgent care centers, and hospitals) typically follow standardized protocols and might not have immediate access to experts, disseminating alerts and related information and providing expert clinical advice (whether via telephone or other distance-based consultation services or local/ regional networks) is critical. In collaboration with its funders, HRSA and CDC, the PEPLINE responded immediately to this new required change in PEP management and continues to serve as a unique, key resource in providing immediate response regarding unanticipated medication safety findings.

BP20

Abstract 5470 - Barrier and facilitators to performing evaluations of HIV care services

Author(s): *Christopher Voegeli*

Issue: HIV care services along with the Capacity Building Assistance (CBA) services that work to improve them need continual evaluation to demonstrate value, improve effectiveness, and identify contextual nuances that require attention when developing and maintaining services and programs. Although these services have a robust evidence base, the implementation in new and varying context requires the development of flexible evaluation strategies to ensure continual improvement and effectiveness. HIV care services and programs contend with a unique set of barriers to authentically incorporate evaluation into program planning and implementation. The improvement of these programs requires the use of methodologically sound and context-specific evaluations integrated into each stage of care and program management.

Setting: The context and lessons learned for this discussion come from work performed in two different settings. The first is at the Denver Prevention Training Center (PTC) as a CBA provider for healthcare organizations funded by the Centers for Disease Control and Prevention (PS14-1403) which provides training in High Impact Prevention programs and provides technical assistance to improve HIV services. The second is evaluation efforts at Denver Public Health in the Division of STD and HIV Prevention and Control which provides HIV care and testing services to residents in the Denver metro-area.

Project: The Denver PTC provides capacity building services and training to healthcare organizations. This discussion entails lessons learned from performing evaluation services for the trainings offered via the CBA program and the recipients of these services. Additional knowledge from the Denver Public Health's Division of STD and HIV Prevention and Control evaluation experience in departmental strategic planning and outreach testing programs will also be shared.

Results: There are three common barriers impacting the ability of organizations to integrate evaluation into HIV program planning. The first is the lack of recognition as to how evaluation is different from

research and quality improvement activities. The second barrier includes low stakeholder buy-in to perform the evaluation including; bringing evaluators in at the beginning of the program or service development, use of collaborative evaluation approaches, and following through with evaluation recommendations. The third barrier involves cost and perceived lack of value-added return. This presentation identifies three program characteristics that facilitates overcoming these barriers and improving the use of evaluation. The first facilitator is building the capacity of program leadership and staff with a strong understanding of evaluation and the value it can provide during program development. The second facilitator incorporates the development and use of a clear evaluation plan made through a collaborative process. The third facilitator is an appropriate use of evaluation tools such as logic models, evaluation rubrics, and a pre-mortem. These tools will be discussed and presented as ways to improve evaluation efforts.

Lessons Learned: Program planners and administrators with a better understanding of the barriers and facilitators can more effectively incorporate evaluation into HIV care services. Such capacity further enables programs to both demonstrate the value of their interventions as well as adjust to contextual nuances to ensure resources are used responsibly and effectively towards the health of people in care.

BP21

Abstract 5487 - Enhancing readership, engagement, and educational effectiveness of CDC HIV fact sheets using a consumer-centric approach

Author(s): *Brittany Petish, Michael LaFlam, Dominique Thomas, Rosland Martin, Demorah Hayes, LaJoi McAdory*

Issue: CDC wanted to reassess the utility of their HIV fact sheets. The authors evaluated the existing fact sheets for readability, design effectiveness, and number of downloads. The evaluation determined that these documents were too technical and content-heavy and lacked visual appeal—factors that likely influenced metrics.

Setting: CDC's Division of HIV/AIDS Prevention, Prevention Communication Branch, publishes fact sheets about HIV among US subpopulations and HIV risk and prevention topics. Audiences include affected subpopulations, prevention partners, and the general public.

Project: The authors substantially redesigned the fact sheets based on 2 consumer-centric priorities: 1) extensive plain-language rewrites to improve readability and highlight key messages, and 2) use of infographics and other visual elements to attract readers' attention and increase retention. The goal was to improve consumer engagement with CDC HIV fact sheets, thereby increasing their impact on HIV knowledge and prevention.

To evaluate the fact sheets' utility, the authors analyzed unique downloads of fact sheets published around 6 HIV awareness days. They compared downloads of the redesigned fact sheets over a 4-week period beginning the day the revised fact sheet was posted to downloads of the old fact sheets over the same period in the preceding year.

Results: Downloads of the revised fact sheets were considerably greater than downloads of the old fact sheets over the same period. Downloads increased 673% around World AIDS Day (HIV in the United

States increased from 4 to 998; HIV in the United States by Geography increased from 237 to 864); 407% around National Black HIV/AIDS Awareness Day (HIV Among African Americans increased from 101 to 574; HIV Among African American Gay and Bisexual Men increased from 43 to 156); 290% around National Women and Girls HIV/AIDS Awareness Day (HIV Among Women increased from 97 to 582; HIV Among Pregnant Women, Infants, and Children increased from 102 to 195); 713% around National Native HIV/AIDS Awareness Day (HIV Among American Indians and Alaska Natives increased from 8 to 65); 284% around National Youth HIV/AIDS Awareness Day (HIV Among Youth increased from 116 to 446); and 152% around National Transgender HIV Testing Day (HIV Among Transgender People increased from 77 to 194).

CDC's outreach efforts with links to the fact sheets were comparable in both years, and metrics show most users typed in the URL or used a bookmark to access the fact sheets. Thus, the increases appear to be due to improvements in fact sheet design and not an artifact of differential promotion.

Lessons Learned: These results show that engagement with CDC HIV fact sheets increased substantially following the application of consumer-centric language and design principles. Increased engagement likely results in improved communication of CDC's science and policy and can ultimately enhance CDC's HIV prevention impact. HIV prevention programs can improve the reach of their messages by following these principles in communication products.

BP22

Abstract 5493 - PrEP and PEP access is challenging: changing the paradigm with online navigation services

Author(s): *Laura Marie Lazar, Alan McCord, Reilly O'Neal, Yamini Oseguera-Bhatnagar, Charlie Romero, Shannon Weber*

Issue: U.S.-based uptake of pre-exposure prophylaxis (PrEP) for HIV prevention has been high among White gay men in urban centers whose access to PrEP is fostered by convenient clinical services supported by benefits navigation. Overall uptake of PrEP is lower than the CDC's estimated 1.1 million U.S. adults who could benefit; 1.4% of potential African American and 2.5% of potential Latinx American beneficiaries are estimated to have filled a PrEP prescription, contrasted with 14% prescriptions filled by potential White beneficiaries.

HIV prevention education and health benefits navigation is essential to assure potential PrEP and PEP (post-exposure prophylaxis) users access insurance coverage, state and local government PrEP services, and industry-sponsored resources.

Given research that Black and Latinx internet users are accessing online spaces at rates comparable to White internet users (87%, 88%, and 89% of adults, respectively), the potential for narrowing the racial access gap by utilizing online PrEP outreach and education is high.

Setting: PleasePrEPMe:Connect has reached potential PrEP/PEP users online primarily throughout California. Online promotion has focused on Black and Latinx men who have sex with men and trans women, in less resourced geographic areas. Chat visitors range greatly in age (13-70+), level of PrEP/PEP knowledge, and complexity of case need.

Project: PleasePrEPMe:Connect is staffed by knowledgeable and experienced navigators who utilize a sexual health coaching model to deliver PrEP/PEP information and referral services through the cloud-based chat platform, SnapEngage. Via English and Spanish bilingual online chat, navigators help locate PEP/PrEP services through PleasePrEPMe's provider directory, respond to frequently asked questions with HIV prevention resources, and support uninsured, insured and undocumented visitors with benefits navigation.

Results: From April 2017 through June 2018 PleasePrEPMe:Connect received 1,135 Connect interactions (67% chat; 17% offline messages; 11% email; and 5% of text, calls and social media combined). Of these, 7% required additional investigation and follow-up. Major themes from these challenging cases included: emergency situations requiring PEP, including sexual assault (30%); assisting with complex insurance needs (20%); providing hyper-local lists of providers (13%); consumers seeking trans- and hormone therapy-competent PrEP providers (7%); and locating global resources (5%).

Lessons Learned: Analysis of PleasePrEPMe:Connect chat transcripts provides insight into the myriad challenges often faced by PrEP and PEP consumers in their attempts to access care. Further, it offers a window into how online spaces can act as an essential conduit of confidential, accurate information, which can often be inaccessible in the offline world due to geography, stigma, misinformation, or lack of resources. The PleasePrEPMe:Connect chat experience demonstrates that compassionate yet practical healthcare navigation can occur in the digital world, providing the potential to reach those individuals yet unserved by the health system.

BP23

Abstract 5503 - Adapting personalized cognitive counseling to address episodic substance use among men who have sex with men: incorporating findings from Project ECHO into a revised curriculum

Author(s): *Amanda Doreson, Gary Naja-Riese, Jonathan Fuchs, Ed Wolf, Tim Matheson, Francisco Nanclares, Charles Collins, David Whittier*

Issue: Personalized Cognitive Counseling (PCC) is an evidence-based intervention for HIV prevention that the Centers for Disease Control and Prevention (CDC) has disseminated nationally since 2002. PCC aims to reduce HIV risk behaviors among men who have sex with men (MSM) not currently taking pre-exposure prophylaxis (PrEP) by helping the client identify his self-justifications for condomless anal intercourse (CAI) and other HIV risk behaviors. Substance use is strongly associated with HIV risk behaviors among MSM and is a frequent justification for CAI, i.e., "I was too high to think about using a condom." PCC was studied among episodic substance using men who have sex with men (ESUMSM) in the Project ECHO study. This presentation will describe this study and the process of revising the original PCC curriculum based on the lessons learned regarding episodic substance use.

Setting: PCC is typically implemented in community-based organizations (CBOs) that serve MSM. Researchers conducted the Project ECHO trial in CBOs located in San Francisco from 2010 to 2012. A randomized controlled trial, Project ECHO involved conducting PCC to address HIV risk behaviors among ESUMSM. It consisted of 326 participants recruited through street outreach who had reported engagement in CAI while under the influence of one or more substances. Men were assigned randomly to either the intervention group (i.e., adapted PCC plus a rapid HIV test; n = 162) or the control group

(i.e., rapid HIV test only; n = 164). Researchers followed both arms over six months and then analyzed trends in participants' sexual behaviors and substance use patterns.

Project: Participation in Project ECHO demonstrated significant reductions in the number of CAI episodes with the three most recent non-primary partners among ESUMSM. However, no significant effects were shown among dependent substance users. Based on these findings regarding Project Echo's efficacy for ESUMSM, CDC, in collaboration with the San Francisco Department of Public Health and the University of California–San Francisco Alliance Health Project, revised the PCC curriculum to address the needs of this sub-group.

Results: The revised curriculum includes enhanced screening questions to differentiate episodic substance use from dependent substance use, additional self-justifications focused on substance use for the client to examine, substance abuse education and referrals to treatment services, and information about PrEP. CDC's Capacity-Building Assistance Provider Network is currently piloting this revised version through trainings of facilitators held throughout the United States.

Lessons Learned: Adapting PCC for ESUMSM underscored the need for strong ties to the original researchers from Project ECHO and a nuanced understanding of the disparate implementation contexts for the intervention. Testing the use of different training modules, varying delivery length, and gathering feedback from both trainers and participants were pivotal for optimizing programmatic effectiveness. The finalized version of the adapted PCC may help to reduce HIV risk behaviors among ESUMSM using a non-biomedical approach.

BP24

Abstract 5511 - ASPIRA Association's intergenerational approach for addressing HIV/AIDS in the Latino community

Author(s): *Hilda Crespo*

Issue: This presentation focuses on an innovative approach for HIV/AIDS prevention with a primary focus on youth and older adults

Setting: The geographic location is national with a focus on urban areas of New York, New Jersey, Illinois, Florida, Pennsylvania, Delaware, Massachusetts, Puerto Rico, Washington, DC, California, etc. The intended audience is Latino youth and older adults.

Project: The ASPIRA Association is a national youth-serving organization that promotes education, leadership development and healthy communities in the Latino community. ASPIRA's HIV/AIDS prevention model program utilizes an intergenerational model. In partnership with the National Hispanic Council on Aging, the program includes workshops, health fairs, conferences, and "charlas" (informal chats). It also includes a strong presence in social media including, Facebook, Twitter, and Instagram. Moreover, the model includes Blogs, partnerships with schools, HIV Testing organizations, Spanish language media, State health departments, and other health promotion organizations.

Results: Over the past year, the program has sponsored 10 events and reached over 25,000 individuals through events. It has had over 8 media/ad placements and generated close to 2 million media impressions. Moreover, we have reached over 11,000 individuals through e-mail blasts and our use of social media has resulted in over 307 Facebook posts, 300 tweets, 146 retweets, and 60 Instagram posts. Our media partners have included Univision, Telemundo, and Hispanic radio network, among others. Our partners have included NHCOA, La Red Hispana, Pinyon Foundation, Diverse Elders Coalition, Latin American Youth Center, National Organizations for Youth Safety, Vida Senior Center, National Hispanic Medial Association DC Prevention Council, National Hispanic Corporate Council, Dialogue on Diversity and ASPIRA Associate Offices.

Lessons Learned: Several lessons were learned, including partnerships and collaborations can assist in meeting program goals and in expanding outreach efforts; use of mass media can be highly beneficial in prevention and education efforts, and it is highly effective in reaching youth and in addressing stigma.

BP25

Abstract 5548 - Translating knowledge into products: identifying behavioral interventions for HIV prevention in CDC's compendium of evidence-based interventions and best practices for HIV prevention

Author(s): *Terrika Barham, Christina McDonald, The Prevention Research Synthesis Project*

Issue: National HIV prevention goals call for the expansion of efforts to prevent HIV infection using a combination of effective, evidence-based approaches. Identifying effective, evidence-based approaches for HIV prevention can be challenging, particularly for high priority populations. The objective of this presentation is to describe the CDC's HIV/AIDS Prevention Research Synthesis (PRS) systematic process of identifying evidence-based (EBIs) and evidence-informed interventions (EIs), and provide information on measures of successful dissemination from the PRS Project.

Setting: The EBIs and EIs identified by the PRS project are listed in the Compendium of Evidence-Based Interventions and Best Practices for HIV Prevention (aka the Compendium). The interventions included in the Compendium help HIV prevention service providers put science into practice by providing access to information on effective interventions which may be considered for research, translation, and dissemination activities. Most of the identified interventions were implemented and evaluated in the United States.

Project: Established in 1996, CDC's PRS project conducts an ongoing systematic review that identifies EBIs and EIs for reducing HIV transmission and infection, and improving HIV continuum of care outcomes (e.g., linkage and retention in care). Intervention studies are identified and evaluated with a priori criteria at several levels of coding to determine efficacy. Information on EBIs and EIs are translated into consumer-friendly information sheets and posted on the Compendium website. The Compendium is for public consumption and the primary measures of successful dissemination of PRS products are website metrics including page views, volume of visitors, and time spent on the site. PRS project members also receive feedback from internal CDC users of the Compendium.

Results: Currently, the Compendium contains 61 EBIs for reducing sex or drug risk behaviors, 14 EBIs for improving medication adherence, and 5 EBIs and 9 EIs for improving engagement in HIV care. The Compendium has increasingly included risk reduction EBIs targeted to high-priority populations, including a newly-identified EBI targeting transgender women and their primary cisgender male partners. In 2018, the Compendium added a new chapter that focuses on interventions that address HIV prevention utilizing a structural component, and currently contains 5 EBIs and 3 EIs. Between 2016 and 2017, the Compendium had approximately 6,000 unique visitors, with over 20% of the visitors (23.1% in 2016, 21.8% in 2017) spending between 10-30 minutes on the website.

Lessons Learned: Compendium visits were numerous and some were long in duration. Additional details on product usage of the Compendium are needed. Moving forward, metrics will be monitored as additional EBIs and EIs are added to the Compendium, and the PRS project engages in more dissemination activities. A searchable function to the Compendium website will also be added. Accessing effective, evidence-based HIV prevention interventions on the Compendium can have a major impact in addressing future HIV prevention efforts, and website metrics can be used to inform future research and dissemination efforts.

BP26

Abstract 5651 - Implementation of pre-exposure prophylaxis services (PrEP) in an internal medicine training primary care practice.

Author(s): *Karla Curet, Veronica Bandres, Aviva Joffe, Laura Martindale, Matthew Behme*

Issue: Incidence of HIV has decreased at a national level. However, the percentage of new infections in racial/ethnic minorities continues to rise. African Americans and Hispanics make up a minority of the general population but over 40% of all new HIV diagnoses. The approval of emtricitabine/tenofovir for HIV prophylaxis in 2012 was a revolutionary advance in preventative medicine. However, African American treatment candidates have been reported to have 60% lower PrEP uptake than their white counterparts. Our goal is to incorporate PrEP services into a resident run urban clinic to target this health disparity.

Setting: Community Practice Center (CPC) at Albert Einstein Medical Center in Philadelphia, Pennsylvania. The CPC is in a high HIV prevalence area where there is limited access to healthcare services. The patient population of the CPC is characterized by many known HIV risk factors, namely high rates of poverty, low health literacy, and racial/ethnic minority groups. These neighborhoods are not serviced by many other organizations and would greatly benefit from services that enable people in need to access preventative care.

Project: The program aims to decrease incidence of HIV among racial and ethnic minorities through incorporation of HIV prevention services in this setting. With primary care implementation, there is a broader reach for prevention than through offering services in HIV clinics. Our goal is to increase PrEP utilization through patient support services and prescriber education. The initial phase was education: residents received a three-hour training on sexual history taking and PrEP guidelines. All 75 residents and faculty participated in the training. Pre-and post surveys on knowledge and comfort were distributed. A dedicated HIV prevention patient navigator facilitated the process of implementation and

provided support to prescribers and patients. The presentation will describe strategies used by this program to implement HIV prevention services into primary care.

Results: As part of program evaluation residents completed a pre/post knowledge and comfort level survey to measure the effects of the education component. Although 76% of residents believe that PrEP should be prescribed in the primary care setting, only 22% felt comfortable doing so prior to the curriculum implementation, and 81% had never discussed PrEP with their patients. Upon program implementation 83.4% of participating residents felt comfortable prescribing PrEP ($p < 0.001$) and only 57% had never discussed PrEP with a patient ($p = 0.02$). Overall, after 3 months of implementation PrEP prescriptions have increased from 0 to 35 and providers prescribing PrEP increased from 0 to 28.

Lessons Learned: Primary care providers can and should be trained to provide HIV prevention services. This program shows a successful implementation of an educational curriculum and patient navigation to incorporate HIV prevention into the primary care setting. This project emphasized the importance of incorporating this innovative preventive strategy in an academic training center so that physicians can leave the program with a new skill set and potentially incorporate HIV prevention services in their future practice.

BP27

Abstract 5688 - PrEP for adolescents, cisgender women, and transgender women: successes, challenges & opportunities in New York State

Author(s): *Laura Duggan Russell, Lyn Stevens*

Issue: The New York State Department of Health AIDS Institute (NYSDOHAI) sought to engage community and policy stakeholders in support of Governor Andrew Cuomo's plan to end the HIV/AIDS epidemic in New York State (NYS). A key component of the governor's plan is to increase access to and uptake of HIV pre-exposure prophylaxis (PrEP) among people who are at risk of acquiring HIV infection. To this end, NYSDOHAI convened stakeholders from across NYS to discuss the unique issues associated with engaging three key populations in PrEP: adolescents, cisgender women, and transgender women. These populations were identified to be the focus of these discussions based on epidemiological data showing increasing or static rates of new HIV infection; analysis of Medicaid data showing low levels of PrEP uptake; and input from community stakeholders and service providers. These discussions took place during 3 distinct forums: (1) PrEP for Adolescents Forum, November 2015; (2) PrEP for Cisgender Women Forum, June 2017; and (3) PrEP for Transgender Women Forum, April 2018. The presentation will review the format and participant makeup of the forums; speaker presentations; panel discussions; key points from facilitated discussions; and priorities identified through participants' consensus for increasing utilization of PrEP.

Setting: Three distinct day-long forums which convened approximately 60 stakeholders from diverse settings, including both clinical and non-clinical, from across New York State, including: PrEP providers and scientific researchers, representatives from community-based organizations and advocacy groups; consumers; pharmacies; and family planning, public health, and faith-based agencies. Each forum consisted of two components: (1) invited speakers presented on topics related to the science of PrEP, relevant policies/regulations, and program models; and (2) facilitated discussions in which participants

shared their experiences with implementing PrEP for the population being discussed and collectively identified top priorities, based on both their experience and the information presented from the speakers, for improving uptake of PrEP.

Project: The goal of this series of forums was to collect, document, and disseminate the insights that the participants have gained through their experiences delivering PrEP services to adolescents, cisgender women, and transgender women in diverse settings; and to detail the challenges unique to implementing PrEP for each group, ways to address those challenges, and emerging best practices for engaging each group in PrEP statewide.

Results: Identified key issues and priorities for change are being utilized by NYSDOHAI to inform the development of public health programming to ensure the inclusion of stakeholder perspectives in the delivery of NYSDOHAI-funded PrEP services. The NYSDOH AI developed summary reports for each of the three forums and shares them publicly at www.hivguidelines.org/prep-for-prevention/.

Lessons Learned: Adolescents, cisgender women, and transgender women are populations that are particularly vulnerable to HIV; and implementing PrEP for each is challenging due to a complex matrix of psychosocial, legal, behavioral and biological factors. Issues of equity, confidentiality, and stigma necessitate that plans to implement PrEP be comprehensive, innovative, specifically tailored to each community, and inclusive of those community members in the planning, delivery, feedback, and improvement of the PrEP-related services being provided.

BP28

Abstract 5770 - Sin-Buscar-Excusas: enhancing Hispanic/Latino MSM engagement and retention in HIV HIP services

Author(s): *Luciano Reberte, Jean-Paul Checo*

Issue: The most recent estimates of HIV infection in the United States reflect a decrease in new infections among the general population, but an alarming increase (22%) of infection among Hispanic/Latino MSM. According to a 2017 Mid-Year (January to June) Surveillance report from New York City Department of Health and Mental Hygiene (NYCDOHMH), almost 40% of the 930 new HIV infections among men were Latino, which is higher than the 35.3% reported during 2016 Mid-Year Surveillance Report. The increase could be due in part to limited availability and low accessibility of HIV prevention strategies for Latino populations. “Sin Buscar Excusas/No Excuses,” a new CDC-endorsed evidence-based behavioral intervention, is being implemented by the Latino Commission on AIDS (LCOA) to engage and retain Latino MSM in HIV prevention services, in response to such access and availability barriers and new incidence reports.

Setting: The Latino Commission on AIDS (LCOA) is a community-based organization (CBO) located in New York City that serves the young Latino MSM population (priority population). LCOA’s Oasis Center provides integrated services that include testing (HIV, STI, and HCV), linkage to treatment and care, pre-exposure prophylaxis (PrEP) and post-exposure prophylaxis (PEP), and behavioral interventions, including Mpowerment, CLEAR, and Sin Buscar Excusas/No Excuses.

Project: Sin Buscar Excusas/No Excuses is a single-session (45–60 minutes), small group, video-based behavioral intervention that aims to increase sexual safety - having fewer partners, using condoms consistently, engaging in less risky sexual behaviors, using PrEP or PEP as needed, communication, and HIV testing and care - among Latino gay, bisexual, and other men who have sex with men (MSM). The implementation of the SBE/NE intervention forms part of the larger recruitment strategy for the center; to 1) address HIV knowledge and build participants' skills around HIV prevention, and 2) to inform and engage participants about all the services the center has available.

Results: Six SBE/NE sessions have been implemented since January 2018, reaching 56 Latino MSM ages 20 to 44 years ($M=27$; $SD=4.48$), living with HIV, at high-risk for acquiring HIV, or status unknown. When it comes to information about the intervention, 100% ($n=56$) of the participants found the HIV/STI prevention information provided by SBE as "good" (23%, $n=13$) or "excellent" (77%, $n=43$). The majority (96%) agreed that the video reflected real situations from their personal lives. Ninety-one percent ($n=51$) agreed with the statement, "I found it useful to practice ways of communicating with my sexual partners," regarding sexual safety strategies. On average, participants rated SBE between good and excellent ($M=3.79$; $SD=0.40$).

Lessons Learned: Based on participants' experience, the peer-driven discussions, 1-hour timeframe, and linkage to other services and activities at the Oasis center, make the intervention appealing. From the perspective of the trainers, the intervention allows for tailoring that facilitates the integration of events prior to and post the intervention. The center also implements a social event for SBE/NE graduates as part of a retention-in-services strategy. Implementation and outcomes highlight the need for more Latino -specific interventions.

BP29

Abstract 5839 - Perspectives on culturally competent care at New York City's sexual health clinics using two surveys

Author(s): *Zoe Edelstein, Trevor Hedberg, Kathleen Scanlin, Dana Peters, Maria Angela Soto, Lena Saleh, Christine Borges, Julie Myers*

Background: Providing comprehensive HIV prevention care that addresses the needs of patients requires cultural competency and an affirming environment. The New York City (NYC) Sexual Health Clinics (SHCs) are committed to providing culturally responsive care to all patients, including men who have sex with men (MSM) and transgender/gender nonconforming individuals (TGNC). We sought to gain perspectives from staff and potential clients on culturally responsive care and explore change over time as relevant new trainings were being conducted (March- June 2017).

Methods: We used data from two time points from both a survey among all NYC Health Department's (HD) Bureau of Sexually Transmitted Disease Control (BSTD) staff and NYC HD's annual Sexual Health Survey among MSM (SHS). The staff survey was conducted online, April 2016 ($N= 171$; response rate: 81%) and April 2018 ($N= 167$; response rate: 56%). Respondents were asked whether they disagreed or agreed with the following: (1) Staff create an open and welcoming environment for people of all races, classes, genders, and sexual orientations; (2) Patients feel comfortable talking openly to staff about sexual behaviors; (3) I feel comfortable discussing sexual behavior and other sensitive topics with: a)

MSM and b) TGNC patients; (4) I believe the clinic does an excellent job of serving a) LGB persons and b) TGNC persons.

SHS participants were sexually-active MSM, residing in NYC and aged 18-40. Data were collected online, Fall 2016 (N=250) and Fall 2017 (N=189). Participants who reported a recent SHC visit (past 6 months) were asked to rate visit quality [1 (very poor) to 5 (very high)] and likelihood of recommending the SHCs to an LGBTQ friend. We explored change over time using Chi-square and Fisher's Exact test, as appropriate.

Results: In the staff survey, at both time points, most agreed that staff create a welcoming environment [2016: 97% (154/159); 2018: 97% (146/150)]; they felt comfortable discussing sensitive topics with MSM [2016: 90% (135/150); 2018: 92% (132/143)] and with TGNC individuals [2016: 87% (130/149); 2018: 90% (128/143)]; and the clinic does an excellent job of serving TGNC persons [2016: 90% (129/143); 2018: 90% (131/145)]. Over time, there were increases in agreeing that patients feel comfortable talking about sexual behaviors (2016: 84% (130/155); 2018: 92% (136/148); $p < 0.05$) and the clinic does an excellent job serving LGB persons (2016: 94% (134/143); 2018: 100% (145/145); $p < 0.05$). Among SHS respondents who had recently visited an SHC [2016: 13% (32/250); 2017: 11% (21/189)], the mean score for visit quality was ≥ 4.5 for both time points [2016: 4.63 (N=25); 2018: 4.50 (N=16)], and likelihood of recommending to an LGBT friend was similarly high [2016: 92% (25/28); 2017: 94% (15/16)].

Conclusions/Implications: Surveys among staff and potential MSM clients suggested positive perspectives on the environment at NYC SHCs. Among staff, agreement with select statements increased over time. Limitations included potential selection and social desirability bias; and in SHS, few recently visited SHCs. Findings provide some insight, but due to their limitations, data should be triangulated with other sources (e.g., input from community advisory groups) to capture a diversity of perspectives.

BP31

Abstract 5932 - Holding ourselves accountable: an integrative resource to improve HIV prevention efforts for black MSM and transgender patients

Author(s): *Milanes Morejon, Terrance Moore*

Issue: Black men who have sex with men (MSM) and transgender populations ages 13 to 24 years have been disproportionately impacted by the HIV epidemics. This health inequity can be partially attributed to systemic issues including the effects of medical mistrust on the Black community and interconnected social determinants of health such as unemployment, stigma, low educational attainment and limited healthcare access. Recognizing that these communities live at the intersections of many different systems including race, class and sexuality, it was important to develop a resource arsenal that healthcare providers, students and public health professionals could adapt into their practices to improve health outcomes for this population. Providers and non-clinical staff are uniquely positioned to eliminate the knowledge and communication gap that exists in the healthcare community about the health needs of this patient population.

Setting: HisHealth.org, a distance-learning platform operating out of the Center for Engaging Black MSM Across the Care Continuum (CEBACC) at NASTAD. This online training resource was created in partnership with the Health Resources Services Administration's HIV/AIDS Bureau with the goal of highlighting efficacious and evidence-informed strategies that will help reduce HIV transmission, promote Treatment as Prevention (TasP) efforts and increase patient-engagement.

Project: His Health is a free, accredited and one-of-a-kind training arsenal that houses a wide-range of tools designed to accelerate the quality of prevention and care for Black MSM and transgender patients. Our tools reflect a comprehensive system of care and help the healthcare community become part of a collaborative effort to end the HIV epidemics for these populations. His Health offers six continuing education modules led by primary and infectious disease physicians that expand on PrEP access and uptake, STD/STI screenings, implicit bias, culturally sensitive sexual health service delivery and behavioral and mental health. There are 13 innovative, nationally-recognized models of care that feature affirming HIV prevention programs from community based organizations and 16 webinars led by master facilitators discussing historical medical trust, motivational interviewing and PrEP provision in non-clinical spaces.

Results: To date 447 nurses, physicians, medical assistants and non-clinical staff from across the country have completed at least one continuing education course. These tools have helped users to better describe HIV-prevention challenges and opportunities for Black men who have sex with men (MSM) and transgender patients, incorporate CDC-recommended prevention strategies as part of patient care for both HIV-negative and HIV-positive Black MSM and make tangible changes to their organizations and programs. Participants will collectively strategize ways to integrate these resources into their programs and to disseminate our offerings to their networks. Participants will also take lessons learned from the development of our resource inventory to inform their future projects focused on Black MSM and transgender health.

Lessons Learned: By empowering participants to advance their knowledge on HisHealth.org, we were able to collectively reinforce the healthcare community's commitment to improving the quality of prevention and care for Black MSM and transgender patients. His Health facilitated meaningful and intentional engagement of providers and public health advocates working in the HIV field, which will have an impact on the clinical care outcomes of their patients. While the training arsenal was expert-driven, it was also community-minded and afforded participants the opportunity to improve prevention and care for Black MSM and transgender patients through authentic, intersectional and compassionate prevention interventions.

BP32

Abstract 6015 - PrEP University (PrEP U): outcomes from multi-disciplinary university-based HIV prevention education program

Author(s): *Jill Blumenthal, Helen King, Sarah Averbach, Marvin Hanashiro, David Moore, Sara Graber*

Issue: The Food and Drug Administration's approval of once daily emtricitabine/tenofovir diphosphate (FTC/TDF) as pre-exposure prophylaxis (PrEP) for HIV prevention has raised questions regarding its

successful delivery in real-world settings, especially in regard to which clinicians will serve as prescribers and how providers will be educated about this HIV prevention strategy.

Setting: University of California San Diego (UCSD) School of Medicine in San Diego, CA.

Project: We developed and implemented an HIV Prevention Education Program called PrEP University (PrEP U) between 2016-2017 to address knowledge gaps in HIV prevention and PrEP among medical and pharmacy trainees across several medical disciplines with the overarching goal of increasing knowledge about and comfort with prescribing PrEP. The PrEP U curriculum was developed by the study team with support from Project Inform. The lectures were designed for trainees and faculty in the four main disciplines where PrEP is commonly discussed or offered (Internal Medicine [IM], Family Medicine [FM], Obstetrics and Gynecology [OBGYN] and Pharmacy). The education series offered two 60-minute lectures given one week apart with content covering HIV epidemiology and testing, sexual-history taking, HIV prevention emphasizing biomedical strategies including PrEP with contextualization into the targeted medical discipline. Anonymous surveys collecting data on demographics, level of training and PrEP awareness were distributed prior to the first lecture and after the second lecture. They also included a pre- and post-test consisting of five knowledge-based questions with scoring range of 0-5 (0-4 for pharmacy as one question was dropped), with a mix of general and discipline-specific questions. A modified one-hour lecture about sexual history taking and HIV prevention with a similar survey was given to first year medical students in the Practice of Medicine (POM) course.

Results: A total of 212 individuals attended PrEP U between 2016-2017, with 86 in the 2-part discipline-specific series (spread evenly among the 4 disciplines) and 126 medical students in POM. Participants in PrEP U had a mean age of 25 (SD 3.9), 62% were female, 55% were White and 34% were Asian. Sixty-three percent were medical students and 32% were interns or residents. Prior to PrEP U, 25% were not aware of PrEP and 8% were unsure if they had heard of it. Knowledge increased significantly after the education program in IM (2.6 vs 3.6, $p=0.003$), OBGYN (2.1 vs 3.5, $p=0.001$), pharmacy (1.3 vs 2.3, $p=0.01$) and POM (3.3 vs 4.3, $p=0.002$) with a trend seen in FM (2.5 vs 3.4, $p=0.06$).

Lessons Learned: An HIV Prevention Education Program with an up-to-date curriculum was successfully created and initiated with over 200 participants with the finding of improved knowledge of HIV prevention and PrEP across all disciplines. Similar programs at other University-based medical schools around the country should be implemented to ensure that future practicing physicians and pharmacists are comfortable with PrEP prescription, particularly in regions of high HIV incidence.

BP33

Abstract 6032 - Project Syphilis-PrEP Intervention in Community (SPICY): integrating innovative HIV and STD prevention

Author(s): *Andrew Gans, Savannah Pierson*

Issue: Utilization of PrEP in New Mexico has been steadily increasing. However, uptake is more frequent among middle-class White gay men, while new infections are among younger gay/bisexual men and transgender persons who are Hispanic, African American and American Indian. New strategies must be used to recruit these individuals. STD clinics are an ideal venue, due to high rates of HIV and syphilis co-

infection. Of the 422 adults with syphilis in 2016 interviewed for partner services (PS), 65.1% were among MSM and 20% self-reported HIV infection. Project Syphilis-PrEP Intervention in Community (SPICY) was created to specifically increase PrEP utilization to reduce new HIV infections among persons with recent STD infections or partners with STD.

Setting: STD clinics across New Mexico are part of the New Mexico Department of Health (NMDOH)'s Public Health Offices (PHO). While three of these PHO are in the largest cities in New Mexico, clinics also operate in rural and frontier counties that otherwise lack any STD services or expert PrEP providers. The six busiest PHOs in the state serve its most populous counties where 2,754 out of 3,442 (80%) of persons living with HIV (PLWH) reside, so they reach persons at highest risk.

Project: Project SPICY will expand access to PrEP at the busiest PHO in the state. Many gay/bisexual men and transgender persons find their local PHO to be the safest and most affirming venue to get sexual health services, and they are familiar with these sites from prior HIV and STD testing. These clinics can offer PrEP in a trusting environment and with a public health focus that reaches persons at greatest risk, with an emphasis on younger persons of color.

Direct provision of PrEP will be provided by mid-level clinicians operating under a new protocol and medical standing order. This includes medical assessments (including signs of acute infection) and follow-up visits, ordering and interpreting of labs including metabolic panels and STD tests, writing prescriptions, and managing side effects. PrEP medications will be dispensed by a contracting pharmacy via express mail, as this site is expert in accessing Medicaid, private insurance and patient assistance programs. Some funding will be used to offer PrEP to persons with no insurance, which currently is not available anywhere in the state.

Results: Project SPICY will expand utilization of PrEP by persons at highest risk of infection, while also rebuilding capacity for STD treatment. The project's new mid-level clinicians can ensure timely staging of syphilis, patient-centered risk reduction education, and the opportunity to start PrEP in a trusted environment. Patients receiving PrEP will be engaged directly in disease investigation and PS if they acquire an STD.

Lessons Learned: Many persons from sexual minority groups such as gay/bisexual men and transgender persons are reluctant to discuss sexual behaviors with their primary care provider for fear of discrimination or judgement. PHO operated by the state health department can reduce barriers as they are perceived as safe and judgement-free environments for the underserved communities that are at highest risk of HIV infection.

BP34

Abstract 6038 - The long road to PrEP linkage

Author(s): *Carla Dillard Smith, Carla Wright, Shaniece Valencia*

Issue: While African Americans (44%) and Latinos (25%) account for a high percentage of Americans that could benefit from PrEP, women and men of color remain less likely to use PrEP than their white counterparts. Social factors, such as medical barriers and housing instability, as well as the perception that PrEP is for men only lead to the under utilization of PrEP. Another reason for low utilization of PrEP

includes general limited access and knowledge of PrEP regimens to high-risk populations. This presentation will demonstrate how community-based outreach and PrEP navigation is necessary to ensure recruitment and retention of high risk, hard to reach populations into PrEP services in Oakland, Alameda County, California.

Setting: Women Organized to Respond to Life Threatening Diseases (WORLD) participated in a pilot project to recruit 15 women into PrEP for a prescription of Truvada, the only FDA approved HIV prevention medication. The recruitment method used was community outreach in order to link women into clinics that provided medical services and PrEP prescriptions for Truvada.

Project: We initially worked with a women's clinic that had a PrEP friendly practitioner and were able to enroll 4 women. The pilot project required an initial, along with monthly visits for four consecutive months. Also, laboratory tests were required to determine if patients had appropriate kidney and liver function for taking Truvada.

Results: In order to reach 15 women and men, we conducted outreach to over 200 individuals. Of this number, 44 were scheduled with a PrEP navigator. Of this number, fifteen received 3 medical visits and the Truvada prescription from the doctor. Ten individuals completed case management services, and 5 are still receiving PrEP navigation.

Lessons Learned: We encountered significant barriers to recruitment and retention of patients in PrEP. First, the patient friendly practitioner left the clinic and the replacement doctor did not work out. We reached out to several other clinics, and four were responsive and agreed to serve our patients throughout the duration of our project. Second, there was a high rate of missed appointments due to substance use, housing instability, transportation, and stigma. These missed appointments challenged the relationship with medical providers.

We found community outreach effective for identifying and recruiting at risk, hard to reach populations. However, clinic protocols require compliance, such as meeting appointment dates and times. In an effort to alleviate this problem our PrEP navigator accompanied clients to their medical appointments and translated medical conversation in a way that clients understood.

BP35

Abstract 6075 - Challenges and opportunities to recruiting and retaining young black and Latino heterosexual couples in couple-based HIV prevention research

Author(s): *Yzette Lanier, Alena Campm, Ashley Toussaint, Claudine Lavarin*

Background: Couple-based HIV prevention interventions are a novel strategy for reducing sexual risk behavior. However, few of these interventions have specifically targeted Black and Latino heterosexual adolescents and young adults despite HIV vulnerability. The development of effective couple-based interventions for Black and Latino youth necessitates more research centered on their relationship dynamics, sexual behaviors, and use of HIV prevention methods. However, couple-based HIV studies face significant recruitment, enrollment, and completion challenges. In this presentation, we review both the challenges and opportunities to successfully conducting youth-focused HIV prevention research.

Methods: In phase 1 of a multi-phase study, young heterosexual couples were recruited to participate in a qualitative interview session which consisted of a 60-minute individual interview and a 60-minute dyadic interview. The index participant (the individual that was initially recruited into the study) had to be between the ages of 16 and 24, identify as either Black or Latino, and currently live in the South Bronx. REDCap scheduling data was systematically analyzed to identify key barriers to study participation.

Results: Three hundred and ninety-five individuals completed screening procedures; 44% of these individuals were eligible for the study. A total of 23 heterosexual couples completed the interview session. Key challenges included screening the partner, scheduling the interview session, and addressing missed or canceled interview sessions. Logistical challenges specific to the study design further added to these issues. Opportunities included building strong relationships with community members, developing a comprehensive recruitment strategy, targeting recruitment locations frequented by couples, and recruiting male index participants.

Conclusions/Implications: Our findings suggest that Black and Latino youth are highly interested in participating in couple-based HIV prevention research. However, there are significant challenges to conducting this research. Identifying the recruitment, enrollment, and enrollment challenges, as well as opportunities, during study development may aid in greater completion of study activities among young couples.

BP36

Abstract 5572 - PrEP is Primary! Integrating PrEP services across multiple health disciplines and locations in a large urban teaching hospital network

Author(s): *Aviva Joffe, Laura Martindale, Catherine Holdsworth*

Issue: In 2016, 480 people in Philadelphia were newly diagnosed with HIV. Despite being preventable, high rates of HIV incidence endure. The Philadelphia HIV incidence rate is 5 times the national average. Most of the people newly diagnosed with HIV in Philadelphia are Black (64.3%) or Latino (19.1%) and assigned male at birth (75.6%). HIV prevalence in North Philadelphia is almost double that of the city-wide average. Yet, since its approval in 2012, the use of Truvada for pre-exposure prophylaxis (PrEP) has been suboptimal in North Philadelphia. While most new HIV cases are among people of color, the vast majority of people currently taking PrEP are white. Moreover, many clinicians are unaware of the intervention and even fewer have prescribed it. HIV prevention has been relegated to the scope of infectious disease, not reaching people most in need and at risk. An innovative, integrated model for comprehensive HIV prevention services is needed in high prevalence communities.

Setting: Einstein Medical Center Philadelphia (EMCP) is a large, tertiary care hospital primarily serving a low-income population of color in North Philadelphia. The HIV Prevention Initiative (HPI) targets multiple departments within EMCP (including Internal Medicine, Obstetrics/Gynecology, Adolescent Medicine, and Emergency Medicine) and community outpatient practices that serve high prevalence zip codes.

Project: The HPI integrates HIV prevention into primary and women's health care in order to increase PrEP access and uptake. Internal medicine, adolescent and women's health providers are trained in the assessment, prescription, and monitoring guidelines for PrEP; customized workflows and resources are provided to each setting for optimal service delivery. An on-site HIV prevention navigator provides supplemental training and assistance to clinicians as well as patient counseling, navigation, and psychosocial support. A hotline is available for patients, prospective patients, clinicians, and the public for PrEP information or navigation services. Adherence counseling, risk reduction, and navigation services are provided at each encounter.

Results: This presentation will share results of the first year of HPI implementation. Presenters will share details of the training and education of hundreds of providers from a range of medical disciplines and practice locations. Progress on the volume and demographic make-up of the patients provided PrEP navigation, initiated on PrEP, and retained in PrEP care will be discussed and lessons learned will be disseminated.

Lessons Learned: Engaging a multi-disciplinary team in HIV prevention education is critical to implement an integrated program rather than an isolated PrEP service.

Small group training sessions followed by peer-to-peer consultations have proven to be effective in increasing provider awareness and comfort prescribing PrEP. Recognition that training and education must be ongoing and occur in various forums is important for continued success.

On-site navigation is essential to achieve a comprehensive HIV prevention program and maintain screening, referrals, initiation, and continuation of PrEP care.

A direct mobile contact number for both providers and patients to reach a navigator by phone call or text message is key to ensure easy access to care and smooth service delivery.

BP37

Abstract 5324 - First, do no harm: fostering transgender awareness and inclusion in HIV research

Author(s): *Rona Siskind, Tonia Poteat, Asa Radix, Clare Collins, Gail Broder, Jonathan Lucas, Brian Minalga, Michele Andrasik*

Issue: Transgender people face stigma and discrimination in all aspects of society, including in medical and research settings. The cumulative traumatic experiences often result in an unwillingness to seek care, let alone participate in research. Given the disproportionate impact of HIV in transgender communities, especially among transgender women of color, a critical need exists to increase transgender inclusion in HIV prevention and treatment research.

Setting: A transgender training curriculum was created to cultivate responsiveness and cultural humility among staff working at the HIV/AIDS clinical trials networks and sites funded by the National Institute of Allergy and Infectious Diseases (NIAID), National Institutes of Health. The modules were designed as both in-person and web-based training tools.

Project: The NIAID Division of AIDS (DAIDS) Cross-Network Transgender Working Group recognized the need to increase staff understanding of and responsiveness to transgender participants and sought to develop a curriculum relevant to HIV research settings. Subject matter experts, including transgender

and gender non-conforming people, advocates, and researchers, were identified to work with staff from DAIDS, the Office of HIV/AIDS Network Coordination, and NIAID's HIV/AIDS clinical trials networks. The resulting training modules address five content areas; each module was piloted before being developed further. The modules include: 1) An Introduction to Transgender Communities; 2) Creating a Gender-Affirming HIV Research Environment; 3) HIV in Transgender Communities; 4) Clinical Considerations and HIV Risk Assessments for Transgender Research Participants; and 5) Trauma-Informed Care for Transgender Research Participants. Each module consists of a PowerPoint presentation, facilitator's guide, exercises, a handout of resources and publications, and a web-based training tool to support broad dissemination. The first module – An Introduction to Transgender Communities – is required, as it forms a foundation for understanding the remaining content.

Results: There was a great deal of support for the development of this curriculum, and the modules have been well-received. Each of the in-person pilot training sessions has garnered strong interest both within and outside the NIAID-funded networks. Participants have included clinicians, community educators/recruiters, data managers, study coordinators, laboratory and regulatory staff, community advisory board members, and DAIDS staff. While the training modules have a strong U.S. focus, the content can be modified for global applicability and international participants have noted the need for and potential value of the trainings for their sites.

Lessons Learned: The process of developing the content with ongoing review and input by a transgender-inclusive and diverse group of subject matter experts was essential to the success of the trainings. The input helped ensure the accuracy, sensitivity, and cultural responsiveness espoused in the curriculum itself. Having transgender facilitators at each in-person training is also important and recommended when possible. The trainings continue to be implemented with the goal of reducing the lack of information that perpetuates misgendering, stigma, mistreatment, and trauma often experienced by transgender people in health care settings. Cultivating awareness, knowledge and understanding of transgender communities is a vital step in providing transgender-responsive HIV care and services, and in supporting transgender inclusion in all aspects of HIV research.

BP38

Abstract 5389 - Knowledge, attitudes, and PrEP prescribing practices of health care providers in Philadelphia, PA

Author(s): *Margaret Carter, Erika Aaron, Tanner Nassau, Kathleen Brady*

Background: Preexposure Prophylaxis (PrEP) is an effective biomedical intervention that has the potential to dramatically decrease the incidence of HIV. However, PrEP remains an underutilized method of HIV prevention, with growing evidence that the most important barriers to wider use lie with health care professionals, who act as gatekeepers and conduits to this prescription medicine. Health care providers have an essential role in the successful implementation of PrEP. The Philadelphia Department of Public Health administered an online survey to providers in the Philadelphia area with the aim of characterizing PrEP attitudes, knowledge, and prescribing practices. In order to increase PrEP uptake, the results of this survey are essential to scale up PrEP utilization, to address provider barriers, and to plan for educational and technical assistance.

Methods: Online surveys were distributed to 1000 providers. Participants were recruited through distribution lists from the Philadelphia County Medical Society and the Philadelphia Department of Public Health. Surveys were collected between October and December 2017.

Results: Of 81 eligible participants, 75% (N=61) felt comfortable providing PrEP and 77% (N=62) had ever written a PrEP prescription. Respondent practice settings included HIV/ID, family and internal medicine, women's health, and pediatric/adolescent. Of the respondents, 53% (N=43) were female, 63% (N=51) were younger than 50, and 60% (N=49) have been practicing medicine for over 10 years. Participant answers were analyzed based on self-reported responses of provider comfort based on a Likert response scale. Providers who felt comfortable prescribing PrEP were more likely to have served more than 50 HIV patients ever (N=43, $p = 0.0003$) and/or to be an HIV Specialist/ID provider (N=22, $p = 0.0003$). Compared to primary care providers, HIV Providers were significantly more likely to know the labs for prescribing PrEP ($p = 0.03$) and to have prescribed PrEP to more than 10 patients ($p = 0.006$). Providers who felt comfortable prescribing PrEP were more likely to have their patients ask them about PrEP ($p < 0.0001$), were more likely to have initiated a PrEP discussion with their patients ($p < 0.0001$), and were more likely to have prescribed PrEP ($p < 0.0001$). Women's health providers and pediatric providers were less likely to feel comfortable providing PrEP to their patients ($p = 0.0003$).

Conclusions/Implications: The majority of health care providers in the Philadelphia area who responded to the survey reported experience with providing PrEP to their patients. However, there was significantly more comfort, knowledge, and capability in prescribing PrEP by those who provide care to persons living with HIV. Women's health and pediatric providers were significantly less comfortable providing PrEP. Our results were limited by sampling bias, as providers who responded to the survey may have prior experience with PrEP and by an overall low response rate. Future Health Department educational trainings and technical assistance need to target primary care providers, providers who have never prescribed PrEP, and providers who see few patients living with HIV.

BP39

Abstract 5296 - An approach for addressing HIV-related health disparities: the Division of HIV/AIDS Prevention Office of Health Equity (DHAP OHE)

Author(s): Donna McCree, Emilio German, Lamont Scales

Issue: Despite progress in reducing rates of HIV in the United States, significant disparities exist. Gay and bisexual men of all races/ethnicities, African Americans and persons living in the Southern United States are the most disproportionately affected populations. Reducing HIV-related disparities is a national HIV prevention goal and is included as a goal in the strategic plans of the National Center for HIV/AIDS, Viral Hepatitis, STD and TB Prevention (NCHHSTP) and the Division of HIV/AIDS Prevention (DHAP) at the Centers for Disease Control and Prevention (CDC). The purpose of this presentation is to highlight an approach for achieving HIV-related national and CDC health equity goals.

Setting: In 2010, DHAP established an Office of Health Equity (OHE) within the Office of the Director. The Office has five full time equivalent positions and four postdoctoral fellows.

Project: The mission of the DHAP OHE is to identify scientifically effective strategies to reduce disparities in rates of HIV through a focus on advancing the science of health equity; monitoring the Division's progress on addressing disparities; and creating partnerships to assist with achieving HIV-related equity goals.

Results: DHAP OHE provides leadership on understanding the determinants of HIV-related inequities and strategies for improving health equity. The office assists in advancing science through leadership of or participation on National and Division-level workgroups, e.g., the DHAP Social Determinants of Health (SDH) Analysis Workgroup, producing peer-reviewed publications and presentations, and leading the HIV Prevention in Communities of Color Postdoctoral Fellowship Program. The mission of the fellowship program is to recruit, mentor, and train investigators to conduct domestic HIV prevention research in communities of color with a focus on health equity. The office monitors the Division's progress by maintaining inventories of research and programmatic efforts targeting disproportionately affected populations and identifying gaps. Partnership activities with other CDC Divisions and federal agencies, civic, social and faith-based organizations are used to increase awareness and address SDH associated with HIV-related inequities.

Lessons Learned: OHE activities are designed to determine factors associated with and the most effective strategies for addressing HIV-related inequities and where and how to intervene in order to achieve national and CDC health equity goals. The best approach employs the collective expertise of scientists, health care providers, public health analysts and advisors to develop, implement and evaluate biomedical and structural interventions that will reduce HIV-related disparities. These interventions include supporting health departments and community-based organizations to deliver HIV prevention efforts; developing campaigns to promote HIV testing and treatment; and identifying the pathways through which social determinants of health affect HIV prevention, transmission, and care.

BP40

Abstract 5477 - Where campus meets community: creating effective university-community partnerships for HIV prevention

Author(s): *Richelle Joe, Amber Norman, Nevin Heard*

Issue: Universities have assets and resources that can be galvanized to support campus and community HIV prevention efforts. The success or failure of partnerships between universities and the communities where they are located depends on the intentionality of strategies used to establish and maintain genuine collaboration. The presentation will review the process of partnership-building between an HIV-focused, university-based team and community HIV/AIDS service organizations. It will also report methods used to build partnerships and the outcomes of those partnerships as they relate to HIV prevention on the university campus and in the community.

Setting: The University of Central (UCF) is located in Orlando, FL where HIV incidence rates are among the highest in the nation. The HIV Education, Awareness, and Research Team (HEART) is a faculty-led group at UCF that has begun establishing partnerships with HIV/AIDS serving organizations in Orlando.

Project: HEART partners with local HIV/AIDS service organizations to engage students at UCF as well as Orlando citizens in HIV prevention programming that is relevant and culturally responsive. The partnerships between faculty and student members of HEART and community-based organizations in Orlando were established through strategic methods that were sensitive and responsive to the needs of the university as well as the local community. These efforts were based on the consideration of prevalence and incidence data, demographic information, and the historical and cultural context of UCF and Orlando.

Results: Collaboration between HEART and community organizations has resulted in a yearly calendar of events to heighten HIV awareness and encourage HIV testing among college students at UCF and members of the Orlando community. Events include awareness days, campus and community health events, HIV Testing Day activities, public service announcements, HIV prevention research, and community conversations among populations disproportionately affected by HIV (same gender loving men of color, LGBTQ+ individuals).

Lessons Learned: Building relationships between universities and community organizations requires time and patience. Community organizations that have been addressing HIV/AIDS for decades may feel disconnected from universities and lack trust. To effectively partner to enhance HIV prevention services on university campuses and in the communities they touch, university faculty and students must first learn the landscape in terms of HIV incidence and prevalence as well as existing programming. Additionally, effective partnerships require considerable diplomacy to maneuver within a landscape that is shaped by organizational history and dynamics. Finally, it is critical to find the right “fit” in terms of partnerships that are based on genuine connection and are marked by true collaboration and mutuality. By doing so, universities and community organizations can share and exchange resources and expand the reach of both to develop relevant and novel approaches to HIV prevention in both sectors.

BP41

Abstract 5526 - Peer training and intervention using social network strategy for pre-exposure HIV prophylaxis

Author(s): *Sachiko Terui, Jiangan Huang, Joy Goldsmith, Donna Blackard, Yiyi Yang, Claude Miller*

Background: Low health literacy is one of the influential causes of HIV prevalence (Osborn, Paasche-Orlow, Davis, & Wolf, 2007). Despite promising, positive evidence of equipping a community with accurate information about prevention methods, resources, treatment and skills to manage health (Hicks, Barragan, Franco-Paredes, Williams, & del Rio, 2006), it is also known that 1) HIV stigma, 2) distrust toward healthcare professionals, and 3) dissatisfaction in patient-provider interactions contribute to diminished care. These barriers are especially present among underserved populations. To this end, we sought to engage the local community (Memphis, TN) in an effort to connect with hard-to-reach populations while also addressing HIV stigma and distrust. We adopted social network strategy (CDC, 2005) and conducted a communication intervention with the hope of impacting health literacy, behaviors, knowledge, self-efficacy, and preparedness toward HIV.

Methods: As a community engagement project in an undergraduate health communication course, we enlisted 63 undergraduate students at a university, which has a high proportion of minority students

from local, underserved communities. Community health workers trained students as recruiters to identify participants in their own communities and share specific information and materials about HIV and PrEP. Each recruiter delivered intervention messages to 5 community peers in face-to-face meetings and asked them to complete questionnaires three times: baseline (Time0), immediately after communication intervention messages (Time1), and after 2 weeks interval (Time 2) to examine the effectiveness of intervention messages delivered by peers and its impact on their health literacy. In addition to the questions regarding health information seeking preferences, perceptions about HIV, and motivations to talk about the intervention messages with others, we developed a questionnaire based on the Theory of Planned Behavior and Vested Interest Theory. Among 333 submitted responses, 220 verified cases(66%) were analyzed using R.

Results: Participants' (aged 18-55, Median=22, SD=6.00) racial backgrounds reflect the demographic in Memphis (42.7 % African American, 43.2 % Caucasian). Their reported gender was dichotomous (65.9% female, 32.7% male, 1.4% prefer not to answer). Repeated-measure t-test using measurement between Time0 and Time2 shows that peer intervention made changes in (a) correcting participants' beliefs about HIV ($p<.05$), (b) increasing knowledge about HIV ($p<.001$), (c) increasing the sense of outcome certainty ($p<.01$), immediacy of outcome ($p<.05$), threat salience ($p<.001$), susceptibility ($p<.01$), and self-efficacy ($p<.0001$), and (d) decreasing their sense of threat severity ($p<.001$). Logistics regression analysis revealed that threat salience and self-efficacy are influential in promoting (a) testing and knowing HIV status ($p<.001$ and $p=.02$ respectively) and (b) conversation about HIV prevention ($p=.01$ and $p=.02$ respectively). Increased accuracy in beliefs about HIV is influential on promoting the use of PrEP ($p<.001$). Through face-to-face communication with their peers, participants perceived community members ($p<.0001$) and family members ($p=.005$) more reliable sources for HIV-related information, while decreasing their reliance on healthcare providers and Internet ($p<.0001$).

Conclusions/Implications: Peer-training HIV intervention was successful in increasing knowledge, awareness, and preparedness in preventing and responding to HIV infection. Communication intervention is warranted for promoting HIV testing and conversations about HIV prevention, particularly with the emphasis on threat salience and self-efficacy.

BP42

Abstract 5610 - The Southern approach to comprehensive sex education and rapid HIV testing in community settings: increasing access to testing and education for AAMSM's and Hispanic MSM's

Author(s): *Shelita Butler*

Background: With a historical perspective but with new relevance, AIDS Foundation Houston, Inc. (AFH) has been at the forefront of innovative and effective HIV interventions. AFH's approach recognizes "What we don't K.N.O.W. is definitely hurting Us" therefore the K.N.O.W strategy employs the Knowledge, Negotiating, Owning and Wisdom method to increase accessibility to HIV educational information, testing, self-awareness and self-efficacy. The K.N.O.W strategy puts HIV work back in its original stomping ground, to educate AAMSMs and Hispanic MSMs communities on prevention strategies.

The South experiences the greatest burden of HIV infection, illness, and deaths of any U.S. region, and lags far behind in providing quality HIV prevention and care to its citizens. Closing these gaps is essential

to the health of the people in the region and to the nation's long-term success in ending the epidemic. The Southern states account for 44 percent of all people living with an HIV diagnosis in the U.S. despite having only about 1/3 one-third (37%) of the overall U.S. population (CDC.gov).

Methods: The K.N.O.W method is creating a normal fact-based conversation, using terminology that the client understands, using facts, rather than assumptions, or guesses, allowing the client to dictate the conversation and provide realistic options for their lives. Providing an individualized plan, that is specific to engage each individual in the process. Prevention workers in the South must ADAPT, ADOPT or DISCARD according to the clients' needs at the specific time in engagement of the client, this need may change with each encounter. K.N.O.W promotes real conversations, barrier free educational services, HIV/STI testing services, PrEP prescriptions, PrEP/NPEP referrals in one setting, through outreach, peer navigation, social media outreach/recruitment, case management, and linkage services.

Results: The AFH prevention team has engaged more than 15,000 individuals in the last two years. AFH has provided 2,336 HIV tests, 967 tests were among the MSM population, AFH located 38 individuals who were HIV positive, and 39 individuals that had a previous HIV diagnosed and out of medical care.

Conclusions/Implications: The K.N.O.W method takes the barriers in the South and uses them as its strength. AFH has noticed an increase in the targeted populations inquiring and accessing community resources. The skills that have increased include condom usage, condom negotiation, ability to advocate for self and others, and the ability to have honest conversations concerning desires and feelings towards certain behaviors. Reported gained knowledge of risks, behaviors, and other elements that place them at greater risks for infection, individuals reported learning ways to incorporate skills to help facilitate and negotiate realistic changes. In future funding and research opportunities, including Ryan White, the focus needs to be on funding effective "street outreach" as well as traditional prevention strategies. Client feedback has also guided the methods used to engage clients. This has directly resulted in an increase in inquiries about PrEP/nPEP and an increase in routine HIV testing among MSM's of color. Using internal data, City of Houston Surveillance data, and CDC surveillance data has allowed AFH to focus their efforts to the communities with the greatest needs.

BP43

Abstract 5691 - Florida's HIV prevention minority media campaign: Protect Yourself

Author(s): *Jennifer Pace, Mara Michniewicz, Laura Reeves, Ronald Henderson*

Issue: Florida is heavily impacted by HIV/AIDS, with 114,772 persons diagnosed and living with HIV in 2016. With over 21,200 (15.6%) persons estimated as unaware of their HIV status at year-end, Florida continues to explore new media concepts to reach, engage, and educate priority populations around routine HIV testing and prevention options. Florida's top five priority populations for primary HIV prevention are Hispanic men who have sex with men (MSM), black heterosexuals, black MSM, white MSM, and Hispanic heterosexuals. Black and Hispanic men are more likely than white men to be diagnosed with HIV in the late stages of infection, suggesting that they are not accessing testing or health care services.

Setting: Statewide with emphasis on six designated market areas (Miami, Broward, Palm Beach, Hillsborough, Orange, and Duval counties).

Project: In 2017, the Florida Department of Health (FDOH) HIV Prevention Program contracted with a media services provider to roll out a new statewide HIV prevention minority media campaign—Protect Yourself. Creative concepts were developed for implementation in English, Spanish, and Haitian Creole across platforms including: broadcast television and radio; digital and mobile advertising; out-of-home advertising; print advertising; social media (i.e. Facebook, Twitter, Instagram, Snapchat); a dedicated website; and public outreach events. This poster is a compilation of concepts designed to reach Florida's priority populations to encourage HIV testing and PrEP uptake.

Results: Traffic to the new website (knowyourHIVstatus.com) exploded, particularly amongst Spanish-speaking users (this subset is up to 12% from a baseline of 2%). A combination of mobile and digital banners, paid social media, and pre-roll ads were served across mobile and desktop devices in English and Spanish and delivered over 45 million impressions. Over 30 executions of billboards, bus shelters, bus sides, interior cards, and lifestyle media were displayed statewide and exceeded 100 million impressions. Six public outreach events were conducted, reaching an estimated 180,000 attendees. Radio spots ran in English and Spanish generating over 6,000 gross rating points. Print ads generated over 1 million impressions. Feedback on the campaign from key stakeholder groups has been overwhelmingly positive.

Lessons Learned: Engaging the community in the creative process is imperative when implementing a campaign of this size and depth. FDOH invites feedback on campaign concepts by conducting focus groups and community engagement sessions and communicating ideas and concepts to regional and statewide HIV planning bodies and ad-hoc advisory groups (e.g. Florida Gay Men's HIV/AIDS Workgroup). Maintaining open lines of communication with the media provider is key—the Department participates in regularly scheduled discovery sessions; educates the media provider on the latest tools, strategies, surveillance data, and priority populations; and adapts the annual media plan as needed.

BP44

Abstract 5747 - Sin Buscar Excusas/No Excuses: increasing providers' capacity to engage and serve Latino MSM towards no new HIV infections

Author(s): *Miguel Chion, Miguel Taveras, Vanessa Jacuinde*

Issue: Organizations that serve Latino MSM in the United States and its territories (i.e. Puerto Rico) are currently grappling with a significant increase in HIV infections while other groups have continued to see a decrease. In a rapid changing world, with limited funding available for prevention, requirements to integrate services, and develop complex skills to be more peer driven; the capacity building programs increased efforts in creating awareness of the new Latino-specific intervention “Sin Buscar Excusas/No Excusas (SBE/NE),” through trainings, information dissemination, and technical assistance. This behavioral intervention brings together HIV testing, PrEP/PEP, Condoms, Linkage and engagement to care for both HIV negative and those living with HIV. This session will present the intervention and the results of capacity building efforts.

Setting: The Capacity Building (CBA) work-group for SBE/NE provides services to HIV prevention providers serving Latino MSM in the US and its territories. The intervention is available across all jurisdictions; a strong emphasis was made to increase awareness and implementation of SBE/NE in regions with high HIV incidence on Latino MSM (i.e. California, Texas, New York, Florida, North Carolina and Puerto Rico). The recipients of CBA services are health departments and community-based organizations serving or seeking to serve the Latino MSM in their regions.

Project: Sin Buscar Excusas/No Excuses is a single-session (45–60 minutes), small group, video-based behavioral intervention designed specifically for Latino MSM that promotes sexual safety, using condoms correctly, HIV testing, staying in care and PrEP or PEP as needed. The SBE/NE work-group in partnership with CDC delivers training and technical assistance to providers on adoption, customization, and implementation of SBE/NE. The work-group piloted five training-of-facilitator (TOF) sessions to gather information on best practices to build participants' knowledge and skills.

Results: The SBE/NE work-group conducted five trainings in New York, Los Angeles, Charlotte, Miami, and El Paso. A total of 58 participants: 24 from 13 community-based organizations, 15 from 5 health departments and 19 from 7 healthcare organizations. Evaluations showed high (98%) satisfaction with the training and all (100%) participants found the materials helpful. Additionally, training increased confidence to conduct small group sessions from 40% to 88%. Trainers gathered additional feedback: this intervention is appropriate and needed by the community [providers] served; need more time for the group-facilitation practice; materials in Spanish are needed; highly appreciated the new sexual safety concept. There is little knowledge of this new type of interventions by prevention providers and health departments.

Lessons Learned: In order to support the new CDC framework of “No New Infections,” more behavioral interventions that fit the service integration model are needed. SBE/NE provides that opportunity. Providers who work with or are looking to work with Latino MSM will benefit from implementing SBE/NE since it can generate maximum benefits (increase HIV testing, linkage to care) with nominal costs. SBE/NE is a flexible intervention which can be deployed in many different settings. SBE/NE provides agencies a platform from which they can promote ancillary services in addition to HIV testing and PrEP/PEP. Lastly CBA services can play an important role in implementing successful SBE/NE.

BP45

Abstract 5855 - An intergenerational approach to addressing HIV/AIDS in the Latino community

Author(s): *Hilda Crespo, Christine Perez*

Issue: This presentation focuses on an innovative approach for HIV/AIDS prevention with a primary focus on youth and older adults

Setting: The geographic location is national with a focus on urban areas of New York, New Jersey, Illinois, Florida, Pennsylvania, Delaware, Massachusetts, Puerto Rico, Washington, DC, California, etc. The intended audience is Latino youth and older adults.

Project: The ASPIRA Association is a national youth-serving organization that promotes education, leadership development and healthy communities in the Latino community. ASPIRA's HIV/AIDS prevention model program utilizes an intergenerational model. In partnership with the National Hispanic Council on Aging (NHCOA), the program includes workshops, health fairs, conferences, and "charlas" (informal chats). It also includes a strong presence in social media including, Facebook, Twitter, and Instagram. Moreover, the model includes Blogs, partnerships with schools, HIV Testing organizations, Spanish language media, State health departments, and other health promotion organizations.

Results: Over the past year, the program has sponsored ten events and reached over 25,000 individuals through events. It has had over eight media/ad placements and generated close to 2 million media impressions. Moreover, we have reached over 11,000 individuals through e-mail blasts, and our use of social media has resulted in over 307 Facebook posts, 300 tweets, 146 retweets, and 60 Instagram posts. Our media partners have included Univision, Telemundo, and Hispanic radio network among others. Our partners have included NHCOA, La Red Hispana, Pinyon Foundation, Diverse Elders Coalition, Latin American Youth Center, National Organizations for Youth Safety, Vida Senior Center, National Hispanic Medical Association DC Prevention Council, National Hispanic Corporate Council, Dialogue on Diversity and ASPIRA Associate Offices.

Lessons Learned: Several lessons were learned, including partnerships can assist in meeting program goals and in expanding outreach efforts; use of mass media can be highly beneficial in prevention and education efforts, and it is effective in reaching youth and in addressing stigma.

BP46

Abstract 5965 - Developing a national curriculum to increase the capacity of health departments providing comprehensive HIV services for MSM of color

Author(s): *Dana Cropper-Williams, Michael Shankle, Brian Hujdich*

Issue: HIV is driven by interrelated social determinants of health (SDH), historically not addressed in traditional health department settings. The experiences of stigma, homophobia, and racism have created disparities in MSM of colors' engagement, retention, and adherence to HIV prevention, care, behavioral health and social services. Current public health strategies typically address the HIV epidemic from a single disease state, independent of the social content, and utilizing a deficit approach to intervention design. HIV is not the only epidemic impacting MSM of color. Multiple epidemics are co-occurring in communities, each of them interacting and exacerbating negative health outcomes. The current approach to HIV prevention, care, and treatment does not take into account the context that drives the epidemic. Thus, an integrated approach is necessary that not only focuses on HIV disease, but also addresses the social and structural drivers of the epidemic (poverty, mental health, addiction, education, homelessness). By focusing on the key drivers of the epidemic (social determinants), re-training and building workforce and inter-professional capacity, and utilizing a resilience approach to intervention, a comprehensive, culturally competent, interconnected care system can be developed that holistically address the needs of MSM of color.

Setting: Pilot program delivered in seven health departments located in areas with high HIV prevalence in black and Latino populations.

Project: In order to address the racial and ethnic HIV-related health disparities and improve health outcomes among MSM of color, HealthHIV and its multidisciplinary partners designed a multi-dimensional training and technical assistance program, Transforming from HIV Prevention Practice to Prevention Innovation™ (TRANSFORM) to strengthen the workforce capacity of health departments to better serve MSM of color clients.

Results: The program at its midpoint has achieved the following outcomes: increased accessibility and availability of culturally appropriate, competency-based curriculum that increases knowledge, and skills of health departments and community partners to provide comprehensive prevention, care, behavioral health, and social services for MSM of color; increased capacity of health department trainers through competency-based training of trainer curriculum that increases knowledge, skills, and access to effectively deliver training of provider curriculum to community partners; and, increased dissemination and diffusion of practices, training, and technical assistance that are culturally appropriate. Anticipated outcomes in the second half of the program include: increased availability and utilization of transformational technical assistance that addresses infrastructure, systems integration, and sustainability to build capacity of health departments and community; increased health department capacity to implement culturally appropriate services; and increased dissemination of culturally appropriate models of care.

Lessons Learned: Culturally responsive programs are imperative for systems transformation. MSM of color must be involved in all aspects of program development and the education must be Interactive to impact knowledge transfer and behavior change. Health departments need culturally appropriate online programs to increase access, utilization and stimulate systems changes.

BP47

Abstract 5988 - Reaching the hard-to-reach: developing culturally responsive PrEP services for priority populations

Author(s): *Kyan Lynch, Maureen Scahill, Juhua Wu, Mary Adams, Leo Wilton, Patricia Coury-Doniger*

Issue: HIV pre-exposure prophylaxis (PrEP) has the potential to bring the end of the HIV/AIDS epidemic within reach. However, PrEP uptake has been suboptimal, particularly for populations with a disproportionate burden of HIV infection. Currently, PrEP use is highest among white men who have sex with men (MSM) with access to medical care, while in comparison, marginalized populations, such as Black/African American (Black) and Latino/Hispanic (Latino) MSM and transgender persons, have lower PrEP uptake and continue to experience significant HIV-related disparities. Culturally responsive (CR) health care services and providers can increase PrEP use in these marginalized populations. PrEP program providers need training and technical assistance (TA) in developing CR PrEP services to increase PrEP linkage, retention, and adherence in these hard-to-reach populations.

Setting: The University of Rochester Center for Community Practice (UR-CCP) in Rochester, New York, is a CDC-designated Capacity Building Assistance (CBA) Program, providing training and TA to health

departments (HDs) nationally in HIV/STD/VH prevention. In response to requests from HDs, UR-CCP developed curricula entitled, “Developing Culturally Responsive PrEP Services for Priority Populations” to address this disparity.

Project: The UR-CCP developed 3 related 2-day courses addressing the unique set of determinants that influence the use of PrEP among Black MSM, Black and Latino MSM, and transgender persons of color. The overarching goals of each course are to increase participants’ awareness of the unique barriers, cultural dynamics, historical trauma, micro-aggressions, and resiliencies influencing PrEP uptake in each of these populations, and to practice communication skills to address these factors. The CR courses include didactic components on relevant epidemiology, pathophysiology, pharmacology, social science, and historical context. Experiential activities, such as guided imagery exercises and privilege walks, reinforce content. CR trainers facilitate group discussions and brainstorming sessions to maximize engagement. Role-plays and fish-bowl activities allow participants to practice new communication skills.

Results: UR-CCP trainers have delivered 6 CR courses: 1 in Albany, NY, 3 in Chicago, IL, and 2 in Philadelphia, PA. The audiences included HD staff and their CBO contractors. In total, 89 participants provided evaluation data. When aggregated, the data show that the vast majority (88/89) of participants were satisfied with the trainings overall (70% [62/89] “highly satisfied/very helpful”, 29% [26/89] “satisfied/helpful”). Participants were asked if they intended to start or continue to deliver culturally responsive PrEP services for the identified priority population following the training. Across all courses, 87% (75/86) of participants answered affirmatively (“yes”). Participants in all 6 trainings noted increased confidence in using patient/client-provider communication skills with the priority population, with 90% (78/87) of participants reporting feeling “confident” or “very confident” using these skills after the training, compared to 57% (50/87) prior to the training, a 32% improvement.

Lessons Learned: Skills-based courses focused on the HIV prevention needs of marginalized populations are useful for HDs and their contractors to help address low uptake of PrEP and other biomedical prevention interventions in high morbidity jurisdictions in the United States. The CR course series has proven effective in engaging participants, increasing skills and intentions to change prevention practice.

BP48

Abstract 6046 - Women & PrEP: the role of patient-provider communication

Author(s): *Gabriella Jackson, Anne Teitelman, Hong-Van Tieu, Bridgette Brawner, Annet Davis-Vogel, Jacqueline Bannon, Beryl Koblin*

Background: Although multiple advancements have been made in the fight against HIV and AIDS in the United States, the HIV epidemic among women remains a significant, yet often overlooked, public health concern. Women made up 19% of the 39,782 new HIV diagnoses in the United States in 2016. Among all women who received an HIV diagnoses in 2016, 61% were African American, followed by 19% white, and 16% Hispanic/Latina. Previous studies have demonstrated that oral HIV pre-exposure prophylaxis (PrEP) can reduce the incidence of HIV among women. However, there is a gap between recommended use of PrEP and actual PrEP uptake in real world settings. This qualitative study aimed to identify the role of patient-provider communication for at-risk women considering PrEP and to identify the barriers to communication and offer recommendations on how they can be improved.

Methods: We recruited high risk, PrEP-eligible women aged 18 to 55 in New York City and Philadelphia, PA to accomplish the study aims (N = 41). We conducted semi-structured in-depth interviews to explore the role of patient-provider communication for at-risk women considering PrEP. The interviews were transcribed verbatim, and the coding structure was developed through an inductive approach. Our thematic analysis of the transcripts was conducted using NVivo 11 software. Any code that was not directly related to patient provider communication was eliminated from consideration. Furthermore, codes were evaluated based on significance and frequency of use and were compared within and across interviews. Participants also completed a brief health and demographic survey, which was analyzed using descriptive statistics in SPSS 24.

Results: On average, participants were 41 years old. Reported sexual partners in the last 6 months ranged from zero to twelve, with 40% reporting only one sexual partner. Majority of women said they didn't use a condom the last time they had vaginal sex. Half were not working, but actively looking for work. Our thematic analysis yielded four major themes: 1) Availability of PrEP information from a provider, 2) Relationship with provider, 3) Providers as support systems, and 4) Honesty with provider—which included two subthemes, 4a) Judgement and 4b) Embarrassment. Women tended to agree that patient-provider communication was a major deciding factor when considering PrEP use. However, perceived lack of provider knowledge, feeling embarrassed and judged by providers, lack of continuity of care and longevity of the relationship, were all identified as barriers to communication.

Conclusions/Implications: Results from this study suggest that communication with a healthcare provider plays a pivotal role in a woman's decision to use PrEP. Healthcare providers have a momentous opportunity to help mitigate barriers to PrEP use, but our findings indicate that they might not be equipped with the proper tools and training to do so. The identified themes will inform future communication interventions targeted to increase provider comfort, knowledge and skill to discuss PrEP as an HIV prevention option for women. Additionally, the knowledge generated can be used to educate women on how to facilitate conversations with providers about PrEP use.

BP49

Abstract 5653 - Walk the talk: an approach for equitable inclusion of community in defining HIV prevention research in the San Francisco Bay area

Author(s): *Barbara Green-Ajufo, Daryl Mangosing, Greg Rebchook*

Issue: Many – including government agencies such as the National Institutes of Health (NIH) and Centers for Disease Control and Prevention (CDC) – share the vision that people should be able to determine what happens in their community and participate in research that engages the community. Researchers and public health officials cite many potential benefits of community-engaged research (CER). The University of California San Francisco (UCSF), Center for AIDS Prevention Studies (CAPS) and Prevention Research Center (PRC) strive to engage community in research in an inclusive, meaningful way. In 2017, CAPS/PRC conducted a community needs assessment (CNA) to further understand our community's research interests and needs and demonstrate our approach to CER.

Setting: From August 7, 2017 to December 21, 2017, CAPS/PRC staff conducted a CNA with 11 organizations serving individuals infected with or affected by HIV/AIDS in the San Francisco Bay Area through semi-structured interviews in person and over the phone. The respondents represented 6 community-based and AIDS service organizations (CBOs, ASOs), 2 local health departments 1 community group, 1 faith-based organization, and 1 local HIV/AIDS planning council.

Project: The CNA aimed to assess respondents' understanding, use, and application of research, as well as their relationship with CAPS/PRC and knowledge and use of our resources, to facilitate HIV programming and prevention science research. The CNA also identified new research topics of interest and opportunities to expand productive research partnerships. This presentation will: 1) describe the process used to engage community organizations/groups in the CNA; 2) highlight opportunities for new research partnerships between the community and CAPS/PRC; 3) offer insight into community research interests, participation, and access to/use of resources (or lack thereof); 4) provide information on available CAPS/PRC research tools and materials that facilitate community engagement; and 5) share community-generated research ideas and recommendations to address them.

Results: Information from the CNA demonstrates research-related successes and opportunities for improvement, providing CAPS/PRC with the opportunity to adapt and build on current CER and forge new partnerships that support participation across research agendas from the initial idea/concept to dissemination and application of results. This presentation shares key successes and discusses options to improve community knowledge and use of research and to participate in CAPS/PRC HIV prevention research partnerships.

Lessons Learned: Lead with humility and flexibility. Participants with and without a history with the two Centers were very willing to participate in the assessment and talk openly about their work and relationship with CAPS/PRC and research partnerships. The semi-structured interview guide and interviewer patience allowed participants to veer off topic and interject community pearls of wisdom that otherwise would remain unstated. For example, participants acknowledged the inconvenient truth that, despite targeted funding, prevention efforts have not fully addressed the disparity in HIV acquisition among racial, age, and sexual minority groups across the nation. An intention to engage community members as equitable partners in this research endeavor is required to address these disparities in a more meaningful way.

BP50

Abstract 5552 - Integrating prevention and care funding to further prevention-focused activities: Washington State strategies

Author(s): *Michael Barnes, Karen Robinson*

Issue: HIV prevention funding has always been less than the amount allocated for services for people living with HIV. With the national push towards integrating prevention and care funding streams, how can the process of funding integration help in furthering the reach and impact of our prevention programming? Why is the transition to integrated funding important? What challenges exist in integrating funding streams? What steps do states need to take more fully embrace opportunities for integrating funding streams?

Setting: State health department receiving CDC prevention dollars and HRSA care / rebate dollars.

Project: In 2016, Washington State DOH (WA DOH) released an integrated HIV care and prevention Request for Applications (RFA) that asked interested stakeholders around the state to think innovatively and creatively about integrating care and prevention programming at the local level. WA DOH recognized a three main benefits to integrating funding streams that would have a positive impact on the programming at the local level:

CLIENT ENGAGEMENT: The routes to antiretroviral therapy for persons living with HIV and PrEP for persons at high risk have similar obstacles and similar goals - retention and adherence.

ECONOMIES OF SCALE: By serving both at-risk persons and persons at high risk in a single HIV Community Services portfolio, we could reduce the costs associated with maintaining separate systems of prevention and care, including funding separate workforce's with similar skills.

ALIGNMENT OF SERVICES AND SYSTEMS: Effective collaborations are essential to expanding service delivery in support of increased antiretroviral use among persons at high risk and persons living with HIV.

Results: Funding for these integrated contracts began on January 1, 2017 with a total of sixteen (16) agencies in Washington including CBOs and local health partners. The embrace of integrated funding and its impact on programming has not been easy but WA DOH has worked closely with funded partners in an effort to more fully realize and embrace opportunities for integration.

Lessons Learned: Finding common ground between care and prevention services: prevention, really just given the lesser amount of funding, had more work to do in aligning with care services. Many prevention staff were prepared and excited to take on new navigation-focused work but this wasn't the case for everyone—increased data collection efforts, routine client follow up, more standardized approach to navigation services was a struggle for many to fully adopt.

Regular and consistent communication is KEY to building relationships internal to state health department and with external partners: Looking for opportunities to get integrated agencies to have their care and prevention teams interact is important (e.g.: integrating quarterly reports, building prevention activities into quality management activities, integrated partner check ins, meet and greets involving prevention and care staff, etc.).

Barriers to communication between care and prevention staff exist at the state level and with external partners: often teams are physically separated (same building, different sides), different managers coordinating prevention and care staff, embrace of alternate workplace environment means many staff are not in the office as regularly.

Look for opportunities for care staff to help prevention staff to help each other learn more about their respective approaches to our work: Having care staff help prevention staff to learn about a 'case management' approach to client-level work (things like data collecting and input, client follow up, using a data tracking system, etc.) and having prevention staff help care staff learn more about outreach and engagement activities is important.

Don't underestimate the value of peer to peer technical assistance: Some of our prevention partners struggled to take up PrEP navigation work while others thrived. Those who thrived can help elevate those finding the work more challenging.

BP51

Abstract 5943 - Addressing HIV prevention possibilities in Houston, TX: examining disparities, challenges, and successes

Author(s): *Laura Randall, Alisu Schoua-Glusberg, Casey Tesfaye, Valerie Betley, Elizabeth Gall, Paula Frew*

Background: Houston, like other southern U.S. cities, has experienced a disproportionate increase in new HIV infections over the past decade compared to other parts of the country. In 2015, Houston ranked 11th in the U.S. in new HIV diagnoses (22.1/100,000 cases; prevalence rate 407.7/100,000). Many of the new infections were among gay, bisexual, and other men who have sex with men (MSM) who live in its 1,700 square mile jurisdiction. A comprehensive examination of the Houston HIV prevention strategy lends to the understanding of how HIV prevention efforts can be optimized to reduce HIV health disparities among MSM. In particular, Houston's geographic spread presents difficulties for efficiently delivering existing and novel HIV prevention strategies, including PrEP, to reduce new HIV infections.

Methods: From September 2016 to February 2017, we conducted 30 semi-structured interviews in Houston. Our data included: (1) semi-structured interviews with health department staff, community-based organizations' staff, and community members involved in HIV service delivery; (2) observations of activities relevant to HIV prevention or treatment for MSM; and (3) in-depth assessment of documents that concern MSM (e.g., policy and planning documents). For this session, we analyzed portions of transcripts that discuss Houston's approach to HIV prevention.

Results: Although Houston has an established network of trusted MSM-focused organizations that provide health services in culturally sensitive environments, they are unable to reach all MSM due to the city's size, particularly those living outside the metropolitan area. The findings reflect that the geographic spread of greater Houston is characterized by an interconnected state-county-city infrastructure that delegates prevention and care to separate government entities that concentrate its efforts specific areas. Although these entities have their own foci (i.e., prevention or treatment delivery), they still must work together to facilitate prevention and care management. Yet, Houston's geographic challenges have resulted in siloed approaches to delivering HIV prevention, treatment, and care in the region. Coordination between organizations is made more difficult by the greater Houston area's sheer size. The data indicates that populations may lack awareness of available HIV prevention options (e.g., PrEP/PEP), and are physically limited in their access to prevention services. Houston's lack of targeted and tailored prevention approaches including campaigns and messages, combined with inadequate transportation and regional sprawl, has played a major role in HIV prevention inaccessibility and poor awareness of and uptake of PrEP.

Conclusions/Implications: Houston's size has presented challenges for its HIV prevention strategy. Its inadequate public transportation system and vast geographic spread result in time-consuming travel for

persons living in and around Houston, yet the findings reflect useful options that may surmount these challenges in the future. Prevention services in the future may be delivered in a variety of Houston community settings with incentivized ride-share and shuttle/taxi options.

BP52

Abstract 5765 - State policies aimed to promote PrEP access in the United States

Author(s): *Edwin Corbin-Gutierrez, Mike Weir*

Issue: PrEP remains an underutilized HIV prevention tool. Although most health insurance plans cover it, affording the out-of-pocket costs for PrEP continues to be a major concern for patients. In addition to these high costs, patients continue to report burdensome restrictions in accessing it. As a consequence, individuals seeking to use PrEP still face challenges getting access to it. There are many policy opportunities at the state and federal level that will increase access to PrEP for those who need it.

Setting: The project analyzed policies from a number of jurisdictions, including those that have adopted Medicaid expansion and those that have not. The team analyzed several types of policies, including legislative changes to the state's public health code and regulatory guidance to health insurance plans, among others. This session is open to community advocates, providers, and health department staff interested in advancing PrEP access in their states.

Project: This project summarizes a number of state-level policies intended to facilitate access to PrEP. The project identified the key elements of the policies and their potential impact on PrEP access, with particular focus on uninsured and underinsured individuals. The analysis pays particular attention to key elements that are transferable across jurisdictions and may be replicable, taking into account the political context in each of the examples discussed.

Results: Policies that have facilitated access include new legislation in Illinois that defines PrEP as an essential preventive service that should be covered by public health care payers, including Medicaid, Medicare and the Children's Health Insurance Program (CHIP), at no cost to the patient. In Florida, the state's Surgeon General mandated that local health departments make PrEP available to their patients and the health department is making the medication available through their clinics for uninsured patients. New York State's Insurance Commissioner issued a reminder to health plans calling on them to cover PrEP and avoid placing any barriers to its access. And many states, including Iowa and Washington State, are allowing pharmacists to provide a number of preventive clinical services, including prescribing PrEP and ordering labs in collaboration with a licensed clinician. These flexibilities can help expand the number of PrEP prescribers across the country, which is especially important in rural areas.

Lessons Learned: For communities most disproportionately impacted by HIV, uptake of PrEP continues to be slow and not without significant social and structural barriers. This project provides a unique opportunity to understand what policies jurisdictions are implementing to increase access to PrEP and highlights ways jurisdictions may replicate and/or implement these policies in their own jurisdictions. With these tools, jurisdictions and community members will be better equipped to remove policy and structural barriers that prevent PrEP utilization.

BP90

Abstract 6084 - A critical qualitative analysis of women's recommendations for HIV prevention programming (HPTN 064)

Author(s): *Jasmine Abrams, Paula Frew, Jessica Justman*

Background: Comprehensive prevention strategies informed by the voices and experiences of women are needed to address the multidimensional profile of their risk. The current study addresses this need via a community based qualitative research study that identified women's recommendations for sexual health programs to support the development and adaptation of HIV risk reduction interventions.

Methods: Data analyzed for the current study were collected via the HIV Prevention Trials Network Study 064 (HPTN 064), a national multisite investigation of HIV incidence in women residing in impoverished communities with elevated HIV prevalence. A total of 31 focus groups with women were conducted across four metropolitan areas in the United States: 1) Bronx, NY; 2) Washington, DC; 3) Raleigh, NC; and 4) Atlanta, GA. Analysis of transcribed data occurred in the following phases: 1) Structural Coding, 2) Preliminary Analysis and Member Checking, 3) Semantic and Latent Thematic Analysis to respectively examine explicit and implicit themes, and 4) Deviant Case Analysis to examine less common themes with the purpose of refining analyses such that results holistically capture views held by participants.

Results: Analyses revealed three main semantic themes related to 1) Program Format and Structure, 2) Program Messages and Skills, and 3) Marketing and Branding. Participants suggested interventions be conducted via small discussion oriented groups in community-based settings. They also highlighted that participation should be incentivized and that women's groups should be inclusive of men and people living with HIV. Additionally, participants recommended program messages consist of content that a) empowers women and addresses low self-esteem and promotes self-confidence, b) emphasizes the consequences of HIV, and 3) teaches women sexual communication skills for use with partners and children. Participants also stressed that program messages should be demonstrated via visual materials (e.g., posters and videos) and/or experiential learning strategies. Participants recommended utilizing influencers (e.g., locally and nationally known celebrities) to promote the program and to generate interest and acceptability.

Latent thematic analysis of program recommendations revealed an underlying assumption among women that HIV risk manifests and should be targeted at individual and interpersonal levels. Deviant case analysis identified recommendations for programs to: 1) address economic risk factors via job training or resource referrals, 2) mandate participation, and 3) include discussions and demonstrations focused on self and partner pleasure, including pleasurable alternatives to intercourse.

Conclusions/Implications: The findings of this study highlight opportunities for development of new and adaptation of existing sexual health promotion interventions. Findings also highlight the need to develop intervention approaches that simultaneously address risk at multiple levels. This work has important implications for the development of future HIV risk reduction interventions for women as health promotion programs informed by target populations have been shown to increase the probability of an intervention's success while yielding increased community buy-in.

CP01

Abstract 5224 - Is co-location of services with HIV care associated with improved HIV care continuum outcomes? A systematic review

Author(s): *Yuko Mizuno, Darrel Higa, Carolyn Leighton, Mary Mullins, Nicole Crepaz*

Background: Service co-location may be an important structural intervention to remove structural/physical barriers to care and services (e.g., lack of transportation, services provided in separate locations) and to simultaneously address multiple co-occurring clinical and social service needs of persons living with HIV (PLWH). To our knowledge, there is no systematic review that has comprehensively examined the associations between a variety of service co-location models and HIV care continuum outcomes (i.e., linkage to care, retention in care, ART uptake and viral suppression).

Methods: A systematic review, including both electronic searches of a cumulative database (e.g., MEDLINE, EMBASE) and manual searches, was conducted in April 2016 to identify U.S. and international studies that assessed associations between service co-location and any of the HIV care continuum outcomes. Studies were included if they reported relevant associations between service co-location and a care continuum outcome, and were in English. Study characteristics (e.g., location, study setting, design, sample size, participant characteristics, description of service co-location, outcome measures, the association data, and study limitations) were abstracted using a standardized form and qualitatively synthesized. The rigor of study designs was assessed for determining the strength of evidence. Discrepancies were resolved via group consensus.

Results: Thirty-six studies met inclusion criteria, and were classified into six models of service co-location: HIV care co-located with multiple ancillary services, TB care, non-HIV specific primary care, drug abuse treatment, prevention of mother to child transmission programs (PMTCT), and mental health care. Three studies (8%) were randomized controlled trials (RCTs), 15 studies (42%) had a comparison, and 18 studies (50%) reported correlational data. These 36 studies yielded 48 sets of findings on the association between service co-location and HIV care continuum outcomes: 60% were positive associations, 38% were null associations, and 2% was of mixed findings. With regard to each HIV care continuum outcome, all (100%) of the six findings that reported linkage to care outcomes and almost three-quarters (74%) of the 19 findings that reported ART uptake were positive associations. For retention in care, four (50%) of the eight findings were null associations, three (37.5%) were positive associations and one (12.5%) was of mixed findings. For viral suppression, 60% of the 15 showed null associations and 40% showed positive associations. Models of co-location that addressed HIV and non-HIV medical care issues (i.e., co-location with non-HIV specific primary care, PMTCT, and TB) had more positive associations, particularly for linkage and ART uptake, than other co-location models.

Conclusions/Implications: The systematic review findings add some evidence for the potential positive effects of service co-location for improving HIV care continuum outcomes. More evidence of a positive association was seen for linkage to care and ART uptake than for retention in care and viral suppression, and for the models that addressed medical care issues. While some findings are encouraging, issues associated with weak methodology were noted in many of the primary studies. More research with rigorous study designs is needed to strengthen the evaluation of, and evidence for, service co-location.

CP02

Abstract 5233 - Using innovative tools to qualitatively evaluate surveillance data collection among persons not receiving HIV care

Author(s): *Shana Green, Jennifer Fagan, Ansley Lemons, Amy Baugher, Mabel Padilla*

Issue: The Medical Monitoring Project (MMP) is a national surveillance system that captures behavioral and clinical data about adults with diagnosed HIV in the United States, regardless of their care status, using interviews and medical record abstractions. Recruiting persons who are not receiving HIV care is a challenge and low response rates among this population could affect the representativeness of the data. Adults with diagnosed HIV who are not receiving medical care are less likely to be virally suppressed and more likely to transmit the virus. Therefore, it is important to understand factors that affect linkage to, and retention in, care, as well as factors that encourage re-engagement in care. A qualitative evaluation was developed to collect data from persons who are not receiving HIV care in order to understand factors related to linkage to, and retention in, care, and to evaluate MMP's recruitment and data collection processes.

Setting: Twenty-three state or local health department jurisdictions will recruit MMP respondents who have a) never received HIV care or b) not received HIV care for at least 12 months before their MMP interview to participate in a qualitative telephone interview. Eligibility is based on self-report to questions about HIV care status during the MMP interview.

Project: The qualitative project has the following four objectives: 1) improve MMP recruitment methods by understanding best approaches for locating and recruiting adults who are not engaged in HIV care; 2) evaluate existing measures of engagement and retention in care to inform the MMP questionnaire design and interpretation of findings; 3) describe facilitators and motivations for, and barriers to, obtaining HIV care to inform the design of the MMP questionnaire; and 4) describe implications of not receiving HIV care. This presentation will describe recruitment and data collection strategies that will be used to achieve the objectives of this evaluation.

Results: Tools and strategies used to design and implement a qualitative project to a) meet security and confidentiality requirements of CDC, b) successfully recruit hard-to-reach adults with diagnosed HIV who are not in care located across the United States, and c) facilitate collaboration with local and state health departments will be shared in this presentation. Methods include using telephone interviews with caller-ID masking, web-based collaborative platforms, survey algorithms for recruitment, and online scheduling software with automated features. The use of these tools reduces barriers to participation such as transportation and potential concerns about privacy, confidentiality, and stigma. Additionally, these strategies facilitate project management and collaboration between the CDC and 23 state or local health departments nationwide. Details about the process implemented to manage this multi-site collaborative evaluation will be shared.

Lessons Learned: The challenges of conducting a nationwide qualitative project with a hard-to-reach population may be overcome with the use of tools internal and external to the CDC. Health departments and other CDC surveillance systems can use these strategies to conduct qualitative evaluations of surveillance systems.

CP03

Abstract 5249 - Estimating limited English proficiency among adults receiving HIV care—Medical Monitoring Project, 2013–2014

Author(s): *Mabel Padilla, Jennifer Fagan, Yungeng Tie, Luke Shouse*

Background: According to the American Community Survey, in 2015 21% of people in the United States spoke a language other than English at home, and about 41% of them were limited English proficient (LEP). Compared with English-proficient persons, LEP persons are more likely to report difficulties communicating with providers, trouble accessing medical care, lower medication adherence, and lower patient satisfaction. To our knowledge, there are no studies of LEP among adults receiving HIV care. We present estimates of the sociodemographic, behavioral and clinical characteristics of LEP adults receiving HIV care in U.S. states where English is the predominant language.

Methods: We used weighted interview and medical record data from the 2013 and 2014 cycles of the Medical Monitoring Project, which used a 3-stage, probability-proportional-to-size sampling methodology. Persons eligible for MMP were HIV-positive, aged 18 years or older, and had received HIV medical care in participating facilities in a given cycle year. We also used data collected from facilities, specifically whether they provided language services and received Ryan White HIV/AIDS Program (RWHAP) funding. This analysis was limited to adults living in U.S. states and territories where English is the predominant language (N=9689). Participants were asked, “How well do you speak English?” with the following response options: very well, well, not well, not at all. Participants who reported speaking English less than “very well” were defined as LEP. All reported percentages were weighted to account for unequal selection probabilities and nonresponse. We used modified Rao-Scott chi-square tests to assess sociodemographic, behavioral, and clinical differences among LEP and English-proficient adults receiving HIV care (significance defined as $p < 0.01$).

Results: The estimated prevalence of LEP among adults receiving HIV care in U.S. states where English is the predominant language was 20%. Compared with English-proficient adults, LEP adults were more likely to be older (≥ 50), female, Hispanic or Latino, born outside of the United States, less educated, living at or below the poverty level, and have Ryan White/ADAP coverage. Compared with English-proficient adults, LEP adults had less confidence filling out medical forms, and were more likely to adhere to their HIV medications and to have been screened for STDs. Furthermore, compared with English-proficient adults, LEP adults were more likely to attend facilities that received RWHAP funding and provided language services. There were no significant differences in patient satisfaction, viral suppression, and prescription of antiretroviral therapy.

Conclusions/Implications: LEP adults receiving HIV care experienced several socioeconomic challenges yet had better or equivalent care and clinical outcomes compared with English-proficient adults. This may be due to their high levels of attendance at facilities providing language services, which can improve medication adherence, and facilities receiving RWHAP funding, which are more likely to offer comprehensive support that improves patient outcomes, such as interpreter services and adherence counseling.

CP04

Abstract 5262 - Regional variation in trends over time in HIV prevalence among people who inject drugs in 89 large U.S. metropolitan statistical areas, 1992-2013

Author(s): *Leslie Williams, Barbara Tempalski, Umed Ibragimov, Ronald Stall, Anna Satcher Johnson, Guoshen Wang, Hannah Cooper, Samuel Friedman*

Background: After years of reportedly stable HIV prevalence and declining incidence among people who inject drugs (PWID) in U.S. cities with large epidemics, some rapidly emerging epidemics have been recently reported in new areas (e.g., Scott County, Indiana). However, to our knowledge, trends over time in HIV prevalence among PWID in U.S. metropolitan statistical areas (MSAs) across all major regions of the country have not been systematically estimated beyond 2002, and the extent to which HIV epidemics may be growing in other areas receiving less media attention is largely unknown. Therefore, we here estimate HIV prevalence among PWID in 89 of the most-populated U.S. MSAs, both overall and by geographic region, using the most recent surveillance and HIV testing data available.

Methods: We computed MSA-specific annual estimates of HIV prevalence among PWID for these 89 MSAs, for 1992-2013, using data from the Centers for Disease Control and Prevention's (CDC) National HIV Surveillance System and National HIV Prevention Monitoring and Evaluation data; estimates of 1992 PWID population size and HIV prevalence and incidence among PWID by Holmberg (1997); and research estimates from published literature using 1992-2013 data. A mixed effects model, with time nested within MSAs, was used to regress the literature review estimates on all of the other data series. Multiple imputation was used to address missing data in all variables used in the model. Resulting estimates were validated using previous 1992-2002 estimates of HIV prevalence and data on ARV prescription volumes, and examined for patterns based on geographic region, HIV testing denominators, and baseline HIV prevalence.

Results: Mean (across all MSAs) trends over time suggested decreases through 2002 (from approximately 11.4% in 1992 to 9.1% in 2002), followed by increasingly steep increases thereafter (to 10.7% in 2013). Validation analyses found a moderate positive correlation between our estimates and ARV prescription volumes ($r = .54$), and a very strong positive correlation ($r = .94$) between our estimates and previous estimates by Tempalski et al. (2009) for 1992-2002 (which used different methods). Analysis by region and baseline prevalence suggested that mean increases in later years were largely driven by MSAs in the Western US and by MSAs in the Midwest that had low baseline prevalence. Our estimates suggest that prevalence decreased across all years in the Eastern U.S. These trends were particularly clear when MSAs with low HIV testing denominators (i.e., those that produced unstable percent-positive surveillance data points) were removed from analyses to reduce noise in mean trajectories.

Conclusions/Implications: Our estimates suggest a fairly large degree of variation in 1992-2013 trajectories of PWID HIV prevalence among 89 U.S. MSAs, particularly by geographic region. They suggest that public health responses in many MSAs were sufficient to decrease or maintain HIV prevalence over time. However, future research should investigate potential factors driving the estimated increase in prevalence after 2002 MSAs in the West and Midwest. These findings have

potentially important implications for program and/or policy decisions, but estimates for MSAs with low HIV testing denominators should be interpreted with caution and verified locally before planning action.

CP05

Abstract 5265 - Age and race characterize disparities in HIV retention in care and viral load suppression of women of childbearing age living with HIV in Florida, 2016

Author(s): *Danielle Curatolo, Lorene Maddox, Emma Spencer*

Background: Women living with HIV, particularly those of reproductive age, are recognized as being less likely to be engaged in habitual HIV care and virally suppressed when compared to men. In addition to racial, ethnic or age related factors, other factors such as depression, inequalities in socioeconomic status, sexual stigma, and domestic violence may influence disparities in HIV care. Ensuring women of childbearing age (WCBA) (age 15–44) living with HIV are retained in care and have a suppressed viral load (VL) is essential to reduce HIV transmission, HIV-related deaths, and eliminate vertical transmission of HIV. We aimed to examine demographic and laboratory data reported through HIV surveillance to understand the HIV care patterns and disparities that affect WCBA living with HIV in Florida, and use these data to inform an integrated prevention and treatment program approach.

Methods: HIV surveillance data reported to the Florida Department of Health enhanced HIV AIDS Reporting System (eHARS) and HIV care indicators (clinic visits or receipt of antiretroviral medications) captured in the Ryan White program databases in 2016, were used to analyze the retention in care and viral suppression (<200 copies/mL) of WCBA living with an HIV diagnosis. Pearson's chi-squared test was used to evaluate differences in care indicators between WCBA by race and the following age groups: 15–19, 20–24, 25–29, 30–39, 40–44.

Results: In 2016, 647 out of 4,972 (13%) persons whose HIV was diagnosed in Florida were WCBA and 12,038 out of 114,772 (10%) persons living with an HIV diagnosis in Florida were WCBA. In 2016, there were 8 infants diagnosed with perinatally acquired HIV born in Florida, with all 8 birth mothers being black/African American. Of WCBA living with HIV in Florida, 61% (n=7,312) were retained in care (two or more HIV-related care indicators at least three months apart) and 50% (n=6,026) were virally suppressed. Black WCBA were less likely to be retained in care (60%) than Hispanic (63%) and white (61%) WCBA ($p=0.01$). Additionally, black WCBA were less likely to be virally suppressed (48%) than Hispanic (56%) and white (53%) WCBA ($p<0.0001$). Women age 25–29 and 30–39 were less likely to be both retained in care (58%, 59% respectively) and virally suppressed (45%, 48%) than any other WCBA ($p<0.0001$). This was true among both black and Hispanic women age 25–29 and 30–39. Additionally, black women age 20–24 were less likely to be virally suppressed compared to other black WCBA ($p<0.0001$). Among white WCBA, likelihood of retention in care and viral suppression did not differ by age.

Conclusions/Implications: Characterizing disparities in HIV care outcomes among WCBA living with an HIV diagnosis by age and race show efforts to improve retention in care and viral suppression should be focused toward black women age 20–39 and Hispanic women age 25–39 in Florida. Furthermore, prevention and treatment activities should address HIV care disparities among black WCBA living with HIV to reduce the disparate vertical transmission of HIV occurring among these women.

CP06

Abstract 5390 - Exploring Native American race reporting in New York State HIV surveillance data

Author(s): *Yihong Yao, Wendy Patterson, Carol-Ann Swain, Bridget Anderson, James Tesoriero, Jayleen Gunn*

Background: Accurately representing the number of Native Americans (NA) living with diagnosed HIV using public health surveillance data is crucial for health care resource planning, disease prevention, and funding allocation. Currently, New York State (NYS) reports race/ethnicity among people living with diagnosed HIV (PLWDH) and newly diagnosed with HIV using an algorithm created by the Centers for Disease Control and Prevention (CDC), which is based on Federal Office of Management and Budget (OMB) Race and Ethnicity Standards for Federal Statistics and Administrative Reporting. This algorithm uses a conservative hierarchical approach where people are classified as NA when American Indian/Alaska Native is the only race selected and Hispanic ethnicity is not selected. However, community groups indicate higher prevalence of NA living with HIV compared to the reported prevalence. It is likely that NYS, and other United States (US) HIV surveillance jurisdictions, are underestimating the number of NA living with diagnosed HIV. The aim of this study was to explore methodologies to estimate the number of NA living with diagnosed HIV in NYS.

Methods: Non-missing race/ethnicity data on all documents were extracted from the NYS electronic HIV/AIDS Reporting System (eHARS). PLWDH at the end of 2016 were retained for analysis. NA race was defined as: American Indian/Alaska Native on any document, American Indian/Alaska Native on first non-missing race/ethnicity Adult Case Report Form (ACRF), and by establishing a threshold based on the number of documents reporting American Indian/Alaska Native within the persons record (i.e., American Indian/Alaska Native selected on >60% of documents). Documents in eHARS were deduplicated prior to analysis. Findings were compared to each other and to the current CDC/OMB algorithm results.

Results: The count of NA living with HIV in 2016 varied substantially depending on the methodology used. American Indian/Alaska Native selected on any document yielded 1,205 PLWDH. American Indian/Alaska Native selected on the first ACRF with non-missing race/ethnicity yielded 309 PLWDH. American Indian/Alaska Native selected on >60% of documents yielded 127 PLWDH. The resulting count of NA PLWDH from each methodology was higher than the number of NA (n=62) identified as living with diagnosed HIV using the current CDC/OMB algorithm.

Conclusions/Implications: Our findings support published research that indicates racial misclassification of NA in surveillance systems. The true number of NA PLWDH in NYS is likely 1.5-6 times greater than currently reported using the CDC/OMB algorithm. This undercount likely leads to fewer population specific or targeted preventative interventions, support for linkage to health care services, and resources allocated to the NA community. Evaluation of this misclassification in HIV surveillance systems is warranted. Reconsideration at the national level of this impact of the CDC/OMB method for classifying race/ethnicity and other numerically small populations is critical for the accurate description of the impact of HIV on all populations. To End the Epidemic, all groups must be accurately counted to ensure no population is left behind.

CP07

Abstract 5438 - Test and Treat (T&T): one component of Florida's plan to eliminate HIV transmission and reduce HIV-related deaths

Author(s): *Karalee Poschman, Emma Spencer, Jeffery Beal, Debbie Taylor, Tiffany Adams*

Background: The burden of HIV in Florida is high, with 1 in 150 adults and adolescents living with diagnosed HIV in 2016. Further, an estimated 15.6 percent of Floridian's living with the HIV in 2015 do not know their disease status. Testing, diagnosing, and engaging people living with HIV in habitual care is paramount to reducing HIV transmission. In 2016, the Florida Department of Health launched the Test and Treat (T&T) program as one of the Four Key Components of Florida's plan to eliminate HIV transmission and reduce HIV-related deaths. The goal of T&T is to reduce the time for an individual with newly diagnosed HIV or someone who has fallen out of HIV care to start or resume antiretroviral therapy (ART) and achieve an undetectable HIV viral load. Previous research has shown that offering rapid access to treatment following initial diagnosis increases the likelihood of persons living with HIV being retained in care and achieving viral suppression. This study aims to evaluate the outcomes of persons enrolled in T&T in 2016 and 2017 across the state of Florida, and make recommendations for future improvement.

Methods: Patients were referred to and enrolled in T&T at county health departments across Florida beginning in 2016. T&T patients were matched to Florida's Enhanced HIV/AIDS Reporting System to determine viral suppression and care outcomes.

Results: From 23 of the 67 counties in Florida, 1,480 patients were enrolled in T&T in 2016 and 2017. Of the patients enrolled in T&T, there were 1,107 patients (75%) whose HIV was diagnosed through T&T and 373 patients (25%) who were re-engaged in care through T&T. Of all patients enrolled in T&T, 61% were virally suppressed (< 200 copies/mL) after enrollment, with 68% of those achieving viral suppression within 90 days following enrollment and an additional 23% achieving viral suppression within 180 days following enrollment. Statewide, the median number of days from enrollment in T&T to viral suppression was 63 days with the median for individual counties ranging from 37 to 106 days.

Conclusions/Implications: Prior to T&T, the patient referral and linkage to care process alone could take up to three months, delaying the time to viral suppression and increasing the likelihood of transmission. Rapid access to HIV treatment following HIV diagnosis can help prevent the spread of the disease, reduce HIV-related mortality, improve health outcomes of those living with HIV, and reduce HIV transmission through viral suppression. Enrolling individuals in T&T has reduced the time from diagnosis to linkage to care in most regions of the state, with more individuals achieving viral suppression within three months from entry into the program (68%) compared to all virally suppressed Florida residents whose HIV was diagnosed in 2016 and 2017 (9%). Furthermore, T&T has also provided an opportunity for those who have fallen out of care to be re-engaged in care and achieve viral suppression. An in-depth review of each county is recommended to understand best practices that enabled clients to achieve viral suppression more rapidly.

CP08

Abstract 5474 - HIV care engagement and sustained viral suppression among persons with diagnosed HIV infection in Medicaid expansion and non-expansion states, United States, 2015

Author(s): *Nicole Crepez, Xueyuan Dong, Kristen Hess, Karin Bosh, H. Irene Hall*

Background: Lack of health insurance is a key barrier to HIV care engagement. Findings from the Medical Monitoring Project show that among states who expanded Medicaid, Medicaid coverage of persons in HIV care rose significantly from 39% in 2012 to 51% in 2014 and the share uninsured decreased from 13% to 7%, while there were no significant changes among the non-expansion states. HIV care engagement increases the chance of achieving and sustaining a suppressed viral load that helps persons living with diagnosed HIV infection (PLWDH) stay healthy and reduces the risk of transmitting HIV to others. We examined the extent of HIV care engagement and sustained viral suppression among subgroups of PLWDH living in Medicaid expansion and non-expansion states.

Methods: We analyzed data from the National HIV Surveillance System reported through December 2017 from 40 jurisdictions with complete laboratory reporting. This analysis includes persons aged > 13 years who received a diagnosis of HIV infection by December 31, 2014, whose most recent known address during 2015 was in one of 40 jurisdictions, and were alive at the end of 2015. Twenty jurisdictions had expanded Medicaid by December 2014 and 20 jurisdictions had not. HIV care engagement was defined as having at least one viral load or CD4 test in 2015. Sustained viral suppression was defined as viral load test results of < 200 copies of HIV RNA/mL for all tests in 2015. HIV care engagement and sustained viral suppression were assessed by sex, race/ethnicity, transmission category, age, and diagnosis year, stratified by Medicaid expansion and non-expansion. Relative percentage differences > 5% on an outcome (in favor of Medicaid expansion) are shown in the results.

Results: The analysis cohort consisted of 794,145 persons, including 416,086 (52.4%) residing in the Medicaid expansion jurisdictions and 378,059 (47.6%) in the non-expansion jurisdictions. The percentage of PLWDH engaging in HIV care did not differ in Medicaid expansion and non-expansion jurisdictions (73.3% vs. 73.5%) and this pattern was seen regardless of sex, race/ethnicity, transmission category, age and diagnosis year. However, Medicaid expansion jurisdictions had a higher percentage of PLWDH with sustained viral suppression than non-expansion jurisdictions (51.4% vs. 47.9%) overall and for the following subgroups: males, females, other race/ethnicity (i.e., not black, Hispanic/Latino, or white), men who have sex with men (MSM), MSM who inject drugs, male heterosexuals, female heterosexuals, persons aged 13-24 years, 25-34 years, and 35-44 years, diagnosed in 2014 and diagnosed prior to 2014.

Conclusions/Implications: While HIV care engagement among PLWDH was comparable in Medicaid expansion and non-expansion jurisdictions, more PLWDH in Medicaid expansion jurisdictions than in non-expansion jurisdictions had sustained viral suppression in 2015. The scope of Medicaid services varies by state and some services offered (e.g., ambulatory patient services, prescription drugs, mental health and substance use services) may have helped PLWDH to maintain viral suppression. Future research is needed to continue monitoring HIV care engagement and sustained viral suppression, evaluate how much change in these clinical outcomes is attributable to Medicaid expansion, and identify key services that help PLWDH in improving their health outcomes.

CP09

Abstract 5504 - Social support for mothers living with HIV: the beneficial role of positive parenting

Author(s): *Jessica Mandell, Idia Thurston, Kathryn Howell, Lauren Schaefer, Robin Hardin*

Background: Mothers living with HIV are vulnerable to both stressors associated with motherhood and stressors associated with living with a chronic illness. Strong social support from children and other family members has been associated with improved adherence to Antiretroviral Therapy (ART), and thus may serve as a salient form of secondary HIV prevention (Dalmida et al., 2017). Support systems of mothers living with HIV are disproportionately comprised of their children; however, when mothers' health worsens their children frequently exhibit greater behavior difficulties (Sipsma et al., 2013). Previous research has primarily focused on women's disclosure of their HIV status to their children with limited work exploring other aspects of the mother-child relationship. Guided by Bronfenbrenner's bioecological model, we explored associations between familial social support and factors across the bioecology of person (maternal depression), microsystem (child behavior difficulties, mother-child communication), and mesosystem (positive and negative parenting) in mothers living with HIV.

Methods: Participants included 57 mothers living with HIV who were between the ages of 25 and 62 ($M = 41.24$, $SD = 9.01$) and were primary caregivers of children aged 6-14 ($M = 10.91$, $SD = 2.98$). Mothers were recruited from community sites serving individuals living with HIV in the US MidSouth. Most participants identified as Black (80.7%) and the majority of participants (84.2%) reported a total yearly household income of less than \$20,000. Participants completed in-person interviews with trained research staff, during which they responded to items assessing maternal depressive symptoms (Center for Epidemiological Studies Depression Scale), child maladaptive behaviors (Strengths and Difficulties Questionnaire), mother-child communication about HIV/AIDS (i.e., "You are comfortable talking with your child about HIV and AIDS"), positive and negative parenting practices (Alabama Parenting Questionnaire), and familial social support (Lubben Social Network Scale – Revised, Family Subscale). A hierarchical multiple linear regression was conducted to predict familial social support from maternal depression (Model 1), child maladaptive behaviors, mother-child communication about HIV/AIDS (Model 2), and both negative and positive parenting strategies (Model 3).

Results: The final regression model was significant, $F(5, 49) = 3.54$, $p = .008$, $Adj. R^2 = 19.1\%$. In this model, greater use of positive parenting practices ($\beta = .35$, $p = .009$) was significantly associated with higher perceived social support from family. Depressive symptoms, child maladaptive behaviors, mother-child communication, and negative parenting strategies were not significantly associated with family social support in the final model.

Conclusions/Implications: Maternal use of positive parenting practices (e.g., praise, encouraging feedback) explained 19% of the variance in familial social support. These findings highlight an association between mother's positive parenting strategies and the strength of their social network within their families. As positive parenting practices foster stronger mother-child bonds, these results underscore the importance of family support for mothers living with HIV. Given that mothers living with HIV rely on family members for social support, future studies should explore additional correlates (e.g., friend support, community connections) and methods to improve positive parenting practices in order to improve the health and well-being of mothers living with HIV and their children.

CP10

Abstract 5553 - Foreign-born status and HIV care continuum outcomes in Alameda County, California

Author(s): *Elisabeth Gebregziabher, Joyce Ycasas, Sandra McCoy, Neena Murgai*

Background: Foreign-born persons living in the US have higher rates of HIV diagnosis and contribute a disproportionately high number of new HIV cases. In 2015, approximately 25% of the HIV cases in Alameda County were among foreign-born persons. Studies show that the epidemiology of HIV among foreign-born persons living in the US is complex and combines risk factors related to immigration, education, health care, and the global HIV epidemic. As rates of HIV diagnosis among foreign-born increase, recognizing and addressing HIV-related disparities between immigrant and US-born HIV infected persons living in the US can guide focused efforts to reduce barriers to HIV care.

Methods: Using HIV surveillance data in Alameda County, California, we examined the association between immigrant status and four outcomes on the HIV care continuum, specifically: late HIV diagnosis, linkage to care within 30 days of diagnosis, retention in HIV care a year after diagnosis, and achievement of undetectable viral load a year after diagnosis. Secondly, we examined disparities in these outcomes by region of origin among foreign-born persons. We also assessed whether the association between foreign-born status and these four outcomes differed by census tract poverty level (neighborhood poverty) using multivariable regression models adjusted for sex at birth, age, race and transmission mode.

Results: Of 1,235 individuals with HIV diagnosis reported between 2010-2016, 29% were foreign-born. Foreign-born status was positively associated with late HIV diagnosis but not associated with linkage, retention in care, and achievement of undetectable viral load a year after diagnosis (aRR_Late diagnosis=1.28 (1.06-1.56), aRR_Linkage=1.06 (0.95-1.19), aRR_Retention=0.94 (0.83-1.06), aRR_Viral load status=1.00 (0.89-1.14)). There were no major differences observed for any of the outcomes across region of origin. We also found that the disparity in the likelihood of retention between foreign-born and US-born HIV infected persons increased in high poverty neighborhoods. However, the disparity between foreign-born and US-born HIV infected persons in late diagnosis, linkage and viral suppression was generally similar in high- and low poverty neighborhoods.

Conclusions/Implications: Foreign-born HIV infected persons in Alameda County are more likely to be diagnosed late compared to their US-born counterparts. However, once diagnosed, foreign-born persons appear to engage in HIV care and achieve virologic suppression just as well as US-born individuals. These findings suggest that foreign-born or immigrant populations may benefit from prevention strategies that promote early diagnosis and address their unique barriers to HIV testing. Further, neighborhood and community resources may serve as a buffer against disparities in retention in HIV care for immigrants in poor neighborhoods. While HIV infected immigrants in more affluent neighborhoods may be retained just as well as US-born persons, those in poorer neighborhoods may require more focused resources and support to stay in HIV care.

CP11

Abstract 5580 - Collecting gender identity and the continuum of care for PLWH who are transgender

Author(s): *Margaret Vaaler, Ann Dills*

Background: A 2015 Survey of Transgender adults in the U.S. found that one-quarter of respondents reported not seeking health care for fear of being mistreated as a transgender person. This fear is validated; the survey found that one-third of respondents had a negative experience related to being Transgender when seeing a health care provider. In light of the difficulty Transgender people experience when interacting with the health care system, the present study examines the data collection and verification process of gender identity in HIV Surveillance and other HIV services data systems. We use this data to understand the continuum of care for people living with HIV (PLWH) who are Transgender in Texas. We examine where the drop-offs in the care continuum are occurring for PLWH who are Transgender. In addition, we examine disparities in health outcomes within the Transgender population.

Methods: We used data from the HIV Surveillance system (eHARS) and electronic lab records (ELR). Texas has been collecting gender identity in the HIV Surveillance System since 2014. Through an identifier-based matching process, we linked the HIV surveillance data to other data sources containing Ryan White Services data, ADAP data, data from STD*MIS, prevention data, and survey data collected from the Texas Medical Monitoring Project and Houston Medical Monitoring Project. This matching process allows for verification of the gender identity information among PLWH. Matching to data sources containing services data allows for measurement of in-care status, retention in care, and viral suppression.

Results: At the end of 2017, there were 700 PLWH who are Transgender in Texas. This includes 683 Transgender women and 17 Transgender men. The PLWH who are Transgender are predominantly Black (41%) or Latinx (43%). Also, the PLWH who are transgender in Texas were younger than the HIV population statewide. Increases in the numbers of PLWH and newly diagnosed people who are Transgender are attributed to the inclusion of the gender identity field in the HIV registry beginning in 2014. In 2017, 86% of PLWH who are Transgender were in care with at least one medical visit or lab record. Seventy-seven percent of transgender women were retained in care. These elevated proportions of in-care status and retention maybe partially be attributed to identifying the transgender population through HIV services data systems. Furthermore, 60% of PLWH who are Transgender were virally suppressed. However, clear health disparities in viral suppression exist among Black Transgender women (54%) compared to Latinx (64%) and white Transgender women (61%).

Conclusions/Implications: Our findings indicate barriers to viral suppression among PLWH who Transgender, specifically for Black Transgender women. In light of national HIV prevention goals, collecting information on gender identity should be a priority for all healthcare providers. HIV care should be oriented to address HIV-related needs for PLWH who are Transgender at both individual and organizational levels. Addressing disparities in care patterns among marginalized groups is a national priority and may ultimately improve HIV outcomes.

CP12

Abstract 5650 - Data to care: an approach to investigate and engage individuals living with HIV or AIDS who are out of care

Author(s): *John Cassady, Denisse Licon McClure, Audrey Regan, Sean Hubert*

Issue: The continuum of care for persons living with HIV/AIDS (PLWHA) is an important component in not only providing consistent care for clients, but also to further prevent the spread of HIV/AIDS. The continuum of care should also include reaching individuals who have fallen out of care or who have never received care in order to engage them into care. It is often difficult but important to identify these clients. "Not-in-care" clients are those whom are known to be HIV positive with no care marker reported in the previous 365 days including a routine HIV monitoring laboratory test, an HIV medical visit, a prescription for anti-retroviral medication, or a face-to-face meeting with a medical case manager indicating care. An individual was considered to be in care if they had a care marker within the past 365 days.

Setting: The Columbus Transitional Grant Area (TGA) consists of eight counties located in the Midwestern state of Ohio, centered around Franklin County and the state capital - Columbus. The Columbus TGA is home to around 2 million people. As of 2017 there were 5,766 PLWHA in the TGA. Columbus Public Health (CPH) is an accredited public health department serving the City of Columbus and surrounding communities.

Project: A Not-In-Care (NIC) list was created by the Ohio Department of Health (ODH) of HIV positive individuals from the Enhanced HIV/AIDS Reporting System (eHARS) for the Columbus TGA. Clients were prioritized based on demographic information and date of last service (if any). African American males, transgender individuals, persons under 30, and those out of care longest were prioritized first. A variety of databases and local electronic health records were used to investigate the care status of the individual. Providers and, if contact information could be obtained, clients believed to be out of care were contacted. If a client was not in care and was interested in engaging into care, they were referred to linkage services at CPH.

Results: There were 2,067 PLWHA identified as potentially being out of care. As of July 1, 2018, 551 clients have been investigated with 72% found to be in care, indicating possible reporting issues of HIV data to ODH. Of all clients investigated, 8% have now been referred to linkage to care, 1% moved out of the TGA, 1% refused care, and 12% are unable to be located, with the remaining clients either incarcerated or deceased. In order to further identify and engage clients who are not in care, as well as to identify data reporting issues, we continue to investigate persons from the NIC list. Due to the successful linkage of not-in-care clients, we plan to continue Data to Care at Columbus Public Health.

Lessons Learned: The most important takeaway of the Data to Care project is that many not-in-care clients are willing to engage into care. Other key takeaways are that reporting methods of HIV data need to be improved, data sharing among providers and local agencies is vital, and clear definitions of "in care" vs. "not in care" are necessary for program implementation.

CP13

Abstract 5669 - Do partner status, viral load, childhood sexual abuse, and personal responsibility predict the sexual behavior of young African American MSM living with HIV in Texas?

Author(s): *Greg Rebchook, Lance Pollack, Judy Tan, David Huebner, Susan Kegeles*

Background: Young, African American gay, bisexual, and other MSM (YAAMSM) experience significant HIV-related health disparities. While Treatment as Prevention continues to be a critical HIV prevention strategy, knowing more about the sexual behavior of people living with HIV is important to HIV and STI prevention efforts.

Methods: Long-chain peer referral was used to enroll 331 YBMSM (mean age 24.5, range: 18-29) in two large Texas cities (9/2015 - 7/2016). All men were tested for HIV, and men living with HIV were recruited into the cohort. Surveys were self-administered on iPads at project sites. Forty-five percent of the men had high school degrees or less, and only 6% had graduated from college. We assessed sexual behavior in the previous 2 months, STI history in previous 12 months, and psychosocial variables related to HIV risk behavior and engagement in care including childhood sexual abuse (CSA), and a sense of personal responsibility about HIV prevention.

Results: Two-thirds of the sample (67%) had tested for an STI in the past 12 months, and 26% of the sample was diagnosed with an STI.

Over one-third of the sample (36%) had a primary partner. Among the 115 men with a primary partner, 59% had insertive anal sex (IAS) with their partner, and 44% reported condomless IAS. Partner HIV status was significantly related to the participant reporting condomless IAS—HIV-negative partner: 33%, HIV-positive partner: 57%, partner status unknown: 25% ($p < .05$).

Over one-third of the sample (37%) reported IAS with a non-primary male partner, and nearly 22% of the sample reported condomless IAS with a non-primary partner. There was no association between being undetectable and if respondents reported condomless IAS with a non-primary partner.

Additionally, we combined the primary and non-primary partner data and determined that 15% of respondents reported condomless IAS with a nonconcordant male partner. Again, there was no association between being undetectable and whether or not the respondent reported condomless IAS with any nonconcordant male partner.

We also investigated if a sense of personal responsibility was associated with condomless IAS, and found that as personal responsibility scores increased, the odds of reporting condomless IAS with any nonconcordant partner decreased. CSA that included sexual intercourse was also associated with reporting condomless IAS with any nonconcordant partner.

Results from multivariate analyses showed that age, CSA, and a sense of personal responsibility were all significantly and independently associated with reporting condomless IAS with serodiscordant partners.

Conclusions/Implications: Only 15% of YAAMSM living with HIV surveyed reported sexual behavior at the highest risk of transmitting HIV, but over a quarter have been diagnosed with an STI in the past year indicating the importance of addressing sexual behavior in this population. Interventions to help increase a sense of personal responsibility and that address childhood trauma may be particularly salient, and behavioral interventions to improve engagement in care in this population remain critical. Surprisingly, men with undetectable viral loads reported the same rates of condomless IAS as others, suggesting the need for additional research regarding their sexual decision-making.

CP14

Abstract 5780 - What factors increase syphilis screening among PLWH? Using HIV Medical Monitoring Project data to improve practice

Author(s): *Lindsay Hixson, Linda Drach, Alicia Knapp, Josh Ferrer*

Background: Widespread use of new HIV treatments is needed for achieving national HIV prevention priorities, but concurrent increases in other sexually transmitted infections (STI) may undermine progress. In Oregon, infectious syphilis has risen over 2000-fold in the past decade, from < 30 to approximately 600 cases annually during 2016 and 2017. Regular screening and treatment by health care providers can interrupt STI spread. We used national HIV surveillance data to identify the prevalence of syphilis testing among people living with HIV (PLWH) in Oregon and to identify factors associated with syphilis testing.

Methods: The Medical Monitoring Project (MMP) produces nationally and locally representative data on people diagnosed with HIV in the United States. Oregon is one of 23 participating project areas. We used three data sources for these analyses. During 2015-2016, MMP staff conducted interviews among adults with diagnosed HIV using a core set of questions to obtain demographic, clinical, and behavioral characteristics; Oregon also added local items to the interview questionnaire. Medical records were abstracted to assess whether participants received syphilis testing during the previous 12 months. Supplemental interviews with participants' medical providers identified facility-level syphilis screening policy and practice.

Initial differences in syphilis testing between groups were examined using Rao-Scott chi squares. We conducted logistic regression analyses to test the associations between syphilis testing (dependent variable) and facility and patient characteristics (independent variables), while controlling for facility itself to account for clustering (a random intercept). Variables that were significantly associated after controlling for facility were included in the generalized linear mixed effects models (e.g., age, gender, race, receipt of SSDI, number of past-year medical visits, lifetime prevalence of HCV, number of sex partners, meeting new partners in a public venue/online, and drug use). All analyses were conducted in Stata 13 to account for the complex sample design.

Results: Nearly three-quarters of MMP participants were tested for syphilis within the preceding 12 months (71%); patients getting care from facilities with written screening policies were far more likely to be screened (95% vs. 46%, $p=.000$). Syphilis testing rates declined over the two-year period (from 78% in 2015 to 66% in 2016). Participants who identified as male (ORs=2.9-3.2), gay/lesbian (ORs=1.7-1.8), or who reported a lifetime prevalence of HCV (ORs=3.9-4.3) had higher odds of being tested after controlling for other factors. Facility accounted for about one-third (29%-38%) of variability in three of the four mixed effects models, indicating that between-facility differences were greater than within-facility differences.

Conclusions/Implications: Regular screening and treatment is one of the few available tools to control the spread of syphilis and other STIs, especially as the efficacy of traditional disease control methods like partner services wanes. National guidelines recommend at-least annual syphilis screening for PLWH. These data indicate that Oregon providers continue to selectively screen PLWH based on perceptions of patient risk, despite local epidemic rates. Facilities with written policies screened higher proportions of

patients. Oregon's HIV/STI Prevention Program is partnering with the Oregon AIDS Education & Training Center to initiate academic detailing with providers and improve facility adoption of written policies.

CP15

Abstract 5818 - HIV viral suppression among persons recently released from a large urban jail

Author(s): *Anna Hotton, Mary Ellen Mackesy-Amiti, Jeremy Young, Cynthia Tucker, Chad Zawitz, Lawrence Ouellet*

Background: Among people living with HIV (PLWH) in the United States, about one in seven pass through a locked correctional institution annually; for black and Hispanic PLWH the figure is one in five. The large majority of incarcerated persons, including PLWH, are in jails. Correctional settings, and particularly jails, thus offer a prime opportunity for identifying and treating PLWH, and for helping them link to appropriate medical care upon returning to their communities. Because early and uninterrupted treatment of HIV not only improves the health of PLWH but also greatly diminishes HIV transmission, treatment-as-prevention is now a cornerstone of efforts to curtail the HIV pandemic. Viral suppression among diagnosed PLWH in the United States is estimated to be 58%, but studies of PLWH released from jails report considerably less suppression. This study examines factors associated with viral suppression following release from a large urban jail that attempts to link PLWH to post-release HIV care.

Methods: Between 2013-2016 we enrolled PLWH ≥ 18 years old detained in Cook County Jail, Chicago, Illinois to examine factors affecting post-release linkage and retention in HIV medical care. At baseline an interviewer-administered survey and medical record reviews collected information including demographic characteristics, incarceration history, substance use, housing, mental health, HIV medical care, HIV viral load (VL) at or before incarceration, and use of social services. Post-release VL was determined through testing by the study at approximately six-month intervals and, for those lost to follow-up, reviews of records in the mandated reporting system. In this analysis, we examined baseline factors predicting viral suppression nine months after release from jail for 274 study participants who had adequate follow-up time to assess subsequent viral suppression.

Poisson regression with robust error variance was used to assess unadjusted and multivariable adjusted associations between participant baseline characteristics and viral suppression at follow up. Viral suppression was defined as HIV RNA < 40 copies/ml. Variables with $p < 0.2$ in exploratory analysis were entered into a multivariable Poisson regression model; and variables with $p < 0.05$ were retained in the final model along with gender and race/ethnicity.

Results: Participants were 79% male, 80% black and the median age was 42 years. Overall, 40% of released PLWH were virally suppressed at follow up. Age < 25 , prior incarceration history, substance use problems, and not being virally suppressed at the time of incarceration were associated with lower likelihood of viral suppression at follow up, adjusted for gender, race/ethnicity and other variables. Statistically significant associations were not observed for other pre-incarceration psychosocial and structural barriers, including history of homelessness, anticipated post-release housing instability, health insurance, social support, and access to medical care.

Conclusions/Implications: The proportion of persons who have been diagnosed with HIV and achieve viral suppression after release from Cook County Jail is close to the level for all PLWH in Illinois (44%).

Interventions to improve sustained viral suppression among PLWH leaving jail may be most effective if they target those who have substance use problems and are young, repeat offenders, and not virally suppressed at entry to jail.

CP16

Abstract 5868 - You're either Opt-In or Opt-Out: faster viral suppression following HIV diagnosis through opt-out screening program at an urban community-based health center

Author(s): *Tommy Schafer, Laura Rusie*

Background: Howard Brown Health (HBH) is an urban, community-based healthcare organization aimed at eliminating health disparities in the LGBTQ+ community of Chicago. In 2013, HBH implemented a medical assistant-driven, non-targeted, opt-out HIV screening program in its primary care clinic. Prior to this implementation, HBH's HIV screening was conducted primarily through opt-in, walk-in clinics. Medical assistants attempt to screen every HIV- or unknown status patient older than 12 at every visit. Given the advent of "undetectable equals untransmittable", we sought to evaluate opt-out and opt-in testing and how quickly patients screening HIV+ in each modality become undetectable.

Methods: Data were extracted from electronic medical records of patients screening HIV+ at a HBH site between 1 January 2015 and 31 December 2017. Patients were included in the analysis if they had been linked to care (LTC) at HBH and had an undetectable viral load (VL) test in their chart within the study period and up to 1 July 2018. Patients were dichotomized by where their first HIV+ screening occurred, in a walk-in clinic or a primary care clinic. The primary outcome was undetectable viral load within 90 days of first HIV+ screen (VS90). Demographics and other clinical HIV factors were included as covariates. Analysis was conducted in SAS Software 9.4.

Results: Within the study period, 343 patients were confirmed with new HIV diagnoses. Of these, 35 were excluded as they were LTC elsewhere. 58 of these 308 patients were excluded because they did not have an undetectable VL within the study period. 250 patients were included in the study group, which was comprised primarily of cisgender men (85.2%), people identifying as gay (77.2%), ages 19-29 (52.8%) and similar proportions of Hispanic, non-Hispanic (NH) Black, and NH White individuals (25.2%, 31.6%, and 36.4% respectively). In bivariate analyses, at a p-value of 0.2 for inclusion in the model, testing modality (opt-out vs. opt-in) ($p=0.0451$), insurance status ($p=0.1647$), diagnosis year ($p=0.1919$), LTC within 7 days of HIV+ screen ($p=0.0134$), and CD4 cell count at diagnosis (<200 cells) ($p=0.0405$) were all associated with VS90. In the fully-adjusted, logistic model, controlling for age, gender, race, and insurance, testing modality [OR 1.841, 95% CI (1.003-3.379)], diagnosis year [1.421, (1.014-1.992)], and LTC within 7 days [1.878, (1.029-3.427)] were significantly associated with greater odds of HIV VS90. CD4 <200 cells [0.263, (0.077-0.899)] was associated with lower odds of VS90.

Conclusions/Implications: Patients diagnosed through an opt-out HIV screening modality had marginally greater odds of being virally suppressed within 90 days of their diagnosis compared to those diagnosed through opt-in. This model also showed that patients presenting with a clinical AIDS diagnosis had greater odds of no VS90, the inverse implies that those with higher CD4 counts have greater odds of VS90. LTC within 7 days also shows greater odds of VS90. In this analysis, earlier HIV detection, through opt-out screening, coupled with quick LTC appears to help patients achieve VS within 90 days. The

sooner people living with HIV can reach and maintain VS the sooner their undetectable status equals untransmittable virus and a healthier future.

CP17

Abstract 5892 - The role of social support in the continuum of care of young gay, bisexual, men who have sex with men with HIV in Puerto Rico

Author(s): *Souhail Malavé-Rivera, Edda Santiago-Rodríguez, Ricardo Vargas-Molina, Luis Arroyo-Andújar, Marijulie Martínez-Lozano, Carlos Rodríguez-Díaz*

Background: HIV disproportionately impacts Latino/Hispanic, young, gay, bisexual, and other men who have sex with men (YGBMSM) in the US and Puerto Rico (PR). In PR, youth 13 to 24 y/o account for 22% of new cases and 81% of those are GBMSM. Despite significant biomedical and socio-behavioral advances to improve the health of people with HIV (PLWH), individual and structural factors such as access to healthcare and social support influence the continuum of care of PLWH. This situation deepens among most vulnerable groups, including YGBMSM, who are at increased risk for HIV. We conducted qualitative research to understand the role of social support in the HIV continuum of care among YGBMSM in PR.

Methods: We conducted 4 focus groups with Spanish-speaking HIV+ YGBMSM, to inquire about: social support from diverse sources (i.e., family, partners, friends, and others), lack of support, and facilitators and barriers for HIV services. Participants were recruited using social media and referrals from case managers at HIV clinics. Audio files were transcribed and organized in NVivo v11 for qualitative content analysis.

Results: A total of 20 YGBMSM with HIV (mean age 25.5 y/o) participated. Most resided in the Metropolitan area of PR, identified as homosexual, and had an average of 2.6 years living with HIV. Participants expressed the importance of emotional wellbeing in their physical health (- “One of the factors that affects us HIV patients the most is precisely our emotional states, which impacts our CD4 and viral load”). Engaging and remaining in HIV care, was often contingent to experiencing support (“I was diagnosed at 17 and I ignored it. I went 6 years without treatment. When I met this person that knew others with HIV and that’s when I felt supported. To this day my family doesn’t know”). Structural forms of support, from healthcare providers and clinics’ personnel seem to have a positive impact on their attitudes and treatment practices (- “at the clinic, where I was diagnosed, they were excellent and quickly engaged me in care”). Participants stressed on the importance of support right after diagnosis (- “to me, those first 24 to 48 hrs. were the most sensitive. On that moment I felt completely alone”). Some indicated wanting to provide support to newly diagnosed YGBMSM as peers (- “some of us can be available for the newly diagnosed so that they don’t feel alone. We can help them with what comes next and how to deal with it”).

Conclusions/Implications: Social support is essential to the continuum of care of PLWH. Adequate treatment helps PLWH to remain undetectable and live healthier lives. Findings suggest the need to identify sources of social support that help YGBMSM to engage and remain in care. Strategies to increase social support are needed, at the individual and structural levels. Early intervention with newly diagnosed YGBMSM can improve the HIV care continuum among youths.

CP18

Abstract 5958 - The long, winding road along the continuum of care among young black MSM (YBMSM) living with HIV in the South

Author(s): *Susan Kegeles, Gregory Rebchook, Lance Pollack, Judy Tan, Scott Tebbetts, Ben Zovod, John Peterson, David Huebner*

Background: YBMSM are disproportionately represented among people living with HIV and have greater risk for acquiring HIV than other Americans. Treatment as Prevention is a promising strategy to prevent HIV morbidity and transmission, but it requires progressing through the multiple-step HIV Care Continuum (CC) to reach viral suppression. This study examines CC progress in a community-based sample of YBMSM living with HIV in two large Texas cities in late 2015-2016.

Methods: Long-Chain Peer Recruitment (LCPR) was used to enroll 331 YBMSM (mean age 24.5; range 18-29). All men were tested for HIV, and HIV+ men were recruited into the cohort. Surveys were self-administered on iPads at project sites. 45% had high school degrees or less, and few had graduated from college (6%). We combined several variables into an ordinal Guttman-style Continuum of Care Scale (CCS) ranging from 0-5: category 0=not linked to care; 1=linked to but not retained in care in past 12 months; 2=2+ medical visits in past 12 months but not currently on antiretroviral therapy (ART); 3=retained in care and on ART but missed 1 or more doses/week in past 3 months; 4=retained in care, on ART, and adherent but are NOT undetectable when VL last tested in the past 12 months; and 5=retained in care, on ART and adherent, and undetectable when VL last tested in past 12 months. We conducted ordinal logistic regression analyses with the CCS as the outcome.

Results: Men with more education and men with health insurance have higher CCS scores than others. Men with incomes \$20,000-\$39,999 have higher CCS scores than men with incomes \$10,000-\$19,999, and men who are employed part-time have lower CCS scores than men employed full-time and men who are unemployed/disabled. In addition, healthcare empowerment, healthcare engagement norms, and greater resilience are positively associated with CC scores. Higher scores on medical mistrust, depression, internalized heterosexism and being the recipient of homophobia in past three months are associated with lower CC scores. All p values < .05.

Conclusions/Implications: The well being of YBMSM communities, regardless of HIV status, depends upon men living with HIV achieving viral suppression. This study illuminates issues to address in order to help men achieve this goal. Men without public or private insurance fared more poorly on the CCS than insured men. Texas has neither implemented the Affordable Care Act nor expanded Medicaid access. Other issues also impinged on movement along the CC, including not perceiving norms supportive of engagement in care and mistrust in the medical system. To improve CC outcomes, programs need to help YBMSM living with HIV develop resilience in dealing with complex healthcare systems and address psychosocial issues including depression, self-acceptance of their sexuality, and coping with others' homophobic attitudes and behaviors.

CP19

Abstract 5994 - Care continuum outcomes of HIV-infected people with mental illness and depression symptoms

Author(s): *Kathleen Brady, Antonios Mashas, LaTonya Williams, Melissa Miller*

Background: There is a high occurrence of mental illness in people living with HIV (PLWH). Previous data from Philadelphia indicates nearly half of PLWH also have a mental health diagnosis. Comorbidity of HIV and mental illness may negatively impact retention in care, antiretroviral treatment adherence resulting in virologic failure and increased morbidity and mortality from HIV.

Methods: We conducted a retrospective analysis of the 2009 to 2014 cycles of the locally representative Philadelphia Medical Monitoring Project (MMP). We compared the proportions of HIV-infected adults with and without mental illness: (1) retained in care (RC) (>2 primary HIV visits separated by 90 days in a 12-month period); (2) prescribed antiretroviral therapy (ART) at any point in a 12-month period; and (3) virally suppressed (VS) (HIV-1 RNA <200 copies/mL at the last measure in the 12-month period). Multivariable regression assessed associations between mental illness, PHQ-8 depression scores (>10 considered depressed), demographic characteristics (age, gender, race/ethnicity, insurance), other co-morbidities (alcohol abuse, injection drug use), and clinical status (CD4 count, on mental health treatment). Mental illness was defined as documented psychotic disorders, bipolar disorder, depression and/or anxiety disorders on medical record review.

Results: Between 2009 and 2014, 1,270 PLWH participated in the Philadelphia MMP representing a weighted sample of 9,615 PLWH in care. A mental health diagnosis was recorded in 48.8% of MMP participants. Individuals with mental illness were more likely to be female (AOR 1.48, 95%CI:1.09-2.01); to be insured by Medicaid (AOR 1.89, 95%CI: 1.30-2.77) or Medicare (AOR 1.67, 95%CI: 1.09-2.56) compared to private insurance; have active or history of injection drug use (AOR 3.87, 95%CI: 2.27-6.60); and to have a PHQ-8 score of >10. In adjusted analyses, there were no significant differences in RC, ART or VS between those with and without mental illness. We did find that PLWH with PHQ-8 score >10 were less likely to be RC (AOR 0.44, 95%CI: 0.23-0.85) and on ART (AOR 0.54, 95%CI: 0.35-0.82). However, we identified an interaction between PHQ-8 and mental health therapy was of borderline significance wherein individuals with a PHQ-8 score >10 were less likely to achieve VS when not on mental health therapy compared to those that were (AOR: 0.62, 95%CI:0.35-1.07, p=0.086). Findings showed that of the 289 individuals with a PHQ-8 score >10, 28.7% did not have a documented mental illness diagnosis, 55.0% had anxiety/depression, 9.3% had bipolar, and 6.9% had psychosis.

Conclusions/Implications: While PLWH commonly experience mental illness, we found that persons with diagnosed mental illness achieved similar rates of RC, ART prescription and VS. Even so, we did find that PHQ-8 scores >10 that are consistent with moderate to severe depression were associated with lower rates of RC and ART prescription and untreated depression was associated with lower rates of VS. These results emphasize the importance of regular screening of PLWH for depression including those already on treatment and the need for improved treatment of mental illness. Integration of mental health treatment into HIV medical care may be one option to improve HIV related outcomes.

CP20

Abstract 6018 - Engagement in care and viral suppression among pregnant women living with HIV in the District of Columbia, 2013-2017

Author(s): *Jenevieve Opoku, Anitra Denson, Alexandra Lachmann, Michael Kharfen, Adam Allston*

Background: With the introduction of ARV use during pregnancy, labor and during breastfeeding, rates of HIV transmission from mother to child have declined nationally and locally. The District of Columbia (DC) Department of Health (DC Health) has taken extensive measures to minimize the risk of vertical HIV transmission, including updating regulations requiring the report pregnant women living with HIV and the active monitoring these women to ensure engagement in appropriate HIV care and treatment. Between 2013 and 2017, there were 2 perinatal cases born in DC, signifying that continued work is needed to eradicate vertical HIV transmission. The purpose of this study is to assess HIV health and perinatal care outcomes among pregnant women living with HIV in DC.

Methods: Data from the DC Health HIV surveillance system and the perinatal surveillance database were linked to identify HIV positive women living in the District that were pregnant between 2013-2017. Bivariate analysis was performed to evaluate differences in race/ethnicity, mode of HIV transmission, the receipt of prenatal and HIV care at the time of the pregnancy report, ARV utilization, linkage to HIV care, HIV disease stage at report of pregnancy and at delivery; and viral suppression status at report of pregnancy and at delivery by age (aged 30 and older vs 13-29) at report of pregnancy. Both HIV disease stage and viral suppression status at report of pregnancy and at delivery were classified based on CD4 or viral load lab documented within 90 days of each event. Multivariable logistic regression analysis was performed to further assess correlates of HIV health outcomes between the two groups.

Results: There were 310 pregnancies among 247 women living with HIV in DC reported to DC Health between 2013 and 2017. The majority of women were black (91.3%), between the age of 20-39 (87.7%) and had a mode of HIV transmission of heterosexual contact (74.5%). Compared to younger women, women aged 30 and older were more likely to have an HIV transmission mode of heterosexual contact (80.2% vs 67.6%, $p < 0.0001$), were more likely to ever be virally suppressed (75.9% vs 57.4%, $p = 0.0025$), be virally suppressed at the report of pregnancy (53.1% vs 30.4%, $p = 0.0002$) and virally suppressed at the time of delivery (71.3% vs 51.9%, $p = 0.033$). There were no differences in reported ARV use, HIV or prenatal care or HIV status of delivered the infant. After adjusting for race/ethnicity and mode of HIV transmission, women aged 30 and older were significantly more likely to be virally suppressed at report of pregnancy, (aOR 2.83, 95% CI: 1.68-4.75) and significantly more likely to be suppressed at delivery (aOR 3.74, 95% CI: 1.48-4.48).

Conclusions/Implications: This analysis highlights the differences in HIV care outcomes among HIV positive women around the perinatal period. Though there were no differences in infant HIV status between groups, continued monitoring of pregnant women, especially between the ages of 13-29, is needed to continue the elimination of perinatal HIV transmission in DC.

CP21

Abstract 6031 - Social determinants and health characteristics of people aged 50 and older living with diagnosed HIV from a population-based sample in Washington State in 2015

Author(s): *Jennifer Reuer, Chris Wukasch, Steven Erly*

Background: Effective HIV treatment has led to longer lifespans among persons living with HIV (PLWH). In 2015, 50% of all Washington State diagnosed PLWH were aged ≥ 50 years. Longer lives may lead to additional social and health related issues, but may also lead to increased resilience. The objectives of this presentation are to: (1) Describe social determinants and health characteristics of PLWH aged ≥ 50 years, (2) Describe antiretroviral therapy (ART) adherence and viral suppression in this group, and (3) Outline programs for PLWH aged ≥ 50 years being implemented in line with recommendations from Washington State's integrated HIV care and prevention plan.

Methods: Demographics, social determinants, health characteristics, ART adherence, and viral suppression were collected in 2015 as part of the Medical Monitoring Project, a national representative surveillance system used to learn about PLWH experiences from interviews and medical record abstractions (MRAs). Frequency of ART adherence; medication side effects; requirements for taking medications multiple times daily; disability; unmet needs and peer support; internalized stigma; experienced discrimination; and depression and anxiety were calculated from the interview. Viral suppression (last lab and all labs in last 12 months) rates were calculated from MRA data.

Results: Of PLWH in Washington in 2015, 50% were aged ≥ 50 years and an additional 17% were aged 45-49 years; 65% were diagnosed ≥ 10 years ago and 25% were diagnosed ≥ 20 years ago. Of PLWH in Washington aged ≥ 50 years, 52% reported some type of disability and 52% had ≥ 1 unmet needs, but 20% had peer group support and 30% reported individual peer emotional support. 98% reported some level of internalized stigma and 28% have experienced discrimination at a health care facility since their diagnosis. Current depression (19%) and anxiety (28%) were common. Medications were not reported to be burdensome: 77% had no trouble with medication side effects; 74% had once daily medications. Many people were ART adherent and virally suppressed: 62% missed no medication doses; 78% were virally suppressed at last lab and 72% had 12 month durable viral suppression.

Conclusions/Implications: Based on the current trend of increasing numbers of PLWH aged 50+ living in Washington State, their reported experiences and health conditions, and following recommendations outlined in Washington State's integrated HIV care and prevention plan, the Washington State Department of Health, Office of Infectious Disease (OID), is implementing several programs to address linkage to care, viral suppression, and other health disparities experienced by 50+ PLWH. In January of 2018, OID launched a state-wide peer navigation program, and in July of 2018 added two additional positions: 50+ Community Engagement Coordinator and Health Disparities Coordinator. These two positions will work together to identify areas of opportunity to engage 50+ PLWH to ensure that their specific health and social support needs are being met. Additionally, in October of 2018, HIV Community Programs will also begin to implement a state-wide Trauma-Informed Care curriculum for all providers offering HIV navigation services (care and prevention). Together, these additional resources will ensure that 50+ PLWH remain linked to care, virally suppressed, and receive services that are age-specific.

CP22

Abstract 6044 - HIV care outcomes among men who have sex with men and also inject drugs, United States, 2015

Author(s): *Sonia Singh, Andrew Mitsch, Xueyuan Dong*

Background: In 2015, 1,202 persons received HIV infection diagnoses attributed to male-to-male sexual contact and injection drug use (MSM/IDU). This population is at high risk for acquisition and transmission of HIV infection through both sexual and parenteral routes. Few reports have been published on the HIV epidemiology and surveillance of MSM/IDU in the United States.

Methods: We used data from the National HIV Surveillance System for HIV diagnoses attributed to MSM/IDU in persons aged ≥ 13 years to determine stage at diagnosis of HIV infection and HIV care outcomes. Based on data reported to CDC through 2016, 38 jurisdictions that met the criteria for complete laboratory reporting were included. We determined the numbers of HIV diagnoses attributed to MSM/IDU for all stages and percentages linked to care within 1 and 3 months, receiving any care, retention in care and achieving viral suppression, by age and racial/ethnic groups. Data were adjusted for missing transmission category.

Results: In 2015, 19.8% of HIV infections diagnosed and attributed to MSM/IDU were classified as stage 3 (AIDS), with the highest percentage among Hispanics/Latinos (25.4%). Of the HIV diagnoses attributed to MSM/IDU, 76.6% and 86.1% were linked to care within 1 and 3 months, respectively. In 2014, 76.7% received any care, 61.4% were retained in care and 58.9% achieved viral suppression. The lowest percentages of diagnosed HIV infections linked to care within 1 and 3 months were among blacks/African Americans (69.2%, 75.4%) and those aged 13–19 years (72.9%, 82.7%). Blacks/African Americans (73.8%) and Hispanics/Latinos (74.0%) had the lowest percentages of any care and blacks/African Americans had the lowest percentages of retention in care (59.0%) and viral suppression (52.9%). The lowest viral suppression was among those aged 20–24 years (46.4%) and the lowest percentage of any care was among those aged 13–19 years (74.1%).

Conclusions/Implications: Strengthened HIV prevention strategies are needed for all men who have sex with men and inject drugs, particularly those younger, black/African American and Hispanic/Latino. It is critical to monitor outcomes and provide up-to-date characterization of this dual high risk population to support achievement of national goals through public health action.

CP23

Abstract 6085 - Low social support and low education predict unidentified HIV infection among young black men who have sex with men in Texas

Author(s): *David Huebner, Greg Rebchook, John Peterson, Lance Pollack, Judy Tan, Susan Kegeles*

Background: Young Black men who have sex with men (YBMSM) remain the highest risk group for HIV infection in the United States. Identifying people with undiagnosed HIV infection is critical to getting those individuals into care and for creating opportunities for TASP. Understanding predictors of undiagnosed HIV infection can (a) improve targeted testing efforts, and (b) provide new information

about transmission dynamics. The objective of this study was to examine correlates of undiagnosed infection in YBMSM.

Methods: Long-chain peer recruitment was used to identify YBMSM (n=696) aged 18-29 years in two large Texas cities during 2015-2016. Men self-reported demographic characteristics, sexual behaviors in the past two months, HIV-testing history, and social support from other YBMSM. They were then given rapid tests for HIV. YBMSM who reported no previous HIV test (n=67) or a negative result at most recent testing (n=317) were included in the present analysis. Bivariate analyses tested associations between HIV test results in our study with demographics, sexual behavior, testing history, and social support. All bivariate associations reported below were significant at $p < .05$.

Results: Sixty-nine men in the sample (18%) had previously undiagnosed HIV infection. Men without a previous test were more likely to have undiagnosed infection than men with one or more previous tests (28.4% positive vs. 13.1% positive). However, among those tested previously, time since last test was unassociated with undiagnosed infection (undiagnosed infection occurred in 11.6% of men reporting a negative result in the past 6 months, and in 10.8% of men tested between 6-12 months ago). Undiagnosed infection was not associated with past two-month condomless receptive or insertive anal sex, with either a casual or main partner, nor with other potential sexual risk behaviors (e.g., number of HIV+ partners, age of partners, substance use during sex). Age, income, and incarceration history were unrelated to HIV-infection. However, less educated men were more likely to test positive (20.1% positive among men with a high school degree or less vs. 11.9% among more educated men), as were men who reported lower social support from other YBMSM. These effects held even when we restricted the sample to men with a negative test in the past 6 or 12 months, suggesting that education and support were not simply a marker for long-standing undiagnosed infections, but rather might somehow contribute to actual risk for new infection.

Conclusions/Implications: Undiagnosed HIV infection was common in our sample of YBMSM, even among men who had been previously tested in the past 6 or 12 months. Recent sexual risk histories did not differentiate men testing positive from those testing negative, suggesting that sexual behavior is not a reliable indicator for testing need among YBMSM. Men with less education and men with lower social support from other YBMSM were more likely to have undiagnosed HIV infection. Targeted testing for these groups might be a productive way to identify new infections. Moreover, future research should explore the possible contributions of education and social support to the unique dynamics of HIV transmission among YBMSM.

CP24

Abstract 5220 - Behavioral and clinical characteristics of American Indian/Alaska Native adults in HIV care vs. other racial/ethnic groups – Medical Monitoring Project, United States, 2011–2014

Author(s): Amy Baugher, Linda Beer, Heather Bradley, Mary Evans, Qingwei Luo, Roy Shouse

Background: Among all racial/ethnic groups, American Indians and Alaska Natives (AI/AN) ranked fourth in HIV diagnosis rates in 2016. From 2011–2015, HIV diagnoses increased 38% among AI/AN. Little is known about the behavioral and clinical characteristics of AI/AN patients living with HIV who are

receiving medical care. We compared behavioral and clinical characteristics of AI/AN HIV patients with other racial/ethnic groups.

Methods: We used nationally representative data from the Medical Monitoring Project (MMP), a surveillance system describing adults living with HIV who are receiving medical care. We analyzed pooled, weighted data from 2011–2014, which were collected using face-to-face or telephone interviews and medical record abstraction. We defined AI/AN as any person who self-identified as AI/AN. We compared characteristics of AI/AN patients (n=666) to those of patients who identified as any other racial/ethnic group (n=18,309). Sustained viral load suppression was defined as all viral load tests <200 copies/mL. All measures were self-reported and assessed in the past 12 months, unless otherwise specified. We assessed statistical significance of differences using chi-square tests ($p<0.05$).

Results: In MMP, an estimated 3.6% of patients self-identified as AI/AN, among whom 64.5% had multiple racial/ethnic identities. Relative to non-AI/AN patients, AI/AN patients were more likely to have attained less than a high school degree (25.4% vs. 19.8%, $p<0.01$), experienced homelessness (11.8% vs. 8.2%, $p<0.01$), have been incarcerated (6.4% vs. 4.6%, $p=0.04$), and have any unmet ancillary service need (60.9% vs. 52.1%, $p<0.01$). Compared with patients who are not AI/AN, AI/AN patients were more likely to have symptoms of depression in the past 2 weeks (26.5% vs. 20.5%, $p<0.01$), currently smoke cigarettes (45.6% vs. 39.1%, $p<0.01$), binge drink in the past 30 days (20.4% vs. 15.1%, $p<0.01$), use non-injection drugs (31.7% vs. 25.2%, $p<0.01$), and inject drugs (5.0% vs. 2.2%, $p<0.01$). Regarding HIV-related stigma, AI/AN patients were more likely to sometimes feel “dirty” (28.5% vs. 22.9%, $p<0.01$) or “worthless” (32.4% vs. 23.0%, $p<0.01$) because of their HIV status vs. non-AI/AN patients. AI/AN patients were also more likely to be troubled by side effects of HIV medicine at least half the time vs. non-AI/AN patients. (16.6% vs. 13.0%, $p<0.01$). Compared with non-AI/AN patients, AI/AN patients were not significantly different in terms of adhering to antiretroviral therapy (ART) during the 3 days prior to interview (86.4% vs. 88.2%, $p=0.21$) or having sustained viral load suppression documented in their medical records (63.6% vs. 67.1%, $p=0.08$).

Conclusions/Implications: Despite behaviors and contextual conditions often associated with poor medication adherence, the outcomes for ART adherence and sustained viral load suppression were not significantly different compared to all racial/ethnic groups combined, though the outcomes were suboptimal. Interventions specifically directed towards helping AI/AN patients achieve viral suppression may consider contextual factors that disproportionately affect AI/AN, such as recent homelessness and incarceration, unmet ancillary service needs, depression, alcohol and drug use, and stigma. AI/AN patients have unique experiences related to HIV care and social determinants of health; however, relatively little research includes them. Future HIV-related research focused on AI/AN patients could help us understand the needs of this understudied subpopulation.

CP25

Abstract 5321 - Disability among adults with diagnosed HIV in the United States, 2015

Author(s): *Pranesh Chowdhury, Linda Beer, Jennifer Fegan, Fengjue Shu, R. Luke Shouse*

Background: CDC defines a disability as any condition of the body or mind that makes it more difficult for the person with the condition to do certain activities and to interact with the world around them.

Nearly 22% of adults in the United States have some type of disability. Adults living with HIV may experience higher rates of disability as a consequence of the disease and its treatment. Estimates of the prevalence of, and factors associated with, disability among persons with diagnosed HIV in the U.S. is lacking. We reported prevalence of disability and examined sociodemographic, behavioral, and clinical factors associated with disability among persons with diagnosed HIV.

Methods: We used interview and medical record data collected 6/2015–5/2016 as part of the Medical Monitoring Project (MMP), a surveillance system that produces nationally representative estimates of behavioral and clinical characteristics among adults with diagnosed HIV living in the U.S. and Puerto Rico. We estimated the prevalence of having at least one disability and of having specific types of disabilities using six questions measuring current disabilities related to hearing, vision, cognition, mobility, self-care, and independent living. We also assessed associations between disability status and sociodemographic, behavioral, and clinical factors using Rao-Scott chi-square tests. All measures were self-reported during the 12 months prior to the interview except where otherwise noted.

Results: During 2015, 45% of adults with diagnosed HIV in the US reported at least one disability. The most common disabilities were related to difficulties with mobility (24%), cognition (24%), independent living (13%), and vision (12%). Disabilities related to hearing (9%) and self-care (6%) were less common. Having at least one disability was significantly more common among females compared to males (54% vs. 42%), persons with less than a high school education compared to those with more than a high school education (63% vs. 38%), persons who were homeless compared to those who were not (65% vs. 44%), and among persons who lived in poverty compared to those who did not (59% vs. 33%). In terms of differences in behavioral characteristics among persons with and without disabilities, persons with at least one disability were significantly more likely than those without disability to be current smokers (42% vs. 30%), have symptoms of depression (37% vs. 11%) or anxiety (39% vs. 13%) over the past 2 weeks, and have at least one unmet ancillary service need (67% vs. 47%). Viral suppression was not significantly associated with disability status. However, persons with at least one disability were significantly less likely to be 100% adherent to HIV medications (56% vs. 62%) compared with persons without disability.

Conclusions/Implications: The prevalence of disabilities among adults with diagnosed HIV is much higher than in the general population. We found significant associations between disability status and challenging life circumstances, such as poverty and homelessness. Moreover, reduced medication adherence, poor mental health, and unmet need for services suggests adults with diagnosed HIV who are living with a disability may require enhanced support from clinicians and service providers.

CP26

Abstract 5276 - Clinical and behavioral characteristics of non-U.S.-born adults with diagnosed HIV in the United States—2015, Medical Monitoring Project

Author(s): *Hanna Demeke, Qinqwei Luo, Linda Beer, John Weiser*

Background: Compared with U.S.-born persons, non-U.S.-born persons with diagnosed human immunodeficiency virus (HIV) infection enter into HIV medical care at a later stage of disease. Yet, non-U.S.-born persons have longer lifespans after HIV diagnosis than U.S.-born persons. To better understand

these differences, we described non-U.S.-born persons compared with U.S.-born persons with diagnosed HIV in the United States.

Methods: The Medical Monitoring Project (MMP) is a surveillance system designed to produce nationally representative estimates of adults with diagnosed HIV in the United States. Persons born in the United States and 6 dependencies were classified as U.S.-born and those born elsewhere were classified as non-U.S.-born. Using weighted interview and medical record data collected between 6/2015-5/2016, we calculated prevalences of behavioral and clinical characteristics and assessed statistical associations between these characteristics and place of birth using Rao-Scott Chi-square tests and significant p value <.05.

Results: Fourteen percent of adults with diagnosed HIV in 2015 were non-U.S.-born, among whom 30.6% were born in Mexico, 76.7 % immigrated to the United States at age 18 years or older, and 86.0% had lived in the United States for 10 or more years after immigration. Almost half of non-U.S.-born persons (49.2%) were diagnosed with HIV 10 or more years after immigrating to the United States. Non-U.S.-born persons were more likely to have been diagnosed in the past 5 years (22% vs. 16.5%) and to have HIV infection attributed to heterosexual contact (26.7% vs 17.7% for males and 53.8% vs. 41.9% for females) compared with U.S.-born persons. A higher proportion of non-U.S.-born persons had less than a high school education (29.1% vs. 18.2%), had health care coverage only through the Ryan White HIV/AIDS Program (RWHAP) (21.3% vs. 6.4%), or spoke English not at all or not well (28.6% vs. 3.7%) compared with U.S.-born persons.

Fewer non-U.S.-born persons compared with U.S.-born persons used injection (1.5% vs. 3.1%) and non-injection drugs (14.4% vs. 31.7%) and had depression (16.4% vs. 23.9%) or anxiety (9.5% vs. 20.8%) in the past 2 weeks. A significantly higher proportion of non-U.S.-born persons were prescribed ART (91.6% vs. 84.6%), had 2 visits at least 90 days apart in the past year (88.2% vs. 79.8% retained in care), and had <200 copies/mL or undetectable viral load at their last test (75.9% vs. 69.5% virally suppressed) compared to U.S.-born persons. There were no significant differences between these two groups in terms of sexual HIV transmission risk behaviors and yet, significantly more non-U.S.-born persons (65.7% vs. 52%) received STI prevention counseling services by health care professionals. The proportion of persons with unmet needs for most supportive services were similar.

Conclusions/Implications: Despite anticipated challenges to accessing health care due to language and cultural differences, non-U.S.-born persons had similar unmet needs and were more likely to be prescribed ART, retained in care, and attain viral suppression compared with U.S.-born persons. Factors contributing to these favorable clinical outcomes among non-U.S.-born persons may include access to the RWHAP, lower levels of substance use, and better mental health.

CP27

Abstract 5358 - It's not magic, but it works – breaking down barriers to HIV care and treatment using the linkage to care tool

Author(s): *Gisele Pemberton, Brenda Cruz-Scotton*

Issue: The National HIV Prevention Strategy (NHAS): Updated to 2020, remains the blueprint for HIV prevention and care in the United States. HIV testing, linkage to treatment or pre-exposure prophylaxis

(PrEP), retention in care, and viral suppression are focal indicators for monitoring progress toward achieving the goals of NHAS. A 2017 NHAS Progress Report (HIV.gov, 2018) indicated that of the 1.1 million people living with HIV (PLWH) in the U.S. in 2014, an estimated 85% had been diagnosed, 75% linked to medical care within a month of diagnosis, 57% retained in medical care, and 58% had achieved viral suppression. Although the data is promising, improvements still need to be made to achieve NHAS 2020 targets for linking and retaining PLWH in care and connecting persons at high-risk for HIV to PrEP and other essential support services. The literature implies that biomedical, environmental, and psychosocial barriers may hinder a person's engagement and retention in care. The HIV prevention workforce must be trained to recognize such barriers, and have the tools necessary to address them and facilitate client access to, and retention in care.

Setting: Community-based and health care organizations across the U.S. and its territories that are funded to provide HIV prevention and treatment services, that struggle with meeting their deliverables for HIV testing, linkage to care, PrEP, and retention in care.

Project: An online Linkage to Care (LTC) tool was developed by two national entities recognized for their work in providing training and technical assistance to the HIV workforce. A literature review and consultations with key informants and stakeholders informed the development of the tool. Eight community-based organizations (CBOs) from the U.S and Puerto Rico participated in an initial pilot of the LTC tool. Representatives from the Centers for Disease Control- Division of HIV/AIDS Prevention, Capacity Building Branch also reviewed this tool, provided feedback, and subsequently approved the tool for online configuration and national distribution.

Results: The online Linkage to Care (LTC) tool is an interactive, user-friendly resource comprised of 4 parts: 1) Rapid Linkage to HIV Medical Care; 2) Client Concerns for PLWH; 3) Linkage to PrEP; and, 4) Client Concerns for Persons at High-Risk for HIV. It also includes a flowchart that directs providers towards certain actions based on the clients' HIV status and readiness for care. The tool encourages providers to elicit information from clients to identify potential barriers to care, and guides them on the steps that should be taken to immediately address client concerns that may hinder linkage, reengagement, or access to HIV treatment for PLWH, PrEP for high-risk HIV-negative persons, and preventive services for all persons. The LTC tool is newly deployed and available for adoption by CBOs across the U.S. to complement their HIV prevention efforts.

Lessons Learned: Improvements in the uptake of HIV medical care and PrEP, and retention in such care, is highly dependent on skilled clinicians and HIV service providers. Aids such as the LTC tool can assist providers with scaling-up efforts toward achieving the goals of NHAS.

CP28

Abstract 5385 - Using demonstration project rapid feedback reports (RFRs) to identify performance-related challenges

Author(s): *Aba Essuon, Michele Rorie, Andrew Margolis, Norma Harris, Kischa Hampton*

Issue: In 2014, CDC partnered with HRSA to implement the Partnerships for Care (P4C) demonstration project. The goals of the project were to build sustainable partnerships among CDC-funded state, local,

and city health departments (HDs) and HRSA-funded health centers to support expanded HIV service delivery in communities highly affected by HIV. As part of this project, HDs were required to expand HIV partner services (PS) activities for new and previously diagnosed persons living with HIV. The provision of PS for all newly diagnosed HIV-positive persons is a core component of DHAP's health department funding. However, monitoring and evaluation data from the P4C project identified gaps in implementing PS to all newly diagnosed persons. In this presentation, we will discuss how monitoring and evaluation data presented in a Rapid Feedback Report (RFR) from a demonstration project contributed to a better understanding of PS data in all CDC-funded jurisdictions. We will also present strategies to address program implementation, data collection, and data reporting challenges and to identify technical assistance needs.

Setting: Four CDC-funded state HDs in the eastern United States and 22 health centers (HCs) within the four states were selected to participate in the 3-year P4C demonstration project (2014-2016). The project was funded through the HHS Secretary's Minority AIDS Initiative Fund and the Affordable Care Act. A multi-agency federal partnership oversaw the project including CDC, HRSA, and the HHS Office of HIV/AIDS and Infectious Disease Policy.

Project: P4C collected data on persons with newly diagnosed HIV by the 22 participating HCs and persons with previously diagnosed HIV in defined P4C service areas. HDs used surveillance data to confirm and report the total number of persons newly diagnosed, linked to HIV medical care, and interviewed for partner services. Additional PS indicators, number of notifiable partners named, tested, previously diagnosed, newly diagnosed and linked to HIV medical care were also reported by HDs. Year 1 P4C data for the primary PS indicator, interviewed for PS, reflected that PS had not been offered or provided to all newly diagnosed HIV-positive persons as required. This initiated an analysis of PS data from all 60 CDC-funded HDs.

Results: Based on a preliminary review, 6% (n=4) of 60 CDC-funded HDs were not providing PS as required. Further follow-up revealed that these HDs restricted PS to newly diagnosed persons with acute HIV infections or sexually transmitted co-infections. Resources were noted as a reason for restricting the provision of PS.

Lessons Learned: The collection, analysis, and reporting of monitoring and evaluation data are important for 1) assessing grantee performance in relation to funded objectives; 2) identifying areas for improvement and capacity building and technical assistance needs; and 3) highlighting achievements that can be used to identify best practices. Since data collection in demonstration projects is more detailed and focused than in flagship funding opportunities, information in demonstration project RFRs can alert project officers and other CDC staff to issues that may need addressing among a larger number of health departments.

CP29

Abstract 5392 - Referral to linkage to care for newly diagnosed clients: who are we missing?

Author(s): *Melissa Smith*

Issue: Working with a Linkage to Care Coordinator can increase the likelihood a newly diagnosed PLWH is linked to HIV medical care, thus increasing the likelihood of ARV prescription and viral load suppression. In Kansas City, 91.13% of individuals working with Linkage to Care (LTC) were linked to HIV care within 90 days of diagnosis between March 1, 2017 and February 28, 2018. The KC CARE Health Center (a Part C and D Recipient, as well as a sub-recipient of the Kansas City Health Department, a Part A Recipient) was unsure what percentage of new HIV diagnoses in our region were referred to the KC-TGA's LTC Program. While the region's rate of linkage to medical care is high, this does not benefit PLWH who are not referred to the program.

Setting: At present, two KCHD sub-recipients provide LTC: KC CARE Health Center (a participant in the initial ARTAS pilot program in 2004) and the Good Samaritan Project. The TGA's LTC program utilizes a 24/7 pager service which providers, community partners, and testing sites are instructed to call any time an HIV test result is positive. LTC's program expectation is to respond to all referrals within 20 minutes and in person whenever possible. Across the metro, linking new PLWH is enhanced by the combined efforts of KCHD HIV Surveillance/Care Project (Care Project), KCHD's Disease Intervention Specialists, Part A Hospital Liaisons, and HIV Prevention Outreach. The LTC program conducts monthly outreach to local medical providers to increase knowledge and comfort levels of the LTC service.

Project: Working with the Surveillance team at KCHD, we decided to examine how many newly diagnosed PLWH in the KC-TGA's 7 Missouri counties were referred to the LTC program in 2017. Our Lead Linkage to Care Coordinator analyzed all LTC referrals in 2017 to arrive at our number of newly diagnosed PLWH in those 7 counties. We sent this list to KCHD for cross-reference. An epidemiology specialist at KCHD was able to identify both the number of clients we did not receive pages on, as well as the medical sites which were not referring clients to LTC.

Results: Upon analysis, the LTC Program received 109 referrals for newly diagnosed PLWH in our shared counties in 2017. However, in 2017 there were actually a total of 145 new HIV diagnoses in these same counties, meaning LTC received referrals for 75% of the eligible PLWH (109/145). While a small number of these PLWH had indeed been offered Linkage to Care services and declined, the frequently missed referrals appeared to stem from 4 major health systems in Kansas City with a variety of clinic locations.

Lessons Learned: Our LTC team will be performing outreaches to all identified sites in order to educate them on the benefit of LTC for PLWH.

In addition, we will be working closely with an epidemiologist at KCHD to gather this data throughout the year going forward. This will allow for sites with multiple diagnoses throughout the year to have an intervention early on that might prevent additional missed referrals.

CP30

Abstract 5433 - "Exactly what it says:" consistency in responses to tailored HIV prevention messages for individuals in mixed-status relationships

Author(s): *Jocelyn Taylor, Brittani Carter, Jennifer Uhrig, Monica Scales, Jo Ellen Stryker*

Background: The current HIV prevention landscape includes biomedical and behavioral strategies with varying levels of effectiveness for preventing transmission. Messages for individuals in mixed-status relationships must clearly communicate the risk-reduction potential of each prevention strategy, and

tailoring messages by variables such as HIV status can increase perceived personal relevance of prevention messages. However, factors such as motivation and perceived risk may influence how information is processed. The current message testing study examined comprehension of and receptivity to viral suppression terminology and comparably tailored HIV prevention messages presented to individuals currently in mixed-status relationships.

Methods: In May 2017, we conducted semi-structured one-hour, in-person interviews with couples in mixed-status relationships (n=21). We interviewed each partner separately, and audio-recorded and transcribed the interviews verbatim. We assessed awareness and understanding of viral suppression terminology (undetectable viral load [UVL] and viral suppression/suppressed viral load [VS/SVL]). Participants also viewed messages about strategies for reducing HIV transmission/acquisition risk and antiretroviral therapy (ART) that were tailored by serostatus and provided feedback. We double-coded the data, resolving discrepancies between coders, and conducted a thematic analysis to identify consistency in responses across both partners within each couple.

Results: Participants were between the ages of 35 and 64 years, with the majority being African American (86%) and self-identifying as heterosexual (57%). Most couples were aware of the term UVL, but less than half reported a consistent and accurate understanding of the term across both partners. Few couples were consistently aware of the terms VS/SVL, and none reported a consistent and accurate definition. Initial reactions to a message presenting HIV risk-reduction strategies varied. Most commonly, when partners had inconsistent initial reactions, partners with HIV had positive reactions, while partners without HIV either provided a neutral reaction or raised questions about message content. Most couples consistently interpreted the main idea of the message, and reported that the message was believable and not confusing. The majority of couples consistently indicated that choosing less risky sexual activities is not a new prevention strategy. However, many participants with HIV did not think the strategy is commonly used, whereas participants without HIV provided varied responses. Almost all couples responded with inconsistent initial reactions to a message about ART, and most had inconsistent preferences for terminology to convey the risk of HIV transmission if the partner with HIV was virally suppressed. When considering alternative phrases, terminology preferences varied within each couple. Most couples responded inconsistently as to whether the message was confusing, and among these couples, partners with HIV indicated that the message was confusing more often than partners without HIV.

Conclusions/Implications: By taking a dyadic approach to analyzing qualitative message testing data, we revealed inconsistencies in message receptivity and comprehension across partners within mixed-status relationships. Future research should employ this analytic method to explore how factors related to HIV status may affect information processing of tailored prevention messages for mixed-status couples.

CP31

Abstract 5537 - EMR alert and provider education increase HIV screening rates in primary care practices within a large healthcare system

Author(s): Sveta Mohanan, Michael Leonard, Jeremy Thomas, Lindsay Shade, Thomas Ludden, Brisa Hernandez, Hazel Tapp

Project: Selected practices received a peer-to-peer educational program presented between January-March 2018. HIV disease epidemiology, screening recommendations, and algorithms to guide screening efforts, along with comprehensive HIV prevention education targeted to primary care providers was offered. This educational presentation was developed by a quality improvement team, consisting of two physicians, one primary care with HIV certification, one infectious disease specialist, other primary care providers, and quality improvement/practice implementation experts to further increase screening and linkage to care for patients testing positive for HIV. The education offered further behavioral and clinical preventative options such as PrEP (Pre-Exposure Prophylaxis) for high risk HIV-negative individuals. In addition, an electronic medical record (EMR) alert targeting one-time HIV screening to individuals 18-64 years old, regardless of risk factors, went live in October 2017.

Results: From April-September 2017, the 6 months prior to activation, 4,178 patients were screened at the 12 practices. In the 6 months following activation, October 2017-March 2018, 7,398 patients were screened at the 12 practices, a 77% increase compared to the 6 months prior ($p < 0.001$). When compared year-over-year, 5,474 patients were screened for HIV at the 12 practices between October 2016-June 2017, compared to 10,823 patients completing screening from October 2017-June 2018. This results in a 98% increase over the same time period ($p < 0.001$). The total screening number can be filtered further, showing that roughly 73% of the patients screened were considered eligible for screening, meaning they were HIV-negative and had never received an HIV test before. From these roughly 7,900 patients who were screened for the first time following the activation of the EMR alert, 368 received multiple HIV screenings between October 2017 and June 2018, with the average number of multiple tests performed equaling 2.6, and 6.5% of patients with multiple tests receiving 3 or more HIV tests.

Lessons Learned: An EMR alert combined with provider education significantly increased HIV screening rates in primary care practices within a large healthcare system. The EMR alert also increasing identification of high-risk HIV-negative patients leading to multiple HIV-screenings performed to monitor patients' ongoing HIV status.

CP32

Abstract 5551 - Integrating community health workers into the HIV care team to improve retention in care

Author(s): *Nicole Shatz*

Issue: CrescentCare is the largest AIDS service organization in the Gulf South, providing a variety of preventative, clinical, and supportive services. Linkage to care rates for newly diagnosed HIV+ patients increased to 97% with the December 2016 implementation of the rapid linkage model. However, rapid linkage did not guarantee retention in care, and a pool of patients who were falling out of care formed. Augmented supportive services were needed to better understand these patients' barriers to care and to assist in clinical re-engagement.

Setting: CrescentCare is located in New Orleans, which is 2nd in the nation for HIV case rates, and 4th for AIDS case rates. Expanding across two clinical sites and two testing centers, the agency provided over 12000 rapid HIV tests in 2017, and treated 2652 patients for HIV care.

Project: Community health workers (CHW) are members of or closely linked to the population served by the agency, and work as frontline public health workers to strengthen the community's trust in healthcare providers and enhance the provider's ability to appropriately respond to health disparities. Last year CrescentCare implemented a CHW program under the National Association of County and City Health Officials (NACCHO) project, the Southern Initiative. The program is staffed by two full time community health workers with caseloads of 25 active clients, and a full time administrative coordinator who additionally manages a caseload of 15 clients. The program is targeted towards improving treatment adherence and viral suppression among those who are at risk of falling out of care.

Results: By monitoring patients for risk markers, attending weekly care team huddles, and accepting provider and case manager referrals, 77 at-risk patients have been assigned to a CHW, 66 have had direct contact with a CHW, and 49 have been linked back into medical care. Integrating the CHW model in a primary care setting offers an innovative approach to enhancing patient engagement and improving retention in care.

Lessons Learned: This presentation will discuss challenges and successes of this program, hiring appropriate staff to work with the target population, creating markers to identify clients at risk of falling out of care and prevent clients from becoming lost to care, strategies for integrating a CHW team across multiple departments and clinical sites, use of EMR as an integration catalyst, boundaries between CHW and clients, and client communication strategies.

CP33

Abstract 5625 - Integration of HIV data systems and electronic health records to improve health outcomes for PLWH along the care continuum: the evolution of Florida's P4C Dashboard

Author(s): *Juan Vasquez, Hasan Mirza, Mara Michniewicz, Karalee Poschman, Emma Spencer, David Andress*

Issue: Florida ranked second in the U.S. in new HIV diagnoses in 2016 and third in new AIDS cases. It is estimated that there are over 135,000 persons living with HIV (PLWH) in Florida. In 2016, approximately 84% (114,772) of Floridian's living with HIV were diagnosed and aware of their infection. Among those diagnosed, 92% (105,895) have evidence of ever being in care, 73% were in care at least one time in 2016, 66% were retained in care, and 60% achieved viral suppression. Improving systems and processes for Data-to-Care (D2C) are needed to more efficiently identify, re-engage, and retain PLWH who are out of care.

Setting: Six community health centers (CHCs) and the Florida Department of Health HIV/AIDS Section were funded by the Department of Health and Human Services Secretary's Minority AIDS Initiative Fund, Partnerships for Care (P4C) demonstration project, to expand the provision of HIV prevention and care services within communities most impacted by HIV, especially racial/ethnic minorities, and to better serve PLWH along the HIV Care Continuum.

Project: The HIV/AIDS Section Data Integration, Prevention, and Surveillance Programs, as well as the STD and Viral Hepatitis Section, collaborated to develop a standardized system (i.e., P4C Dashboard) to track the progress of linkage and re-engagement activities, ensure proper documentation, and guide

case conferencing between Disease Intervention Specialists (DIS) and CHCs. In addition, a Data Warehouse was developed and is populated monthly from multiple HIV data systems (e.g., eHARS, CAREWare), allowing users the ability to search and view client data (e.g., demographics, labs, medications) across systems.

Results: The P4C Dashboard has evolved to include up-to-date monthly reports of all CHC clients who are: newly diagnosed and linked within 30 days; newly diagnosed and not linked within 30 days; and previously diagnosed (out of care for at least 6 months). Additional features of the dashboard include: task templates for DIS to document tasks and outcomes; notification alerts to assist DIS with working client lists; auto assignment of cases; and electronic lab reporting interface to auto match and update client records. This presentation will share a process development timeline of the P4C Dashboard and highlight potential scalability of the dashboard for use within Florida for D2C and HIV transmission cluster response.

Lessons Learned: The development and implementation of Florida's P4C Dashboard has proven to be an effective tool in improving access to care for PLWH who are newly diagnosed, never been in care, or have fallen out of care. Task management and process monitoring of linkage and re-engagement activities help to ensure processes are followed and documented by field staff. Florida has been able to take lessons learned through the P4C project and apply them to Florida D2C activities.

CP34

Abstract 5692 - Reducing HIV-related health disparities through HRSA's Ryan White HIV/AIDS Program

Author(s): *Miranda Fanning, Stacy Cohen, Tracy Matthews, Antigone Dempsey, Heather Hauck, Laura Cheever*

Background: Due to advances in science, HIV has become a manageable, chronic condition. People living with HIV (PLWH) can experience reduced morbidity and mortality and live longer, healthier lives by taking ongoing antiretroviral treatment and reducing HIV viral load to undetectable levels. However, social determinants and other factors serve as barriers to care and treatment for many PLWH resulting in disparities in health and HIV-related outcomes. To fill the gaps and ensure access to high quality HIV care and treatment, the Health Resources and Services Administration's (HRSA) Ryan White HIV/AIDS Program (RWHAP) supports the delivery of efficient and effective HIV care, treatment, and support services for low-income PLWH. The RWHAP is critical to ensuring that PLWH are linked to and retained in care, are adherent to medication regimens, and remain virally suppressed. This analysis examines disparities in viral suppression (VS) among RWHAP clients during 2010 through 2016 and highlights specific initiatives aimed at improving viral suppression among key populations.

Methods: Client-level data were used from the annual RWHAP Services Report submitted to HRSA from RWHAP Parts A-D recipients. VS was calculated among clients with ≥ 1 medical visit and ≥ 1 HIV viral load test reported during the measurement year (years 2010 through 2016). VS was defined as the most recent viral load test result in the calendar year < 200 copies/mL. VS in 2010 was compared to 2016 for all clients, with focus on key populations such as youth, clients with housing instability, and black men who have sex with men (MSM).

Results: From 2010 through 2016, HIV VS among RWHAP clients has increased from 69.5% to 84.9%. During the same time, VS in youth aged 13-24 has increased nearly 25 percentage points, from 46.6% in 2010 to 71.1% in 2016. Similar gains were evident among clients with temporary or unstable housing, with increases of 15.2 percentage points and 17.2 percentage points respectively. Black men who have sex with men (MSM) also experienced increases in VS, with 61.5% achieving VS in 2010 compared to 79.7% in 2016.

Conclusions/Implications: While disparities in VS continue to exist among RWHAP clients, improvements in VS among disproportionately impacted populations demonstrate substantial progress toward reducing HIV-related disparities and improving overall client outcomes. HRSA has employed a data-driven approach to identifying disparities in client outcomes, resulting in the implementation of targeted interventions that support improvements in disproportionately impacted populations, such as the Center for Engaging Black MSM Across the Care Continuum; a Special Projects of National Significance initiative focused on HIV care & housing, which uses data integration to improve HIV health outcomes; and the Building Futures: Supporting Youth Living with HIV project which focuses on identifying and addressing the needs of youth living with HIV. These initiatives provide valuable information on successful strategies that can be used by RWHAP recipients and sub-recipients to improve RWHAP client outcomes. These special projects, and other similar initiatives, have provided HRSA with an opportunity to identify evidence-informed interventions and best practices to improve VS in the hardest to reach populations.

CP35

Abstract 5763 - Ending the epidemic: an innovative approach to HIV linkage to care for incarcerated individuals living with HIV in New York State prisons

Author(s): *Rick Cook, Carl Koenigsmann, Catherine Marra, Bethsabet de Leon-Stevens*

Issue: Early initiation of HIV medical care and antiretroviral treatment (ART) and sustained adherence improves health outcomes and can prevent HIV transmission. Linkage/retention in care also provides opportunities to offer risk-reduction interventions, partner services, and essential support services. Although treatment outcomes for persons in prisons are good, retention in treatment after release is more challenging.

Setting: NYS prisons offer a public health opportunity to proactively engage incarcerated individuals living with HIV and provide education, facilitate HIV testing/ disclosure of HIV status, and support continuous care both during incarceration and following community reentry. In partnership, the NYSDOH and NYSDOCCS implement the Corrections to Community Care Initiative to facilitate access and service provision to incarcerated individuals living with HIV known to NYSDOCCS in 54 NYS prisons, with priority given to those within a 90-day release date. These efforts are aligned with NYS' Ending the Epidemic goals and Blueprint recommendations.

Project: In 2017 NYSDOH funded 12 Community Based Organizations (CBOs) under the initiative to have staff work in partnership with the NYSDOCCS Health Service's Discharge Planning Unit (DPU) to identify and engage incarcerated individuals living with HIV and are known to DOCCS. Strength-based, team oriented/highly proactive Linkage and Navigation Services (LNS) assists individuals to gain the

knowledge and skills necessary to effectively self-manage and navigate HIV medical care and support available in the prison and, once released, in the community. The ultimate goal is sustained connection to HIV medical care and viral suppression. Information on LNS is provided and readiness assessments are conducted. When enrolled, CBO Linkage Specialists complete a risk screen & develop a linkage action plan. For individuals who are not ready, Anti-retroviral Treatment and Access to Services (ARTAS) is delivered. Education, anonymous HIV testing (disclosure) and peer training/support are also provided. All activities are trauma informed and designed from a stigma free framework.

Results: To date, the initiative has successfully enrolled a total of 93 incarcerated individuals living with HIV in LNS services. Of these, 100% have engaged in health care and 92 are virally suppressed. Outcome tracking methods include: CBO monthly submission of linkage reports that compile referral source, engagement in care, release dates, treatment adherence, viral suppression and related outcomes for each enrollee. Reports are reviewed for accuracy/completeness and discussed with CBOs during quarterly meetings. Reports are also shared with DOCCS Discharge Planning Unit (DPU) staff for care coordination and closure. Next steps include annual reviews of the reports that will: guide future service delivery, track viral suppression and retention in care successes, and improve referral and linkage processes for incarcerated and reentrants living with HIV.

Lessons Learned: Collaboration with NYSDOCCS is key to ensuring success of interventions delivered in prisons; CBOs with knowledge of prison culture and understanding of role is vital to effective program implementation; focus on strengths, abilities and skills builds trust and facilitates disclosure of HIV status/engagement in medical care and essential support services; and improvements in health outcomes are realized when incarcerated individuals living with HIV are provided with support, coaching and resources both in-facility and upon reentry to the community.

CP36

Abstract 5873 - Enhanced patient navigation: supporting improved health for women of color

Author(s): *Larisa Niles-Carnes, Melissa Beaupierre, Jane Fox*

Issue: Navigating the HIV healthcare system is complex and can be a frustrating process, even for the most seasoned of patients. For the average patient seeking one-time advice, counsel, or a preventative care visit, encountering barriers to care is a commonplace issue. Compounding these complexities, patients with chronic conditions such as HIV need support and wrap around services that close the gaps that many patients face on a daily basis. Patient navigation has proven to be an excellent support service built to navigate the patient through this complex system and to build upon advocacy, an understanding of their HIV status, and the importance of viral suppression. This presentation will focus on describing the standardized enhanced patient navigation for women of color (WoC) intervention, pre-implementation and implementation findings and service utilization data, as well as the experiences of the Grady Ponce de Leon Center located in Atlanta, Georgia currently serving 108 clients with intervention.

Setting: Three RWHAP clinics located in Newark, New Jersey; Los Angeles, California; and Atlanta, Georgia implemented a standardized adapted Enhanced Patient Navigation for HIV-Positive WoC

intervention (<https://nextlevel.careacttarget.org/deii/navigators>) with one Implementation and Technical Assistance Center and one Dissemination and Evaluation Center.

Project: Patient navigators play a vital role in reducing barriers in the healthcare system by providing emotional, practical, and social support. Additionally, patient navigators have proven key to bridging the gap between patient understanding of HIV and navigating their own health within a complex system. The HRSA Special Projects of National Significance (SPNS) initiative demonstration project is designed to retain HIV- positive WoC in primary care through comprehensive educational sessions, support, advocacy, and addressing client needs. Patient navigators work with HIV-positive WoC who are experiencing sporadic medical visit follow ups, are not virally suppressed, and have multiple co-morbidities.

Results: As of 6/4/18, 280 women of color living with HIV were enrolled in a multi-site evaluation study. Of those, 108 were from Grady's Ponce Center. The top three reported client needs included assistance with transportation, housing, and medication, applying for benefits and accessing mental health and substance use treatment services. Patient navigators documented their efforts working with intervention clients. As of 6/4/18, 5,546 encounters were reported with clients, with 2,208 occurring at Grady. The top 5 reported encounters included relationship building, appointment reminders, client needs assessment, and conducting the first two intervention education sessions.

Lessons Learned: Using an implementation science framework both pre-implementation and implementation data were collected from the three sites and analyzed. Key factors for successful intervention implementation included: co-location of services, EMR read and write access for navigators, and addressing the patient social determinant of health needs first builds patient trust and increases client motivation to participate in the intervention.

CP37

Abstract 5905 - HIV surveillance-driven data-to-care: a local health department pilot process and outcomes

Author(s): *Ebenezer Oloyede, Christina Schumacher, Hope Cassidy-Stewart, Ravi Muvva, Jacky Jennings, Sheridan Johnson, Jaeson Smith, Adena Greenbaum, Patrick Chaulk*

Background: A high prevalence of people living with HIV (PLWH) in Baltimore city are lost to care. In 2005, a pilot program was developed by the Maryland Department of Health (MDH) in collaboration with the Baltimore city health department (BCHD) to improve the city's HIV care continuum. Data to Care (D2C) is a public health initiative that uses HIV surveillance data to identify and provide care to PLWH in need of HIV medical care and other support services. Our target population included men-who-have-sex-with-men (MSM), Trans gender (TG) persons, and injection drug using (IDU) individuals.

Methods: Patients were classified as Out of Care (OOC) or Never in care (NIC) using statewide lab-based surveillance database (eHARS). NIC is defined as PLWH diagnosed after 2013 who have no lab evidence of care after 13 months since diagnosis; OOC is defined as PLWH who have at least one CD4+ or VL result reported in eHARS within 6 months of their last appointment. Lists were sent to BCHD on a semi-monthly basis, and patients were contacted. Medical appointments and transportation were arranged for consented clients. Patients were dispositioned as linked to care ("Linked") if they attended their HIV

scheduled appointments within 2 weeks, and “Refused” if they refused linkage services, and “Lost-to-follow-up” (LTFU) if we were unsuccessful in contacting them or lost further contact with them. We ran an SQL query in Access, and performed descriptive statistics in Excel.

Results: From 02/10/2016- 04/03/2018, 601(100%) PLWH [369(61%) NIC, and 232(39%) OOC] were referred to BCHD from MDH. Of the total 601 patients referred, 435(75%) patients [284(65%) NIC and 151(36%) OOC] with completed field records (FRs) were initiated for linkage to HIV care, while work on the remaining 166(25%) is still ongoing. The completed FRs have the following outcomes: 55(36%) OOC and 19(7%) NIC patients were found to be Already in care (AIC). 21(7%) NIC and 3(2%) OOC patients were linked to care. 184(65%) and 8(3%) NIC were lost to follow-up (LTFU) and refused care linkage service respectively, while 26(17%) and 5(3%) OOC were LTFU and “Refused” respectively. 24(8%) and 9(3%) NIC were Out-of-Jurisdiction (OOJ) and Deceased respectively, while 49(33%) and 9(6%) OOC were OOJ and Deceased respectively. 4(1%) NIC and 3(2%) OOC did not attend their scheduled medical appointments (DNAA).

Conclusions/Implications: The D2C outcomes ask the big question: “Is the juice worth the squeeze”? Relative to the time (over a 2-year period) and resources expended to initiate 435 patients out of 601, the overall linkage numbers seem low. 24 people were linked to HIV medical care, but we were unable to locate (LTFU) a high proportion (65%) of NIC and (17%) of OOC PLWH. 36% of those initially thought to be OOC were AIC, but we believe that this % could be reduced by properly identifying patients that are AIC. Innovative or additional community-driven interventions are advocated to bridge these gaps to increase the D2C efficiency. Additional research is also necessary to estimate and compare the actual time and resources expended against a standard.

CP38

Abstract 5922 - Implementing the Transgender Women Involved in Strategies for Transformation (TWIST) intervention to address HIV service delivery needs of transgender women with HIV

Author(s): *Dana Williams, Jamila Shipp, Kelly Stevens*

Issue: Transgender women bear a larger HIV burden than some other groups. Service providers often meet the HIV service delivery needs of transgender women with HIV (TWH) by minimally adapting and implementing interventions designed for other populations. This presentation focuses on implementing an extensive adaptation of the Women Involved in Life Learning from Other Women (WILLOW) intervention. The adaptation resulted in the TWIST intervention, which seeks to meet the HIV service delivery needs of transgender women with HIV (TWH). As with WILLOW, TWIST aims to reduce HIV transmission risk behaviors among TWH by implementing activities that: support gender affirmation, increase social support, increase HIV knowledge, increase self-efficacy for relationship management, encourage skill building on how to practice safer sex behaviors, and reduce stress.

Setting: Seven community-based organizations located across the United States received funding to deliver effective HIV prevention strategies to young transgender persons of color and their partners. Of these seven organizations, three implemented TWIST as a component of their service delivery for TWH.

Project: TWIST occurs in four, consecutive, weekly sessions each lasting four hours, followed by three booster sessions over two-week intervals. Implementation includes preparatory activities such as group facilitation training, TWIST training of facilitators, and conducting organizational assessments and formative evaluation. The intervention sessions and process monitoring and evaluation follow these initial activities. Intervention delivery occurs using diverse methods such as small- and large-group discussions, reading and writing assignments, demonstrations, behavioral skills practice, and role-plays. Content includes educational, informational and skill-building activities aimed at reducing behaviors that put TWH at risk such as practicing unsafe sex, inability to negotiate safe sex, and remaining in abusive relationships.

Results: The three CBOs conducted pre-implementation and implementation tasks inclusive of recruiting and retaining 6-8 transgender women of color and conducting all TWIST activities. The presentation will discuss overall findings related to pre-implementation and implementation as well as strategies related to capacity building assistance.

Lessons Learned: Agencies that are new to implementing evidence-based interventions (EBIs) such as TWIST may require specific capacity building services aimed at preparing them for implementation activities. Access to a target population such as TWH that are typically viewed as 'hard to reach', may require focused recruitment and retention assistance in preparation for implementation. Documenting the TWIST implementation process and key anticipated and unanticipated activities provides insightful, foundational information that can contribute to successful, future EBI implementation with TGW.

CP39

Abstract 5956 - Factors associated with implementing evidence-based HIV prevention interventions (EBIs)

Author(s): *Grace Hall, Miriam Phiels, Yvonne Wasilewski, Donna Shaw, Megha Joshipura, Lisa Hawley*

Background: HIV remains an enduring public health problem in the United States. The Centers for Disease Control and Prevention's Division of HIV/AIDS Prevention provides training to health departments, community-based organizations (CBOs), and health care organizations to implement, within 90 days of training, evidence-based interventions (EBIs) for HIV prevention and treatment. EBIs are invaluable in reducing behaviors that contribute to HIV infection and increasing the use of antiretroviral therapy. Guided by the Interactive Systems Framework (ISF), we examined data from EBI training recipients to identify organizational factors associated with implementation within 90 days following EBI training.

Methods: We analyzed data from training recipients who completed training registration and a training follow-up survey 90 days after trainings that occurred during April 1, 2011–March 31, 2014. Our dependent variable was EBI implementation within 90 days of training. Our independent variables included demographic and organizational characteristics of training recipients and selected organizational factors from the ISF considered relevant to EBI implementation. Using multivariable logistic regression analysis, we acquired adjusted odds ratios (AOR) and 95% confidence intervals (CI) describing associations between these variables.

Results: Our analytic sample included 1,009 training recipients. Among them, 45.6% reported implementing EBIs within 90 days of training. Training recipients who reported having adequate funding (AOR=2.57, [95% CI 1.78, 3.71], $p<.001$) and having dedicated time allocated to work on EBIs (AOR=1.88, [95% CI 1.29, 2.75], $p=.001$) had greater odds of implementing EBIs within 90 days of training compared to those who did not. Training recipients who reported difficulty recruiting targeted populations (AOR=1.96, [95% CI 1.48, 2.59], $p<.001$) and staff turnover (AOR=1.76, [95% CI 1.15, 2.70], $p=.009$) also had greater odds of implementing EBIs within 90 days of training.

Conclusions/Implications: Our findings suggest adequate funding and dedicated time may increase the likelihood of implementing EBIs. The implementation of EBIs while reporting difficulty recruiting the target population and staff turnover may be explained by other agency and/or staffing characteristics. To address all of these factors, organizations might consider preemptive planning to acquire or allot adequate funding, and allow staff to have dedicated time required to implement EBIs. Implementing EBIs can help HIV prevention organizations improve their service delivery to persons living with or at risk for HIV.

CP40

Abstract 5985 - Launching a multifaceted HIV data to care (D2C) initiative in Rhode Island: successes and challenges

Author(s): *Anna Civitarese, Theodore Marak, Thomas Bertrand, Utpala Bandy*

Issue: In Rhode Island (RI), engagement in care and viral suppression among PLWH remains below the international targets of 90%. In response, the Rhode Island Department of Health (RIDOH) established a multifaceted return to care (RTC) program to re-engage PLWH who had fallen out of HIV medical care.

Setting: RIDOH is the sole health department in Rhode Island; it houses the HIV Surveillance and Prevention program and runs the state's HIV RTC program.

Project: In 2013, RIDOH began to develop a multifaceted approach to HIV RTC activities. The HIV RTC Provider Referral System was the first system to be developed through HIV Prevention Category C funding. In 2017, RIDOH successfully launched an eHARS-driven Not In Care (NIC) program through support from the CDC's HIV Surveillance Program. PLWH in RI are identified as potentially not-in-care from: (1) provider referrals (HIV medical provider or non-medical case management agency) and (2) the eHARS HIV Registry. RIDOH DIS have the capacity to conduct outreach efforts if individuals never linked to care, are out of care for >6 months, or are at risk of falling out of care. Concurrently, eHARS was queried to identify any individuals reported as HIV-infected who did not have laboratory evidence of HIV medical care in the preceding twelve months.

Results: Through the first half of 2018, 398 referrals have been investigated through the RTC Provider Referral System. Of these, 87 (21.9%) referrals were not eligible for RTC activities (deceased, incarcerated, or already in care at another facility). Another 133 (33.4%) referrals were either determined to be living out of state or unable to locate; these individuals were ineligible to re-enter care because they were not located in RI. The remaining 178 (44.7%) individuals were eligible to return to care; 167 of those individuals agreed to re-enter care following RIDOH intervention and 130 individuals

attended a medical appointment. Nearly three-quarters of eligible referrals were successfully returned to care. The list of presumed not-in-care individuals was first generated using eHARS in early 2017 and identified 880 individuals suspected of not being in care. The list was re-generated in January 2018 and contained only 500 individuals. Approximately 28% of this NIC list has been resolved through individuals returning to care after RIDOH intervention or on their own, or through confirmation of an individual to be living in another state, incarcerated, or deceased.

Lessons Learned: Health department-run RTC programs can successfully return to care PLWH who have fallen out of care. HIV RTC programs may operate best when multiple sources are used to refer people into the program, including HIV medical providers, non-medical case management agencies, and the HIV surveillance registry. In RI, provider referrals identified approximately 400 individuals not-in-care and about 75% of individuals eligible to return to care were successfully re-engaged. However, eHARS still identified over 500 individuals suspected of not being in care in 2017. HIV RTC programs can improve HIV surveillance data quality, but data are still limited, which further emphasizes the need for a RTC program to be both surveillance-driven and provider-driven.

CP41

Abstract 6082 - “Hacer el Talon o venir aqui”

Author(s): *Patricia Zuniga, Teresita Rocha, Steffanie Strathdee, Sanjay Mehta, Irina Artamonova, Jamila Stockman*

Background: Tijuana is the busiest city in Northern Mexico with 30 million legal border crossings/year; one third of all deportees from the United States arrive in Tijuana. In recent years, an increase in migration from South and Central America, countries with higher HIV prevalence, and widespread sex work, drug use, poverty, and economic inequality and lack of city infrastructure have contributed to HIV epidemics among PWIDS. In 2015, a cluster of new infections was identified after displacement of people who inject drugs (PWID) from a settlement camp followed by police surveillance and uncoordinated health care efforts that facilitated a land field with conditions for more HIV infections and barriers for earlier identification. Studies assessing recent HIV seroconversion among this population in Tijuana are scarce.

Methods: We conducted a mixed methods study to examine correlates of recent HIV seroconversion and barriers to linkage to and retention in HIV medical care. Data was generated from two longitudinal cohort studies, El Cuete and Parejas, conducted among HIV-negative (n = 928) and HIV-positive (n = 29) PWID. Descriptive statistics were computed to examine sociodemographics, sexual- and drug-related risk, and violence as correlates of seroconversion. The small number of HIV-positive participants limited our ability to conduct multiple logistic regression models. Semi-structured interviews were conducted with 20 PWID who recently seroconverted.

Results: Among 920 PWID, 62.2% were male and 37.9% female, median age was 37.0 years old (IQR 18-63), and 45.1% were married/civil union. Twenty-one had recently seroconverted from HIV-negative to HIV-positive, of whom 35.7% were male and 64.3% female. In the past 6 months, more than one fifth (21.6%) reported trading sex, 89.8% reported drug injection and 71.9% reported sharing syringes. Less than one-fifth (18.6%) reported ever experiencing a traumatic event. Sex trade for drugs (p=0.041),

injectable drugs in the past 6 months, ($p=0.007$) and heroin use in the past 6 months ($p=0.001$), violent and traumatic events, abuse in rehab ($p=0.010$), post-traumatic memories ($p=0.011$) and avoidance of activities ($p=0.041$) were significantly associated with HIV-positive serostatus. Four deaths occurred among the 21 HIV-positive PWID interviewed; of which, one death was due to an AIDS-related illness. Emergent themes in qualitative interviews centered on HIV-related stigma and lack of stable housing and monetary resources, internalization of stigma, stigma from agency staff and fear of disclosure, and discrimination at health as a consequence their injection drug use. Additional structural level barriers included lack of legal documentation and the inability to obtain identification, as well confronting legal consequences for those who were US citizens residing in Tijuana. Individual-level barriers included physical and verbal violence inflicted by the police and health care workers, family or peers, social isolation, fear dying.

Conclusions/Implications: Primary prevention efforts tailored towards PWID are needed to reduce the number of HIV seroconversion in Tijuana. Additionally, HIV stigma-reduction interventions and case management interventions specifically designed for PWID are urgently needed to enable communities to address specific needs and access HIV medical care in this population.

CP42

Abstract 5252 - Elimination of mother-to-child transmission in Broward County, FL

Author(s): *Yvette Gonzalez*

Issue: Yvette A. Gonzalez MPH CCHW - FL Department of Health in Broward County.

In 2016, Broward County had a 20.3% increase in HIV transmission from 640 to 770. Of the 770 new cases, 48% were Black, 24% White and 26% Hispanic. The HIV case rate among females is nine times higher for Black females than White females. In 2016, there were eight Mother-to Child HIV transmission in Florida and all eight infants were Black.

Setting: The Perinatal Program at the Florida Department of Health in Broward County has created a comprehensive linkage, re-engagement, and adherence program specialized for HIV positive pregnant women. This program provides intensive case management to HIV positive pregnant women; engage and educate healthcare providers in the prevention of perinatal transmission of HIV; and promotes HIV prevention through social marketing, community engagement and outreach activities.

Project: The Perinatal team case manages all the pregnant HIV positive women in Broward County. A total of about 125 a year. A flow chart was created for each client that details medication, labs, and follow-up appointments. All exposed infants are followed by the team to ensure they are HIV (PCR) tested. Transportation is provided for the initial OB appointment. The Perinatal team visit all the OBGYNs yearly and all deliveries are reported to HIV surveillance. A Perinatal Tool Kit was created for the OBGYN offices that provides current information on HIV in pregnancy and for the HIV exposed infant. Chart Reviews are completed at each delivery with quarterly report cards provided to the hospitals on the information gathered. In addition, healthcare providers are provided the latest information on HIV prevention and treatment through the facilitation of grand rounds at the hospitals and we provide yearly Perinatal HIV Symposiums. A Perinatal Providers HIV Network meets monthly to discuss maternal child issues in HIV.

A campaign called “Protect Yourself, Protect Your Baby” was developed and implemented to ensure community messaging on the importance that all pregnant women need to ask and receive routine testing for STIs and HIV on the 1st and 3rd trimester of pregnancy.

Results: In 2017, 115 pregnant HIV positive pregnant women were case managed. Currently for 2018, there are 38 perinatally infected pregnant women that are managed. 87% percent of those women are Black, 72% US born and 23% of Haitian decent. There were 93 deliveries in 2017 and 96 in 2016. Of the 96 deliveries, 30 were given triple medication to avoid perinatal HIV transmission because mothers were either non-adherent to anti-retroviral medication or a significantly high viral load at delivery.

Lessons Learned: Getting to ZERO in HIV transmission is our goal at the Florida Department of Health in Broward County. Although there have been advancements in HIV prevention and treatment, obstacles remain in the elimination of perinatal transmission like women with absent or delayed prenatal care, women using illicit drugs and there are acute (primary) infection in late pregnancy. The Perinatal program in Broward County aims to address these identified obstacles through collaborative efforts among providers and stakeholders in the community.

CP43

Abstract 5349 - Building capacity to serve heterosexual men aging with HIV: an unacknowledged community

Author(s): *Bennett Reagan, Vanessa Jacuinde*

Issue: The barriers and challenges of older heterosexual men living with HIV (HMLWH) are poorly understood or heavily researched. In 2015, 15% of new HIV diagnoses among people aged 50 and over were heterosexual men. The current scope of HIV services are tailored for other populations of people living with HIV (PLWH), and might be missing the population-specific needs of older HMLWH. This impacts linkage & retention rates for this group, leading to low viral suppression rates. The presentation will present a novel approach to working with this population and will provide tools & recommendations for providers serving older HMLWH.

Setting: Shared Action HD (SAHD) is the capacity building department of APLA Health. It provides capacity building services to HIV providers in the US and territories. APLA Health has been serving PLWH since the early 1980s, in Los Angeles County, and has recently seen an increase in the proportion of aging PLWH. There is limited knowledge of the needs of this group, especially HMLWH. The CBA team gathered information from different resources: reports, scientific literature, service providers and the Healthy Living Project (HLP). HLP identified the needs on various HIV+ aging populations.

Project: SAHD conducted formative evaluations to gather information on the needs of older HMLWH. This included gathering information from HLP, subject matter experts and using the experiences of CBA team members working with this population to determine the capacity building needs of providers serving older HMLWH, and subsequently develop new CBA resources.

Results: SAHD posits that compared to the other groups of PLWH (MSM, Trans, Cis Women), HMLWH are less likely to report challenges with accessing medical or social services when initially prompted. HLP

participants & HMLWH clients of APLA reported feeling as though services were designed for other populations of PLWH. Heterosexual males reported being hesitant to “complain” for fear of seeming “entitled.” While this population reported a high level of satisfaction during the HLP, we concluded that this was a result of individuals attempting to uphold norms of masculinity. Masculinity can have a significant influence on this population which poses a challenge for providers. This can manifest in making it difficult to identify and address specific needs for aging HMLWH and keep them engaged in services and treatment. SAHD identified a need for resources to enhance the capacity of providers serving HMLWH.

Lessons Learned: The perspectives of older HMLWH are often not considered when designing HIV programs and providing services. An individual’s relationship with masculinity has an impact on retention and engagement in HIV services. Levels of trust and rapport might have a significant impact on this population’s expression of need and willingness to seek out further services. More efforts need to be made to include this population into the discussion and increase their feeling of belonging in HIV services. Additionally, more tools and resources need to be developed to allow providers to improve their own capacity and relationship with this population.

CP44

Abstract 5558 - Role of the National HIV Curriculum in expanding the United States HIV clinical workforce

Author(s): *David Spach, Brian Wood, Andrew Karpenko, Kenton Unruh, Karin Bauer, Julia Freimund, John Nelson, Bruce Maeder, Mary Annese*

Issue: A significant decline in the number of clinicians with adequate training in HIV care has led to projections of future HIV workforce shortages.

Setting: The National HIV Curriculum (hiv.uw.edu) was created to provide a comprehensive, interactive, free, online, up-to-date HIV treatment and prevention educational platform that can be utilized to expand the number and expertise of clinicians capable of providing HIV clinical care and prevention services. The development and implementation of the National HIV Curriculum has been led by the University of Washington and is funded by the United States Health Resources & Services Administration HIV/AIDS Bureau.

Project: The National HIV Curriculum provides comprehensive, culturally competent content and assessment on HIV diagnosis, treatment, and prevention. The site features (1) 6 Self-Study Modules covering 37 topics that address key HIV core competencies, (2) a Question Bank comprised of more than 350 interactive, case-based questions, (3) an Antiretroviral Medication section with in-depth information on FDA-approved antiretroviral medications, (4) expert-guided interactive Clinical Challenges, (5) Interactive Screening Tools and Calculators relevant to HIV care, and (6) more than 90 free continuing education credits. The site offers dual functionality for learners and users: “Quick Access” to highly organized and easy to locate content on the site, or “Guided Modular Learning” designed for working systematically through selected content with regular self-assessment and review. Registered users can track their progress using the “Progress Tracker” dashboard. The National HIV

Curriculum has a unique Group Function that allows directors or leaders to create of group and then plan, track, and monitor activity of group members as they work through the curriculum.

Results: We report preliminary year 1 data (from site launch in early July 2017 to June 30, 2018). Monthly page views increased from 24,723 in July 2017 to 107,762 in June 2018. During this period, 976 learners answered at least 1 question in the Question Bank and a total of 93,144 questions were answered. The web site has been utilized diversely throughout the United States. Among registered learners from the United States, 39% were in the South, 28% West, 19% Northeast, and 15% Midwest (these geographic regions were defined to correspond with those used in United States HIV epidemiologic reporting by the Centers for Disease Control and Prevention). During year 1, a total of 13,338 continuing education credits were awarded; the monthly number of continuing education credits increased significantly with an average monthly growth of 20%. A total of 125 groups were created using the group function.

Lessons Learned: The National HIV Curriculum is a free, comprehensive educational platform designed for health care professionals to develop core competencies in clinical HIV care and prevention. This training and assessment online tool can serve as a practical resource in local, regional, or national efforts to expand HIV clinical workforce capacity. The National HIV Curriculum can potentially have a powerful impact in regions of the United States disproportionately impacted both by a high HIV prevalence rate and inadequate numbers of health care professionals with competence in HIV clinical care.

CP45

Abstract 6002 - Project CoRECT: using a data to care partnership involving CT DPH and HIV clinics to characterize PLWH who are newly out of care

Author(s): *Merceditas Villanueva, Janet Miceli, Constance Carroll, Suzanne Speers, Lisa Nichols, Frederick Altice, Heidi Jenkins*

Background: The HIV Treatment Cascade shows that 30% of persons living with HIV (PLWH) in the US are virally suppressed. A significant portion remain incompletely engaged in care resulting in poor individual health outcomes, as well as ongoing HIV transmission. Interventions to improve re-engagement in care are critical to prevention efforts. The CDC sponsored Cooperative Re-Engagement Controlled Trial (CoRECT) is a randomized controlled trial that uses a DPH field worker (DIS or Disease Intervention Specialist) intervention to improve outcomes for PLWH) who are identified as out of care (OOC). The goals of the project are: (1) Establish a data-sharing partnership between health departments and HIV clinical providers to identify PLWH who are OOC; (2) Implement a DIS intervention to increase re-linkage, retention and viral suppression.

Methods: The DPH in partnership with Yale University School of Medicine and 23 HIV clinics located in Bridgeport, New Haven and Hartford was funded to conduct the study. An electronic data exchange process was established using the DPH eHARS surveillance data with matching to clinic visit data (determined through CAREWare for Ryan White funded clinics and/or clinic EMR data). Eligible patients were defined as: In Care over 12 months (defined in eHARS by at least one HIV viral load (VL) and by clinics as a single clinic visit) followed by a subsequent 6-month OOC period (defined by eHARS as lack of VL and by clinics by lack of visit). Patients meeting these criteria (newly OOC) were potentially eligible

for randomization. Using this combined list, clinic data personnel defined dispositions such as: upcoming visit scheduled in 3 months, recent visit in past month, well patient (VL suppression at least 6 months apart), out of jurisdiction, deceased, incarcerated and provider discretion. PLWH for whom none of these dispositions applied were randomized to current clinic standard of care (SOC) or the DPH DIS. Study recruitment spanned from 11/2016-7/2018. We describe characteristics of PLWH eligible for randomization and those who were randomized to the DIS.

Results: There were 2958 patients were identified as OOC and potentially eligible for randomization. Of these, 655 (22.1%) were randomized (DIS (N=333) and SOC (N=322)). Among PLWH eligible for randomization, 499 (16.9 %) were well patients; 946 (32.0%) had a recent visit; 399 (13.5%) had an upcoming visit. Among well patients, 67.3% were male, 71.1% were non-Hispanic; 35.5% were white, 33.7% were African American; 32.3% were MSM, 32.9% were heterosexual, 14.4% were IDU; 62.7% were >50 years. Randomized PLWH were more likely to be younger (mean age 46.2 vs. 51.6, $p<.0001$) and African American ($p<.0001$).

Conclusions/Implications: 1) A data sharing process using clinic and DPH surveillance data was successfully implemented to characterize PLWH who are newly out-of-care 2) The majority of PLWH identified through the data sharing process were well patients, had a recent or upcoming visit 3) 22.7% of OOC PLWH were eligible for more intensive DPH intervention and were more likely to be younger and African American 4) Specific interventions targeting this group are needed.

CP46

Abstract 5880 - Estimating the national and state-specific impact of the Health Resources and Services Administration Ryan White HIV/AIDS Program

Author(s): *Pamela Klein, Stacy Cohen, Evin Jacobson, Zihao Li, Glenn Clark, Miranda Fanning, Rene Sterling, Stephanie Sansom, Heather Hauck*

Background: The Health Resources and Services Administration's (HRSA) Ryan White HIV/AIDS Program (RWHAP) is a comprehensive system of HIV medical care, medications, and essential support services for over 500,000 low-income people living with HIV (PLWH) in the United States. In the era of treatment as prevention, it is important to understand the role of the RWHAP in reducing mortality and preventing new HIV transmissions.

Methods: HRSA's HIV/AIDS Bureau (HAB) and the Centers for Disease Control and Prevention's Division of HIV/AIDS Prevention (CDC DHAP) developed a mathematical model to estimate the national and state-specific impact of the RWHAP. The model examined the hypothetical scenario of an absence of RWHAP funding and calculated the impact of this scenario on clients, medical providers, mortality, transmissions, and costs compared with the current state of the RWHAP. The model was based on data from the RWHAP Services Report, RWHAP AIDS Drug Assistance Program (ADAP) Data Report, CDC HIV Surveillance Report, CDC Progression and Transmission of HIV/AIDS Model, and scientific literature.

Results: In 2016, the RWHAP supported direct health care, support services, and ADAP medication access for 61% of people living with diagnosed HIV in the United States. If support for the RWHAP was removed, at least 132,651 RWHAP clients (22% of all RWHAP clients) and all 2,164 HIV providers

supported by the RWHAP could be negatively impacted. The resultant reduction in PLWH receiving HIV medical services and treatment could result in 5,220 additional deaths among PLWH and 3,077 additional HIV infections in the United States in a one-year period. These additional HIV infections could result in approximately \$1.43 billion additional lifetime HIV care and treatment costs. State-specific estimates will be presented for jurisdictions with different levels of HIV prevalence, proportions of PLWH served by the RWHAP, and distributions of PLWH at different stages of the HIV care continuum.

Conclusions/Implications: The HIV medical services and treatment supported by the RWHAP prevents mortality and HIV transmissions, in addition to reducing HIV care and treatment costs. The state-level impact of the RWHAP varies by HIV prevalence, the proportion of PLWH served by the RWHAP, and the distribution of PLWH at different stages of the HIV care continuum. The translation of the model results into state-specific impact statements can be used by state jurisdictions to communicate with state policy- and decision- makers and other internal and external stakeholders.

DP01

Abstract 5325 - Mobile application use for meeting sex partners among molecularly linked HIV cases within current rapidly growing HIV clusters in Florida, June 2018

Author(s): Clayton Weiss, Emma Spencer, Gayle Keller, Shana Geary, James Matthias

Background: Recent and rapid transmission of HIV can be identified using molecular HIV surveillance. Latest findings indicate among 60 molecular HIV clusters in the United States, the transmission rate was 11 times as high as than the national rate, with a disproportionate number of HIV diagnoses among men who have sex with men (MSM). Further, increased use of geosocial networking mobile applications to meet more sex partners has also been observed among MSM. We aim to analyze molecularly linked persons diagnosed with HIV from Florida's six current (as of June 2018) rapidly growing molecular HIV clusters and examine trends of mobile application use within these clusters.

Methods: As of June 1, 2018, six rapidly growing HIV molecular clusters (at least five genetically linked HIV diagnoses within the past twelve months) were identified through nucleotide sequence data reported to the Florida Department of Health using the Secure HIV Transmission Cluster Engine (HIV-TRACE), and matched with the Patient Reporting and Investigation Surveillance Manager (PRISM) database. Patient-level case reviews were conducted to identify self-reported partner-meeting locations and mobile applications used to meet sex partners. Descriptive analyses summarize current rapidly growing HIV molecular clusters, and data were stratified to investigate trends among patients who self-reported use of at least one mobile application.

Results: In total, 169 individuals with HIV were molecularly linked to six rapidly growing clusters, two of whom were missing reporting information. Of the remaining 167 persons, 165 (99%) were male. The majority (55%) were Hispanic. Slightly more non-Hispanic cluster members identified as black/African American than white (22% versus 16%). Infected persons ranged in age, from 15 – 64 years, with 73% under 30 years at the time of HIV genotype specimen collection. Three clusters accounted for 89% (n=149) of all members (n's = 57, 54, 38).

At least one method for meeting partners was self-reported by 78% (n=131) of cluster members. Of these, 68 (52%) self-reported using mobile applications to meet at least one sexual partner. All 68

individuals self-reporting mobile application use were MSM, and 6 (9%) also reported having sex with women. Compared to non-users, mobile application users were no different in age, race, or previous STD history; but were slightly more likely to be Hispanic (62% vs 43%). Individuals who self-reported mobile application use in these clusters on average claimed more than twice the number of sex partners (6.3 vs. 3.1). However, non-mobile application users named slightly more sex partners (1.1 vs. 1.0) during partner services interviews.

Conclusions/Implications: Mobile application use was common among MSM in rapidly growing HIV clusters. Compared to non-users, app users claimed more sexual partners yet had similar numbers of named partners with locating information. Thus, more partners remain at risk of transmitting HIV. To address this issue, new approaches are needed to improve follow-up of sexual partners met via mobile applications.

DP02

Abstract 5424 - Quantifying hepatitis and HIV comorbidity within rapidly growing HIV molecular clusters in Florida

Author(s): *Shana Geary, Emma Spencer, Karalee Poschman, Tom Bendle*

Background: The Florida Department of Health has been conducting molecular surveillance of rapidly growing HIV molecular clusters and their risk networks using HIV TRACE since October 2017. HIV molecular clusters consist of people with closely related strains of HIV, and are considered rapidly growing when there have been five or more new HIV diagnoses within the previous twelve months. The HIV transmission rate averages eleven times as high in rapidly growing transmission clusters as the general HIV population. Eleven rapidly growing clusters have been identified in Florida. This study aims to assess hepatitis comorbidity within these clusters.

Methods: Individuals identified within rapidly growing molecular HIV clusters (n=218) from October 20, 2017 to May 2, 2018 were matched to Merlin, Florida's reportable diseases surveillance system, to identify cases of hepatitis; enhanced HIV/AIDS Reporting System (eHARS) data were used to identify additional cluster members with documented hepatitis A, B, or C. AIDS Drug Assistance Program (ADAP) data were matched to identify members receiving treatment for hepatitis C. Descriptive statistics on co-infection were calculated for cluster members and compared to all people living with HIV (PLWH) in Florida during 2016.

Results: Six clusters, located in Miami-Dade, Orange, Palm Beach, and Pinellas Counties, had members with hepatitis comorbidity. Four individuals met the national case definition for chronic hepatitis C, and one for chronic hepatitis B; two had reported hepatitis A cases prior to 2004. Three additional individuals had a documented history of hepatitis B in eHARS. Overall, 3.7% (n=8) of members from these six clusters had a history of hepatitis B or C, compared to 13% in Florida's general HIV population in 2016. The predominant exposure category was male-to-male sexual contact (89.1%), followed by male-to-male sexual contact and injection drug use (IDU) (3.8%) and heterosexual contact (3.8%). Among all PLWH, the distribution was 39.3% male-to-male sexual contact, 30.4% heterosexual contact, 6.2% IDU, and 2.9% male-to-male sexual contact and IDU. Most cluster members were between the ages of 20-34 (69.4%), where most in the general HIV population were between 30-49 (58.3%); clusters

with identified hepatitis comorbidity also had a higher proportion of males (98.7% and 73.2%, respectively). Cluster members were predominately Hispanic (62.8%) followed by white (19.9%) and black (9.0%), compared to 19.4%, 30.4%, 48.2% among all PLWH respectively. A large proportion of cluster members (69.7%) did not have documented hepatitis testing in Merlin. None received hepatitis C treatment through ADAP between 2009–2018.

Conclusions/Implications: Hepatitis co-infection among those living with HIV was much lower within the HIV molecular clusters. This aligns with surveillance data indicating HIV is primarily attributed to sexual contact rather than IDU. However, with the shared risk factors between diseases, and hepatitis C and B being ten times and 100 times as infectious as HIV respectively, it is important to monitor co-infection within these clusters. Surveillance of hepatitis C comorbidity provides a unique opportunity for the expansion of treatment as prevention, since individuals living with HIV who are co-infected can receive treatment through ADAP to prevent further transmission within clusters.

DP03

Abstract 5923 - Detection and characterization of HIV clusters using HIV-TRACE among a cohort of persons living with HIV in Washington, D.C.

Author(s): *Amanda Castel, Brittany Wilbourn, Joel Wertheim, Jeanne Jordan, Kamwing Jair, Alan Greenberg, DC Cohort Executive Committee Castel*

Background: HIV phylodynamic analyses are increasingly being used to inform and direct public health prevention interventions to interrupt HIV transmission networks. Washington, DC has a 2% HIV prevalence and approximately 400 incident cases annually. Using data from a large cohort of persons living with HIV (PLWH) in DC, we sought to characterize clusters and identify clinical and behavioral predictors of clustering that might lead to transmission.

Methods: Participants were recruited from the DC Cohort study, a study of consenting PLWH receiving outpatient care at 15 DC HIV clinics. Molecular sequences collected by LabCorp® using Sanger sequencing from 2011–2016 on 2,242 patients infected from 1981–2015 were transferred to the DC Department of Health (DCDOH). As per study protocol, matching was conducted with the DCDOH to identify sequences from Cohort participants. Additional HIV sequence data were prospectively derived from plasma samples and sequenced using Next-Gen® sequencing for 88 DC Cohort participants who were recently infected with HIV (within the past 12 months) or had longstanding infection but were viremic [i.e., viral load (VL) >1500 copies/ml]. Demographic, clinical, and HIV sequence data were linked, as was self-reported behavioral data for those participants with prospective data. HIV-TRACE was used to identify molecular transmission clusters using a pairwise genetic distance threshold ≤ 0.015 substitutions/site from the RT or PR/RT region. We conducted uni- and bivariate analyses comparing demographic characteristics and clinical outcomes by clustering

Results: Among 2,330 participants for whom we analyzed sequences, 86% were Black, 67% were male, the median age was 44 (IQR 32-52), and 47% were infected through male-to-male sexual contact. HIV-TRACE grouped 3% of the sequences into 15 clusters of 3 or more sequences (size: 3-14) representing a total of 69 participants. Those participants who clustered were significantly younger (median age 32 vs. 44, $p < 0.0001$) and had been living with HIV a shorter period of time (median 5 vs. 7 years, $p = 0.0071$)

compared to those not clustering. There were no significant differences with respect to race/ethnicity, sex, HIV transmission risk, history of STIs, HBV or HCV, nor significant differences in VL, or CD4 count among those PLWH in clusters vs. those not. Among the 15 clusters, one cluster of 6 PLWH was comprised of only prospectively collected sequences. The prospective-only cluster included PLWH diagnosed between 1989 and 2008 of whom 5 were Black, and 2 each were MSM, PWID and heterosexually-infected. All members of this cluster self-reported being on antiretroviral therapy yet were viremic as of their most recent VL (median 6,406 copies/ml). Self-reported behaviors potentially associated with transmission in this cluster included lack of PrEP use among partners (n=3), unprotected sex at the last encounter (n=2), and an STI diagnosis in the past 12 months (n=2).

Conclusions/Implications: Combining HIV-1 sequences, clinical, and behavioral data revealed mixed risk factors, high risk behaviors, and high levels of viremia among known PLWH that could lead to ongoing transmission. These analyses can complement active HIV surveillance efforts with the future goal of providing real-time HIV phylodynamic analyses to interrupt HIV transmission among defined populations and geographic areas.

DP04

Abstract 5429 - Pilot testing two versions of a network-tracing case-finding intervention in South Africa's generalized HIV epidemic

Author(s): *Leslie Williams, Alastair van Heerden, Xolani Ntinga, Georgios Nikolopoulos, Dimitrios Paraskevis, Samuel Friedman*

Background: Locating undiagnosed HIV infections is an important part of the 90-90-90 strategy to limit HIV transmission. However, there is limited evidence about how best to extend the reach of current case-finding methods (e.g., clinic testing; self-testing), particularly within generalized epidemics. This study pilot tests, in South Africa's generalized epidemic, two versions of a network-tracing case-finding intervention that has produced promising results in Greece, Ukraine, and Chicago. The first, TRIP, asks "seeds" (original participants) to recruit all their sexual and/or injection partners. The second, TRIPLE, asks seeds to recruit anyone they know who they think (after receiving education on HIV transmission risks) might be positive but undiagnosed.

Methods: This pilot project in KwaZulu-Natal, South Africa recruited 11 (18% male) newly-diagnosed HIV-positive seeds from two clinics and randomly assigned them to either the TRIP or TRIPLE intervention. Network members were recruited two "steps" (i.e., network links) from each seed and offered HIV testing and counseling. The TRIP arm recruited 13 network members; the TRIPLE arm recruited 61. HIV-positive participants were linked to treatment. Newly diagnosed HIV-positives (NDPs) were identified using self-report and HIV test results. Rates of NDP were compared between arms, and to local clinics' average positive test rate of 13%.

Results: Average network size for the TRIP arm was 3 network-recruited members per seed. Average network size for the TRIPLE arm was 10 network-recruited members per seed. On average, TRIPLE located 1.5 additional NDPs per seed, and TRIP located 1.2 additional NDPs per seed. Both arms recruited higher rates of NDPs than "business as usual" clinic testing, with TRIP (46.2%) far outperforming ($p = .019$) TRIPLE (14.8%) on efficiency of locating NDPs. However, TRIPLE was far

superior to clinics and to TRIP at recruiting men. While TRIP recruited 23.1% men, and local clinics reported 27.8% men among those who tested for HIV, TRIPLE recruited 54.1% men (TRIP vs. TRIPLE on recruitment of men: $\chi^2 = 4.1$; $p = .040$).

Conclusions/Implications: Even with all-female seeds, the study's TRIPLE arm recruited 54% male network members. This is an extremely important finding since many clinics in SA test men at very low rates (e.g., 28% at our clinics) and given that HIV prevalence is higher among men in this context. However, TRIP recruited NDPs much more efficiently than TRIPLE overall. Given competing goals of locating undiagnosed positives at high rates (efficiently) and locating those who are hardest to reach (e.g., men in SA), future research should test interventions that combine both TRIP (which traces all direct risk partners) and TRIPLE (which expands networks to non-risk-partners) methods.

TUESDAY, MARCH 19 | CONCURRENT SESSIONS | 2:00 PM – 3:30 PM

Track A

Session A01 - Think Big: Perspectives on the HIV epidemic in the United States

Room: A703-A704 (Atlanta Marriott Marquis)

Abstract 5411 - Assessing national progress toward 2020 HIV prevention goals

Author(s): *Norma Harris, Amy Krueger, Barbara Maciak*

Background: A sustained and collective effort is needed to achieve the vision of a place where HIV infections are rare in the United States. To measure progress toward national HIV prevention goals, 21 prevention and care indicators, including those used in the Division of HIV/AIDS Prevention (DHAP) Strategic Plan for 2017 to 2020, were developed and annual targets were established for each indicator. This presentation will provide an overview of the status of progress for national indicators.

Methods: The baseline year is 2010 and annual targets are calculated for each indicator in an accelerated fashion – by allocating the total amount of change expected between 2011 and 2020 as follows: 5% change per year for 2011-2013; 10% change per year for 2014-2017, and 15% change per year for 2018-2020. Progress was determined by comparing the most recent result to the annual target and assigned to 3 categories: met/exceeded the annual target (green), did not meet but moved toward the annual target (yellow), and did not meet or moved away from the annual target (red).

Results: Results from the CDC HIV Prevention Progress Report planned for publication in Fall 2018 will be presented. For each indicator, the most recent available result will be compared to the annual target. Results will be described using the 3 categories: number of indicators that met/exceeded the annual target (green), number of indicators that did not meet but moved toward the annual target (yellow), and number of indicators that did not meet or moved away from annual target (red).

Conclusions/Implications: The annual target was met or there was movement toward the target for the majority of indicators, suggesting that HIV prevention efforts have succeeded in making national-level improvements in key areas. Strengthened collaborations and intensified efforts will be needed to meet the annual targets and continue movement in the right direction in order to meet the national goals for HIV prevention by 2020.

Abstract 5406 - State-level progress toward national 2020 HIV prevention goals

Author(s): *Amy Krueger, Norma Harris, Angele Marandet, Anna Satcher Johnson*

Background: The burden of HIV infection, the reach of HIV testing, and the health of people living with HIV vary across the United States. Understanding the current status of HIV prevention and care outcomes in states informs our efforts to achieve our nation's HIV prevention goals and safeguard the health of all people who are at-risk for, or living with, HIV in each state and the District of Columbia. Monitoring state-level progress on key prevention and care indicators helps inform where HIV

prevention efforts are making a difference. In this presentation, we describe states' progress toward meeting national 2020 HIV prevention goals.

Methods: We assessed current state-level data for 7 HIV prevention and care indicators including: HIV incidence, knowledge of HIV-positive status, HIV diagnoses, linkage to HIV medical care, retention in HIV medical care, viral suppression, and the death rate among persons with diagnosed HIV infection. The data source is the National HIV Surveillance System (NHSS) for all 7 indicators. NHSS requires all 50 states and the District of Columbia (DC) report to CDC confirmed diagnoses of HIV infection and laboratory data. For 3 indicators that require complete laboratory reporting (linkage, retention, and viral suppression), 39 states and the DC met the requirement in 2016. To assess progress toward meeting national 2020 goals, indicator results for the most recent data year are compared to the previous year as follows: Met 2020 target – the state met the national 2020 target in the current data year; Progress – there was movement toward the 2020 target; No Progress – there was no change or movement away from the national 2020 target.

Results: Results from the CDC HIV Prevention Progress Report, planned for publication in Fall 2018, will be presented. Each indicator will have a rank of current year results by quartile, progress by quartile rank, and progress overall. Progress will also be assessed from current year data to baseline data in along with the 2020 national target.

Conclusions/Implications: Most states have made progress toward the national 2020 goal for the majority of the 7 indicators but there is still work to be done. Reaching the nation's 2020 goals is dependent on success at the state level. By monitoring progress, states can identify areas on which to focus their HIV prevention efforts and attain national 2020 prevention goals.

Abstract 5777 - National and regional trends in sexual, substance use and testing behaviors of men who have sex with men, 2013-2017

Author(s): *Travis Sanchez, Maria Zlotorzynska, Patrick Sullivan*

Background: Men who have sex with men (MSM) are disproportionately affected by HIV; there is evidence that this population is participating in increasingly risky sexual behavior. Better monitoring of key behavioral indicators among MSM requires technology-based (internet, smartphone) surveillance strategies, which are more feasible for acquisition of data from a larger geographic area than standard in-person approaches. For the past 5 years, the American Men's Internet Survey (AMIS) has collected >10,000 annual surveys on HIV/STI-related risk behaviors from MSM age 15+ from all US states.

Methods: Poisson models using generalized estimating equations were used to test for linear trends from AMIS-2013 through AMIS-2017 in sexual behavior, substance use, and testing behavior (all within 12 months preceding interview), stratified by self-reported HIV-status (positive, negative/unknown). Results are presented for the total sample and separately for MSM residing in the Northeast, Midwest, South, or West regions of the US [defined by state of current residence]. All models controlled for age, race/ethnicity, recruitment source, and county population density.

Results: Overall, 49,903 MSM participated in AMIS from 2013–2017 and were mainly white (72.4%), ≥40 years old (45.6%), living in the South (37.8%) or in urban counties (42.4%), and recruited from general social networking websites (53.5%). Self-reported HIV prevalence was 10.3% (n=5,143) and varied over time (2013=1098/10312 [10.7%]; 2014=1028/9159 [11.2%]; 2015=955/10217 [9.4%]; 2016=1098/10166 [10.8%]; 2017=964/10049 [9.6%]; trend $p<0.001$). HIV-negative/unknown status participants had significant increases in condomless anal intercourse (CAI; 2013=5641/9214 [61.2%]; 2017=5980/9085 [65.8%]; $p<0.001$), marijuana use (2013=2068/9214 [22.4%]; 2017=2520/9085 [27.7%]; $p<0.001$), other illicit substance use (2013=1525/9214 [16.6%]; 2017=1835/9085 [20.2%]; $p<0.001$), sexually transmitted infection (STI) diagnoses (2013=228/3452 [6.6%]; 2017=917/9085 [10.1%]; $p<0.001$), and HIV- (2013=4522/9214 [49.1%]; 2017=5504/9085 [60.6%]; $p<0.001$), or STI testing (2013=1167/3452 [33.8%]; 2017=3602/9085 [39.7%]; $p<0.001$). For HIV-negative/unknown status participants, CAI increased over time in all regions except the South. Marijuana use, STI diagnoses, and HIV or STI testing increased in all regions. Other illicit substance use only increased in the Midwest and West. Overall, HIV-positive participants had significant increases in CAI (2013=792/1098 [72.1%]; 2017=781/964 [81.0%]; $p<0.001$), methamphetamine use (2013=124/1098 [11.3%]; 2017=136/964 [14.1%]; $p<0.001$), and STI diagnoses (2013=76/1098 [20.0%]; 2017=236/964 [24.5%]; $p<0.001$). For HIV-positive participants, the same trends seen in the national sample were seen across regions, except for methamphetamine use which increased only in the Northeast and West. Generally, behaviors for participants of either HIV serostatus group were similar for those living in the South or Midwest and in Northeast or West.

Conclusions/Implications: Though it is encouraging that HIV-negative/unknown status MSM nationwide report increased HIV and STI testing, MSM regardless of serostatus are also exhibiting signs of increasing risk - decreasing condom use, increasing substance use, and increasing STI diagnoses. For HIV-negative/unknown status participants, the trends in sexual and substance use behaviors are not consistent across US regions, but all regions are experiencing increases in some type of risky behavior. AMIS shows that efforts to improve HIV/STI screening of MSM appear to be working, but interventions to improve condom use and decrease substance use are either not working or are not reaching adequate numbers of MSM in all US regions.

Abstract 5473 - Assessing health care access among those who engage in high-risk sexual behaviors: findings from the Behavioral Risk Factor Surveillance System, 2016

Author(s): Kendra Greenwell, Alexandra Coor, William Pearson

Background: Despite expansion of health insurance coverage in the United States, barriers to care persist. Access to health care services such as screening, testing, and treatment for HIV and other sexually transmitted diseases (STDs) is critical, especially for those engaging in high-risk sexual behaviors (HRSB). Evidence has shown that STDs can increase the risk of HIV transmission. Therefore, studies examining the relationship between HRSB and health services access and use are necessary.

Methods: We examined the most recent (2016 data released in November 2017) Behavioral Risk Factor Surveillance System data on HRSB, including having multiple sex partners, previous diagnosis of an STD, condomless anal sex, intravenous drug use, and paying for sex, all within the past year, stratified by measures of healthcare access and use. Chi-square analyses and adjusted logistic regression models

were performed to assess differences between participation in HRSB and insurance coverage, having access to a personal health care provider, and forgoing care because of cost.

Results: Among a total weighted sample size of 230 million respondents, 6.20% (95% CI: 6.0, 6.3) indicated that they had engaged in HRSB in the past year. Among those who engaged in HRSB, 18.0% (95% CI: 17.0, 19.1) had no health care coverage compared to 10.7% (95% CI: 10.5, 10.9) of those who did not engage in HRSB ($P<.05$). A greater proportion 35.7% (95% CI: 34.4, 37.0) of those who engaged in HRSB did not have a personal health care provider compared to 20.6% (95% CI: 20.3, 20.9) of those who did not engage in HRSB ($P<.01$). An estimated 21.0% (95% CI: 20.0, 22.1) of those who engaged in HRSB could not see a doctor due to cost related barriers compared to only 12.4% (95% CI: 12.2, 12.6) of those who did not engage in HRSB ($P<.05$). After controlling for age, sex and race of the respondents, those who participated in HRSB were still significantly more likely to not have health care coverage (1.23 OR; 1.14-1.34 95% CI), not have a personal healthcare provider (1.14 OR; 1.07 – 1.21 95% CI), or not have seen a doctor because of cost (1.64 OR; 1.53-1.76) compared to those who do not engage in HRSB.

Conclusions/Implications: Findings show that those who engaged in HRSB in the past year have decreased access to care, as defined by lack of health care coverage, lack of a personal health care provider, and forgoing care because of cost, which can lead to increased morbidity, increased duration of infection, and the potential for increased HIV and STD transmission for those infected with STDs. Future studies could assess cost and other factors behind the relative lack of access to care.

Abstract 5297 - Trends in women with HIV diagnoses at delivery hospitalization in the United States, 2006–2014

Author(s): *Maria Aslam, Kwame Owusu-Edusei, Steven Nesheim, Kristen Gray, Margaret Lampe, Patricia Dietz*

Background: The most recent national estimate of the number of deliveries to women with HIV is from 2006. We used a nationally representative sample of hospitalizations to identify women with diagnosed HIV infection delivering in 2006-2014 and assessed the associated risk factors.

Methods: We analyzed data from the National (Nationwide) Inpatient Sample (NIS), Healthcare Cost and Utilization Project (HCUP), Agency for Healthcare Research and Quality (AHRQ) for 2006-2014. We identified delivery discharges and women with diagnosed HIV infection using the International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9) and Diagnosis Related Group (DRG) codes. We used a generalized linear model with log link and binomial distribution to assess the independent association of year, race/ethnicity, age, insurance, income, and census region with HIV diagnoses on discharge records.

Results: During 2006-2014, approximately 3,900-4,400 U.S. women with diagnosed HIV infection delivered each year. Annual rate of HIV diagnoses (per 10,000 deliveries) remained stable: 10.6 (95% confidence interval [CI]=8.1-13.1) in 2006 and 10.3 (95% CI=9.0-11.6) in 2014. Compared to women with non-HIV diagnoses, women with HIV diagnoses were more likely to be black (adjusted relative risk [aRR]=8.45, 95% CI=7.56-9.44) or Hispanic (aRR=1.56, 95% CI=1.33-1.83) than white; aged 25-34 years (aRR=2.33, 95% CI=2.12-2.55) or 35 years and older (aRR=3.04, 95% CI=2.79-3.31) than 13-24 years;

Medicaid recipients (aRR=2.70, 95% CI=2.45-2.98) or uninsured (aRR=1.87, 95% CI=1.60-2.19) than privately insured; reside in areas representing the lowest income quartile (aRR=1.90, 95% CI=1.58-2.29) than in areas representing the highest income quartile, and live in the Northeast (aRR=3.66, 95% CI=2.55-5.26) or the South (aRR=3.62, 95% CI=2.50-5.25) than in the West.

Conclusions/Implications: Over the course of 2006-2014, the rate of deliveries among women with HIV diagnoses remained stable. Women of color, Medicaid recipients, uninsured, and residing in the South or the Northeast were more likely than the reference group to have HIV diagnoses. Coordinated efforts involving women with HIV infection, health care providers, case managers, and public health professionals can reduce the risk of mother-to-child HIV transmission among groups at higher risk by offering appropriate medical care before, during, and after delivery and by supporting adherence to antiretroviral treatment among women and infants exposed to HIV infection.

Session A02 - CDC's 2006 Testing Recommendations: Progress, Challenges, and A Way Forward

Room: Imperial A (Atlanta Marriott Marquis)

Abstract 5376 - National and state-level HIV testing trends, 2011-2017: progress and challenges

Author(s): *Deesha Patel, Christopher Johnson, Amy Krueger, Elizabeth DiNenno, Lisa Belcher, Norma Harris*

Background: Background: Approximately 40,000 persons are diagnosed with HIV annually in the United States. Knowledge of HIV status is important for persons living with HIV to gain access to proper HIV medical care in order to become virally suppressed and to prevent transmission to others. HIV testing allows persons living with HIV to become aware of their HIV status. In 2006, CDC released the Revised Recommendation for HIV Testing of Adults, Adolescents, and Pregnant Women in Health-Care Settings, which recommended screening for HIV (i.e., routine testing at least once) for all persons aged 13-64 years, as well as annual targeted testing for populations at high risk of HIV infection (e.g., men who have sex with men [MSM], people who inject drugs [PWID]).

Methods: Using the nationally representative Behavioral Risk Factor Surveillance System (BRFSS), we examined the percentages and trends of self-report of ever tested for HIV and tested for HIV in the past 12 months among U.S. adults aged 18-64 years during 2011-2017. We further examined percentages and trends by race/ethnicity, age, sex, and state of residence. In order to determine whether the percentages changed over time, we used orthogonal contrasts to calculate p-values for linear trends.

Results: Overall, ever tested for HIV infection increased from 42.9% in 2011 to 45.9% in 2017 ($p < 0.001$). Blacks (68.6%), persons aged 35-44 years (58.4%), and females (48.8%) were more likely to be ever tested in 2017 compared to their respective counterparts. In 2017, ever tested by state ranged from 26.5% (Utah) to 75.5% (District of Columbia). Overall, tested for HIV in the past 12 months increased from 13.2% in 2011 to 14.8% in 2017 ($p < 0.001$). Blacks (34.1%), persons aged 25-34 years (22.3%), and females (15.6%) were more likely to be tested for HIV in the past 12 months than their respective counterparts. In 2017, tested for HIV in the past 12 months ranged from 6.5% (Utah) to 40.7% (District of Columbia).

Conclusions/Implications: Despite the 2006 recommendations, less than half of all U.S. adults have ever been tested for HIV and only about 15% were tested in the past 12 months. Further discussion is needed to determine 1) how to reach the general population for HIV screening as per 2006 recommendations and 2) which data sources are most useful to evaluate uptake of annual testing among targeted populations, at the national and state level, since risk information cannot be ascertained completely and consistently over time from nationally representative surveys like BRFSS.

Abstract 5563 - HIV testing, diagnosis, and linkage to care and prevention services among persons tested in select CDC-funded health care and non-health care settings, 2012-2017

Author(s): *Shaliondel Benton, Jennifer Smith, Guoshen Wang, Janet Heitgerd, Lisa Belcher, Heta Patel*

Background: The Centers for Disease Control and Prevention (CDC) recommends everyone between the ages of 13 and 64 get tested for HIV at least once as part of routine health care. For those with specific risk factors, CDC recommends getting tested at least annually. HIV testing is key to identifying persons with HIV infection and linking them to HIV medical care thus leading to improved health outcomes. CDC's high-impact approach to HIV testing emphasizes testing priority populations and testing in the right geographic areas. CDC-funded HIV tests are conducted in both health care (e.g., STD clinics, hospital emergency rooms) and non-health care settings (e.g., community settings such as bars, shelters, and other public areas).

Methods: We analyzed CDC-funded HIV testing data submitted by 61 local and state health departments and approximately 150 directly funded CBOs for the period 2012-2017 (updated March 2018). Trends were assessed for all CDC-funded HIV tests, newly and previously diagnosed HIV infections, linkage to care within 90 days, interviewed for HIV partner service, and referral to HIV prevention by age group, gender, race/ethnicity, region, and test site types. Estimated annual percentage change (EAPC) was calculated using linear regression with log link function and no covariates. Significance of a trend change was determined by whether the 95% confidence interval included zero.

Results: Of the 19.7 million CDC-funded HIV tests, almost 75% (14,668,940) were conducted in six site types (i.e., STD clinics, hospital emergency departments, community health centers, correctional facilities, HIV counseling and testing sites, and community settings). Among these site types, STD clinics accounted for 20% of the HIV tests, community health centers-17%, emergency departments-13%, non-clinical HIV testing sites-10%, non-clinical community settings-8%, and correctional facilities-7%. The overall EAPC for tests conducted in these site types increased by 9.7% (95% CI 9.7% to 9.8%). By site type, only correctional facilities showed a decrease. Of the 69,062 persons with newly diagnosed HIV identified in this time period, 75% (51,795) were identified in the six site types. Of the 51,795 new diagnoses in those site types, 23% were diagnosed in STD clinics, 20% in non-clinical HIV testing sites, and 10% in community health centers and non-clinical community settings. Less than 10% were diagnosed in either emergency departments (8%) or correctional facilities (4%). For the six-year period, new HIV positivity was highest in non-clinical HIV testing site types (approximately 1.0%) and community site types (range 0.6%-0.8%). New HIV positivity ranged between 0.2% and 0.6% in ERs, community health centers, and correctional facilities in this time period. The overall EAPC for new positivity decreased by 10.8% (95% CI -11.5% to -10.1%). However, significant increases were seen in select site

types (e.g., ERs). We will present demographic differences in testing, diagnoses, and linkage by site types in the presentation.

Conclusions/Implications: Assessing testing trends in specific HIV site types provides important information on where CDC-funded HIV testing programs are being implemented, who is being reached, and variation in program performance in testing, identifying new HIV diagnoses and linkage to HIV medical care and other services.

Abstract 5648 - Assessing the implementation of CDC's 2006 HIV testing recommendations: implications for guideline update

Author(s): *Amrita Tailor, Priya Jakhmola, Melanie Gwynn, Gema Dumitru*

Background: Centers for Disease Control and Prevention (CDC) 2006 Revised Recommendations for HIV Testing of Adults, Adolescents, and Pregnant Women in Health-Care Settings were influential in increasing knowledge of HIV status by recommending routine HIV screening at least once in a lifetime for all persons ages 13-64 and annually for high-risk persons i.e., men-who-have-sex-with-men (MSM). Since its release, CDC supported these recommendations with multiple initiatives, including funding nationwide HIV testing programs, testing events, social marketing, and training, education, and capacity-building resources. However, the nature and scale of the implementation of these recommendations were not assessed in a comprehensive manner till now. This project aimed to conduct a detailed assessment of the implementation of CDC's 2006 HIV testing recommendations to understand their uptake, and to use this information in future updates.

Methods: From February – May 2018, CDC convened an internal workgroup comprising 28 subject matter experts (SMEs) from all Division of HIV/AIDS Prevention (DHAP) branches to conduct a detailed assessment of past and current branch activities, including funded efforts related to routine HIV testing. Over 10 meetings, each SME presented their findings related to one or more topics: current levels of recommendations uptake or awareness; successes and lessons learned in implementation of routine testing; new research or technologies; dissemination strategies; methods to improve guideline uptake; and knowledge gaps requiring further exploration. Based on their assessment of data, each SME also gave input on whether the guideline should be updated and described specific areas that should be addressed in that update. The workgroup discussed, voted on whether they agreed with the SME's proposal and provided other comments. The findings were compiled into a final report.

Results: All SMEs agreed the guideline needed to be updated due to various reasons such as outdated data, new developments, and opportunity to revise based on lessons learned during implementation. Important findings of the assessment were: (1) Levels of routine screening were assessed to be low (<50%). However, there are limitations in assessing the implementation due to subjectivity of the data sources and varied sampling pool/design of national datasets. (2) Qualitative programmatic data provided insights about clinicians' experience with implementing testing including: confusion around vague terminology and definitions (e.g., routine testing, opt-out/opt-in, informed consent etc.); barriers to testing (e.g., lack of time, HIV knowledge, resources, training, stigma, etc.) (3) New research indicates important content update including age interval for screening (13-64 years), screening intervals, definitions, and perinatal testing. (4) Recommendations for inclusion of new topics (e.g., testing

technologies, linkage, testing while breastfeeding, etc.) (5) New implementation resources (e.g., compendium of state laws, provider scripts, third party reimbursement, and other tools). (6) Effective promotion and dissemination methods, and evaluation metrics.

Conclusions/Implications: This assessment provides valuable insights into the successes and lessons learned in the implementation of CDC's 2006 HIV testing recommendations. The findings will help inform the timing, topic areas, and the scope of the future update of the guideline. Improvements in the content, promotion, dissemination and implementation efforts can facilitate adoption of the guideline by providers.

Abstract 5656 - Using human centered design to improve the uptake of CDC's HIV guidelines

Author(s): *Priya Jakhmola, Gema Dumitru, Amrita Tailor, Melanie Gwynn*

Background: Practice HIV guidelines are resource and time intensive to develop. While there have been huge improvements in methodology of guideline development in recent years; challenges still exist in improving their understanding, interpretation, uptake and impact among end-users. In this innovative project, the Guideline Team at the Division of HIV/AIDS Prevention at CDC explored the idea of human centered design (HCD) – an iterative approach that engage end-users directly in the development of products and services, to identify what characteristics of an evidence-based guideline are most important to end-users and how this may influence guideline impact (e.g. dissemination, acceptability, uptake, and adherence) among HIV testing and treatment providers and ultimately quality of care and patient outcome. Having a better understanding of how human centered design can affect guideline characteristics can help guideline developers identify easier and cost effective methods (e.g., changing format, design, language, dissemination strategy etc.) to improve usability and provider uptake and adherence of CDC guidelines.

Methods: The DHAP Guideline Team partnered with the CDC Office of Technology and Innovation's Innovation Lab (I-Lab) to identify problem statement, assumptions, challenges and barriers, stakeholder ecosystems; develop qualitative interview tool; and conduct qualitative interviews with guideline end-users. Efforts were made to identify key stakeholder and users within a variety of settings and geographical areas.

Results: Between October 2017 and January 2018, the team successfully interviewed 55 health care providers and discussed their perspectives on a variety of guideline elements, characteristics, and processes. Effort was made to identify current barriers and challenges with usability and discuss innovative solutions to address the barriers. More than half (65%) of the respondents used federal websites like CDC as a trusted source for guidelines – however guideline implementation was impacted by endorsement by provider organization and networks as well as specific guideline characteristics such as content, format, updates, relevancy, and presence of implementation resources. Accessibility issues also impacted implementation. Most providers (over 90%) preferred online access versus printed text and a quarter (23%) also used guideline and health-related Apps. Barriers that hampered guideline uptake included lack of time in a busy practice, lack of implementation resources, long and wordy guideline format, and quick access to guideline related information. The respondents provided several suggestions to improve uptake included making the guidelines shorter and clearer with standard

terminology, including decision support tools, tables, and algorithms; expanding partnerships with provider organizations; and improving trainings and resource websites.

Conclusions/Implications: The results indicate that that HIV practice guidelines' usability and adherence can be improved through HCD strategies like changes in guideline content, format, design, messaging, and dissemination. Having a better understanding of end-user perspective and needs by actively engaging guideline end-users in the guideline development phase can improve their usability and adherence. HCD is a key to developing guidelines with higher impact among providers and ultimately on the quality of care and patient outcomes.

Track B

Session B01 - Like, Comment, Share, or Swipe: Leveraging Social and Digital Media to Engage MSM in HIV prevention

Room: International North (Hyatt Regency Atlanta)

Abstract 5591 - Strategies and lessons learned to market HIV prevention messaging to gay and bisexual men through dating applications

Author(s): *Sara Bresee, Alberto Santana, Jennie Johnston Gayden, Brittani Carter, Jocelyn Taylor, Trang Wisard, Euna August, Jo Stryker*

Issue: MSM in the US continue to be the most severely affected by HIV, accounting for 70% of new HIV infections. Furthermore, MSM of color represent the largest number of new HIV diagnoses, with black MSM accounting for about one-fourth of new diagnoses and Hispanic/Latino MSM experiencing a 14% increase in new diagnoses. Consequently, MSM have the greatest need for HIV prevention messaging. To effectively reach this group, messaging needs to use hyper-targeted channels to meet MSM where they are. Dating applications are one strategy that research has shown to be effective at reaching MSM. However, it is challenging to know which dating applications to use and where and how to target messaging. This presentation will discuss the strategy of disseminating HIV information to MSM through dating applications.

Setting: Act Against AIDS (AAA) is a national HIV prevention communication initiative that reaches key populations with messaging on HIV awareness and prevention. The initiative consists of multiple communication campaigns that reach populations disproportionately impacted by HIV.

Project: AAA has utilized targeted outreach through gay dating applications to increase exposure to HIV prevention messaging through multiple campaigns since 2011. An iterative process is used to maximize performance of this strategy. Campaigns choose implementation cities with high prevalence rates to receive the advertisements. Specific dating applications are chosen based on their capacity to reach MSM. Messaging and imagery are tailored to the audience of the individual application. Language choices are also tailored to reach specific audiences in key areas. Dating apps buys are timed and geo-targeted to align with key in-person events within the community (e.g., gay prides) to increase message exposure.

Results: The inclusion of different strategies has resulted in improved ad performance. For example, between 2011 and 2016, AAA advertisements on seven gay dating apps resulted in an overall click-through rate (CTR) of 0.001%. Between April and September 2017 advertising on six gay dating apps were timed and geo-targeted with ten gay prides. The CTR on geo-targeted dating apps placements was 2.79%. Of the geo-targeted placements, Grindr ads yielded the highest CTR at 5.93%, while Growlr, an application that reaches a specific subset of MSM, only received a 0.3% CTR, which may be attributed to lack of appropriate campaign imagery. Jack'd, an application that primarily reaches MSM of color, received a CTR of 0.71% on ads featuring men of color. Ads on Hornet and Adam4Adam, which reach diverse groups of gay men, achieved CTRs of 0.82% and 0.56%, respectively.

Lessons Learned: Dating applications are an appropriate dissemination channel to reach MSM with HIV prevention messages. Using a clear and systematic approach based on audience segmentation that considers the heterogeneity of MSM can yield high message exposure and engagement. Coupling online message dissemination through dating applications with targeted community engagement events may increase the exposure of HIV prevention messages.

Abstract 5462 - Understanding the value of dating sites and Google advertisements for HIV prevention communication with MSM

Author(s): *Jocelyn Taylor, Revae Downey, Brittani Carter, Mina Rasheed, Elana Morris, Sara Bresee, Jennie Johnston Gayden, Dayna Alexander, Euna August*

Background: MSM in the US are disproportionately affected by HIV, accounting for 70% of new HIV infections. Data suggest that dating sites, including websites and apps, are appropriate dissemination channels for reaching MSM with prevention messages. Recent research indicates MSM more frequently visit dating sites than their heterosexual counterparts, averaging more than 20 weekly visits. Google advertisements reach over 90% of Internet users, and can be targeted based on audience characteristics. CDC disseminates HIV-related content through dating sites and Google from the suite of communication campaigns comprising the Act Against AIDS (AAA) initiative. The current study presents lessons learned from AAA, comparing reach, engagement, and return on investment (ROI) from digital efforts on dating sites and Google advertisements.

Methods: We examined AAA MSM-targeted dating site advertisements from March 2013 to March 2018, including separate sub-analyses for advertisements placed August to October 2017 and April to September 2017. Campaign staff collected data from dating site vendors, systematically recording metrics into a web-based SQL database. We analyzed data based on media buys, defined as time-limited purchases of space for advertisement placements designed to disseminate campaign messages and drive MSM to campaign resources. Metrics used for this study included: impressions, the number of potential advertisement viewers; the number of clicks from the advertisement to a campaign resource; and total costs. Computed measures included click-through-rate (CTR), a percentage measuring clicks against impressions, and two ROI measures: cost per click (CPC) and cost per thousand impressions (CPM). We conducted two sub-analyses of AAA data, examining buys simultaneously placed on Google and MSM-targeted dating sites. First, we examined an MSM-targeted dating site initiative in a predominately rural setting, comparing performance in rural versus urban markets. Second, we

evaluated a national media buy across five MSM-targeted dating apps, analyzing Google and dating site advertisement performance against industry benchmarks.

Results: During the study period, AAA generated over 170 million impressions and 700,000 clicks from paid dating site advertisements. Across both sub-analyses, ROI values for Google indicated lower costs to generate impressions and clicks than advertisements placed on dating sites. Results in the predominantly rural sub-analysis indicated larger impressions and a higher resulting CTR for Google advertisements than dating sites. For both Google and dating sites, the CPC and CPM values were higher in predominantly rural markets than in urban markets. In the second sub-analysis, the Google advertisements produced higher impressions but a lower CTR than some individual dating app placements. Though CPC and CPM values were lower for Google than for any dating apps, both strategies met or exceeded industry benchmarks.

Conclusions/Implications: Findings demonstrate that Google advertisements produced greater reach and engagement at a lower cost than MSM-targeted dating sites. Though a cost-effective strategy, Google advertisements are targeted based on a proprietary algorithm that does not guarantee advertisements reach the precise target audience. Ads on dating sites clearly reach MSM, many of whom are presumably seeking sexual new partners. Therefore, the cost savings of Google advertisements may not outweigh the value of providing prevention messages to a confirmed high-priority audience.

Abstract 5460 - Engaging gay and bisexual men in HIV prevention through the power of social media

Author(s): *Nattalya Avila, Alberto Santana, Sara Bresee, Jocelyn Taylor, Brittani Carter, Tiffany Humbert-Rico, Euna August, Michael LaFlam, Francisco Ruiz, Jo Stryker*

Issue: Gay, bisexual and other men who have sex with men (MSM) continue to be the most severely affected demographic by HIV nationwide. From 2010 to 2014, HIV infections increased by 23% among MSM aged 25-34. In May 2014, the Centers for Disease Control and Prevention (CDC) launched Start Talking. Stop HIV. (STSH), a national social marketing campaign to increase communication about HIV among MSM. In January 2017, CDC refreshed the STSH brand and materials to better incorporate the diversity of the MSM community. With the rise of infections among younger MSM, STSH has focused on utilizing social and digital media to reach and engage this key segment of the population. This presentation will describe social media strategies used by STSH to engage MSM.

Setting: STSH is a national campaign with enhanced implementation efforts in 27 US cities with a high prevalence and incidence of HIV.

Project: STSH uses a targeted social media strategy to increase the reach of key messages and provide a forum for conversations about HIV, focused primarily on Facebook and Instagram. The goals of the STSH social media strategy are to grow Facebook and Instagram audiences in order to increase the reach and engagement of STSH content, increase the use of the STSH hashtag (#StartTalkingHIV), and amplify campaign messages through partners and digital influencers. To reach these goals the campaign creates content that integrates playful graphics and language; is timely and tied to specific events such as prides and awareness days; focuses on mobile-friendly graphics with minimal text; infuses emotional content

through questions and motivational posts; and acknowledges topics that are important to the audience. STSH utilizes formats that are novel and trending on social media, such as infographics, GIFs, and memes. STSH used paid social media techniques such as boosted posts and geo-targeted media buys to increase reach within the implementation cities.

Results: From campaign launch until March 2018, the STSH Facebook page garnered 111,068 net likes. Between December 2016 and March 2018, with the launch of the refreshed content, the STSH Facebook received an average organic page reach of 1,429 people, an average paid page reach of 10,982 people, and 7,563,180 post-level impressions. Posts using photos, videos, or links have an average reach of 2,921 people versus plain-text statuses with an average reach of 781 people. Similarly, posts with the most Facebook engagement were memes/photos, animated GIFs, videos, and shared links compared to plain-text statuses. Content that was timely and tied to a specific event produced higher engagement than content that was not tied to an event. Across different social media platforms the campaign hashtag (#StartTalkingHIV) was used in 5,010 instances.

Lessons Learned: Social media is high yield strategy that has been successful in engaging the STSH audience and prompting discussions on a range of HIV prevention topics. Timely, relevant, and meaningful content is critical on social media platforms. Incorporating messaging and framing that is appropriate to the audience enhances relevance and supports engagement with content related to HIV.

Abstract 5539 - Promoting HIV prevention messaging for MSM on Twitter: lessons learned from a national CDC social marketing campaign

Author(s): *Revae Downey, Jocelyn Taylor, Brittani Carter, Mina Rasheed, Tiffany Humbert-Rico, Sara Bresee, Euna August,*

Background: Significance of presenting as a unified panel: This panel is comprised of organizations with varied histories, missions, settings, program sizes, resources, and patient populations, but all recognize the absolute necessity for comprehensive PrEP services for women in diverse settings. This panel will provide practical knowledge and diverse implementation strategies that attendees can apply to their specific settings to enhance PrEP awareness and access among women.

Results: In our preliminary analysis, we found that the sample were mostly retweets (79%), followed by tweets (18%), and QTs (3%). Retweets of a CDC tweet accounted for two-thirds (66%) of the total retweets, and half (51%) of the tweets promoted as original tweets were actually CDC content/messaging. Overall, we found that more than half (n=56%) of tweets focused on resource promotion, HIV prevention options, and encouraging MSM to talk about HIV. For QTs, the highest form of engagement with messaging on Twitter, one-third (33%) of the sample were endorsements and were frequently associated with National Gay Men's HIV/AIDS Awareness Day (NGMHAAD). This content was often coupled with messaging encouraging conversations about HIV prevention options or statistics around unknown HIV status. Twitter users were nearly three times as likely to retweet content from CDC handles promoting conversations about HIV during NGMHAAD compared to non-CDC handles, despite the use of CDC language on the latter. Conversely, messaging around general HIV awareness and other HIV observance days had the most retweets using CDC hashtags but non-CDC content.

Conclusions/Implications: Promoting HIV-related messages on Twitter that resonate with MSM audiences is challenging. Yet, this analysis demonstrates the potential to leverage key topics, such as NGMHAAD, in tandem with STSH messaging encouraging MSM to talk about HIV and/or provides HIV statistics in your social media strategy. Using CDC hashtags can enable organizations to be part of a larger conversation regarding HIV prevention. However, consideration of the context in which communication occurs is necessary in determining the best content to effectively engage the audience.

Session B02 - Implementing Technology-Based Interventions for Youth: Insights from the UNC/Emory Center for Innovative Technology (iTech)

Room: International South (Hyatt Regency Atlanta)

Abstract 5658 - Youth involvement in HIV research in the digital age: lessons learned from iTech

Author(s): *Marne Castillo, Anderson Schlupp, Kimberly Desir, Karina Soni, Hannah Osei, Lisa Hightow-Weidman*

Issue: Effective recruitment and implementation of research protocols focusing on adolescent/young adult populations greatly benefits from the direct input of youth voices. The traditional community advisory board model may not realize the maximum potential to gather input from youth in the digital age. With the fast-paced world of technology, social media, and m-health interventions, there may be new considerations and mechanisms for engaging today's youth in research to promote diversity as well as accessibility. Further, technologic platforms allow for engagement with youth both on national and local levels. This presentation will review a model for involving youth in the conceptualization, implementation, evaluation and dissemination of research being conducted within the newly reorganized Adolescent Trials Network (ATN) for HIV prevention interventions.

Setting: The UNC/Emory Center for Innovative Technology (iTech), a part of the ATN aims to lower the burden of HIV infection by developing and evaluating innovative, interdisciplinary research on technology-based interventions across the HIV prevention and care continuum for at-risk or infected youth aged 15-24 years in the United States. To accomplish this goal iTech is currently supporting 10 research studies and partners with Site Recruitment Venues (SRVs) housed within pediatric hospitals located in major urban centers across the country.

Project: From the outset, iTech has prioritized youth involvement as a central and integral component of its mission, infrastructure and crucial to the success of the network and the research studies being conducted within. At the core of iTech is the Youth Advisory Council (YAC), a national structured forum, facilitated by iTech staff, where members provide feedback on intervention feasibility (e.g. recruitment, enrollment, retention), and acceptability (e.g. look and feel of study-related materials, content tone, understandability and relatability). Additionally, YAC members receive capacity building on topics such as resume building, online safety, healthy relationships, and mental health wellness. The YAC meetings occur monthly via free videoconference software, this consistency has fostered relationships between YAC members from geographically diverse locations as well as allowing research teams to gain a more longitudinal perspective from youth over time. At the local site level, seven SRVs maintain active iTech Youth Advisory Boards (YABs), allowing representation and giving voice to the opinions of diverse populations of youth at risk for or infected with HIV.

Results: Effective and active youth involvement allows for real-time input, informing study implementation at all levels, enhancing outcomes for recruitment, educational materials, and best practices for data collection. Fifty-three YAB meetings across seven sites and fifteen YAC meetings have occurred to date, providing direct feedback to six iTech protocol teams. Youth members present at national ATN meetings and co-present at conferences with iTech scientists.

Lessons Learned: Coordinating and creating cohesion can be difficult, and working within the dynamic schedules of youth brings added challenges. Among lessons learned are how and when to send meeting reminders, setting up avenues for communication such as GroupMe text chains for between meeting discussions and building in time for youth to meet without iTech staff at the end of each meeting.

Abstract 5499 - Prioritization of harmonization of self-reported and intervention recorded measures in digital health research

Author(s): *Lisa Hightow-Weidman, Sara LeGrand, Jesse Golinkoff, Kate Muessig, Keith Horvath, Jose Bauermeister*

Issue: There has been an increase in the number of mHealth interventions for youth, including those addressing HIV prevention and care. As we move from development to implementation, it is critical to ensure robust and consistent measures of intervention feasibility and acceptability as well as more standardized measures of intervention exposure and usage (i.e. paradata). This will allow for evaluation of intervention efficacy, identification of components of digital health interventions that contribute to changes in HIV prevention or care outcomes, and the ability to compare outcomes of mHealth interventions across platforms and populations. The goal of this presentation is to outline best practices and lessons learned during the data harmonization process.

Setting: The UNC/Emory Center for Innovative Technology (iTech), a part of the National Institute of Health Adolescent Trials Network (ATN), is a multi-site national research network focused on reducing HIV infections and improving HIV outcomes through the development and evaluation of innovative digital health interventions. iTech is composed of three cores (management, analytic, and technology) that function in a coordinated and complementary manner to achieve the ATN's overall objectives.

Project: iTech investigators and core personnel, representing a variety of disciplinary perspectives, participated in a collaborative and iterative process to: 1) develop a standard set of harmonized technology usage measures to be administered via online surveys with participants across all ten iTech studies; and 2) identify a common set of paradata metrics to be collected (e.g. total time spent using app/day, total log-ins/day, engagement with theoretically-driven content). The harmonization process was critical to ensure the ability to both evaluate individual intervention efficacy in total and allow for analyses that determine specific intervention components that work—for whom, how, and for how long. Further, this standardization will allow interventions to be compared across iTech and other mHealth interventions addressing both HIV and other chronic health conditions among youth.

Results: Technology-related survey domains include standardized questions on: technology use, intervention usability and acceptability, and ehealth literacy. When possible, established and validated scales were included, with the caveat that many of these scales may require modification for youth. To

minimize participant burden, iTech investigators identified a smaller set of mandatory questions and a larger set of optional ones for consideration. This provided a basis of comparison across studies, while enough flexibility to tailor assessments to unique populations (e.g., transgender youth who require different sexual risk assessments than cisgender youth). Similarly, paradata guidelines were developed and core personnel worked with each study team to ensure accurate and analyzable collection of both iTech standardized and intervention specific paradata.

Lessons Learned: It is important to ensure comparative metrics for technology-based studies to advance the field of digital health in terms of what works and for whom it works. Further, ensuring standardization of these measures will optimize our ability to conduct future data synthesis and cross-study comparisons and identify what intervention components should be kept, removed or redesigned between versions of the technology or prior to scale-up and dissemination.

Abstract 5754 - Community-engaged technology-facilitated Interventions for HIV-negative trans feminine, trans masculine and gender non-binary youth

Author(s): *Keith Horvath, Joshua Rusow, Von DeWitt, Cathy Reback*

Background: Rates of HIV infection among transgender youth, including trans feminine, trans masculine and gender non-binary youth (hereafter: trans) are extremely high, particularly among trans women and trans men who have sex with men. Additionally, engagement in routine health care is sub-optimal due to structural barriers (e.g., housing instability, unemployment or underemployment, limited educational attainment), provider attitudes, and perceived or actual experiences of stigma and discrimination. To address the multiple health disparities experienced by trans youth, the Adolescent Medicine Trials Network for HIV/AIDS (ATN) Center for Innovative Technology (iTech) is conducting TechStep, a technology-facilitated stepped-care intervention to decrease sexual risk and increase PrEP uptake among trans youth in five U.S. urban centers.

Methods: TechStep is a three-arm, randomized controlled trial, with a stepped care approach, for reducing sexual risk behaviors (e.g., condomless anal intercourse, engagement in sex work, sex while feeling the effects of alcohol or drugs) and increasing PrEP uptake. Participants (N=250) will be randomized into one of three conditions for a 9-month intervention period. The three conditions are: Condition 1 is a low intensity basic information on HIV/STIs, trans health, and community referrals (n=83); Condition 2 is a text messaging intervention (n=83); Condition 3 is a WebApp intervention (n=83). After the initial 3-month intervention period, participants who do not lower their sexual risk behaviors or do not initiate PrEP will be stepped from Condition 2 or 3 to e-coaching plus the originally assigned intervention (i.e., e-coaching + text or e-coaching + WebApp). Assessments will occur at 3-month intervals for 9 months. Primary outcomes include sexual risk reduction and PrEP uptake. Biological outcomes include HIV testing, STIs, and urine analysis for current drug use at each time point.

Results: TechStep utilizes a community-informed intervention development approach at all stages of the study. Two trans-specific youth advisory boards (YABs) were formed, one in-person and one virtual, which met monthly during intervention development. Additionally, in Fall 2019, two focus groups will be conducted in four cities: Houston, Los Angeles, New York, and Philadelphia (for a total of eight focus groups). Focus groups will be stratified by age to gain perspectives of younger (15-20 years old) and

older (21-24 years old) youth. Multiple text and WebApp intervention reiterations will be made following the YAB meetings and focus groups. YAB members continue to provide input on recruitment strategies, imagery, and assessment development. As the study progresses, the YAB members will provide input on the interpretation of data findings and how best to disseminate the results to impacted communities.

Conclusions/Implications: Feedback from trans youth through multiple sources is critical to the TechStep study. Engagement of trans youth in the design and conduct of interventions tailored to their needs is a necessary component to address HIV risk in this vulnerable population. Lessons learned from this community-engaged approach will describe how the feedback from trans youth translated into specific design and content. Additionally, lessons learned in TechStep on how to engage trans youth will be applied to other ongoing iTech studies that will also enroll trans youth.

Abstract 5817 - Developing engaging technology-based interventions to optimize HIV prevention and care among youth: formative work from four Adolescent Trials Network iTech studies

Author(s): *Kathryn Muessig, Danielle Giovenco, Casey Horvitz, Katie Biello, Albert Liu, Keith Horvath, Jesse Golinkoff, Lisa Hightow-Weidman*

Background: U.S. youth (ages 13 – 24) are disproportionately affected by HIV and experience suboptimal outcomes across the HIV prevention and care continuum. Use of smartphones and social media alongside new options in biomedical prevention, testing, and treatment offer opportunities to close these gaps with innovative, youth-driven approaches.

Methods: The UNC/Emory Center for Innovative Technology (iTech) develops and nationally tests technology-based, youth-focused HIV interventions. We present preliminary findings from formative work (focus groups, usability sessions, pilot studies, in-depth interviews) of four iTech studies: two apps promoting HIV testing and pre-exposure prophylaxis (PrEP) uptake among men who have sex with men (MSM), one app supporting MSM and transgender women's PrEP adherence, and one mobile-optimized website for increasing viral suppression among youth living with HIV. Functional prototypes of all four interventions were used and evaluated by youth.

Results: To date, 140 youth across five sites (Boston, Bronx, Chicago, Houston, Tampa) provided feedback through 17 focus groups, 13 one-on-one usability sessions, and 11 in-depth exit interviews. We found high interest in and acceptability of all four intervention prototypes. Cross-study themes included: (1) Youth suggested multiple privacy protections (e.g. password, fingerprint). Stigma was consistently discussed and related to keeping HIV status, sexual orientation, and sexual behavior confidential. (2) Youth had strong but varied preferences for the look and feel of platforms. Imagery should be discrete but representative of individuals and communities. Participants valued highly customizable platforms and positive themes, motivational language, and humor. (3) Youth — across ages and social situations — voiced varied preferences regarding appealing engagement features. Youth preferred features and functions consistent with familiar platforms (e.g. Snapchat, Instagram, Facebook). Intervention messaging functions were perceived as useful; customization was emphasized for controlling frequency, mode (SMS, in-app message, push notification), and content. Most youth liked the option to contact study staff or a clinician through the platform for resources or support. Youth also suggested presenting

information using multiple modalities (text, video, image, interactive activities) to increase engagement. (4) Platform content preferences included: featuring young role models (LGBT and minority representation, profiles of successful college graduates, and those living with HIV/on PrEP); space to share one's story; need for mental health resources; and holistic focus on health and relationships (not HIV-, risk-, or PrEP-centric). (5) Youth appreciated a range of gamification features to increase engagement, particularly those that resulted in tangible rewards.

Conclusions/Implications: Technology-based HIV interventions are highly acceptable to youth and show promise for reducing gaps in HIV testing, PrEP uptake, and sustained viral suppression. User-driven, multi-feature platforms allow youth to “pick and choose” features in real-time (e.g. HIV testing locator, PrEP support) and may appeal to a variety of users. We found much uniformity in youth evaluations of these HIV prevention and care tools; divergence was most commonly found in personal preferences (e.g. color scheme, layout) versus features and functions. Balancing varied end-user preferences with finite resources for tailoring emphasizes the importance of coupling practical market research approaches (e.g. What would make you use/not use this product?) with app usage data linked to intervention outcomes.

Session B05 - Recruiting Sexual and Gender Minority Adolescents, Young Adults, and Couples into HIV Prevention Research and Programs

Room: Regency V (Hyatt Regency Atlanta)

Abstract 5643 - Recruitment of sexual and gender minority adolescents for HIV prevention studies and programs

Author(s): *Margaret Matson, Emily Bettin, Kathryn Macapagal, Celia Fisher, Brian Mustanski*

Background: Researchers and service providers use online and in person strategies to recruit sexual and gender minority (SGM) adolescents into HIV prevention studies and programs, but may experience challenges with recruitment. There is also little to no information available on how SGM adolescents perceive advertisements and different recruitment approaches. We present data on SGM adolescents' concerns about and preferences for advertisements and recruitment approaches and differences in these concerns and preferences by age, race/ethnicity, gender identity, disclosure of SGM identity to parents (i.e., outness), and trust in medical researchers, then share our experiences and recommendations, with examples of effective advertisements and advertisement targeting strategies, for recruiting SGM adolescents into HIV prevention studies and programs.

Methods: 200 SGM adolescents (ages 14-17) completed an online survey assessing demographics, outness, and trust in medical researchers. Recruitment strategies were assessed with multiple selection questions on first impressions of advertisements, reasons for interest in participating, concerns about the current study's online advertisement, and Likert-scale questions assessing interest in a study described as for all teens (compared to a study described as exclusively focused on LGBTQ teens; 1 = Less interested, 3 = More interested). Finally, participants were asked how likely they would respond to each of the following: 1) a flyer about the study handed out at school, 2) a flyer about the study handed out at LGBTQ organization or GSA, and 3) a researcher talking to them about the study in person (1 = Very unlikely, 5 = Very likely).

Results: Regarding first impressions of advertisements, SGM adolescents most frequently selected advertisement language specifying that a study is for LGBTQ teens (82.4%) or about LGBTQ health (79.9%) as reasons for interest in learning more about a study. A majority of SGM adolescents (83.5%) indicated that doing something positive for other LGBTQ teens was a reason for interest in participating after reading the study description. A majority (66.3%) indicated that the reputation of the university or organization doing the research helped them decide if the research was trustworthy and legitimate. The most frequently cited concerns about the online advertisement for the current study included suspicion about who posted the advertisement (20.2%), worrying parents would see the advertisement (18.2%), or others would see if they liked or clicked on the advertisement (17.7%), but most (47%) reported no concerns. SGM adolescents who were not out endorsed a significantly greater number of concerns ($p = .017$) and were less likely to respond to a study flyer handed out at an LGBTQ organization ($p = .003$) or a researcher talking to them in person ($p = .038$) compared to their counterparts.

Conclusions/Implications: Advertisements should highlight potential benefits to the LGBTQ community or the focus on LGBTQ health, and include university logos or information about the organization to help establish credibility. Online spaces that offer users greater anonymity may help alleviate concerns associated with clicking on advertisements, especially for SGM adolescents who are not out to parents. Findings are relevant for HIV prevention service providers and researchers recruiting SGM adolescents into programs and studies.

Abstract 5638 - Using social media to recruit sexual and gender minority youth to web surveys and focus groups on HIV prevention

Author(s): *Sean Cahill, Holly Fontenot, Erin Fordyce, Melissa Heim Viox, Stuart Michaels, Michael Stern, Timothy Wang, Christopher Harper, Michelle Johns, Richard Dunville*

Background: HIV prevention research for sexual and gender minority (SGM) youth faces numerous challenges in recruitment. These challenges include: reaching SGM youth with recruitment materials, gaining their participation, and facilitating trust in the research process. Ongoing identity development and fluidity further complicate these issues. We reflect on recent experience using recruitment ads on social media platforms targeting adolescent sexual minority males ages thirteen to eighteen years and transgender youth ages thirteen to twenty-four years for a survey and focus groups on HIV prevention preferences.

Methods: For the web survey, recruitment ads were placed on Facebook, Snapchat and Instagram. Recruitment ads were designed to attract the attention of both youth who identified as SGM and youth more generally to encompass adolescents who may be questioning their sexual or gender identity. Ads and sites were selected to ensure sufficient representation of ages and Black and Latino youth, who are at increased risk for HIV infection. Recruitment ads were designed in static picture and video/audio formats. A youth community advisory board (YCAB) made up of SGM youth helped to develop ads to ensure that the images were culturally appropriate and attractive to youth. For the online focus groups, the focus group platform also provided recruitment services, including placement of ads on Facebook. The online focus groups were conducted over three days, and the project team used reminder emails and text messages to prompt youth to continue to participate. For in-person focus groups, LGBT youth-

serving organizations posted e-flyers with the recruitment ads on their social media accounts; these organizations also did in-person screening and recruiting at public events.

Results: The survey resulted in over 1,500 adolescent sexual minority males and 1,500 transgender youth completing surveys in less than two and a half weeks. Ads and platforms varied in success among targeted groups. The online focus groups had forty-six youth participants – sixteen adolescent sexual minority males and thirty transgender youth – for at least one day of a three-day focus group. Of these, forty-one participants (thirteen adolescent sexual minority males and twenty-eight transgender youth) completed all three days. The online focus group participants were diverse in terms of geographic location and race/ethnicity. Six youth participated in the in-person focus group for fourteen-to-seventeen-year-old sexual minority males, though not all of them met the inclusion criteria. A total of twenty-eight YCAB members participated in at least one meeting over the course of the project, including sixteen transgender youth and twelve sexual minority males. Members were fifteen to twenty-four years old and diverse in race/ethnicity.

Conclusions/Implications: Overcoming challenges to recruit and engage SGM youth in research is necessary to develop HIV prevention tools that better serve the needs of these vulnerable populations. This project realized success recruiting and engaging these hard-to-reach populations by using strategies including: recruiting and engaging through social media, building partnerships with youth-serving organizations, using a YCAB to help develop recruitment materials, and recruiting at events where youth will already be present. Lessons learned will help future researchers to engage SGM youth.

Abstract 5647 - Recruitment of young men who have sex with men for an online HIV prevention intervention

Author(s): *Krystal Madkins, Brian Mustanski*

Background: Young men who have sex with men (YMSM) are disproportionately affected by HIV. The rate of diagnoses has stabilized at a high rate for Black YMSM and increased by 13% among Latino YMSM. Researchers have struggled to recruit diverse YMSM and, as a result, they continue to be underrepresented in HIV research despite being most affected by HIV. To better inform research recruitment strategies, we present the strategies used to recruit participants into Keep It Up! 2.0 (KIU! 2.0). We also share data on the impact of recruitment source on participant characteristics and likelihood of being enrolled and retained in KIU! 2.0.

Methods: Data were taken from Keep It Up! 2.0, an RCT examining the efficacy of an online HIV prevention intervention for 18 – 29 year old YMSM. From May 2013 to December 2015, participants were recruited from community based organizations (CBOs) and outreach events in Atlanta, Chicago, and New York, and from local and national advertising campaigns on Facebook and dating apps. Participants self-reported demographics and HIV risk behaviors (e.g. condomless anal sex) at baseline. Participants also completed STI testing at baseline and 12 month follow-up.

Results: A total of 2984 potential participants completed eligibility screening of whom 1520 were eligible and 901 enrolled into the study. Recruitment from online sources was most successful with 85.9% (159/185) of eligible participants recruited from Facebook and 78.6% (349/444) of eligible

participants recruited from dating apps enrolling into the intervention compared to 50% (96/192) and 32.9% (181/550) of eligible participants recruited from outreach events and CBOs, respectively, enrolled into the study. The return on investment was greatest for participants recruited from Facebook (\$4.50 per enrolled participant) while lowest for participants recruited from CBOs (\$133.19 per enrolled participant). There were significant differences by recruitment source in age ($X^2(3) = 54.38, p < .001$), race/ethnicity ($X^2(9) = 110.78, p < .001$), and sexual orientation ($X^2(3) = 7.85, p < .05$). The greatest number of younger participants (18 – 24) were recruited through outreach events (69.6%) while the fewest were recruited through CBOs (47.6%). More non-white participants were recruited from Facebook (78.7%) and CBOs (74.3%) than from outreach events (59.3%) and dating apps (52.5%). The largest proportion of bisexual identified men was recruited from outreach events (15.7%) while the smallest was recruited from Facebook (8.5%). Among enrolled participants, there were no differences by recruitment source in sexual risk behaviors and prevalence of STIs at baseline. There were also no differences by recruitment source in retention at 12 months.

Conclusions/Implications: Data from KIUI 2.0 suggest that Facebook and dating apps are more successful and cost-effective means of recruiting YMSM into online HIV interventions. The data also suggest that researchers can recruit YMSM at similar risk for HIV infection from a variety of sources. Understanding demographic differences by recruitment source (e.g. more non-White participants through Facebook ads) may help researchers recruit diverse samples for future HIV prevention programs.

Abstract 5801 - Facilitators and barriers to recruiting young male couples into HIV prevention programs

Author(s): *Michael Newcomb, Christopher Garcia, Ricky Hill*

Background: Young men who have sex with men (YMSM) are disproportionately impacted by HIV in the United States, and evidence indicates that the majority of new HIV infections in YMSM occur in the context of serious romantic relationships. YMSM note fatigue related to HIV prevention programming but express a desire for relationship education. Thus, we developed 2GETHER, a relationship education and HIV prevention program for young male couples, that we are currently evaluating in two large randomized trials. While intervening with couples is ideal in that it allows for in-vivo skills practice opportunities, it adds complexity to recruitment and retention. The goal of this presentation is to describe facilitators and barriers to recruitment of young male couples into the 2GETHER program.

Methods: 2GETHER has been (or is currently being) evaluated in three trials, including a non-randomized pilot trial (N=57 couples; completed in 2015) and two ongoing randomized controlled trials being run in Chicago and nationally (current N=53 randomized couples and N=20 randomized couples, respectively). To identify facilitators and barriers to effective couple recruitment, we examined the following: a) consort diagrams (i.e., recruitment flowcharts) to identify points in the recruitment process with the highest attrition; b) eligibility screener completion to program enrollment ratios by recruitment source; and c) qualitative exit interviews with participants.

Results: To date, the most effective recruitment sources for young male couples are social media advertising (i.e., Facebook, Instagram) and in-person clinic-based recruitment. While social media ads

result in the highest number of enrolled couples across studies, in-person clinic-based recruitment results in the highest ratio of screener to enrollment (i.e., largest percentage of eventual enrolled couples). Qualitative exit interviews and process data revealed various points at which attrition occurs the most, including requiring a couple validation screening (i.e., a second eligibility screener during which we screen for “fake” couples) and in scheduling couples for the first intervention session. However, once couples complete their first session, retention at follow-up to date is extremely high (i.e., over 95%), indicating that enrolled couples are highly invested. Streamlining the recruitment process has resulted in lower attrition over time, such as providing more automated screening options, frequent contact with participants prior to enrollment, tailoring retention messages to participant motivations (e.g., desire to build a healthy relationship, monetary compensation), and offering flexible dates/times for intervention sessions.

Conclusions/Implications: While recruiting couples into intervention studies poses additional complexities, we have identified various strategies for minimizing this complexity. Given the benefits to practicing relationship and HIV prevention skills in vivo with a partner (as opposed to learning them on one’s own), addressing these complexities in recruitment is worth the added effort as relationship education is an innovative platform for addressing the health needs of YMSM.

Session B28 - PrEP for MSM of Color: Navigation and Delivery Models

Room: Embassy A-C (Hyatt Regency Atlanta)

Abstract 5590 - Increasing access to PrEP through dedicated navigation

Author(s): *Anthony Fox, Terrance Payton, Kenneth. Pettigew, Chantil Thomas, Kate Drezner*

Issue: Pre-exposure prophylaxis (PrEP) is a safe and highly effective intervention to reduce the risk of HIV acquisition. Although PrEP is simple to use with a once-daily pill, accessing PrEP can be a complex process. Potential PrEP patients must locate a medical provider who prescribes PrEP, schedule a visit, complete required laboratory work, obtain a PrEP prescription, pick up the prescription from a pharmacy, and attend follow-up visits to persist with PrEP. In addition, paying for PrEP medication, clinical visits, and laboratory work can be a barrier. Increased access to PrEP is critical for black and Hispanic MSM who have high rates of HIV incidence and low rates of PrEP use. Navigators can assist persons interested in PrEP to access it, and to guide their use health insurance and medication assistance programs to cover its cost. PrEP patients also face other supportive needs such as housing and employment. PrEP navigator are able to assistance in the navigation of a variety of supportive needs.

Setting: The DC Health Department STD Clinic, known as the DC Health and Wellness Center and partnering community based organizations in the Washington DC, Suburban Maryland and Northern Virginia Metropolitan area.

Project: The introduction of a dedicated PrEP navigator within the DC Health and Wellness Center (formerly the STD Clinic) and navigators know as HEALTH IMPACT SPECIALISTS are hired as health department employees. They are then deployed to community based organizations to assist with the increasing HIV prevention and care awareness and navigational services for men who have sex with men

and transgender persons of color. Navigational services include, but not limited to, PrEP/nPEP, HIV and STI tests, and other supportive services within the Washington, DC Metropolitan Area.

Results: 4,044 of the 6018 unique clients enrolled into IMPACT DMV were HIV-negative. 3,114 individuals were screened to PrEP and 1,154 were connected successfully to PrEP; 194 individuals were screened for nPEP where 115 individuals were connected. Clients accessing PrEP received ongoing support for navigating dynamics that support their continued access of PrEP.

Lessons Learned: The introduction of a PrEP navigator in an STD clinic and the placement of HEALTH IMPACT SPECIALIST within community based organization can increase the awareness and linkage to PrEP services. As a result of hiring PrEP navigators from within the community, both the navigator and the community gain economic resources and expanded access to PrEP.

Abstract 5900 - Assessing the feasibility of data to care activities in relation to PrEP clinical care

Author(s): *Carmen Johnson, Andrew Gudzelak, Gregory Seaney- Ariano, Evelyn Torres, Caitlin Conyngham*

Issue: PrEP clinical trials have demonstrated that to effectively prevent HIV acquisition, patients must adhere to their medication and engage in PrEP care for the duration of their HIV risk-period. Clinical data reveals that most patients experienced a significant drop in retention after 3 months of PrEP usage, providing prime opportunity for the implementation of retention interventions. Building on successful Data to Care (D2C) principles, the PrEP D2C Program will utilize aggregate and de-identified patient-level data to identify high-risk HIV negative individuals for PrEP initiation or PrEP lost-to-care individuals for re-engagement and retention interventions.

Setting: Men who have sex with men (MSM) are disproportionately affected by HIV infection in Philadelphia and nationwide. In Philadelphia, 84.1% of new diagnoses among MSM in 2016 were in black and Latino individuals. Philadelphia is a high morbidity area with 19,113 individuals living with HIV as of 2016 and an overall HIV prevalence of 1.2%. Therefore, this project aims to reduce new HIV infections by utilizing the PrEP D2C Program at the Mazzoni Center, a subrecipient of THRIVE- funding for Comprehensive Prevention, Care, Behavioral Health and Social Services for MSM and transgender persons of color. Mazzoni Center, a major prescriber of HIV Pre-Exposure Prophylaxis (PrEP) in the Philadelphia region, prescribed PrEP for a total of 1,427 patients during a 24-month period.

Project: The PrEP D2C Program aims to use clinical data, for example missed appointments, pharmacy refill data, gap in medical visits, and STI diagnosis and treatment data: 1) to identify PrEP patients who are out of medical care, as well as high-risk HIV negative patients; 2) to ensure rapid reentry into clinical care; 3) to identify barriers and develop protocols for re engagement; and 4) to identify and enroll MSM and transgender patients of color with a high acuity of need to THRIVE funded navigation services.

Results: A baseline analysis has been conducted of Mazzoni Center's electronic health record and its 340B pharmacy data for patient demographics, medical visit data, and refill history. From this dataset, the agency created a baseline report that included the risk factors of individuals in the medical practice prescribed PrEP, their prescription refill data to assess adherence and their visit history to determine

retention in PrEP care. This data will be used to identify barriers to retention and best practices regarding PrEP prescription and adherence.

Lessons Learned: There is a wealth of underutilized data at the agency, and while PrEP prescribing protocols have recently been implemented, there is still a lack of consistency in PrEP prescribing and retention activities across prescribers at the site. This project will inform practice change to support the standardization of PrEP services. In addition, it will engage high-risk negative individuals and those who are PrEP lost to care by ensuring rapid identification and entry into retention interventions.

Abstract 5571 - Getting PrEP to those who would most benefit from it

Author(s): *Kate Drezner, Brooke Talbot, Chantil Thomas, Kenneth Pettigrew, Anthony Fox*

Issue: Pre-exposure prophylaxis (PrEP) is an effective tool for preventing HIV infection; however, PrEP acquisition and adherence remain a problem among those at most risk. As of 2017, there are 13,003 people living with HIV in DC, which represents 1.9% of the total population. Of these 13,003 people, 32% are Black and Hispanic men who have sex with men, and overall 4.4% of Black men and 2.1% of Hispanic men are living with HIV. To address the disproportionate burden of HIV experienced by Black and Hispanic men, the DC Department of Health opened a PrEP clinic at their STD clinic that focuses on men who have sex with men of color. The PrEP clinic is staffed with a PrEP navigator to assess patient eligibility, make referrals to primary care and supportive services, and assist with adherence.

Setting: The DC Health Department STD Clinic, known as the DC Health and Wellness Center.

Project: A PrEP protocol was developed using Centers for Disease Control and Prevention guidance. From August 2016-May 2018, the PrEP navigator screened 307 patients for demographics, PrEP interest, STI history, behaviors, and supportive service needs. Only the 208 men who have sex with men of color were included in this analysis. Patients were tested for HIV and STIs and prescribed PrEP if eligible. Follow-up appointments and an optional survey were scheduled every 3 months to assess current PrEP use, STIs, behavioral changes, and additional service needs.

Results: Most patients identified as Black or African American (49%) or Hispanic (39%) and were between 20 and 39 years of age (81%). Many patients had no insurance (45%), no regular source of medical care (68%), and made less than \$26,000 a year (53%). At screening, 29% tested positive for ≥ 1 STI. Almost all patients wanted to start PrEP specifically to reduce their risk of getting HIV (95%), followed by not wanting to use condoms (5%) and being in a serodiscordant relationship (5%). Only 22% of patients were interested in taking PrEP for less than a year, 52% for 1-5 years, and 26% for more than 5 years. Of the 208 patients screened for PrEP, 196 (94%) were prescribed PrEP. After the first 3 months of enrollment, approximately 63% were still taking PrEP.

Lessons Learned: Introducing PrEP navigation in an STD clinic helps reach individuals at high risk for HIV infection. PrEP prescription and education should be framed inside of an STD context in order to promote positive behavior changes that reduce HIV risk, especially for men who have sex with men of color. Additionally, a dedicated PrEP navigator can play an essential role in PrEP prescription, adherence, and connection to resources.

Abstract 5903 - PrEP in the city: striving to reduce not increase disparities

Author(s): *Jacky Jennings, Ashley Price, Lavisha McClarin, Renata Arrington-Sanders, Maisha Davis, Patrick Ryscavage, Kathleen Page, Joyce Jones, Jason Farley, Christina Schumacher*

Background: Although new HIV diagnoses have declined nationwide, incident HIV infections are increasing among key populations, and specifically among Black men who have sex with men (BMSM). Prevalence among MSM in Baltimore City, Maryland is unacceptably high; 39% of MSM in Baltimore are HIV-infected and the majority of these MSM are BMSM. HIV pre-exposure prophylaxis (PrEP) is a highly effective tool to decrease the acquisition of HIV. PrEP uptake, however, has been low among BMSM and the concern is that if we are not careful, PrEP may increase existing HIV-related disparities in the U.S. The objective of this analysis was to compare PrEP cascade outcomes by race (Black vs. White), approximately three years after implementation of a large demonstration project to increase PrEP delivery in Baltimore.

Methods: The project, titled the IMPACT Campaign, was implemented by a city health department, evaluated by an academic partner and conducted in collaboration with six clinic sites and one CBO. Activities included implementation of PrEP services at clinic sites; use of mobile outreach services, and partner services for PrEP referrals; and social marketing campaigns to promote and educate priority populations about PrEP. HIV uninfected MSM enrolled in the program from September 30, 2015 to March 31, 2018 were included. Individuals classified as MSM were those who reported male sex at birth, male gender identity and identified as gay/bisexual/same gender loving or reported male sex partners in the past year. Race was based on self-report of race. Information on demographics, sexual behaviors, PrEP screening, eligibility, linkage and prescriptions were obtained through standardized forms. Summary statistics by PrEP Cascade outcomes were calculated and compared by race using chi-square tests.

Results: 1,902 MSM were screened for PrEP eligibility, 82.2% (1564) of whom were HIV uninfected. Among the 1,564, 59.5% (931) were BMSM and 27.5% (430) were white MSM (WMSM). BMSM vs. WMSM were significantly less likely to be referred for PrEP services (38.5%, 356/925 vs. 57.9%, 249/430, $p < 0.00$) and among those clinically eligible, less likely to be prescribed PrEP (89.5%, 137/153 vs. 97.4%, 112/115), $p = 0.01$). BMSM compared to WMSM were similarly likely to accept a PrEP referral (52.0%, 185/356 vs. 51%, 126/249, $p = 0.74$), be linked to a clinician (86.5%, 160/185 vs. 92.1%, 116/126, $p = 0.24$), be clinically eligible (95.6%, 153/160 vs. 99.1%, 115/116, $p = 0.09$), and be currently on PrEP (40.9%, 56/137 vs. 45.5%, 51/112, $p = 0.46$).

Conclusions/Implications: The majority (60%) of HIV-uninfected MSM screened for PrEP services through the Baltimore IMPACT program were BMSM. The similarities across the PrEP cascade for BMSM compared to WMSM suggest that in many areas this program successfully provides equitable delivery of PrEP services by race. However, we identified at least two areas of opportunity including improving PrEP referral and prescription for BMSM compared to WMSM.

Abstract 5741 - PrEP navigation MSM of color

Author(s): *Darnell Barrington*

Issue: Pre-exposure prophylaxis (PrEP) is a safe and highly effective intervention to reduce the risk of HIV acquisition. Although PrEP is simple to use with a once-daily pill, accessing PrEP can be a complex process. Potential PrEP users must locate a medical provider who prescribes PrEP, schedule a visit, complete required laboratory work, obtain a PrEP prescription, pick up the prescription from a pharmacy, and attend follow-up visits to persist with PrEP. In addition, paying for PrEP medication, clinical visits, and laboratory work can be a barrier. Increased access to PrEP is critical for black and Hispanic MSM who have high rates of HIV incidence and low rates of PrEP use.

Setting: Service navigation occurs in three Community Based Organizations (CBO's), five Local Health Departments (LHD's), and two Planned Parenthood sites. Three LHD's and the two Planned Parenthood sites provide PrEP to clients. All activities occur in the Eastern region of Virginia (Norfolk-VA Beach MSA)

Project: The primary objective of this project is to create a navigation and service delivery model that reduces client barriers to accessing PrEP and sustaining PrEP adherence. Through two grants in this MSA, PS15-1506 and PS15-1509, allocated state funds, and the 340B program, the Virginia Department of Health, Division of Disease Prevention (DDP) purchase enough PrEP medication to offer it free to clients.

Results: A comprehensive service navigation model has been implemented to allow all clients that are medically eligible to access to PrEP and be navigated to other medical and social services that increases a client's ability to remain adherent to PrEP. Each navigation site employs service navigators that are trained as Community Health Workers (CHW's) to provide case management for each client. Navigators utilize a community resource directory to connect clients to services that address their social, behavioral, and healthcare needs. Once adherence is demonstrated, clients have the option to enroll in a mail delivery program, which allows for the delivery of PrEP medication directly to their home. Also, a client can arrange for medication pickup at a site that doesn't generally provide the PrEP medication if a client demonstrates a scheduling or transportation conflict. As of July 2018, over 300 clients have been successfully navigated to PrEP through this project.

Lessons Learned: A standard training process is key in such a complex network of navigators and referral sites, for that reason the CHW training has been instrumental in the success of this project. While this system addresses a number of barriers to PrEP, particularly the financial obligation, there are still barriers that exist in the MSMOC community that the provision of PrEP for free doesn't resolve.

Track C

Session C01 - Using Social Media and Digital Technology to Improve Continuum of Care Outcomes for Young People Living with HIV

Room: A706-A707 (Atlanta Marriott Marquis)

Abstract 5936 - Using social media and digital technologies to engage and retain in care, and achieve viral suppression among youth and young adults living with HIV

Author(s): Ronald Brooks, Melissa Medich, W. Scott Comulada, Dallas Swendeman, Uyen Kao

Issue: HIV-positive youth and young adults (ages 13-34) in the United States are the least likely out of any age group to be linked to and retained in HIV care, or to achieve medication adherence, and viral suppression. Youth and young adults have high rates of social media and technology use that include, for example, Facebook, text messaging, and GPS-based mobile applications designed for social and sexual networking making them ideal platforms to deliver HIV care interventions to these populations. This presentation will review evaluation methodology, initial data findings, and strategies that show promise in improving the HIV health outcomes among youth and young adults.

Setting: Ten clinic and community-based organizations across the United States and one evaluation center at UCLA are funded by the Health Resources and Services Administration (HRSA), Special Projects of National Significance (SPNS). They comprise a national initiative focused on using novel social media and digital mobile technology interventions to improve HIV care outcomes along the HIV care continuum among HIV-positive youth and young adults (SMI).

Project: This presentation will provide preliminary findings on changes in HIV health outcomes across the ten demonstration sites. The evaluation center is conducting a longitudinal assessment of changes in HIV health outcomes over an 18-month period. The multi-site evaluation includes surveys conducted with SMI intervention participants at baseline and 6, 12, and 18-month follow-ups. For the interim analysis, random effects regression models were conducted to assess changes in HIV care continuum outcomes between baseline and 6-month follow-up. The multi-site evaluation will look at individual sites and aggregate data outcomes.

Results: Preliminary aggregate data indicate statistically significant improvements between baseline and six months in viral suppression ($p < .01$), viral load testing ($p = .05$) and engagement in HIV care in the past 6 months ($p = .08$) for participants enrolled in the SMI interventions. Preliminary aggregate data indicate statistically significant improvements between baseline and six months in viral suppression ($p < .01$), viral load testing ($p = .05$) and engagement in HIV care in the past 6 months ($p = .08$) for participants enrolled in the SMI interventions.

Lessons Learned: Findings suggest that the use of social media and digital technology interventions show promise in improving HIV health outcomes, specifically among youth and young adults. We anticipate trends in a similar direction with the remaining 12 and 18-month follow-up surveys.

Abstract 5520 - Using technology to disrupt HIV infection and improve HIV care continuum: implementation of a novel model of digital HIV care navigation in San Francisco

Author(s): Sean Arayasirikul, Dillon Trujillo, Victory Le, Caitlin Turner, Erin Wilson

Issue: Digital technology is changing the landscape for health through tailored and personalized interventions. Young people are the fastest growing group of new HIV infections in the United States and are the least likely to be linked, retained, and engaged in care. Traditional models of linkage and navigation are time-limited, resource-intensive, and limited by the traditional work week and the 9-5 work day. This creates a bottleneck in HIV care systems that shifts toward high utilizers, leaving many behind. Moreover, while mobile application (or app) usage can redefine how HIV care providers interact with young people living with HIV, its health effects are not yet understood.

Setting: Health eNavigation (Health eNav) is a 6-month digital HIV care navigation intervention at the San Francisco Department of Public Health that connects young people living with HIV (YPLWH) to their own digital HIV care navigator using SMS text messaging to improve their engagement in HIV care.

Project: Eligible participants were living in San Francisco, ages 18-34, and either: 1) newly diagnosed, 2) out-of-care, or 3) not virally suppressed. We enrolled 120 participants. Participants completed comprehensive psychosocial and behavioral surveys at baseline, 6-months, 12-months, and 18-months. The intervention consisted of the following components: 1) personalized, one-on-one, digital HIV care navigation services to participants using motivational interviewing and social support via SMS text messaging; 2) daily ecological momentary assessments (EMA) surveys, assessing real-time experiences of barriers to HIV care (e.g. affect/mental health, sexual risk behaviors, substance use, social connection, and treatment adherence); and 3) incorporating real-time feedback via daily EMA surveys in the delivery and timing of digital HIV care navigation.

Results: Participants had a mean age of 27 years. Eighty-six percent identified as men who had sex with men and 14% as transgender women. One in four participants were diagnosed with HIV in the last year and two-thirds of participants reported having missed 2 or more medical care visits in the last year. Over the course of the 6-month intervention, a total of 13,026 text messages were exchanged. Of these, 65% of text messages were sent by the digital care navigator. The number of text messages participants received ranged from 1 to 467. A quarter of participants were highly engaged, whose text message exchanges consisted of 150 text messages or more. And 27.5% of participants exhibited little to no engagement, whose text message exchanges consisted of 40 text messages or less. Most participants were moderate users of social apps and users of dating apps. More frequent use of dating apps was correlated with anxiety related to technology dependence ($\chi^2 = 6.242$, p -value = 0.032).

Lessons Learned: Digital HIV care navigation is acceptable and feasible to implement. Digital health interventions have the potential for bridging any distance in space and in real-time, providing those who need information, interaction and inspiration when they need it most. Digital technology may be the future of personalized HIV interventions; however, more research is needed to understand the negative health impacts of technology.

Abstract 5852 - Text messaging to promote advancement along the HIV care continuum among young transgender women living with HIV

Author(s): *Cathy Reback, Dennis Runger, Jesse Fletcher, Kimberly Kisler, Raymond Mata, Miranda Ramirez*

Background: Young trans women experience a number of psychosocial challenges including discrimination, prejudice, stigmatization, and social/economic marginalization, which stand as obstacles to linkage and retention in HIV care and ART medication adherence. Due to these challenges a text-messaging HIV intervention that is easily accessible, culturally responsive, private and portable is a particularly salient method for engaging and retaining young trans women in HIV care.

Methods: This project utilized a theory-based text-messaging intervention to improve engagement, retention, and health outcomes along the HIV Care Continuum, with the desired outcome of virological

suppression, among young trans women, aged 18-34. From December 2016 to May 2018, 130 trans women enrolled in the study. Over the course of the 90-day intervention, participants received 270 theory-based text messages that were targeted, tailored, and personalized for young trans women living with HIV; participants received three messages/day within a 10-hour unidirectional and automated delivery system. The text-message content was scripted along the HIV Care Continuum (HIV positivity/physical and emotional health, linkage/retention in care, ART adherence/viral load suppression) and based on three theories of behavior change (Social Support Theory, Social Cognitive Theory, Health Belief Model). Self-reported ACASI assessments were conducted at baseline and 3-, 6-, 12-, 18-months post-enrollment.

Results: Most (89%) participants were trans women of color (Hispanic/Latina 43%, African-American/Black 38%, multi-racial/other 8%). The mean age was 29.5 years (SD=3.8). Forty-one percent had less than a high school diploma/GED. The median income in the last month from all legal and illegal sources combined was \$495 (IQR \$200–\$902). Housing instability was experienced by 44% during the past 6 months. From baseline to 6-month follow-up evaluation, engagement in HIV care, operationalized as a HIV care visit in the past 6 months, increased from 62% to 76% ($\chi^2(1)=3.9$, $p=.047$). The proportion of participants who were currently taking ART increased from 48% to 66% ($\chi^2(1)=5.8$, $p=.016$). Of those who reported ART uptake at baseline only 5% described their medication adherence as “excellent;” whereas, at 6-month follow-up 38% described their medication adherence as “excellent” ($\chi^2(1)=19.6$, $p<.001$). A reported undetectable viral load at the last HIV care visit increased from 35% to 66% ($\chi^2(1)=18.5$, $p<.001$). Results presented here are preliminary as, to date, 71 (55%) of the participants have completed the 6-month follow-up evaluation.

Conclusions/Implications: This sample of young trans women living with HIV was comprised predominately of trans women of color; many had limited educational attainment, very low income, and experienced housing insecurity. At baseline, almost two-thirds were engaged in HIV care but ART uptake and adherence was very low. Despite experiencing multiple health disparities, the trans women living with HIV in this sample responded well to the unidirectional text-message intervention. Advancement along the HIV Care Continuum was evidenced by improved engagement in HIV care, ART uptake and adherence, and viral suppression, all of which significantly increased at the 6-month follow-up evaluation.

Abstract 5542 - WellnessWeb: a text message linkage and retention in care program for youth and young adults

Author(s): *Alison Johnson, Hillary Vallejo*

Setting: Describe various strategies to increase PrEP awareness among women.

Project: The WellnessWeb intervention delivers two components over a period of three to six months. The first is an adaptation of the evidence-based intervention, ARTAS (Anti-Retroviral Treatment and Access to Services), which supports linkage to care by providing strengths-based counseling to help clients identify potential barriers to care as well as personal strengths and community resources to overcome them. Participants also receive care navigation services and health education to support retention in care and viral suppression. The delivery of intervention components occurs entirely through

text messaging. HIV care continuum measures (linkage to care, retention in care and viral suppression) will be evaluated using a mixed-methods assessment of intervention services utilization, socio-demographic, and HIV-related clinical data. Participant satisfaction with various components of the intervention will also be assessed. Enrollment for the intervention ended in May 2018 and evaluation activities will continue until September 2019.

Results: Preliminary data indicate that text messaging provides an effective means of supporting clients' linkage and retention in care. As of July 2018, of the 118 participants enrolled in the intervention, 85% (100) are engaged in care, 6% (7) are out of care, 5% (6) are lost to follow-up, and 3% (4) moved out of the service area. In addition, evaluation of clinical data indicates that a higher proportion of participants had completed a CD4 test at the time of 6-month follow-up (83%) than at baseline enrollment (62%).

Lessons Learned: The WellnessWeb intervention is more easily implemented in a clinical setting in which medical care, case management and the WellnessWeb intervention are integrated. The challenges to implementing WellnessWeb intervention in a community setting with multiple agencies and/or with different staff providing different services along the HIV care continuum include: communication across community partner organizations, multiple appointments necessary for clients to maintain access to services, and limited or no access by intervention staff to client services information.

Abstract 5909 - Development of a mobile health application to improve HIV care continuum for HIV+ young adults

Author(s): Ping Du, Matthew Mahoney, Stephanie Fisher, Rebecca Geiser, Jozelle Mator, Sarah DeChamplain, Verbenia Collins, Cynthia Whitener, Jameson Collins, John Zurlo

Background: Adolescents and young adults (AYA) living with HIV infection are more likely to be lost to follow-up in HIV care, resulting in discontinuation of antiretroviral therapy and the risk of transmitting HIV in the community. There are multiple barriers for AYA patients to retain in HIV care. In central Pennsylvania most young HIV+ adults aged 18-34 years are living in underserved communities with low socioeconomic status and inadequate access to health services. As nearly all of young patients have mobile phones and most are using their phones to access health information and communicate with other people, we hypothesized that mobile technologies may help overcome challenges to HIV care retention and improve clinical outcomes for this population.

Methods: Since 2015 the HRSA has funded the SPNS Social Media Initiative (SMI), which is a multi-site demonstration of innovative technology-based interventions to improve HIV care continuum in AYA. A consortium of 4 Ryan White-funded providers in central Pennsylvania have collaborated on this Initiative to design and implement "OPT In For Life", a HIPAA-compliant mobile health app to engage HIV+ patients aged 18-34 years in care. Eligible patients for this intervention included those with newly diagnosed HIV infection, having fallen out of routine HIV care, or not virally suppressed. We developed the app with input from AYA advisory boards and also based on theoretical frameworks (such as social norms approach and behavioral change model). We incorporated a variety of features in the app including direct two-way communications with clinical providers and supportive services, health goal setting, clinical progress tracking, access to lab results and prevention resources, medication management, and reminders for medical appointments. We collected patients' socio-demographics, app

usage data, and HIV-related clinical data to evaluate if our social media based-intervention improved HIV care continuum measures (retention in care and viral suppression) in the 18-month study period.

Results: Currently 92 eligible HIV+ patients were enrolled in this intervention: 70% were males, 56% were minority races (Hispanics or blacks), 47% had fallen out of HIV care before, and 34% did not achieve viral suppression (<200 HIV RNA copies/ml). On average patients used the app 1-2 times per week for two-way messaging (45%) and to monitor their HIV test results (21%), but the app usage highly varied across patients. In addition to HIV-related health questions, patients discussed other clinical issues with their HIV care team members. The app functions were continuously updated and revised to meet patients' needs. To date about 90% of our patients remain engaged in HIV care and 78% achieved viral suppression.

Conclusions/Implications: Social media-based interventions focusing on the HIV care continuum are fast-growing and dynamic fields. Our project from this SPNS initiative demonstrates the success of developing a HIPAA-compliant mobile app that can be replicated by other programs to improve HIV care continuum for young adult HIV+ populations. However, the challenges still remain to retain young HIV+ patients in care and continuous evaluation and improvement of the app design are necessary to keep patients engaged in the app use.

Session C13 - Combatting Stigma in Diverse Populations

Room: Imperial B (Atlanta Marriott Marquis)

Abstract 5506 - Partnering to reduce and assess stigma

Author(s): *Katherine Locke, Thana-Ashley Charles, Emily Klukas*

Issue: As the external evaluators to grantees from two ViiV Healthcare portfolios (Positive Action for Women/PAFW and Positive Action for Youth/PAFY), we have struggled in supporting efforts to measure stigma in order to help grantee organizations know where/how stigma related to HIV is impacting their clients and to better understand whether their stigma reduction strategies are working. As part of our efforts we have partnered with grantees to develop measures and methods to better understand how their clients are experiencing stigma and how to measure progress in reducing stigma.

Setting: External evaluation firm working with grantees focused on women of color living with HIV (we define women as inclusive of women of trans experience) and youth living with HIV transitioning into adult care.

Project: We have worked with grantees individually and collectively to assess how to best build their capacity to collect data around stigma. Some are working directly in person with their clients, some reach clients via online methods such as webinars, and some are implementing their programs through community-based partners. We realized that a one size fits all methods would not be effective for this work, but also wanted to ensure that the funder could look at data comprehensively across grantees and programs. To this end, we've engaged in individual technical assistance and capacity building to support the development of tools tailored to populations and settings.

Results: Results from this work will be assessed before this session happens but data collection and tool development is currently underway.

Lessons Learned: A one-size fits all approach will not work across diverse settings and types of service delivery. It is crucial to identify key measures and tailor them to the individual project.

Abstract 5978 - The Halt HIV and AIDS Movement: a social media campaign to reduce HIV stigma
Author(s): Tony Christon-Walker

Issue: HIV is currently most prevalent in the South. African-Americans are affected at a disproportionate rate than their white counterparts. African-Americans in the south are adversely affected by poverty, unemployment, low educational attainment and income inequality. These factors along with stigma create a toxic climate that make HIV prevention more difficult. Stigma lies at the intersection of most barriers to HIV prevention, linkage and retention in care. We need to find a way to normalize HIV testing, prevention, and care. Social media provides platforms for HIV services and potentially could minimize some of the barriers if utilized appropriately. Very little research has been done to define appropriate and effective use of social media with disproportionately impacted Southern minority communities.

Setting: Social media outreach to MSM of color living in Jefferson County Jefferson County, Alabama's most populous county and a central county of the Birmingham-Hoover, Alabama Metropolitan Statistical Area. Facebook, Instagram and Twitter were the primary platforms.

Project: Jefferson County's Gamechanger project is funded through CDC's THRIVE project. The Gamechanger Project partnered with community members to find out how they consumed media and advertising. The program also utilized youth who were involved in our Living Out Loud program which is sponsored by ViiV Pharmaceuticals. The focus group consisted of eight gay black men and one young black Trans woman. Discussions centered around the young people's feelings of self-worth based on interpretations of social media messaging and how that related to their relationship with HIV. We used the information gathered from the focus group to inform the design of Halt HIV/AIDS Movement campaign. Twelve models were recruited to represent various characteristics which were identified by the focus group as visually critical to include in advertising and media. The models were from the community and had varying degrees of gender, gender identity and gender expression, including cis-, trans, het, and non-binary identities.

Results: The initial results of our campaign are positive. We experienced an increase in the number of walk-in clients requesting HIV and STI testing. Conversations and education about PrEP occurred within the community. Online screening appointments increased and the rate of appointments kept was 90%, significantly higher than appointments not made online. The focus group has approved the use of the images for our ongoing advertising messages.

Link to Images: <https://photos.app.goo.gl/Vxi4TWZVGjf2jnuy2>

Lessons Learned: The biggest lessons learned were the following: emerging media is easier to reach specific populations, control the messaging, and quantify the results. Also community input is vital to a successful campaign; and the gay community is experiencing “targeting” fatigue.

Abstract 5949 - Reducing isolation and combatting stigma: PWN Cares

Author(s): *Jennifer Smith-Camejo*

Issue: Before the founding of Positive Women’s Network USA (PWN-USA) in 2008, there was no unifying voice that reflected the needs and priorities of women with HIV and their communities in the U.S. Ten years later, with PWN-USA’s guidance and support, hundreds of women living with HIV (WLHIV) have elevated their leadership and advocacy skills, communications capacity, and ability to engage meaningfully in policy discourse and are present and impactful in a variety of decision-making spaces. Today, a growing pipeline of WLHIV – especially younger women, women of color, women in the Southern U.S., and women of trans experience--are shaping policy at the state and federal levels, fighting stigma and discrimination, and generating a new discourse that calls for upholding full rights and dignity for all people living with and vulnerable to HIV.

Setting: Online; state-based

Project: In order to expand our reach, especially among newly diagnosed women, women of trans experience, and isolated women, we sought funding from ViiV HealthCare. Our project seeks to reach these populations through:

- 1) a series of videos featuring WLHIV in conversation on issues of interest and importance to other WLHIV, such as disclosure, treatment as prevention, conception options and self-advocacy with health care providers, for wide dissemination over social media, website, email, through our partners and at in-person gatherings such as support groups, with companion discussion guides (all available at pwn-usa.org/pwncares)
- 2) a linked virtual “coffee table” conversation on each topic featured in the videos, led by the same WLHIV (and providers, where relevant), to offer participants a chance for a deeper dive and Q&A in the topic;
- 3) a state-based organizing strategy to connect WLHIV who sign up as PWN members with WLHIV leaders in their areas, link them to resources in their area, and to encourage their participation in activities;
- 4) production and dissemination of a Trans-Centered Reproductive Justice Agenda, developed by and for women of trans experience living with HIV in collaboration with Positively Trans, with accompanying webinars, trainings and Twitter chats conducted by trans WLHIV. These efforts will reduce isolation, increase confidence, and promote sustained engagement in care.

Results: Results including evaluation data and satisfaction surveys will be complete before this meeting and will be shared. Early results from participants have been extremely positive.

Lessons Learned: In the past we’ve struggled to collect data on attendees of our “coffee table” conversations but have been using the Zoom (videoconferencing) platform to collect data along with

registration forms and are experimenting with other forms of surveys through YouTube, our website and in-person sessions using the videos and discussion guides.

Abstract 5878 - Building leadership and elevating the stories of transgender people of color

Author(s): *Sophia Kass*

Issue: Transgender people of color face complex barriers to care and disparate health outcomes even when accessing prevention services. To address healthcare disparities for trans people of color, we must empower trans people of color living with HIV to participate in leadership roles (movements, boards, and institutions) through elevating their voices and building their advocacy skills. We must also be intentional in supporting emerging leaders, elevating trans voices and building power for trans communities on local and national levels.

Setting: National and State based

Project: Founded in 2015, Positively Trans engages trans people living with HIV to create a community-driven advocacy agenda. As the first program in the U.S. focusing on increasing healthcare advocacy and empowerment by and for trans people of color, the project has 4 main focuses: generating data, advancing stories, rights advocacy, and leadership building. After releasing the initial reports on the 2015 national needs assessment, Positively Trans is currently partnering with organizers in Detroit, New Orleans, and Southern Florida to conduct regional needs assessments. This serves to combat the lack of local data and information about the impact of healthcare disparities on local trans communities, especially trans people of color.

Locally, communities will be able to use the results of this gap analysis to support trans leaders in advocating for specific changes in healthcare policies, practices, resources and ensure equality and equity in trans-centered health care responses; which improves health outcomes for trans people.

The project support includes:

- 1) developing and formalizing local trans women of color affinity groups that can implement strategies strengthening local healthcare resources
- 2) recruiting allies in the broader community (including decision-makers) and educating them on the healthcare needs of trans people of color
- 3) running a collective social media campaign to highlight the importance of equitable health policies for trans people of color

Results: Positively Trans shifted the conversation on healthcare nationally to include trans people, including the project's collaboration on federal skill building programs.

The next steps include a broadening of our membership base and the implementation of 3 regional needs assessments.

Results from the project evaluation and data collection from the 3 needs assessments sites will be shared with our communities as a tool for self-advocacy. Preliminary data evaluation suggests that a wider array of trans people of color are already being reached and increased stakeholder/ally engagement is happening.

Lessons Learned: An inter-sectional approach focusing on building leaders from within specific communities, combined with evidence and story-based advocacy, is effective in organizing trans people, particularly people of color, for their own health, well-being, and self-determination.

Members of the National Advisory Board have started their own organizations for trans people in their localities and have been able to connect their communities to the services they need, as well as fight for better policies on local, state, and national levels.

While data is for minds, stories change hearts. The project's digital story workshops have allowed community members to publish their personal life stories as a tool against stigma and to advocate for better access to healthcare.

Abstract 6123 - Exploring HIV-related stigma in the southern United States: a qualitative study

Author(s): *Veronica Richards, Renessa Williams, Andrew Fiore, Christa Cook, Robert Lucero, Angel Algarin, Shantrel Canidate, Emma Spencer, Robert Cook*

Background: The Southern United States (U.S.) has the highest transmission rates of HIV with a rate of 16.8 per 100,000 people, as compared to 11.2, 10.2, and 7.5 in the Northeast, West, and Midwest, respectively. While the U.S. is seeing an overall reduction in HIV cases, Florida and other Southern states continue to see an increase. One possible explanation for this disparity may be due to HIV-related stigma. Studies suggest that HIV-related stigma may significantly affect ability to achieve viral suppression, medication adherence, psychological and social support, mental health, and a decreased quality of life. Florida is a complex state in terms of geography and population, thus our understanding of HIV-related stigma is not well understood across populations living with HIV in the state. The objectives of this study are to: (1) examine the perceptions of HIV-related stigma in the Southern U.S. and to (2) identify approaches for reducing HIV-related stigma.

Methods: To understand the unique perceptions of HIV-related stigma in the Southern U.S. and to identify potential solutions to reduce stigma, we developed an anonymous, open-ended survey to distribute to community members, community partners, and stakeholders. In this survey we asked participants to define HIV-related stigma and to provide examples of (1) HIV-related stigma that they have seen or heard about, (2) methods they have seen or heard about to reduce HIV-related stigma, and (3) recommendations based on what they perceive as the most important strategy to reduce HIV-related stigma. Additionally, participants were asked a series of multiple-choice questions to obtain demographic information. Consistent with thematic analysis, data were coded and grouped into categories guided by the Social Ecological Model (SEM).

Results: Sixty-six responses were collected from a diverse group including healthcare providers (25.8%), researchers (13.6%), persons living with HIV (34.8%), HIV program staff (10.6%), and others (42.4%). Most respondents were from Florida (71.2%), identified as white (45.5%), female (53.0%), and provided examples from a rural or suburban setting (54.5%). The mean age of participants was 43.4 years. Participants described HIV-related stigma and associated examples as individual (fear, lack of knowledge, being perceived negatively), interpersonal (being treated differently by family or friends, refusal of sharing food or utensils), community (social norms, community enacted stigma, discrimination), institutional (healthcare-related issues), and structural (criminalization, healthcare

barriers). Similarly, participants described HIV-related stigma reduction examples and recommendations as individual (increasing knowledge), interpersonal (communication between friends and family), community (changing social norms, peer-led groups and campaigns, media), institutional (health services, providers), and structural (education curriculums, updating policy, using first-person language). Specific examples for each level of the SEM were also identified.

Conclusions/Implications: HIV-related stigma negatively impacts all dimensions of the HIV care continuum; thus we need approaches that are informed by the communities in which stigma exists. Stigma interventions may be needed to address all of the SEM levels. This study is limited in that it may not be representative of all PLWH in the Southern U.S. We will be obtaining additional surveys and conducting additional analyses in the future.

Track D

Session D02 - Operationalizing Outbreak Response: The critical roles of planning, practice, and communication

Room: Regency VII (Hyatt Regency Atlanta)

Abstract 5645 - Injection drug use, hepatitis, and HIV: preparing for and addressing vulnerability in a rural community

Author(s): *Daniel Hunsucker*

Issue: The LENOWISCO Health District shares many similarities with Scott County, Indiana, where an unprecedented HIV outbreak occurred in 2015. LENOWISCO is similar in terms of population size, demographics, socioeconomic factors, and geography, and shares their experience with increasing injection drug use and hepatitis fueled by the opioid epidemic. Eight counties in Virginia, all in the southwest region, were identified by the CDC in a national county-level assessment of vulnerability for rapid dissemination of HIV and HCV among persons who inject drugs (PWID).

Setting: The LENOWISCO Health District is located in the heart of the beautiful Appalachian Mountains of southwest Virginia and borders Kentucky and Tennessee. Much of the district is closer to seven other state capitals than to Richmond, the capital of Virginia. The district serves three counties, Lee, Wise, and Scott, and the City of Norton. The population served is approximately 92,000.

Project: In 2016, four health districts in southwest Virginia and the Virginia Department of Health organized a regional tabletop exercise to initiate planning for a potential HIV outbreak. In 2017, the LENOWISCO Health District conducted a second tabletop exercise, which focused on the local community's response to an HIV or HCV outbreak. As a result of the exercise and additional strategic planning efforts, a variety of strategies were implemented to build community support and provide education on the need for and importance of harm reduction programming with syringe exchange. Strategies engaged local law enforcement, elected officials, community coalitions, and community members. The district organized two showings of "Needle Work," a community play, which addresses syringe exchange and provides an opportunity for the public to receive information and ask questions

about harm reduction. The play, which taps into Appalachia's cultural heritage of storytelling, humanized the issue of addiction and allowed community members to gain knowledge in a unique way.

Results: The LENOWISCO Health District developed a comprehensive community response plan based on the findings of the tabletop exercise and community feedback gathered through four town hall meetings. The plan addresses all phases of an emergency situation (preparedness, response, and recovery) resulting from a hepatitis or HIV outbreak among PWID and integrates elements of communicable disease control and prevention with emergency management and community resource mobilization. The National Association of County and City Health Officials published a case study detailing the process for developing the plan. Through education and outreach to community leaders, key stakeholders, and the community, the district gained the required support to establish a comprehensive harm reduction and syringe exchange program- the first in Virginia.

Lessons Learned: These efforts resulted in many lessons learned, which increased the district's ability to proactively and strategically respond to and prepare for ongoing vulnerability to hepatitis and HIV among PWID. This presentation will review the district's response to CDC's vulnerability assessment, efforts to educate and engage the community, its establishment of Virginia's first comprehensive harm reduction and syringe exchange program, and share lessons learned throughout the process, including how the health department overcame various challenges.

Abstract 6006 - The local perspective on the importance of communication during an HIV cluster investigation

Author(s): *Zachary Raney, Stephanie Vogel*

Issue: It is well established that persons who inject drugs (PWID) have a high risk of contracting HIV if they share injection equipment. From 2013-2016, the Northern Kentucky Health Department (NKY Health) had an average of 25 new HIV cases and 3 cases among PWID per year. In 2017, there were 46 total case and 18 cases among PWID. This rapid increase caused the Kentucky Department for Public Health and NKY Health to initiate an HIV Cluster Investigation with assistance from CDC. This presentation will discuss NKY Health's identification of and response to an HIV cluster among PWID and the importance of communication throughout the process.

Setting: Northern Kentucky consists of 8 counties, and is located immediately across the Ohio River from Cincinnati, Ohio. Northern Kentucky has a population of more than 450,000 living in a blend of rural, suburban, and urban areas. Northern Kentucky has one of the highest hepatitis C rates in the nation and has been disproportionately impacted by the opioid epidemic.

Project: Once the identification of an HIV cluster occurred, NKY Health employed its HIV outbreak response plan, which had been previously developed in an effort to address the opioid epidemic, to better identify and respond to the current situation. NKY Health staff from epidemiology, HIV prevention, and HIV medical case management regularly met and developed interviews and a process for collecting blood specimen from cases in the cluster for analysis. NKY Health worked with both state and federal partners to ensure best practices for investigation were being implemented. Data gathered from the case interviews and viral molecular sequencing was regularly reviewed to guide NKY Health's

HIV prevention and medical case management practices. This data has been regularly shared with the community and partners.

Results: Since 1/1/17, Northern Kentucky has had 67 total cases of HIV and 35 cases have occurred among PWID. 41 expanded interviews have been conducted and 39 blood draws have been sent to CDC for viral molecular sequencing. 16 of the 35 PWID cases and 27 of the 67 total cases are enrolled in medical case management at NKY Health. More than 100 contacts have been identified but the vast majority of them do not have sufficient information for follow-up.

Lessons Learned: The importance of internal communication as well as with state, inter-state and federal partners involved in the investigation has been crucial throughout this cluster investigation. Previous work with the PWID population has shown that this population does not typically engage in investigation and prevention efforts. This prompted NKY Health into new methods of investigation by integrating medical case management into the disease investigation process. This integration of medical case management partners early in the investigation has proven to be an important feature of NKY Health's response. NKY Health has developed many additional processes and relationships as a direct result of this investigation.

Abstract 5708 - Using HIV surveillance data to operationalize a cluster response to detect and interrupt HIV transmission among persons who inject drugs

Author(s): *Andre Dailey, Rhiannon Richman, Lisa Lane*

Issue: Persons who inject drugs (PWID) are at increased risk for poor health outcomes and bloodborne infections, including HIV, HCV and HBV infections. Although substantial progress has been made in reducing HIV infections among PWID, recent changes in drug use challenges this success. A CDC report identified 220 counties throughout the U.S. where unemployment rates, overdose deaths, and sales of prescription painkillers were contributing factors to an increased vulnerability for outbreaks of HIV and HCV among PWID. This presentation will review known and novel tools used to determine when a rapid cluster response should be initiated, and communication strategies implemented to support the operationalization of a rapid cluster response to interrupt HIV disease transmission.

Setting: In late 2014, injection of prescription opioids was linked to an outbreak of HIV infections in a rural U.S. community (Austin in Scott County, Indiana). In April 2015, CDC issued a health alert to state, local and territorial health departments recommending close examination of their most recent local HIV and HCV surveillance data, and HIV/HCV prevention and care services available to PWID in their jurisdictions. By late 2015, CDC developed a method to identify communities vulnerable to rapid dissemination of injection drug use (IDU)-associated HIV (11 of 220 counties identified were Ohio counties). From 2015-2017, Ohio experienced a 90% increase (68 cases in 2015 and 129 cases in 2017) in the number of reported diagnoses of HIV infection among PWID.

Project: Assess the use of HIV surveillance data to detect HIV infections among PWID clustered in time and space, and enhance the ability to initiate an intra- and inter-state rapid response across public health jurisdictions, including efforts to increase understanding of the transmission cluster risk network and prevention interventions to reduce HIV transmission.

Results: HIV surveillance data were analyzed to operationalize a rapid cluster response to detect and interrupt HIV transmission among PWID. Established (i.e., monthly HIV response, HIV outbreak, and HIV diagnoses among PWID reports) and new (i.e., CDC provided SAS outbreak program, enhanced interview form, weekly situation status report, data sharing agreements) tools were created. Four communication tactics were developed as part of an overall strategy to engage key internal and external partners to lay the groundwork for operationalizing the successful implementation of a rapid cluster response to detect HIV transmission among PWID.

Lessons Learned: Although CDC guidance on identifying and intervening in time-space clusters is thorough, as is recent CDC technical guidance on managing HIV and HCV outbreaks among PWID; it is critical for jurisdictions to move from conceptualization to operationalization of a rapid cluster response plan to detect HIV transmission among PWID. Creating a communication strategy that provides a foundation for strong partnerships before detection of an HIV transmission cluster is essential to ensure the successful implementation of a rapid cluster response to interrupt disease transmission.

Abstract 5798 - The role of an outbreak coordination unit in strengthening collaborations and standardizing approaches to HIV outbreak assessment and response

Author(s): *Alexandra Oster, Anne Marie France, Philip Peters, Angela Hernandez, William Switzer, Caitlin Leach, Kisha Hampton, Tobey Sapiano, Dita Broz, Kate Buchacz*

Issue: Early detection of clusters and outbreaks of HIV infection offers opportunities to respond to more rapidly interrupt transmission. Efforts to detect and respond to HIV transmission clusters and outbreaks, including those associated with injection drug use (IDU), are possible due to improvements in collection and use of surveillance data and have expanded at CDC and at state and local health departments (HDs).

Setting: Previously, upon receiving information about or technical assistance (TA) requests from states regarding possible clusters or outbreaks, no centralized process existed in the Division of HIV/AIDS Prevention (DHAP) to systematically assess possible HIV clusters and outbreaks in the United States, and as a result the assessment of and response to these events varied.

Project: In July 2017, DHAP created an HIV Outbreak Coordination Unit (OCU) to ensure that DHAP assesses possible clusters and outbreaks consistently and collaboratively and that appropriate situational awareness is maintained within DHAP leadership. A diverse group of CDC staff from across DHAP participate in the OCU. Participants have expertise in outbreak detection, investigation, prevention, laboratory services, epidemiology, policy, communication, and operations. Key staff communicate regularly with HDs, and weekly OCU meetings facilitate cross-branch problem-solving, coordination, situational awareness, and determination of need to continue reviewing a situation (i.e., keep it 'open.'). All OCU members sign confidentiality agreements, and sensitive information discussed at OCU meetings is handled on a need-to-know basis.

Results: As of June 2018, the DHAP OCU has reviewed 16 situations involving 16 states in all 4 census regions. CDC was notified of these situations through a variety of mechanisms, including HD request for assistance, CDC analysis of HIV diagnosis or molecular data, and media coverage. Of the 16 situations, 13 were discussed at either 1 or 2 OCU meetings. Three situations were discussed at 7 to 10 OCU meetings.

Two of these involved state-requested CDC Epi-Aid field support for epidemiologic investigation and response, and 1 involved extensive remote TA and a site visit. As of July 2018, 2 situations remained open. Eight of the 16 situations involved HIV transmission associated with IDU or geographic areas deemed vulnerable by CDC to IDU-associated transmission. For 6 situations, the DHAP laboratory conducted HIV sequencing and testing of blood specimens sent to CDC and phylogenetic analysis. Other domains in which DHAP supported HDs (remotely or on-site) included data management, analytic support, informatics, communications, multi-state coordination, strategic thinking, and expansion of HIV prevention and linkage-to-care services. The OCU has also been a forum for training on cluster detection methods and outbreak investigation and reviewing lessons learned from field responses.

Lessons Learned: HDs have benefited from the coordinated approach produced by the DHAP OCU, which has expanded collaboration among a diverse group of subject matter experts, enhanced the quality of DHAP TA to HDs, strengthened communication within DHAP, provided exposure and training to staff who may become involved in future cluster and outbreak responses, and improved situational awareness among leadership. Developing or strengthening units to provide coordinated response within HDs may provide similar benefits.

Abstract 5963 - HIV data privacy: policy modernization to protect molecular HIV surveillance data

Author(s): *Amy Killelea*

Issue: With the emergence of molecular HIV surveillance data, combined with the move toward public health data sharing and integration, it is important to understand how existing federal and state privacy and confidentiality protections apply to these emerging data-sharing practices. It is also critical for governmental public health officials at state and local health departments – in collaboration and partnership with people living with HIV – and to develop best practices to ensure patient privacy and confidentiality. Privacy protections are even more important given the vast number of states with HIV criminal transmission laws. As the technology of molecular HIV surveillance moves toward identification of directionality of transmission, we must identify strategies to ensure that use of public health data for law enforcement purposes is as limited as possible.

Setting: The project assessed state laws, regulations, and policies governing HIV surveillance data privacy in 20 states. States were chosen for geographic diversity as well as diversity in HIV data privacy legal/regulatory schemes and data-sharing practices.

Project: The project assessed state laws, regulations, and health department policies in 20 states regarding HIV surveillance data protection, including the circumstances under which health departments are permitted or compelled to share surveillance data without consent. The project focused on circumstances when data may be released in response to a court order or subpoena for law enforcement purposes. This focus is particularly relevant to address concerns about the privacy of molecular HIV surveillance data given the number of states with HIV criminal transmission statutes. The project identified best practices for review of court orders and subpoenas by health department legal counsel to ensure that release of data is as limited as possible.

Results: Following our initial review of state laws and regulations as well as health department policies, we found the following:

- 1) State laws and regulations vary in the degree of specificity around health department release of data, particularly for non-public health purposes (e.g., law enforcement). There are state laws and regulations that are more protective of health department surveillance data and could serve as an example for how best to protect sensitive data;
- 2) State laws and regulations grant a great deal of discretion to health department legal counsel to review court orders and subpoenas requesting HIV surveillance data and processes for review vary by state and by legal counsel; and
- 3) State laws and regulations do not have any specific additional privacy protections or requirements for molecular HIV surveillance data.

Lessons Learned: The following are important lessons learned:

- 1) Many health departments are not familiar with their state HIV data privacy and confidentiality laws and regulations. As molecular HIV surveillance continues to be implemented, it is important for health department staff to understand their state's legal/regulatory landscape when it comes to data privacy, particularly around the release of HIV data for law enforcement purposes.
- 2) Because many of the state laws and regulations are fairly broad, legal counsel play an important role in interpreting legal protections and making decisions about when to release HIV data in response to a court order or subpoena. Health departments should evaluate the best practices for data protection identified through our assessment of 20 states and work with legal counsel in their states to ensure that HIV data release is rare and to discuss additional protections for molecular HIV surveillance data.
- 3) Ensuring that individuals living with and at risk for HIV understand existing protections for HIV surveillance data and how health departments will ensure protection of molecular HIV surveillance data is critical to community engagement efforts.

Special Session

Session SS06 - Sexual and Gender Minority Youth Health

Room: Embassy D-F (Hyatt Regency Atlanta)

Abstract 1027 - Violence victimization, substance use, suicide risk, and sexual risk behaviors among sexual minority high school students in the U.S. - NYRBS, 2015-2017

Author(s): *Michellen Johns, Catherine Rasberry*

Sexual minority youth (SMY) report more violence victimization, substance use, and suicide risk than heterosexual youth, and are at higher risk than heterosexual youth for HIV, other sexually transmitted diseases (STDs), pregnancy, and related sexual risk behaviors; however few have examined within group differences in these outcomes among SMY in a nationally representative sample. Using pooled data from the 2015/2017 national Youth Risk Behavior Survey (YRBS), we examined differences across sexual identity groups in victimization, substance use, suicide risk, and sexual risk behaviors. We also examined differences across behavioral groups (e.g., men who have sex with men, men who have sex with women, men who have sex with men and women) in sexual risk behaviors. In this presentation, we

discuss key differences across groups that emerged from these analyses, and the implications for future science and practice with SMY populations.

Abstract 1051 - Developing a multi-dimensional measure of gender: research from the adolescent brain cognitive development study

Author(s): *Michelle Johns, Leah Robin, Lisa Barrios*

The Adolescent Brain Cognitive Development (ABCD) Study is a multi-site research project on brain development and Health supported largely by the National Institutes of Health. Starting in 2017, the ABCD Study recruited 11,877 9 and 10 year olds to follow longitudinally throughout adolescence. In addition to participating in oversight of the ABCD Study, CDC's Division of Adolescent and School Health (DASH) staff sit on the Gender Identity and Sexual Health (GISH) workgroup, which has an aim of designing developmentally appropriate measures of gender, sexual orientation, and sexual behavior for the study. In this presentation, we will discuss the development process of a multidimensional measure of gender, which includes literature scans, focus groups with transgender/gender diverse youth and their parents, measure development, and cognitive testing.

Abstract 1052 - Resilience and transgender youth study: results from in-depth interviews with youth living in the Southeast

Author(s): *Michelle Johns*

Transgender and gender diverse (TG/GD) youth face known risk for violence and harassment in schools, and yet, limited study of how youth may cope with this elevated risk exists. In 2017, TG/GD youth residing in the Southeast US were recruited in partnership with community organizations serving TG/GD youth for standardized, open-ended interviews focused on protective factors they experienced across the socio-ecological model. Using thematic approaches, data were analyzed using deductive codes derived from the protective factors covered in the interview guide. The final sample included 33 TG/GD youth, age 16-25. Youth were diverse by gender identity (42.4% identified as female or trans women, 33.3% identified as male or trans men, 24.2% identified as nonbinary) and race (54.5% identified as Black or African American, 39.4% identified as White or Caucasian, 6.1% identified as multiracial). Two youth identified their ethnicity as Hispanic or Latinx. In this presentation we discuss key protective factors from four DASH priority areas: (1) sexual health education, (2) parental relationships, (3) school environments, and (4) sexual health services. We discuss potential research and programmatic implications of our findings in each domain.

Abstract 1029 - Maximizing use of program evaluation data: ancillary analyses with relevance for sexual and gender minority youth

Author(s): *Catherine Rasberry, Susan Adkins*

DASH recently concluded a 5-year project focused on reducing HIV infection and other sexually transmitted diseases among Black and Latino sexual minority males aged 13-19 through school and community partnerships. While evaluation findings are presented in other conference sessions, the substantial amount of evaluation data collected resulted in a number of ancillary data analyses relevant for sexual and gender minority youth. This presentation will provide an overview of a subset of studies

that emerged from this project. The presenter will provide overviews of the ancillary analyses that have examined topics including sexual risk-related behaviors, school-based education on HIV and condom use, school staff referrals for connecting high school students to HIV and STD testing, and school climate. Analyses have examined both sexual minority youth and gender minority youth, and have included statistical comparisons within those populations and to others outside those populations. In addition to highlighting key findings from ancillary studies, the presenter will ensure audience members know how to access these important studies for future reference. Co-Author: Susan Adkins

Abstract 1050 - Epidemiological modeling results related to timing of HIV testing and impact of PrEP use

Author(s): *Richard Dunville, Li Yan Wang*

Mathematical modeling is an excellent tool to investigate questions that would otherwise not be feasible, such as measuring the impact of changes to guidelines or innovative prevention approaches, especially when examining research questions among hard-to-reach and vulnerable populations like youth at disproportionate risk for HIV. In this presentation, we will discuss the results from a series of studies supported by CDC's National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention Epidemiologic and Economic Modeling Agreement (NEEMA). In our first study, we found that for youth without identified risk factors, a one-time routine HIV screen at age 25, after the peak of incidence, would improve clinical outcomes and be cost-effective. We also examined the impact of potential expanded HIV pre-exposure prophylaxis (PrEP) use among adolescents and found that PrEP could have a large impact on HIV incidence. In addition, PrEP could be a useful tool for addressing racial disparities in HIV given the higher HIV incidence among black adolescents 13-18.

Abstract 1013 - HIV prevention preferences among adolescent sexual minority males and transgender youth

Author(s): *Richard Dunville*

This study developed from a need for early intervention and prevention efforts to address the high rates of new HIV infection among adolescent males who have sex with males (AMSM) and transgender youth, particularly minority youth. More research on this population is needed; however, there are immense challenges to conducting high quality surveys on a geographically dispersed population of AMSM and transgender youth including a lack of disclosure to others about their sexual identity and its still-developing nature. We used Facebook, Instagram, and Snapchat to obtain 1,541 completed surveys from AMSM and 1,567 completed surveys from transgender youth. Preliminary data indicate low awareness of biomedical HIV prevention methods, such as HIV pre-exposure prophylaxis (PrEP) among AMSM, yet a high willingness to use these methods. Among transgender respondents, awareness was relatively higher, but willingness was slightly lower. These data will inform prevention tools for the use in clinical, school, and community settings by adults who serve these youth.

Storytelling

Session ST02 - Building Leadership

Room: Learning Center (Hyatt Regency Atlanta)

Abstract 5356 - Intersection: homeless, addicted, transgender, & HIV

Author(s): *Jada Cardona, DeeDee Chamblee*

Set the Scene: Transitioning, being homeless and addicted creates challenges that exponentially increase the risk for acquiring HIV; spreading HIV; and/or death. To most, the solution is clear: shelter or a substance abuse center. For transgender people in the South, there exists no such recourse; one can either detransition (revert back into their birth gender) or forego the service. This story illustrates how the struggles of transitioning, homelessness, and addiction of three generations of transgender women all became vulnerable and each succumbed to HIV.

Experience: I've experienced homelessness and addiction; 8 years ago when I began to live in my Truth. In transitioning I lost my job, my apartment, my male privilege; everything. Society deemed me a sexual deviant and a freakish miscreant. I looked like a man in a dress at first. Treated very violently, ostracized, and living as a pauper, I had nothing and no one would hire me; things got desperate. Numbing my pain was the focus of my life because it was excruciating just existing. Living in a tent under a bridge, I would panhandle and "service for pay" to survive daily. One day when I had enough of the street I went to the Salvation Army shelter only to be told that I could not wear "all of that clown-makeup" and that I had to get rid of my clothes. When I asked to use the bathroom to change, I was blocked. I had to detransition behind a tree and wipe my makeup off using my dress and my spit while heavy tears flowed. I spent one night and never returned for services.

My mother, DeeDee, sustained herself with odd jobs, living with 12 other women in one house until hatemongers burned the house down to the ground. A cycle of homelessness, jail and pay by night motels had begun.

My daughter, "Marissa," came to me homeless and desperate to get off of the street and into a shelter/center. No shelter or substance abuse center in the entire state of Louisiana would take her living in her Truth, she was found dead, needle in arm, in an abandoned house in May 2018. Three generations of transwomen, a mother, I, and my daughter - all of us transitioned, faced homelessness and addiction each acquired HIV. This narrative is all too often the same.

Lessons Learned: We have to do more in prevention for transgender people to access shelters/centers rather than remain in situations that increase chances of morbidity and mortality. "Marissa's" demise was preventable. Had she had access when she needed it, I believe she'd be alive today.

Implications: People at these intersections can't benefit from preventive measures, such as PEP, PrEP, and TasP; instability is the real killer. Not having a place to take medicine consistently can lead to HIV's spread. An undetectable viral load is essential for suppression, but can be unachievable at these intersections. If we aim to prevent HIV we must address those falling through the cracks; people aren't disposable, unnecessary or unwanted.

Abstract 5725 - Creating and sustaining a youth-led HIV prevention organization in Washington, D.C.

Author(s): *Tyler Spencer*

Set the Scene: In 2009, during my final year of college, I learned that DC had one of the highest rates of HIV compared to any other city in the Western Hemisphere. I was shocked, and I realized that HIV prevention had become extremely politicized and, in some cases, overlooked. According to a 2009 epidemiological report from the DC Department of Health, 1 in 20 residents was expected to be living with HIV, and the HIV prevalence among teenagers had doubled in the previous five years.

Experience: I wondered how DC could experience such a high burden of HIV when it was also home to significant wealth and power. I started visiting community organizations and schools to learn about existing efforts for HIV prevention. I learned that many schools were not offering comprehensive HIV prevention education, and that the few schools who did were using outdated curricula that students did not relate to.

I wanted to offer DC teens a more relevant curriculum, a more comprehensive approach to HIV (discussing the whole realm of sexuality education as opposed to simply focusing on the virus), and 'cool,' relatable sexual health educators. So in 2009, I created The Grassroot Project, an organization that would recruit and train NCAA college athletes promote sexual health. Our curriculum would use sports as a metaphor and an avenue to deliver eight one-hour sessions of sexual health education and HIV prevention services.

Lessons Learned: I learned that starting and sustaining a youth-led community-based organization is hard, and I learned lessons in the following areas:

- (1) Building a pipeline of youth leadership to ensure that, as I got older, our organization still held the voices and values of young people at our core.
- (2) Learning how to create a curriculum development process that was responsive to the changing landscape of HIV prevention, including incorporating PrEP education and linkages-to-care into our interventions.
- (3) Learning how to overcome age-ism by demonstrating that millennials are not just idealistic, but that we can also deliver real results. Specifically, developing long-term partnerships with community leaders, schools, parents/caregivers, and students, and (on the donor side) creating a rigorous evaluation model to show that our home-grown intervention could deliver the same results as CDC's EBIs and DEBIs.

Implications: The Grassroot Project exists as an organization that mobilizes non-traditional HIV prevention educators (NCAA Division I varsity athletes) to serve a unique niche in the lives of young people. To-date, more than 1,200 athletes have provided more than 50,000 hours of free, innovative, and evidence-based HIV prevention services to teens and families in DC. I want others to be inspired by this story, but to also hear/learn from the iterations of our work that have come through learning as we have encountered challenges. I also want the audience to feel that the HIV movement still needs boots on the ground, and that it is critical for older generations to foster a new generation of young people to join the movement.

Abstract 5699 - The broken shoulder

Author(s): *Robin Kelley*

Set the Scene: As in the public health account of the small pox eradication success story, public health interventions must be coupled with strong leadership to be effective. Through capacity building assistance in the form of leadership development a difference can be made for not only those who receive the capacity building services, but for the leaders providing the services.

Experience: As a leader of a capacity building provider, my staff and I were onsite in Mississippi as part of a PrEP institute delivery team. We had developed PrEP trainings for community based organizations, our target audience. Even though the data from our pre-meeting determination of needs scan showed that, at best, only six organizations statewide seemed interested in this form of training and , only 1/3 (2) offered PrEP services. The presentations may be made to an empty room. I was on hand to observe, encourage, and if needed, b the audience for our sessions. That is when it hit! I slipped on the stairs. Try as I might to hold onto the bannister to stop from falling, it was to no avail. When I regained consciousness, my shoulder was throbbing and those around me who saw the entire thing had called the EMTs. I had a broken shoulder and had blacked out. The relevance of this experience is in keeping with the experience of many CBOs and CBA providing organizations. Like many HIV organizations, they can be faced with near black out experiences. They are travelling down a path and seem prepared with a framework and mission to deliver services; then they may slip or find themselves in an emergency. As a CBA provider that has worked with many fellow CBA providers offering technical assistance to our target audience, and my peers, I and my staff have worked together to, in many ways, help others from blacking out.

Lessons Learned: As with other public health crises, in HIV, we have medications and this is great to relieve pain and enact some cures. However, behavioral science matters, and as stated in the public health book, *The House on Fire*, it starts with leadership. Our staff has excelled at training on leadership. I have learned not to judge, but to be as the EMTs and offer services.

Implications: As the leader of a premier CBA provider, my fall has given me time to reflect. It has been painful, but I have grown not only to strongly revere the need for refreshers for organizations and most importantly organizational leaders. I have therefore specialized in coaching leaders. This is done through our leadership technical assistance that we offer; it first starts, not always with a serious accident, but with reflection, particularly of strengths and weaknesses in all settings. Then, it entails a commitment of a certain number of individual sessions. As CBA providers we should offer a trusted space where even a person with a broken shoulder, organization, CBA providing service, can feel not labeled, but comforted, healed and ready to make a positive difference in the world.

Abstract 6167 - Me & HIV: transforming expectations of living with HIV

Author(s): *Alex Garner*

Set the Scene: Fear is one of the greatest barriers to HIV testing. When I was HIV-negative I feared that being positive would mean nothing but loss, a loss of health, a loss of sexuality, a loss of family and friends, and a loss of community. My perceptions of a life with HIV were based on irrational fears and an outdated notion of what HIV was. There was a lack of visibility of people living with HIV and I really had only ever witness the bad things that happened when someone found out they were positive. I knew it

was likely I would test positive and I believed I would be different. I thought I could move beyond the fear and have it all figured out. I was wrong. Life with HIV was nothing like I expected.

Experience: Before I tested HIV-positive I was consumed with fear but the fear of not knowing was ever great than all the abstract fears associated with HIV. I figured I would get my results and I could be different. I wouldn't let fear stop me. I would be the picture of healthy living with HIV. I'd go jogging in Golden Gate Park, I'd take up yoga and acupuncture, I'd spend time in Chinatown shopping for herbs and roots. Roots are very salubrious. My perceived reality of HIV was based on an 80s style sitcom. It would be a show about me and HIV and all of our wacky adventures. I never expected that once I was diagnosed that I would immediately understand that HIV was nothing like I expected. All the plans didn't matter anymore. I'd have to make it up as I went along.

Lessons Learned: Testing positive was a shock not because it was unexpected but because everything changed instantly and I wasn't prepared for that. What I learned was that overwhelming fear was keeping me from getting tested. That fear was based in my utter unfamiliarity with the complexities of life with HIV. I had a very superficial understanding of the challenges confronted while HIV-positive and I couldn't possibly understand it until I was diagnosed. My superficial, TV style approach to life with HIV was rooted in my inescapable fear of HIV. I realized that fear prevented me from exploring the complicated life with HIV. Once I was positive I could speak openly and honestly about my life and help others work through their fears.

Implications: Fear is still an enormous barrier to HIV testing and a better understanding of HIV in general. People living with HIV have the ability to tell complex and nuanced stories about life with HIV. People living with HIV are not a cautionary tale. We can simply help others better understand the experience as a way to combat the fear. I am HIV-positive and I can have health, a sexuality and family. I can be an active participant in my community. That simple demonstration of a multi-dimensional life can extinguish fear and craft a narrative of people who thrive.

Abstract 5330 - Ending the epidemic with strength

Author(s): *Bennett Reagan*

Set the Scene: During my time in college I discovered my passion for health equity. I left school with the goal of working to denaturalize the belief that health and well-being are privileges reserved for those in power. I decided that pursuing public health provided me with the best chance of effecting significant change beyond the individual level. My first role working in public health was on a research study which consisted of focus groups held with people living with HIV (PLWH) over the age of 50 living in Los Angeles.

Experience: At 22, working on the focus groups was my introduction to public health and the world of HIV. Before the study, my only interaction with the HIV positive population was through my textbooks and research papers I had read. While I was working on the study I was awarded the opportunity to meet and learn from the participants of the focus groups. During the groups I was not functioning as a service provider, I was instead just there to listen and observe. I felt as if I was back in the classroom, however this time, I wasn't just learning about barriers and challenges; I was being exposed to the full

lived experience of PLWH. I heard inspiring stories of resiliency and triumph, and I witnessed how acknowledging these successes positively influenced the confidence and stability of the participants. I was lucky enough to interact directly with the aging HIV positive community early in my career, and what I learned from that experience has changed and will continue to influence the way I approach my life in public health.

Lessons Learned: As a young provider, working on the study gave me whole new impression of the work that we do. Before the focus groups I had mistakenly viewed HIV treatment and prevention as a business of saving people. But instead, we are in the business of setting people up to succeed, and helping them pick themselves up when they stumble. I realized the importance of strength based approaches, and client centered care. Now as a capacity building advisor, I get the privilege of working with service providers all over the country. With every case of technical assistance I provide or every workshop I facilitate, I focus on the strengths of the population we serve, and the importance of highlighting our client's successes and accomplishments.

Implications: Every client that we see brings with them a history of struggles and triumphs. Increased levels of self-sufficiency and self-efficacy should be at heart of any successful HIV prevention or care service. To effectively increase levels of self-efficacy and self-sufficiency clients need to be reminded of all the skills and strengths they possess, and all the successes they have had. Even beyond influencing the way clients see themselves, we need to change the way that providers and society in general perceive the HIV positive population. We need to tap into the strength and potential of our clients, and take the opportunity to grow and evolve with them.

TUESDAY, MARCH 19 | CONCURRENT SESSIONS | 4:00 PM – 5:30 PM

Track A

Session A04 - Do it at Home! Implementation Strategies to Increase Availability and Accessibility of HIV Self-Testing Among Priority Populations

Room: A706-A707 (Atlanta Marriott Marquis)

Abstract 5364 - Using surveillance data, community input, and reported naloxone administrations to guide programmatic decision-making in implementing the New York State (NYS) HIV Home Test Giveaway (HHTG)

Author(s): *Megan Johnson, Rakkoo Chung, Susan Flavin, Zoe Edelstein, Shu-Yin Leung, Michael McNair, Rosy Galvan, Elissa Nolan, James Tesoriero, Julie Harris*

Issue: Despite the efforts of the NYS Department of Health (NYSDOH) to routinize HIV testing within medical settings and fund rapid testing initiatives in high prevalence communities, estimates indicate that many persons with HIV remain undiagnosed, many of whom are men who have sex with men (MSM). The NYS HIV Surveillance registry indicates that in NYS, excluding New York City (NYC), there were 10,800 MSM living with diagnosed HIV in 2016, and 1,800 additional MSM were estimated to be unaware of their status.

Setting: NYS (excluding NYC) consists of 57 counties with varying access to HIV prevention and care services. Mobile devices/apps are frequently used within MSM networks; the HHTG is conducted completely online.

Project: To promote HIV testing among MSM, the NYSDOH utilized a model employed by the NYC Health Department (NYCDOHMH) in collaboration with the manufacturer of the HIV self-test kit, to implement the HHTG throughout NYS. The HHTG ran concurrently with NYCDOHMHs program and was implemented through four components. First, NYSDOH geo-targeted ad campaigns via social media platforms. Media campaign ads were geo-fenced within areas of NYS based on: the number of persons and MSM living with diagnosed HIV/AIDS; persons and MSM newly diagnosed with HIV; increases in early syphilis from 2010-2016; and volume of reported naloxone usage by law enforcement; as well as from community input. Second, those who clicked ads were redirected to an online survey to determine eligibility for a free home test. Third, eligible participants that provided a valid email address received a discount code redeemable for a free home test at manufacturer's website. Lastly, all eligible participants were invited to participate in a follow-up survey asking about experiences with the home HIV test, and HIV risk and prevention behaviors. NYSDOH provides all participants with the option to have a NYSDOH staff contact and assist them with further testing, PrEP referrals, linkage to HIV care, partner notification, and other supportive services.

Results: From November 2016 to March 2018, geo-targeting campaign messages within geo-fenced zip codes resulted in 24,957,223 ad-impressions and 155,506 click-throughs to the online eligibility survey. Overall, 6,190 participants completed the eligibility survey, 3,197 were eligible for a free home test, and

2,022 redeemed it. Of eligible participants, 1,513 (47%) completed the follow-up survey; 272 (26%) had taken an HIV test within the past 6 months; and 461 (30%) reported never being tested for HIV. Of follow-up survey participants, 935 reported testing themselves, 209 (22%) were first-time testers, and 761 (50%) requested follow-up assistance. Five (0.5%) self-reported testing HIV positive.

Lessons Learned: NYSDOH's HHTG was successful in its primary objective of providing free home HIV test kits to those at elevated risk of acquiring HIV who might not otherwise access testing. It has provided insights into priority populations, and valuable experience with cross-jurisdictional and private-public partnerships for improving public health. The success of the giveaway has resulted in expanding the use of HIV surveillance data to include molecular clusters as a source for geo-fencing campaign messaging, ultimately expanding the use of surveillance data to improve HIV prevention programming.

Abstract 5241 - Five waves of an online HIV self-test giveaway in New York City, 2015-18

Author(s): *Zoe Edelstein, Amanda Wahnich, Benjamin Tsoi, Paul Kobrak, Paul Santos, Adriana Andaluz, Jennifer Medina Matsuki, David Katz, Demetre Daskalakis, Julie Myers*

Background: HIV self-tests (HIVSTs) offer the opportunity to increase HIV status awareness by providing convenience and privacy, although cost and limited access may limit use. Since 2015, the New York City (NYC) Health Department has bi-annually conducted the online Home Test Giveaway (HTG) with free HIVST mailed to cisgender men and transgender persons who have sex with men (MTSM). After a successful pilot (Wave 1), four additional waves were completed through 2018.

Methods: Participants were recruited on mobile dating applications and websites. Recruitment for Wave 1 was 23 days; Waves 2-5 were 47-51 days. Eligibility was determined by an online survey and was limited to adult NYC residents who were MTSM and not previously HIV-diagnosed; the survey also captured race/ethnicity and time since last HIV test. Eligible participants were emailed a code to redeem on the manufacturer's website for a free HIVST. Efforts were made to ensure only one code was emailed per person per wave, with no such restriction across waves. Approximately two months after distribution ended, an online follow-up survey was emailed to eligible participants; it captured information on test receipt, use, experience, result (and, if appropriate, confirmatory testing), and recent HIV-related behaviors. Potential risk of recent HIV exposure was approximated as report of any of the following in the past 6 months: condomless anal sex; post-exposure prophylaxis use; STI diagnosis; sex with a partner with HIV; or stimulant or injection drug use. For key outcome variables, we present means and ranges across waves.

Results: In Wave 1, 3,359 participants were screened and 2,497 were eligible. In Waves 2-5, with longer duration of recruitment, more were screened per wave (mean: 6,097; range: 4,393-7,021) and deemed eligible (mean: 3,729; range: 2939- 4241). Among eligible participants, most were <35 years-old (range: 69%-76%) and cisgender-men (range: 95%-99%); approximately half were of color (29%-35% were Latino; 15-17% were non-Latino Black). Mean report of never-testing before HTG was 16% (range: 14%-21%). Across waves, a total of 17,414 codes were emailed and among them, 12,225 (70%) were redeemed for an HIVST. Mean response rate for the follow-up survey was 46% (range: 39%-56%). Most respondents who received an HIVST reported using it (mean: 80%; range: 76%-83%). Across waves, a total of 42 reactive results were reported out of 5880 HIVSTs used (0.7%); 33 with no known previous

diagnosis reported (0.6%; or 1 in 178 HIVSTs); and among them, 25 (76%) reported receiving confirmatory testing. Among all HIVST users, most reported recent risk of HIV exposure (mean: 85%; range: 73%-92%) and most reported testing sooner or first-time testing because of HTG (mean: 68%, range: 58%-74%). Likelihood of recommending HTG to friends was high (mean: 96%; range: 93%-98%).

Conclusions/Implications: Over five waves, HTG consistently distributed a large volume of HIVST to diverse NYC MTSM at potentially high risk of HIV exposure, some who had never tested before. Among those with a first known positive result, most reported confirmatory testing. This model for distributing HIVST may be adaptable to other settings, though modifications may be needed for different priority populations.

Abstract 5432 - #testathome: implementing HIV self-testing through CBO partnerships in New York City

Author(s): *Stephanie Hubbard, Maria Ma, Amanda Wahnich, Julie Myers, Lena Saleh*

Issue: Surveillance data demonstrate major disparities among new HIV diagnoses in New York City (NYC). Timely HIV diagnosis and linkage to care greatly reduce HIV morbidity, mortality, and onward transmission. The HIV self-test (HIVST) can decrease testing barriers and increase HIV status awareness, but HIV-affected communities may experience barriers to access, including lack of awareness and cost. Building on an earlier pilot to distribute HIVSTs to individuals recruited online, the NYC Health Department (HD) expanded its reach by launching the Community Home Test Giveaway (CHTG), a partnership between the NYC HD and select community-based organizations (CBO) to distribute HIVSTs to priority populations at no charge. We examined the feasibility of partnering with CBOs, program reach and outcomes.

Setting: Guided by close community relationships and local knowledge of the HIV epidemic, citywide CBO partners conducted outreach and on-site client engagement with the aim of recruiting from among priority populations, including men who have sex with men (MSM), transgender and gender nonconforming (TGNC) persons, particularly Black and/or Latino MSM and TGNC persons, Black and/or Latina women, and persons who exchange sex, are unstably housed, and/or live in high-poverty neighborhoods.

Project: CBO partners distributed recruitment cards to interested participants, directing them to an online eligibility survey. Eligible persons were adult NYC residents, HIV-negative/status unknown and members of designated priority populations. Eligible participants redeemed an emailed code to receive their free HIVST by mail or at a partner CBO (participant choice). All eligible participants were emailed a follow-up survey to assess their experience receiving and using the HIVST.

Results: From March 2017-June 2018, approximately 20,000 recruitment cards were distributed; 111 eligibility surveys were completed, and 93 (84%) participants were eligible. Of those eligible, 90% were Black or Latino, 52% were aged 18-34, 24% were MSM (among whom 91% were Black and/or Latino MSM), 12% identified as TGNC or another gender, 51% were Black and/or Latina women, 27% were persons who exchange sex, 30% were unstably housed, and 82% were living in high-poverty areas. Over

one-third (38%) had never tested previously. Among eligible participants, 70 (75%) redeemed their emailed code to obtain their free HIVST.

Lessons Learned: This innovative health department-community partnership successfully distributed a large volume of recruitment cards and reached priority populations to distribute HIVSTs, especially the harder-to-reach and never-tested, by integrating the CHTG into their regularly scheduled activities. However, there were significant barriers to accessing the required online eligibility survey. During partner meetings and monthly reporting, CBOs cited limited internet and computer access among the populations they serve as barriers to scale-up (e.g. closing the large gap between recruitment card distribution and eligibility survey-taking). Close collaboration with CBO partners has been integral to interpreting the successes and challenges of the CHTG and revising future implementation strategies. Instituting regular communication procedures and systematic methods for sharing feedback with CBO partners has been essential to building strong working relationships. Applying these lessons learned, the CHTG team plans to eliminate online program requirements in the next phase with a goal of improving program impact.

Abstract 5872 - “Discreet”: characteristics of MSM in a Virginia home testing program and reasons for requesting a home test kit

Author(s): *Bryan Collins*

Issue: The Commonwealth of Virginia contains separate HIV epidemics in four of its five regions. Prior to 2014, the Virginia Department of Health (VDH) provided funding to Local Health Departments (LHD) and approximately one dozen Community-Based Organizations (CBO) across the state. However, stigma related to HIV testing, limited resources for outreach, and client barriers such as lack of transportation and schedule conflicts prevented many individuals with low socio-economic status from accessing free HIV testing. Meeting the objectives of the National HIV/AIDS Strategy required expanding access to HIV testing beyond traditional clinical and community-based providers of the service.

Setting: In 2015, the Virginia Department of Health launched a centrally-administered home HIV testing program using a web-based platform, and began shipping home test kits to clients across the state.

Project: VDH collected client-level demographic, risk, and shipping information, and mailed eligible clients a package containing an OraQuick In-Home Test Kit and a brochure about Pre-Exposure Prophylaxis (PrEP). In December 2016, the data collection instrument expanded to include the client’s reason for requesting a test kit. This abstract focuses on MSM living in Virginia who completed a survey request after December 2016 and provided a reason they were seeking a home HIV test.

Results: Between December 2016 and June 2018, VDH received 819 requests for a home test kit from MSM living in Virginia. Thirty-five percent of tests were sent to localities with a population fewer than 10,000. Fifty-seven percent of clients were less than 30 years old, and 36% were Black or Latino. Twenty-one percent of clients reported more than ten sexual partners in the last 12 months, and 26% reported never using condoms. Forty-five percent of clients had not been tested in more than a year, or had never been tested. Seventy-nine percent of clients indicated that confidentiality was the reason they wanted a home HIV test. Indicating confidentiality was linked to not having received a recent HIV test, a

higher number of sexual partners, intermittent condom use, and perceiving PrEP to be unavailable or unaffordable. Surveillance records indicated that 1.9% of clients went on to receive a positive diagnosis after participating in the home testing program.

Lessons Learned: MSM who participated in the program had high behavioral risk, and were very likely to indicate confidentiality as a motivation to pursue a home test kit. Contrary to our expectations, concern for confidentiality was not linked to residence in sparsely populated localities, or localities lacking a traditional test site. Clients that did live in such areas were not more likely to report confidentiality, stigma, or distance to the nearest test site as their motivation. However, clients that indicated confidentiality as a motivation were more likely to have high risk, and less likely to have been tested recently. This suggests that for MSM, a primary barrier to maintaining an up-to-date HIV status may not be lack of access to a test site, but rather clients' anxiety about accessing testing through traditional means. This may also have implications for PrEP recruitment strategies that rely on referrals from HIV testing programs.

Abstract 5748 - Distribution of self test kits through the social networks of African American and Latino MSM

Author(s): *Marguerita Lightfoot, Chad Campbell, Nicholas Moss, Sheri Lippman*

Background: Globally, men who have sex with men (MSM) are disproportionately impacted by HIV. Research suggests that HIV Self-testing (HIVST) is highly acceptable among MSM. In addition, social network strategies to increase testing are effective in reaching MSM who may not otherwise test, particularly MSM of color. We tested a social-network based strategy to distribute HIVST kits to African American and Latino MSM in order to reach men who have never tested or test inconsistently.

Methods: A total of 30 African American MSM, Latino MSM, and Transgender women were trained as peer recruiters and asked to distribute five self-test kits to MSM social network members and support those who test positive in linking to care. Testers completed an online survey following their test. Using chi-square, we compared peer-distributed HIVST testing outcomes to outcomes from a health department's targeted, community-based HIV testing programs.

Results: Peers distributed HIVST to 143 social and sexual network members, of whom 110 completed the online survey. Compared to MSM who utilized the health department's sponsored testing programs, individuals reached through the peer-based self-testing strategy were significantly more likely to have never tested for HIV (3.51% vs. 0.41%, $p < 0.01$) and to report a positive test result (6.14% vs 1.49%, $p < 0.01$). A greater proportion of testers recruited by peer recruiters living with HIV reported a positive test result (15.6%) than those recruited by uninfected peer recruiters (2.4%) ($p = .02$). Testing outcomes were not associated with any other peer demographic we examined. Peer recruiters overwhelmingly reported positive experiences in distributing HIVST.

Conclusions/Implications: A social network strategy for self-test distribution is a promising intervention to increase testing uptake and reduce undiagnosed infections among African American and Latino MSM.

Session A07 - A Closer Look at HIV Partner Services in the United States

Room: Imperial A (Atlanta Marriott Marquis)

Abstract 5635 - Using HIV partner services performance indicators to monitor progress towards national HIV prevention goals- 2013-2017

Author(s): Michele Rorie, Wei Song, Mesfin Mulatu, Hui Zhang Kudon

Background: National HIV Prevention Program Monitoring and Evaluation (NHM&E) is a framework used to collect and report HIV prevention program data from CDC-funded grantees. The indicators of the CDC Partner Services (PS) program provide a standardized measure to evaluate the key components of PS program planning, activities, and service delivery. The current HIV PS indicators address the following national monitoring and evaluation questions on how successful PS programs are at:

- O identifying and interviewing individuals with HIV infection;
- O eliciting partner information from persons with HIV infection;
- O notifying partners of their exposure to HIV and testing them; and
- O linking HIV-positive partners to care services.

We will provide an overview of the key PS indicators along with their definitions, present the indicator calculations resulting from January 1, 2013- December 31, 2017 client-level PS data.

Methods: A set of standardized variables was used to collect client-level data from individuals who receive HIV PS, including clients’ demographic characteristics, risk behaviors, and HIV medical care status. Index patients and partners who were not located and/or eligible were excluded. We reviewed HIV partner services data submitted to CDC by state and local health departments; these data were then analyzed using SAS to calculate the program performance indicators.

Results: For each year, the number of index patients identified; the percentage interviewed for PS; the number of partners that were named; the percentage of partners notified of their HIV exposure; the percentage of notified partners tested for HIV; the percentage of tested partners newly identified as HIV-positive; and the percentage of newly identified HIV-positive partners linked to HIV medical care were reported and/or calculated. Missing and invalid records were excluded from each denominator used for the calculations. Results are as follows:

	2013	2014	2015	2016	2017
Index Patients Identified	36,363	35,692	45,481	49,266	44,516
Index Patients Interviewed	86%	92%	87%	88%	TBD
Partners Named	28,617	28,432	34,137	33,294	28,268
Partners Notified	81%	99%	99%	97%	TBD
Partners Tested	79%	80%	86%	85%	TBD
Newly Identified HIV+ Partners	23%	36%	27%	25%	TBD
HIV+ Partners Linked to Care	65%	87%	96%	97%	TBD
Overall New Positivity Rate	2,314/28,617	2,844/28,432	1,908/34137	1,670/33294	TBD
Without Excluding Missing Data	=8.1%	=10.0%	=5.6%	=5.0%	

Conclusions/Implications: Partner Services is a critical component in the continuum of activities designed to increase the number of persons diagnosed with HIV infection who receive treatment and HIV medical care to disrupt the transmission of the disease. CDC funding to health departments to implement HIV prevention interventions such as PS will help to reduce new infections, increase access to HIV medical care and improve health outcomes for people living with HIV. These findings suggest that health departments have exceeded the expectations of PS 12-1201 by enrolling (indicated by interviewing of the index patient) at least 80% of HIV-positive persons in PS. While health departments are effectively identifying new cases, an expansion of services, including better tracking systems may be required to reduce under reporting and increase the linkage to care statistics.

Abstract 5659 - Partner services in action- a health department showcase

Author(s): *Christine Convery*

Issue: Partner Services (PS) is a critical part of CDC's High-Impact Prevention strategy and a required program activity for local and state health departments that are funded to implement comprehensive HIV prevention programs for HIV-positive persons. Michigan Department of Health will present this "local-perspective" session as a supplement to the abstract, "Using HIV Partner Services Performance Indicators to Monitor Progress towards National HIV Prevention Goals- 2013-2017" within the proposed panel, "A National Evaluation of PS12-1201 Partner Services Activities 2013-2017".

Setting: Michigan delivers HIV Partner Services through local health departments in high morbidity counties or through state disease intervention specialists (DIS) in low morbidity areas. HIV Surveillance staff at the state level assign all PS cases after entering case report forms in eHARS and the PS Data Manager sits in surveillance. HIV Prevention staff oversee PS programs and are responsible for training of local staff and monitoring data reports coming out of surveillance.

Project: Michigan Department of Health will discuss its approach to Partner Services, specifically who conducts PS activities, as well as how and when index clients and partners are identified and interviewed. The successes and challenges of using CDC National HIV Monitoring and Evaluation (NHME) variables to improve prevention programs will be presented.

Results: Elements of the implementation model that facilitate data completeness will be highlighted, such as strategies for identification of hard to reach partners and successful data sharing practices between surveillance and prevention as well as with county and local health jurisdictions.

Lessons Learned: Evaluations seeking to improve data quality are extremely important and must be conducted to facilitate program delivery. Data sharing between surveillance and prevention is a critical practice. Using data products as feedback to local health departments and DIS ensures quality data entry and highlights areas for improvement. Regular monitoring of partner services outcomes using data allows prevention staff to offer appropriate technical assistance and capacity building.

Abstract 5632 - Factors associated with enrollment of MSM in partner services programs in the United States, 2016

Author(s): *Shubha Rao, Wei Song, Mesfin Mulatu, Michele Rorie*

Background: Gay, bisexual, and other men who have sex with men (MSM) make up an estimated 2% of the U.S. population. In 2016, black/African American MSM accounted for the largest estimated number and percentage of new HIV diagnoses (10,223; 38%), followed by Hispanic/Latino MSM (7,425; 28%) and white MSM (7,390; 28%). CDC's approach to addressing the HIV epidemic among MSM involves engaging and expanding prevention programs for this disproportionately affected population. Partner services (PS) programs are an integral component of CDC's high-impact HIV prevention strategy. The study examines the extent of MSM enrollment in PS programs and demographic and risk behaviors associated with enrollment of MSM in PS programs.

Methods: We used client-level data on HIV-diagnosed index patients enrolled in PS programs in 2016 across 45 CDC-funded state and local health departments. The analytical sample consists of 16,348 index patients excluding persons with missing data on gender and risk behaviors. An index patient is categorized as MSM when the self-reported current gender is "male" and self-reported risk behavior is "sex with male." Descriptive analysis was conducted to determine the proportion of MSM index patients located and enrolled in PS programs. Multivariate logistic regression was conducted to identify demographic and risk factors associated with enrollment of MSM in PS.

Results: Of the 16,348 index patients contacted by health departments, 10,144 (62%) were MSM. Of these, 9,979 (98%) were located and 7,868 (79%) were enrolled in PS. Of the 6,204 non-MSM index patients, 6,132 (99%) were located and 5,219 (85%) were enrolled in PS. MSM living in the Northeast (aOR=5.82, 95% CI=2.6-16.5) were more likely to be enrolled in PS, while MSM living in the Midwest (aOR=0.35, 95% CI=0.27-0.47) and the West (aOR=0.03, 95% CI=0.03-0.04) were less likely to be enrolled in PS compared to MSM living in the South. Compared to whites, blacks/African Americans (aOR=1.78, 95% CI=1.50-2.12) and Hispanics/Latinos (aOR=1.48, 95% CI=1.28-1.72) were more likely to be enrolled in PS. Both MSM who self-reported as having sex without a condom (aOR=2.52, 95% CI=2.18-2.91) and MSM who reported having a history of injection drug use during the past 12 month (aOR=1.59, 95% CI=1.25-2.03) were more likely to be enrolled in PS programs. MSM aged 35–44 years (aOR=0.72, 95% CI=0.58-0.89) and older than 45 years of age (aOR=0.65, 95% CI=0.53-0.80) were less likely to be enrolled in PS programs.

Conclusions/Implications: More than 60% of PS index clients are MSM, suggesting that such programs are successfully reaching, locating and enrolling MSM. Enrollment was higher among younger MSM and those reporting higher levels of behavioral risk, indicating that PS services are reaching more at-risk MSM. Understanding the factors associated with MSM enrollment is critical for designing interventions to increase access to PS and subsequently to HIV medical care, prevention, and support services.

Abstract 5631 - Patterns and outcomes of participation in partner services among transgender women partners of HIV-positive persons served in partner services programs in the United States, 2013-2016

Author(s): Wei Song, Mesfin Mulatu, Guoshen Wang, Hui Zhang Kudon, Kevin O'Connor, Michele Rorie

Background: Transgender persons, particularly transgender women, are one of the groups most affected by HIV and are more likely to be living with HIV infection than the general population. HIV partner services (PS) programs provide services to persons with HIV infection and their partners (sex and/or sharing drug-injection equipment partners), notify partners of possible HIV exposure, provide

access to HIV testing, and offer HIV status-appropriate prevention and health services. There is limited information about PS program delivery among transgender persons at the national level. This study examined the patterns and outcomes of PS participation among transgender women in CDC-funded HIV prevention programs nationally.

Methods: We analyzed data on 103,227 partners of HIV-diagnosed persons reported to CDC by 60 local and state health departments for clients served in 2013-2016. We combined sex at birth and current gender and identified five gender subgroups: cisgender men (n=81,892), cisgender women (n=16,586), transgender men (n=64), transgender women (n=951), other gender non-binary persons (n=18) and those with unknown gender (n=3,716). We excluded transgender men and other gender non-binary persons because of small sample sizes and those with missing gender in our subsequent analyses. We conducted descriptive, univariate and multivariate analyses to compare the PS delivery among transgender women partners with that of cisgender men and women partners.

Results: Transgender women were more likely to be non-Hispanic black (55.5%) than cisgender men (40.3%) and cisgender women (45.3%) ($p < .001$). Transgender women (72.6%) were also more likely than cisgender men (51.7%) and cisgender women (54.9%) ($p < .001$) to reside the South. Comparisons of PS program delivery outcomes among partners revealed significant gender differences. Overall, transgender women (73.0%) were less likely than cisgender women (82.2%) and men (79.9%) to be notified of potential exposure ($p < .001$). Of those notified, the rate of HIV testing was lower among transgender women (46.7%) than it was among cisgender women (63.4%) and cisgender men (52.9%) ($p < .001$). Among tested partners, transgender women (17.6%) and cisgender men (17.7%) had higher rates of newly identified HIV positivity than cisgender women (13.3%) ($p < .001$). Among newly diagnosed HIV-positive partners, there were similar proportions of non-Hispanic black transgender women (56.1%) and cisgender women (56.9%) was higher than cisgender men (52.9%) ($p < .001$); the proportions of Hispanic/Latino among transgender women (17.5%) and cisgender men (16.2%) was higher than cisgender women (10.0%) ($p < .001$).

Conclusions/Implications: There are significant differences in the outcomes of PS program participation between transgender women and cisgender men and women partners of HIV-diagnosed persons. Compared to cisgender men and women, transgender women are more likely to be non-white and reside in the South, and less likely to be notified of potential exposure and tested for HIV by PS programs. The high levels of HIV infection and the variability in access to services imply the need to intensify PS programs that address the unique needs of transgender women. Further studies examining the underlying social and structural factors responsible for the disparities would help in designing responsive PS programs.

Abstract 5498 - Utilizing STD partner services and case management to find and prevent new cases of HIV: an evaluation of integrating STD and HIV interventions in California

Author(s): Brett AugsJoost, Ryan Murphy, Jessica Frasure-Williams, Heidi Bauer

Issue: Syphilis and HIV in California are syndemic. In 2016, approximately 45% of Early Syphilis (ES) cases among MSM were previously HIV+, and 4% were newly positive. Syphilis diagnosis is an opportunity for HIV testing, prevention, linkage to care (LTC), re-engagement with care (RWC), and linkage to HIV PrEP

for clients and their partners. Integrating HIV prevention into partner services and case management (PSCM) can be leveraged to find and prevent new cases of HIV and identify people at a high risk for contracting HIV.

Setting: Five large LHJs in the California Project Area (CPA), which excludes San Francisco and Los Angeles, were funded to measure outcomes of expanding the role of STD disease intervention specialists (DIS) to include HIV prevention including assessing HIV status, and referrals for HIV testing and care.

Project: The CDPH STD Control Branch funded staff and infrastructure, and provided focused attention and technical assistance to 3 LHJs to integrate HIV prevention into their PSCM program for male ES cases. Two additional counties with integrated STD and HIV programs were funded to participate in the evaluation. LHJs focused on improving documentation of HIV status among ES cases, HIV testing for the patients with negative or unknown status, integrating STD & HIV partner services, and providing LTC to ES case newly diagnosed with HIV or previously positive and out of care. The LHJs changed staffing and protocols to include HIV-related questions into the PSCM of ES cases, treat the ES diagnosis as a marker of high risk for HIV infection, and include HIV testing and LTC in routine ES follow-up. The corresponding outcomes were tracked over the intervention period from 2015 through 2017 in the California Reportable Disease Information Exchange (CalREDIE). Outcomes were compared with non-intervention LHJs.

Results: In 2017 across the five LHJs, 39.8% (range: 23.1% - 47.4%) of ES cases were documented as previously HIV positive compared to 17.3% in the rest of the CPA ($p < 0.001$). Of ES cases with negative or unknown status, 70.1% (18.3% - 86.1%) received an HIV test within the 30 days before or after syphilis diagnosis compared to 57.3% in the rest of the CPA ($p < 0.001$). Of those tested within 30 days of syphilis diagnosis 5.9% (3.8% - 10.5%) were newly positive for HIV compared to 4.0% in the rest of the CPA ($p < 0.01$).

Lessons Learned: Integration of STD and HIV prevention in PSCM for syphilis created efficiencies and proved to be high yield for increasing the percentage of people living with HIV who know their status, a key outcome in the National HIV/AIDS Strategy. For people previously diagnosed HIV positive, it was an opportunity for referral and re-engagement with care. For ES cases with unknown HIV status or a negative test more than 30 days prior to syphilis diagnosis, there was an opportunity for HIV testing, and LTC or Pre-Exposure Prophylaxis (PrEP).

Track B

Session B04 - THRIVE: Engaging MSM of Color in HIV prevention and Care Services

Room: International North (Hyatt Regency Atlanta)

Abstract 5478 - The Gamechanger Social Media Project: efforts to improve HIV prevention and care outreach to MSM of color in Jefferson County, Alabama

Author(s): *Tony Christon-Walker, Trevis Smith, Jeffrey Hall*

Issue: Jefferson County has experienced challenges in conducting effective HIV prevention outreach to men who have sex with men of color (MSM of color). Compared with white MSM, MSM of color are more likely to acquire HIV infection and less likely to access PrEP services. We have attempted several methods of HIV prevention outreach for MSM of color including HIV testing at street outreach events, clubs, gay parties, and other gatherings. Because of the lack of gay clubs that cater to blacks in Jefferson County, HIV testing at gay clubs has yielded poor numbers of HIV tests among MSM of color. In addition, MSM of color in Birmingham often don't self-identify as gay due to stigmatization and homophobia in their communities and don't want to frequent gay venues or access HIV prevention services for MSM for fear of being identified as gay. Jefferson County, like many jurisdictions in the Southern U.S., needs effective strategies for delivering services MSM of color, many of which are stigmatized don't want to be identified as MSM.

Setting: Social media outreach to MSM of color living in Jefferson County Jefferson County, Alabama's most populous county and a central county of the Birmingham-Hoover, Alabama Metropolitan Statistical Area.

Project: Jefferson County's Gamechanger project is funded through CDC's THRIVE project. The Gamechanger Project partnered with Summit Media Company to create a website to serve as the repository for basic HIV information and facts. The Gamechanger project also worked with Summit Media Company to help optimize the website by using search engine optimization, keywords, retargeting, geo-targeting, and other tools to target MSMOC in the Birmingham Metropolitan Area. Our social media strategy will be presented including a description of how we created and implemented our social media component. The presenter will also cover some of the barriers faced by our frontline staff and how our social media offerings helped to mitigate those barriers.

Results: The initial results of our campaign have been positive. We elicited feedback from MSM of color through focus groups to inform our social marketing campaign strategies. Participants emphasized the importance of widening the campaign's focus to include a variety of subpopulations within the community of color, to avoid further stigmatizing MSM of color. As a result, we featured a diverse group of people, including cisgender, transgender, male, female, gay, lesbian, straight, HIV-positive, and HIV-negative models. We experienced an increase in the number of walk-in clients requesting HIV and STI tests. We had many engaging conversations with community members about PrEP, mostly about what it is and isn't. Finally, community members were successful in making online appointments for screenings and ninety percent of clients attended their appointments.

Lessons Learned: Community input through focus groups is vital to a successful campaign and highlighted that MSM of color feel stigmatized by being targeted as the sole focus of HIV prevention campaigns. Casting a wide social marketing net can engage MSM of color, regardless of whether they identify as MSM. It is important to dispel myths about PrEP.

Abstract 5924 - Effects of financial incentives on viral suppression rates among black MSM engaged in HIV care in Louisiana, September 2013-March 2018

Author(s): *Antoine Brantley, Stephen Boakye, Samuel Burgess, Jacky Bickham*

Background: Viral suppression maintenance through antiretroviral treatment utilization has been shown to prevent both HIV transmission and progression to AIDS. In 2016, black gay, bisexual, and other men who have sex with men (collectively referred to as MSM) accounted for the largest proportion of new HIV diagnoses in Louisiana (42.7%). Moreover, only 79% of black MSM engaged in HIV-care exhibited viral suppression compared to 91% of white MSM. In 2013, Louisiana Department of Health initiated Health Models: a pilot program in three urban HIV specialty clinics aimed at investigating the ability of financial incentives (FIs) to promote HIV care engagement and viral suppression maintenance, as well as eliminate viral suppression disparities.

Methods: PLWH in two clinics in New Orleans, LA and one clinic in Baton Rouge, LA were enrolled in Health Models on a rolling basis and followed from September 2013 through March 2018 (study period) and received cash FIs, each ranging from \$10-\$75, for attending HIV medical care and lab appointments and reaching/maintaining viral suppression (HIV viral load \leq 200 copies/mL). A comparator group was also followed through the study period that was comprised of black MSM and white MSM identified through Louisiana's HIV registry who resided in the same regions but were not enrolled in Health Models. Viral suppression status was ascertained at the time of entry into the study period and at the end of each subsequent year of follow-up (maximum follow-up time of two years). Odds ratios were calculated to assess disparities in viral suppression rates between black MSM and white MSM over follow-up time. Viral loads for each person were obtained from Louisiana's HIV surveillance program.

Results: Of the 2,705 PLWH who enrolled in Health Models, 805 were black MSM (60.3%) and 529 were white MSM (39.7%). The comparator group consisted of 7,041 black MSM (59.7% of non-enrollees) and 4,756 white MSM (40.3% of enrollees). At the time of Health Models enrollment, 60.0% and 40.9% of white MSM and black MSM enrollees exhibited viral suppression, respectively (OR: 1.47, $p < 0.0001$). After 2 years of participation in Health Models, 91.9% and 87.1% of white MSM enrollees and black MSM enrollees exhibited viral suppression, respectively (OR: 1.05, $p = 0.002$). In the comparator group, 61.2% and 37.8% of white MSM and black MSM exhibited viral suppression, respectively (OR: 1.62, $p < 0.0001$). After 2 years of follow-up, 91.6% and 79.9% of white MSM and black MSM in the comparator group exhibited viral suppression, respectively (OR: 1.14, $p < 0.0001$).

Conclusions/Implications: Black MSM enrolled in Health Models experienced a greater increase in viral suppression rate compared to black MSM that were not enrolled after two years of follow-up (from 40.9% to 87.1% for enrolled black MSM vs. 37.8% to 61.2% for non-enrolled MSM). Furthermore, the disparity between blacks and whites was lower among Health Models enrollees compared to the comparator group after two year of follow-up. Our findings show that financial incentives may be able to effectively promote sustained viral suppression maintenance among black MSM and may also help eliminate viral suppression disparities between black MSM and white MSM.

Abstract 5816 - Leveraging community resources to address health disparities among gay and bisexual men of color

Author(s): Anthony James

Issue: HIV infection rates among gay and bisexual men of color (GBMoC) are disproportionately high compared to other groups. Prevention methods that focus exclusively on promoting education and

individual behavioral change have proven to be insufficient in halting the spread of HIV among this marginalized and stigmatized group. This is partly because such methods fail to address the myriad of social determinants confronting GBMoC.

Setting: The Expanded Continuum of Care Collaborative (EC3) was formed to address HIV and other related health disparities among gay and bisexual men of color (GBMoC) in the New Orleans Metropolitan Statistical Area (MSA).

Project: The Louisiana Department of Health Office of Public Health STD/HIV Program created and leads an Expanded Continuum of Care Collaborative (EC3) for GBMoC. EC3 is a cross functional collaborative/team made up HIV prevention and care organizations, as well as behavioral health, social service, and healthcare providers. It seeks to connect systems and provides an expansive array of culturally competent, client-centered services. Its overarching goal is to alleviate health disparities among GBMoC.

Results: Since EC3's formation on average 216 clients have been engaged on a monthly basis. HIV testing has yielded on average 1.5% positivity, while GC/CT testing has yield on average between a 6 - 7%. GBM account for greater than 30% of clients screened and served.

Lessons Learned: Since EC3's formation in spring 2016, it has grown to include 15 providers. Service offerings to GBMoC now include mental health and substance abuse counseling, health insurance navigation, job training and workforce development, emergency and transitional housing support, as well as comprehensive HIV/STI screenings, PrEP and nPEP, and medical care and treatment. EC3 meets every other month to review referral and linkage data and to identify challenges and barriers, as well as to identify strategies to address such barriers.

Abstract 5914 - STI screening at PrEP follow-up visits among MSM prescribed PrEP in Baltimore City, Maryland

Author(s): *Christina Schumacher, Aruna Chandran, Errol Fields, Jessica Wagner, Kathleen Page, Maisha Davis, Sarah Schmalzle, Joyce Jones, Patrick Chaulk, Jacky Jennings*

Background: Implementation of HIV pre-exposure prophylaxis (PrEP) programs may increase the frequency of screening for bacterial sexually transmitted infections (STIs), such as syphilis, gonorrhea and chlamydia (GC/CT), among HIV uninfected men who have sex with men (MSM). The CDC recommends biannual screening for syphilis and urogenital, rectal and oropharyngeal GC/CT infection as standard of care for all MSM receiving PrEP. The frequency at which MSM on PrEP receive recommended STI screening remains unknown. Our objective was to determine the proportion STI screened by disease and anatomic site and characteristics associated with screening at their first 6-month PrEP visit among MSM patients enrolled in a large demonstration project to increase PrEP delivery in Baltimore City, Maryland.

Methods: The project was implemented by a city health department, evaluated by an academic partner and conducted in collaboration with six clinical sites and one CBO. Information on STI screening among HIV uninfected MSM receiving HIV prevention services at one of the clinical sites between September

30, 2015 and March 31, 2018 were evaluated. MSM who were ever prescribed PrEP as of September 30, 2017 and returned for their first 6-month follow-up visit (+ 30 days) were included in the analysis. STI screening was defined as screening for syphilis and GC/CT at any of three anatomic sites at each 6 month follow-up visit attended. Summary statistics were generated, and Chi squared and t-tests were used to compare demographic characteristics and clinic type of MSM screened vs. not screened.

Results: Between September 30, 2015 and March 31, 2018, 228 MSM were prescribed PrEP, 39% (n=88) of whom returned for at least one 6-month visit. Among the 88 MSM, 50.6% (n=42) were Black/African American, mean age was 27.5 years (SD: 8.13), and 54.6% (n=48) received services at dedicated STI clinics. Less than one-fifth (18.2%, n = 16/88) were STI screened at the 6-month follow-up visit. The proportion screened vs. not screened did not differ significantly by race, age or healthcare provider. 56.8% (n=50), 55.7% (n=49), 34.1% (n=30), and 48.9% (n=43) were screened for syphilis, urogenital GC/CT, rectal GC/CT and oropharyngeal GC/CT, respectively. There were no differences in syphilis or urogenital GC/CT screening by race, age or clinic. Blacks/African Americans vs. non-Black/African Americans were less likely to be screened for rectal GC/CT (21.4% vs. 45.6%, $p = 0.015$). Individuals receiving care at private vs. STI clinics were more likely to receive rectal (47.5% vs. 22.9%, $p=0.015$) and oropharyngeal (70.0% vs. 31.2%, $p < 0.001$) GC/CT screening.

Conclusions/Implications: STI screening among MSM at the first 6-month PrEP follow-up visit in Baltimore City is low. A majority were screened for syphilis and urogenital GC/CT overall and across sites, though there is room for improvement. Extragenital GC/CT screening is lower at the STI clinics compared to other participating clinical sites. Future work will focus on identifying individual and provider-level barriers and facilitators to screening at the different clinical providers to improve adherence to recommendations.

Abstract 5830 - Bridges757: a collaborative approach to HIV prevention and care for MSM of color

Author(s): *Darnell Barrington*

Issue: Black/African American and Hispanic/Latino MSM had the highest rates of HIV diagnoses in 2016 in the United States. Community collaboratives that provide comprehensive, seamless, culturally sensitive access to HIV prevention and care services and behavioral health and social services for MSM of color can help to decrease HIV infections in these populations and improve the health and well-being of men of color living with HIV.

Setting: A network of funded and unfunded health care and social service organizations including three Community Based Organizations (CBO's) and five Local Health Departments (LHD's) in the Norfolk-VA Beach MSA.

Project: Bridges757 is a collaborative network of agencies that operate to improve health outcomes among gay, bisexual and other men who have sex with men (MSM) of color by engaging participants into holistic, culturally competent HIV prevention, resources, HIV medical care, behavioral health and social services and by providing navigation support. The collaborative utilizes Service Navigators who are frontline community health workers and trusted peers to connect minority gay, bisexual and other MSM

in the greater Hampton Roads area with services that directly impact HIV prevention and care outcomes.

Results: The Virginia Department of Health (VDH) provides funding to three CBO's and five LHD's to address the HIV prevention, care, behavioral health, and social service needs of MSM of color. This is done through the implementation of a service navigation model developed with input from potential clients, community partners, and health care providers. Each navigation site employs service navigators that are trained as Community Health Workers (CHW's) to provide case management for each client. Navigators utilize a community resource directory to connect clients with their social, behavioral, and health care needs. Clients' needs are identified using a screening tool completely developed by collaborative members. Every quarter, collaborative members attend the Bridges757 Learning Collaborative meeting to revisit program objectives and to participate in workgroups to further strengthen the efficacy of the collaborative. Other major results include reduced linkage to care time for newly HIV diagnosed clients as well as increased capacity of funded agencies to address clients' needs.

Lessons Learned: A standard training process is key in such a complex network of navigators and referral sites, for that reason the CHW training has been instrumental in the success of this project. Agencies are very territorial and competitive, but relationships have improved through the implementation of the collaborative. Expansion in the area of behavioral and mental health services have been a challenge. Due to the various level of capacity of each of the agencies, programmatic sustainability is an anticipated challenge.

Session B07 - First Do No Harm: Addressing Clinician Knowledge and Barriers to Providing PrEP

Room: Embassy A-C (Hyatt Regency Atlanta)

Abstract 5704 - Association between same-sex behavior disclosure and PrEP discussion with health care providers among sexually-active men who have sex with men, National HIV Behavioral Surveillance, 2017

Author(s): *Lindsay Trujillo, Catlainn Sionean, Amanda Smith, Teresa Finlayson, Cyprian Wejnert*

Background: Pre-exposure prophylaxis (PrEP) is recommended for many men who have sex with men (MSM) due to their increased risk for HIV. Despite an increase in awareness of PrEP among healthcare providers (HCPs), many MSM do not report currently taking PrEP. Lack of knowledge of patients' sexual orientation can be a barrier to discussions about PrEP and other HIV prevention measures between HCPs and MSM. We examined whether disclosure of same-sex behavior to an HCP was associated with discussing PrEP with an HCP among sexually active MSM.

Methods: We analyzed data from the 2017 National HIV Behavioral Surveillance (NHBS) MSM cycle. MSM aged ≥ 18 years were sampled at venues in 23 U.S. cities, interviewed, and offered HIV testing. Analyses were limited to HIV-negative MSM who reported ≥ 1 male sex partner during the past 12 months (N=7,087) and also saw an HCP in the past 12 months (N= 5,946). Bivariate analyses were conducted to assess associations between demographic characteristics, behavioral indicators for PrEP, health preventive services, disclosure of same-sex behavior to an HCP, and discussing PrEP with an HCP. Variables associated with discussing PrEP were included in a log-linked Poisson regression model with

generalized estimating equations and clustered on recruitment event and city to obtain adjusted prevalence ratios (aPR) with 95% confidence intervals (CI) for discussing PrEP with an HCP conditional on disclosure of same-sex behavior to an HCP.

Results: Of the 5,946 MSM included in the analysis, 84.4% had ever disclosed their same-sex behavior to an HCP and 46.7% had discussed PrEP with an HCP in the past year. The percentage of MSM discussing PrEP with an HCP was higher among those who were aged 30 years or younger, non-Hispanic (NH) white, had at least some college education, resided in the Western region (Denver, CO, Los Angeles, CA, San Diego, CA, San Francisco, CA, Portland, OR, and Seattle, WA), had a usual source of care, and during the past 12 months: had condomless anal sex, had 2 or more male sex partners, tested for HIV, and were diagnosed with a bacterial STI. After adjusting for these variables, the proportion of MSM discussing PrEP with their healthcare provider was higher among those who had disclosed their sexual behavior to an HCP (52% vs 16%, PR: 3.0 (2.6-3.4), aPR: 2.1 (95% CI: 1.9-2.5)).

Conclusions/Implications: MSM were more than twice as likely to have discussed PrEP with an HCP if they had disclosed their same-sex behavior after adjusting for demographic characteristics, behavioral indicators of PrEP, and health preventive characteristics. The conversation between HCPs and their MSM patients is a critical period for delivering counseling on HIV prevention tools such as PrEP. HCPs should always assess sexual risk behavior among patients and make efforts to develop trust with their MSM patients to encourage them to disclose same-sex behavior.

Abstract 5742 - Provider biases against people who inject drugs in the context of PrEP clinical decision-making

Author(s): Sarah Calabrese, Damon Ogburn, E. Jennifer Edelman, Kenneth Mayer, Manya Magnus, Trace Kershaw, Douglas Krakower, Joshua Rosenberger, Valerie Earnshaw, Kristen Underhill, Nathan Hansen, Joseph Betancourt, John Dovidio

Background: Unequal access to HIV pre-exposure prophylaxis (PrEP) has the potential to exacerbate existing HIV disparities. Social biases may influence clinical judgments surrounding PrEP and contribute to access inequity. This cross-sectional study investigated how providers' PrEP-related clinical judgments varied by patient race and risk behavior.

Methods: Licensed providers (n=293) practicing in US primary and HIV care settings were recruited to participate in an online survey via professional organization and health care center email lists (2016-2017). Participants were randomly assigned to review a medical chart of one of six hypothetical male patients seeking PrEP. The charts varied systematically by patient race (Black vs. White) and risk category (sex with men vs. sex with women vs. injection drug use). Prior to chart review, providers were presented with PrEP background information (e.g., efficacy, side effects) and estimates of per-act HIV transmission risk for all exposure categories. Following chart review, providers reported clinical judgments using five-point rating scales. Judgments included perceptions of the patient (e.g., perceived HIV risk, anticipated adherence) and willingness to prescribe PrEP for him. Providers also reported sociodemographic and practice characteristics. Multivariate analysis of variance was performed to assess the impact of patient race, patient risk category, and their interaction on providers' clinical judgments ($\alpha=.05$).

Results: Of the 293 participating providers, about half were women (54%) and most identified as heterosexual (72%) and White (76%). The sample was primarily composed of medical doctors (63%), nurse practitioners (17%), and physician assistants (12%). Most providers reported being HIV specialists (66%). Participants most commonly practiced in community (39%) and/or academic (38%) medical settings and in the Northeastern (38%), Western (26%), or Southern (24%) US. Ninety-nine percent expressed prior familiarity with PrEP and 79% reported that they had ever prescribed PrEP. More providers had discussed PrEP with a man who had sex with men (87%) vs. a man who had sex with women (60%) or a person who injected drugs (54%).

Clinical judgments related to the hypothetical patient presented in the medical chart varied across risk categories, but minimal race or race x risk category interaction effects emerged. Providers perceived levels of HIV risk and potential benefit derived from PrEP to be similar for the man who injected drugs vs. the man who had sex with men, and higher for the man who injected drugs vs. the man who had sex with women. However, providers anticipated poorer adherence by the man who injected drugs vs. the man who had sex with men and were less willing to prescribe for him. Providers also rated the man who injected drugs as less safety-conscious and less responsible than the other patients.

Conclusions/Implications: Despite recognizing the potential benefit of PrEP for a patient who injected drugs, providers expressed less favorable perceptions of him and lower willingness to prescribe PrEP for him vs. other patients. Findings suggest that patients at risk for HIV due to injection practices vs. sex may experience lower support when seeking PrEP from providers. Efforts to improve their access to PrEP and address provider biases are needed.

Abstract 6165 - Prescribing pre-exposure prophylaxis (PrEP) knowledge and beliefs among a national sample of nurse practitioners: the role of religion

Author(s): *Stephen Scroggins, Enbal Shacham, Matthew Ellis, Karen Moore*

Background: Currently, nurse practitioners (NPs) provide a significant portion of primary health care, which is anticipated to increase in the context of current and future expected shortage of primary care physicians. Increasingly, NPs serve as accessible community health experts, including serving as sexual health care providers. How NPs' training and faith-based beliefs are associated with willingness to prescribe HIV prevention medication, pre-exposure prophylaxis (PrEP) is not well understood. The purpose of this study was to evaluate the knowledge, attitudes, and beliefs about PrEP in a national sample of NPs in order to identify institutional and personal barriers to PrEP that may impact provision of care to persons at risk of HIV. This study details the association between NPs' current religious practices and willingness to prescribe PrEP.

Methods: A cross-sectional survey was completed by NPs in attendance at their annual national conference (n=271). Sociodemographics were collected in addition to individual knowledge and attitudes about PrEP, prescribing patterns, current and historic religious affiliations, the importance of their faith, and the impact of their faith, particularly on the decision to prescribe PrEP. Bivariate analysis was conducted to assess current religious affiliation and likelihood to prescribe PrEP. Logistic regression was employed to predict the likelihood of having prescribed or willingness to prescribe PrEP in relation to current religious variables. to prescribe PrEP in relation to current religiosity.

Results: The majority of the sample identified as white (n=214, 79%), female (n=223, 82.3%), with an average age of 46 + 11.34 years. More than 16% (n=44) identified as a sexual minority and most reported having a current religious affiliation (n=182, 67.2%). Individuals with a current religious affiliation were more likely to be female (p=0.019), less likely to identify as a minority (p=0.014), more likely to practice or work in the southern region of the U.S. (p=0.010), more likely to be raised in a religious household (p<0.001), and more likely to be influenced by religious/faith-based beliefs (p<0.001). Individuals with religious affiliation were more likely to have contraindicative attitudes and beliefs regarding PrEP (p=0.010). Individuals with no current religious affiliation were 60% more likely to prescribe or be willing to prescribe PrEP (OR 0.40, 95%CI 0.20, 0.81). PrEP attitudes and beliefs were confounders in this relationship, being positively associated with no current religious affiliation and an increased likelihood in prescribing or willingness to prescribe PrEP (OR 0.82, 95%CI 0.72, 0.94).

Conclusions/Implications: Studies continue to find a lack of provider communication or promotion of PrEP to be a key barrier in its uptake. In our study, NPs having no current religious affiliation are more likely to prescribe or be willing to prescribe PrEP. Our findings suggest a need for specific attention to be given to personal religious beliefs through PrEP education and training, as previous efforts may have not identified this implicit or explicit bias. Further, the institutional context in which NPs practice may more explicitly limit the provision of PrEP.

Abstract 5997 - PrEP uptake and academic detailing: PS15-1506 Project PrIDE demonstration project
Author(s): *Deborah Monaghan*

Issue: High-impact HIV prevention approaches implemented by health departments are designed to reduce new HIV infections among MSM and transgender persons. However, additional efforts are needed to realize the benefits of new and targeted prevention strategies that have the potential to significantly reduce new HIV infections and increase viral suppression among these populations. The purpose of this 3-year demonstration project, Project PrIDE, is to support health departments in implementing two public health strategies to reduce new HIV infections in MSM and transgender persons. These include Pre-exposure Prophylaxis (PrEP), a daily pill to prevent getting HIV, and “Data to Care,” the use of HIV surveillance and other data to identify HIV-diagnosed persons not in care, and to link, engage, or re-engage them in HIV medical care. This project supports the goals of the National HIV/AIDS Strategy (NHAS) by improving program planning and implementation to reduce new HIV infections, increase access to care and improve health outcomes for persons living with HIV, and reduce HIV-related disparities and health inequities.

Setting: The Colorado Department of Public Health and Environment (CDPHE) was awarded the Project PrIDE grant to be used in the Denver-Aurora metropolitan statistical area (MSA), an urban area within the western state of Colorado.

Project: CDPHE has aimed to increase the capacity of clinical providers through public health detailing, a strategy to deliver PrEP support services through the use of integrated HIV, STD, and hepatitis data, resulting in increased numbers and proportions of MSM and transgender persons (priority populations) at high risk served by CDPHE who are identified as eligible for PrEP, who can potentially benefit from PrEP, and who are prescribed PrEP. Detailing has also aimed to sustainably increase community-based

provider capacity to deliver PrEP support activities to priority populations by increasing providers' PrEP-related knowledge through social marketing campaigns, increasing the number and proportion of providers willing and able to deliver PrEP, and by training new and existing providers to offer PrEP.

Results: Deborah Monaghan, CDPHE's Detailer, has developed a provider-specific website, ProudToPrescribePrEP.com, supporting in-person detailing activities and promoting long-term sustainability of clinical providers' ability to effectively prescribe and manage patients on PrEP. Colorado's Detailing program has also provided in-person detailing to many primary care and infectious disease providers through Project PrIDE support. As part of a panel presentation, Colorado will present the latest data on changes in provider knowledge, perception and prescribing of PrEP as well as providers' response to this new detailing initiative.

Lessons Learned: Colorado will review processes most effective in strategically selecting providers to detail, in developing provider-friendly material resources, and in creating a sustainable method to maintain relationships and support to clinicians. We will also introduce plans for sustainability of detailing in Colorado, present frameworks for adapting PrEP detailing across other jurisdictions, and scaling to additional public health initiatives.

Abstract 5755 - Building a citywide network for prevention navigation: year one of New York City's PlaySure Network

Author(s): Julie Myers, Angela Merges, Lena Saleh, Zoe Edelstein, Mohini Persaud, Katrina Estacio, Jessica Klajman, Jaime Martin, Benjamin Tsoi, Oni Blackstock, Demetre Daskalakis

Background: Current pre-exposure prophylaxis (PrEP) prescribing patterns do not reflect the burden of new infections, leaving large disparities among priority populations such as Black and Latino men who have sex with men (MSM), transgender individuals, and heterosexual Black and Latina women. Innovative strategies to increase PrEP and PEP access that circumvent structural barriers are needed. Building on previous experience with navigation for people living with HIV, New York City (NYC) Health Department (HD) developed the PlaySure Network (PSN), a funded citywide collaborative of 33 clinical and non-clinical providers including a post-exposure prophylaxis (PEP) hotline and PEP centers of excellence. These interventions address structural barriers to prevention engagement through outreach (online or in-person), education, and navigation services. We used program data to describe PSN's reach and service delivery in its first year with a focus on PrEP access.

Methods: We used data collected and entered by PSN agencies into a New York City Health Department contract monitoring system during the first year of standardized data collection, April 2017-March 2018. In the PSN model, program staff use a standardized, anonymous screening tool to identify and engage clients who might benefit from PrEP based on existing clinical guidelines; interested clients are then enrolled, provided PrEP-related education, offered support services (e.g., benefits navigation), and then, either linked to PrEP (non-clinical sites) or prescribed PrEP (clinical sites). Initial screening is anonymous; data collected upon enrollment include gender, race/ethnicity, age, sexual behavior, and insurance status. We describe client characteristics by step, including screening, enrollment, PrEP-related education, and ultimately PrEP prescription (clinical sites only), overall and by priority population (Black and Latino MSM, transgender individuals, heterosexual Black and Latina women).

Results: Overall, across 27 PSN sites focused on PrEP provision, 7279 anonymous screens and 4077 enrollments were completed: 2029 and 2048 at non-clinical and clinical sites, respectively. Enrollments were 82% men and 4% transgender; 28% Black/African-American and 37% Latino; 71% under 35; 65% MSM; and 46% uninsured. Among enrollees, 3656 (90%) were provided with PrEP-related education. Among enrollees at clinical sites (N=2048), 941 (46%) were ultimately prescribed PrEP. Among PrEP prescriptions, 88% were among men and 3% transgender; 27% Black/African-American and 39% Latino; 72% under 35; 78% MSM; and 42% uninsured. By priority population, Black and Latino MSM comprised 21% screens conducted, 26% of enrollments and 48% of PrEP prescriptions. Transgender individuals comprised 4% of screens conducted, 3% of enrollments, and 3% of PrEP prescriptions. Heterosexual Black and Latina women comprised 19% of screens conducted, 7% of enrollments, and 7% of PrEP prescriptions.

Conclusions/Implications: Through a funded network of clinical and non-clinical sites designed to increase access to PrEP (and PEP) in priority populations, PSN enrolled 4000 persons and prescribed PrEP to over 900. MSM of color comprised a greater proportion of those prescribed than enrolled. A standardized, anonymous screen helped to identify priority populations, but additional efforts may be needed to improve engagement in screening among MSM of color as well as identification of heterosexual women at high risk for HIV.

Session B09 - Can You Hear me Now? Moving PrEP and Testing Beyond Clinic Walls Through Telemedicine, Smartphone Apps, and Social Media Outreach

Room: Regency V (Hyatt Regency Atlanta)

Abstract 5601 - Reducing barriers to PrEP access through innovative app and testing methods

Author(s): *Jessica Horwitz, Merissa Hawkins, Kimberly Koester*

Issue: Though PrEP is unequivocally effective at preventing HIV, there are sociocultural and systematic barriers that impact access. Often access to reliable transportation to/from medical appointments, concerns over privacy, stigma, distrust of traditional healthcare, and high costs of lab work serve as barriers for PrEP access and lead to the healthcare disparities that exist in its uptake. There are currently large gaps in reliable access to approachable medical care by those disproportionately at risk for HIV infection, particularly among youth and young adults of color. Methods for HIV prevention, outreach, and medical care that reduces barriers and increases comfortability among potential PrEP users is imperative to ending the pandemic. Furthermore - models that value confidentiality, privacy and convenience must be the cornerstone of innovative PrEP delivery models. The smartphone has become the primary source for accessing the internet, especially among younger adults, people of color, and lower income Americans (1). There is an opportunity to increase access to innovative medical care and PrEP in these populations through devices they already own and use. (1: <http://www.pewinternet.org/fact-sheet/internet-broadband/>)

Setting: Nurx is a telemedicine company, based in San Francisco, that is dedicated to increasing access to healthcare. Founded in 2015, Nurx currently offers birth control, emergency contraception, and PrEP services through a mobile platform, with plans to expand into other areas that could benefit from

asynchronistic care. The mobile platform allows patients to request prescriptions (including renewals and refills), text-chat directly with medical providers, receive healthcare navigation, complete PrEP required lab testing at home, and have prescribed medications delivered directly to their door.

Project: Nurx's PrEP program is dedicated to increase access to PrEP by making it as convenient as possible to receive quality medical care, navigation, and low cost at home lab testing. Outreach and marketing efforts are done through social media, such as Facebook and Instagram, focusing on diverse populations. In California, efforts were more focused on larger cities - but growth plans include active marketing to rural and healthcare scarce communities. Our innovative app allows users to chat directly with medical providers and PrEP navigators and order home lab testing kits, addressing several primary barriers.

Results: In June 2018, about 26% of total Nurx patients are based in California with 78% identifying as male and 22% female. In a recently completed University of California - San Francisco study, participating Nurx patients are diverse, self identifying as: 33% Hispanic, 30% White, 17% Black/African American, 10% Asian, and 10% Mixed/Multiple races.

Lessons Learned: Telemedicine has the ability to appeal to a diverse population of people who are appropriate for PrEP and has a unique ability to care for those who are often not accessing PrEP, particularly women and young adults. By making PrEP accessible in this format - people can bypass many barriers that would have dissuaded PrEP access in traditional settings. The addition of home lab testing kits, with self-collection for all of the CDC suggested labs, is both affordable and convenient, and is expected to make PrEP even more accessible.

Abstract 5488 - PlushCare tele-PrEP, a nationwide app-based program's California success

Author(s): *Rina Hung, Jonathan Bandy, James Wantuck*

Issue: PrEP (pre-exposure prophylaxis) reduces the risk of HIV infection by over 90%. Despite PrEP's efficacy, many barriers to access still remain. This presentation will review PlushCare, a virtual care app on iOS and Android smartphones that provides comprehensive PrEP treatment nationwide, with a focus on California results.

Setting: PlushCare is a virtual care practice and app that provides medical care nationwide via a smartphone app, relying on physician-patient video chat and text communication to care for patients and increase access. Lack of awareness, stigma, and geographical restrictions may explain the low rates of adoption for PrEP, and PlushCare's PrEP program addresses these factors by connecting patients with physicians who have PrEP expertise, reduces social stigma and improves privacy, while eliminating the need for travel. PlushCare PrEP is a nationwide app-based program that targets individuals who are at risk for HIV and candidates for PrEP therapy.

Project: The PlushCare PrEP program aims to reduce HIV infection rates by reducing barriers to care with a guideline-based smartphone app for PrEP therapy. High-risk individuals are found through various means and consult with a PlushCare physician through the app about PrEP. After the initial virtual visit, a patient who meets criteria and understands the risks and benefits of PrEP is enrolled in a digital

treatment plan based on CDC guidelines. Truvada is prescribed to the patient's pharmacy, if indicated, and regular lab testing and followup are completed. Most major insurance and California Medicaid is accepted, and patients are enrolled in co-pay assistance and government programs when available.

Results: In the first 9 months of the program (September 2017 - June 2018), 403 Californians have enrolled in PlushCare PrEP, as compared to more than 2500 enrollees nationwide. For the California population, the average age is 35.3, and 400 identify as male gender. Of those enrolled, 5 new HIV infections were diagnosed prior to starting PrEP (1.24%). Of the time-eligible patients who began Truvada, 93.5% completed their first follow-up appointment at three months. Of those time-eligible for a visit at 6-months from enrollment, 98.7% completed a follow-up appointment. There were no new HIV infections among those in the program. The main reasons for discontinuing the program were relationship status change and change/loss of insurance.

Lessons Learned: PrEP has had slower than expected adoption in the US. By implementing PlushCare's PrEP program with a smartphone app, dramatic improvement in enrollment and adherence are possible. It is likely that geography, lack of physician/patient awareness, and social stigma are among the major barriers addressed by PlushCare PrEP. Utilizing digital solutions for enabling PrEP access may contribute to elimination of new HIV infections in the US.

Abstract 5420 - Iowa TelePrEP: A public health-partnered telehealth model for delivering HIV pre-exposure prophylaxis (PrEP) in small urban and rural settings

Author(s): *Michael Ohl, Angela Hoth, Cody Shafer, Randall Mayer*

Issue: Access to HIV pre-exposure prophylaxis (PrEP) is often poor in small urban and rural areas of the United States due to stigma and long distances to PrEP providers. In 2017, the Iowa Department of Public Health (IDPH), University of Iowa Hospitals and Clinics (UIHC), and community representatives collaborated to develop a public health-partnered telehealth delivery model to overcome these barriers (TelePrEP). This presentation will review the process used to develop the TelePrEP model and initial program results. We will share lessons learned with other public health departments and healthcare delivery systems seeking to implement telehealth PrEP programs in similar small urban and rural contexts.

Setting: TelePrEP clinical staff in an academic medical center (i.e., UIHC) collaborated with public health personnel in five local health departments. Based on USDA Urban Influence Codes, TelePrEP served clients in 7 small urban areas (metro population 50,000-650,000) and 9 rural counties (population < 50,000) across Iowa.

Project: Public health personnel working in sexually transmitted infection (STI) clinics, HIV testing programs, and partner services (PS) programs screened clients for PrEP indications and referred those with need to TelePrEP pharmacist providers at UIHC. Clients could also self-refer to TelePrEP in response to internet and social networking ads and word-of-mouth. Via collaborative practice, pharmacists completed initial and follow-up videoconferencing visits with clients on smartphones, mobile devices, and personal computers using the commercially available Vidyo application. Clients obtained laboratory monitoring and STI screening – including self-obtained pharyngeal and rectal swabs - in local public

health-affiliated and other laboratories, and received PrEP medication by mail. PS personnel linked clients with newly identified STIs to local treatment.

Results: TelePrEP received 122 referrals between February 14, 2017, and May 31, 2018, including 51 from public health and 71 self-referrals. Pharmacists completed 90 initial videoconferencing visits (74% of referrals), including 39 (76%) with clients referred by public health. Client characteristics included: average age 33 years (range 18-60), 93% male sex at birth, 85% in small urban and 15% in rural areas. Most (89%) were men who have sex men (MSM) and 11% had PrEP indication related to high-risk heterosexual contact. Most clients with videoconferencing visits (94%) started PrEP. Retention in TelePrEP at 6 months was 89% and 97% of guideline-indicated laboratory monitoring tests (e.g., HIV, creatinine, STI, hepatitis) were completed at baseline and follow up. Fifteen TelePrEP clients were diagnosed with 20 STIs on routine screening (6 syphilis, 4 gonorrhea, 10 chlamydia) and one unrecognized pregnancy was identified. PS linked all clients with STIs on screens to local treatment within 14 days (80% in 3 days).

Lessons Learned: Using widely available telehealth technology, public health departments and healthcare delivery systems can collaborate to develop virtual PrEP delivery programs that overcome barriers related to distance and stigma in small urban and rural settings. Pharmacist collaborative practice expands capacity for delivering high-quality PrEP services in telehealth programs serving areas with physician shortages. Public health partnerships enhance client identification and ensure linkage to care for clients with new STI diagnoses in geographically dispersed telehealth PrEP programs.

Abstract 5435 - Pre-exposure prophylaxis (PrEP) and telehealth in a bathhouse: opportunities and challenges

Author(s): *Joanne Stekler, Vanessa McMahan, Hing Wah Howard Kwong, Fred Swanson, Chris Peterson, Elizabeth Crutsinger-Perry, John Scott*

Background: In 2013, we started the first community-based, in-person and telehealth PrEP clinic in the Pacific Northwest. Here we describe the pilot expansion of telehealth services to a Seattle bathhouse.

Methods: Gay City provides HIV/STI testing in Seattle bathhouses on Wednesday afternoons and Tuesday, Friday and Saturday nights. We piloted the project on Wednesdays for reasons including provider convenience, lower potential impact of substance use, and a relatively high rate of HIV/STI diagnoses made during that shift in the prior seven months. The PrEP physician was also available one Friday evening during a party for transmen.

HIV/STI testing encounters were conducted in a private room by an HIV counselor trained in PrEP-related topics including efficacy, medication adherence, side effects, drug resistance, HIV testing, and acute infection. PrEP was discussed with each client, and reasons for non-interest in screening for PrEP were recorded. The physician was available via interactive videoconference using a secure, HIPAA-compliant platform.

Results: From December 13, 2017 to June 6, 2018, 22 Wednesday sessions were available for PrEP visits, and 19 cisgender male clients were seen for HIV/STI testing (median 1, range 0-3 clients/session). Three (15.8%) clients were currently receiving PrEP, and one had previously discontinued PrEP. One (6.2%)

client of 16 not currently receiving PrEP was interested in discussing PrEP further, and a videoconference was initiated and completed without difficulty; unfortunately, this client's insurance restricted prescribing, and he was encouraged to reach out to a network provider.

Age and race/ethnicity data were available for nine other clients not receiving PrEP. These clients had a median age of 53 (IQR 52-64, range 39-72) years. Five (55.6%) were non-Hispanic White, two (22.2%) were Hispanic, one (11.1%) was Asian, and one (11.1%) was Black. Reasons for not screening for PrEP were available for 12 clients and included low perception of risk (7, 58.3%), lack of PrEP knowledge (4, 33.3%), concern about side effects (3, 25%), being closeted or married with concerns about privacy (3, 25%), uncertainty PrEP would prevent HIV (2, 16.7%), and concerns about affordability (2, 16.7%).

Conclusions/Implications: Telehealth prescribing in a bathhouse was feasible, but uptake was low. Perceived low HIV risk is a commonly cited reason for lack of uptake of PrEP and may be accurate, particularly in this older population who may be using other risk-reduction strategies, or may be inaccurate, as reported by the client who discontinued PrEP because he was only having insertive sex. Additional work is needed to increase PrEP knowledge and to understand and alter the perception of risk among men and transgender persons who have sex with men who are at higher risk for HIV acquisition, including within bathhouses and other sex venues.

Telehealth can expand the reach of specialty expertise into rural and remote regions and into populations who might not otherwise access care because of physical barriers or stigma. Continued work on this pilot project will focus on increasing HIV/STI testing visits during bathhouse shifts and explore different days and times that might reach a younger population.

Abstract 6196 - Targeted outreach increases HIV testing and PrEP education in MSM and trans women of color

Author(s): *Kathryn Keneipp, Michele Simo, Ilse Calixto, Santa Fernandez, Finn Schubert*

Background: Men who have sex with men (MSM) and transgender women of color have disproportionate rates of HIV infection. The Family Health Centers at NYU Langone sought to increase HIV testing among these groups in order to reduce disparities in HIV care and prevention.

Methods: Targeted outreach to MSM and transgender women of color was conducted via social media applications and direct messaging. Social media applications included Grindr, Growlr, and Jack'd, where staff was in contact with anonymous users to promote HIV testing and address and answer HIV-related questions. In addition, targeted media campaigns were published in Gay City News promoting access to PrEP at NYU Family Health Centers. We analyzed 15 months of data both before and after the outreach intervention to identify the impact of the targeted outreach on populations receiving HIV testing.

Results: With targeted social media outreach and media campaigns, the HIV testing program saw a 44% increase in testing among the MSM (311 to 447) and a 71% increase in transgender women of color (21 to 36) as compared with the prior 15 months.

Conclusions/Implications: Outreach strategies resulted in an overall improvement in HIV testing among target populations, however the increase among transgender women only resulted from patient in reach and peer referrals. The differences in target population growth may be attributed to the types of

audiences who participate in the social media applications that were utilized for the outreach, as these applications are known to be geared toward the MSM community. It is critical to continue to develop HIV testing outreach strategies that effectively reach transgender women of color. The ability to reach these populations for HIV testing can be an entryway to bridging patients to PrEP and other medical services

Session B11 - Taking Care of the Back End: PrEP Persistence and Adherence

Room: International South (Hyatt Regency Atlanta)

Abstract 5214 - Adherence to and persistence with HIV pre-exposure prophylaxis in the United States, 2012-2016

Author(s): *Ya-Lin Huang, Guoyu Tao, Karen Hoover*

Background: Daily oral preexposure prophylaxis (PrEP) with Truvada is highly effective in preventing HIV infection with adherence to daily dosing and persistence with PrEP during periods of HIV risk. We estimated adherence and persistence among a cohort of PrEP users with commercial and Medicaid insurance.

Methods: Using data from Truven Health MarketScan® Commercial and Multi-State Medicaid databases, we created a cohort of PrEP users aged 18-64 years who initiated PrEP between 1/1/2012 and 12/31/2016. We restricted our analysis to persons continuously enrolled in their health plans for at least 6 months prior to and 12 months after their initial PrEP prescription, and who had no HIV diagnosis during our 12-month observation period. Adherence was measured by proportion of days covered (PDC)—a metric representing the percentage of unique days a person had a supply of prescribed drugs during the 12-month period. We accounted for stockpiling if a patient refilled before exhausting medications from previous fills. Sufficient adherence was considered to be a PDC \geq 90%. We reported the median length of gaps between each prescription fill. We also monitored each person's medication fill persistence, defined as time from the initial PrEP prescription fill until there was a gap in prescription fills >30 days. We used Kaplan-Meier time-to-event methods to estimate the proportion of PrEP users who persisted with PrEP at 6 and 12 months and the median duration of persistence.

Results: Among 4,172 commercially-insured PrEP users, the median PDC for 12 months was 89.0%; 49.0% of users had a PDC \geq 90%. Among the 177 Medicaid-insured PrEP users, the median PDC was 71.0%; and only 24.3% had a PDC \geq 90%. Commercially-insured users had slightly shorter gaps between prescription fills compared to the Medicaid users (median of 7.7 versus 9.5 days). Since PrEP initiation, 71.7% of the commercially-insured users persisted for 6 months, and 53.6% for 12 months. The median persistence was 13.7 months (95% CI, 12.8-14.3), and varied significantly by age group ($p < .0001$). The median persistence was 7.6 months for users aged 18-24 years, and 18.9 months for users aged 45-54 years. Among Medicaid PrEP users, 55.3% persisted for 6 months and 32.1% for 12 months. The median persistence of Medicaid users was 7.2 month (95% CI, 5.9-8.5), and varied by age group ($p = 0.0033$)—median persistence was 3.8 months for users aged 18-24 years, and 9.6 months for users aged 45-54

years. Black Medicaid PrEP users had a shorter median persistence (4.0 months) compared to white Medicaid users (8.1 months) ($p=0.0127$).

Conclusions/Implications: We found that half of commercially-insured persons who initiated PrEP used it for at least one year with high adherence. Adherence and persistence rates were relatively lower among the Medicaid-insured users, especially black PrEP users. We also found that younger persons persisted with PrEP for shorter times. We were not able to assess reasons for PrEP persistence or discontinuation. Because HIV incidence rates are highest among persons aged 25-34 years and younger, interventions designed to improve younger PrEP users' adherence and persistence might increase the impact of PrEP on HIV incidence.

Abstract 5970 - Geographic barriers result in HIV pre-exposure prophylaxis discontinuation: how to improve retention in care

Author(s): *Zoe Greenwald, Kiffer Card, Jason Szabo, Nathan Lachowsky, Réjean Thomas*

Background: The potential for Pre-exposure prophylaxis (PrEP) to reduce HIV incidence relies on equitable access to PrEP and retention in care. Despite the availability of low-cost PrEP through high-volume clinics in Quebec, these services are centralized in Montreal's downtown gay village – potentially threatening the effectiveness of PrEP for HIV-elimination in suburban and rural areas. We aim to investigate barriers to PrEP retention including clinic access.

Methods: We examined factors associated with time to PrEP discontinuance using clinical data collected between January 2011 and April 2018 at Canada's largest PrEP clinic (l'Actuel). Cox Proportional Hazard models estimated adjusted Hazard Ratios (aHRs) for risk of PrEP discontinuation with censoring of patients maintained in care as of December 1, 2017. Our primary explanatory factor, clinic access was measured by assessing driving distance from residential postal code centroids to l'Actuel. Other covariates included baseline PrEP regimen, age, income, education and behavioral risk factors (i.e., number of sexual partners within 12 months, antecedent STIs, and chemsex use).

Results: In total, 1473 clients (median age: 36, IQR: 29-45; 98% MSM) initiated PrEP (82% daily, 18% intermittent) – providing 1,460 person-years of observation. 12-month retention rate was 52%. In April 2018, 662 individuals (45%) were actively maintained in PrEP care. Half of (49%) all PrEP users resided within 5km of l'Actuel, 28% resided 5-9km away, 10% resided 10-19km away, 7% resided 20-49km away, and 6% resided over 50km away. In multivariate modelling, only greater distance from l'Actuel ($aHR=1.002$, $95\%CI:1.000-1.003$) and younger age ($aHR=0.979$, $95\%CI:0.970-0.989$) were associated with increased risk of PrEP discontinuation.

Conclusions/Implications: Few significant findings predict PrEP discontinuance, only greater distance to our clinic and younger age – highlighting the need for additional research regarding patterns of clinical retention among PrEP users. In our setting, young MSM are the highest risk group for HIV acquisition, and greater efforts to initiate and retain young patients on PrEP are essential. Improved public health messages, provider training and alternative PrEP delivery options are needed to expand spatial coverage beyond that of downtown urban cores and to younger clients who may be less likely to live in urban centers or gay neighborhoods.

Abstract 5267 - Improving engagement in preventative care: exploring the impact of a pre-exposure prophylaxis (PrEP) retention program at Denver Public Health

Author(s): *Rachel Piette, Kari Perry, MaShawn Moore, Karen Wendel, Edward Gardner, Sarah Rowan*

Issue: Truvada® for Pre-Exposure Prophylaxis (PrEP) is an effective method to prevent HIV acquisition among vulnerable populations. Denver Public Health (DPH) is one of the largest PrEP providers in Metro Denver, yet as of April 2017, 56% of DPH clients who initiated PrEP in 2016 had fallen out of care (i.e., no appointment for PrEP in greater than 3 months). The PrEP Retention Program (PRP) was developed to identify barriers to PrEP care, reasons for discontinuing PrEP, and strategies to support ongoing PrEP use.

Setting: The PRP was implemented at the Center for Positive Health, DPH's Infectious Disease Clinic (IDC). The IDC has started more than 600 unique individuals on PrEP since it was FDA approved for HIV prevention in 2012.

Project: Implemented in January 2017, PRP utilizes a two-pronged approach, targeting both new and out-of-care PrEP clients at IDC. New clients received a paper survey to screen for barriers to treatment. For out-of-care individuals, retention specialists administered an evaluation via telephone to determine reasons for drop-off, assess reengagement interest, and facilitate reengagement. Both groups received a follow-up call to assess challenges experienced after starting/restarting PrEP, allowing retention specialists to provide additional assistance as needed.

Results: In 2017, 112 new clients completed an intake survey, and 159 out-of-care clients were assessed for reengagement. Among both groups, 31% of clients identified text or email as their preferred contact method for follow-up. Intake survey results showed that 47% of new clients anticipated barriers to PrEP care; the most commonly anticipated barriers were PrEP-associated costs (26%) and getting time off for follow-up appointments (16%). New clients reported that assistance with PrEP-associated costs (32%), appointment reminders (24%), extended clinic hours (15%), and drop-in hours (14%) would help reduce anticipated barriers. Among out-of-care clients, the most common reasons for discontinuing care at IDC were changing their mind (risk change and/or competing priorities) (29%), transferring PrEP care (17%), forgetting appointments (12%), struggling to afford PrEP-associated costs (12%), and losing insurance (11%). Through retention efforts, 24% of out-of-care clients were reengaged in PrEP care. Ninety-seven new and reengaged clients completed a follow-up survey; results indicated that the majority of clients did not experience barriers after starting/restarting PrEP (84 %). Clients reported appreciation of PRP's structured follow-up, which allowed for retention specialists to navigate reported barriers with clients, the most common being side effects (7%) and affordability (4%). Of the clients who initiated PrEP in 2017, only 36% had fallen out of care by April 2018, a 36% decrease compared to 2016 PrEP-initiates.

Lessons Learned: Implementation of PRP correlated with a lower attrition rate for PrEP clients at IDC. As a result of the feedback gathered through PRP, IDC has added drop-in medical and lab appointments for established clients. To improve the client experience, the design of PRP has evolved to reduce the frequency of surveys and incorporate non-traditional modes of communication, including text and email. Eliciting client feedback on barriers to retention in PrEP care continues to inform and guide evaluation and process improvement for clients in PrEP care at the DPH IDC.

Abstract 5544 - PrEP navigation for MSM and transgender women with multiple health disparities

Author(s): *Cathy Reback, Dennis Runger, Sam Phillips*

Methods: Identify implementation strategies that can be adapted and applied in diverse settings

Results: Most MSM (53%) and transgender women (45%) self-reported their racial/ethnic identity as African American/Black, followed by Caucasian/White for MSM (24%) and Hispanic/Latin for transgender women (28%). MSM were on average 8.4 years older than transgender women (43.3 vs. 34.9 years, $p < .001$). Educational attainment, employment, and housing instability were comparable between both groups. Fewer MSM reported exchange sex in the past 6 months than transgender women (19% vs. 51%, $p < .001$). MSM and transgender women reported similar levels of recent (past 6 months) alcohol use (60% vs. 48%, ns), but a greater proportion of MSM reported recent drug use (81% vs. 64%, $p = .009$). There was no significant difference in the number of sex partners in the past 30 days between MSM (Mdn 3, IQR 2–7) and transgender women (Mdn 4, IQR 2–10); MSM were more likely to report condomless anal intercourse (81% vs. 62%, $p = .011$) in the past 30 days. Most MSM and transgender women were linked to PrEP (92% vs. 90%, ns). The median number of days to linkage was 9 for MSM (IQR 4–15) and 14 (IQR 8–28) for transgender women ($p < .001$). The 90-day follow-up rate was 86% (MSM: $n = 112$, 87%; transgender women: $n = 48$; 83%) Similar proportions of MSM and transgender women reported that they were still taking PrEP (70% vs. 81%, ns). Of those still on PrEP, MSM and transgender women were equally likely to report no days with a missed dose in the past 4 days (83% vs. 87%), past 30 days (49% vs. 50%), and past 90 days (37% vs. 42%, all ns).

Conclusions/Implications: Despite experiencing multiple health disparities, which are known to be associated with barriers and challenges to care, PrEP uptake was high in both groups ($\geq 90\%$); MSM were linked to PrEP more quickly. Similar proportions of MSM and transgender women were still on PrEP at 90-day follow-up; however, PrEP adherence worsened as the recall period extended. PrEP persistence, which requires distal follow-up time points beyond 90 days, is unknown.

Abstract 6021 - DOT Diary: developing a novel mobile app using artificial intelligence and a digital sexual diary to measure and support PrEP adherence among young MSM

Author(s): *Kenneth Coleman, Albert Liu, Ed Ikeguchi, Aaron Siegler, Susan Buchbinder, Nicole Laborde, Ariane van der Straten, Laura Shafner, Eric Vittinghoff, Rafael Gonzalez, Gretchen Wilde, Annie Lockard, Lauren Sunshine*

Background: Young men who have sex with men (YMSM) are among the most vulnerable to HIV infection in the US, with Black and Latino MSM accounting for over three-quarters of new infections among YMSM. While PrEP has demonstrated effectiveness, adherence has been low among YMSM and difficult to measure accurately across studies. We developed a novel mobile app (DOT Diary) to improve the measurement and support of PrEP adherence and evaluated its acceptability among YMSM.

Methods: In collaboration with AiCure (an artificial intelligence healthcare company), we configured an automated directly-observed therapy (aDOT) platform for monitoring PrEP use. The aDOT system provides daily dosing reminders and uses artificial intelligence (computer vision and machine learning) to confirm the right person is taking the right medication at the right time, and allows for real-time

monitoring via a staff dashboard that can trigger timely intervention for missed doses and behavioral trends. Through input from theater-testing groups with YMSM, we combined aDOT with an electronic sexual diary to create the integrated DOT Diary app. Based on pharmacologic data from prior PrEP trials, the app provides YMSM with an estimated level of HIV protection achieved from PrEP (low, medium, or high), and motivating personalized messages on the number of PrEP doses needed to maximize/maintain protection. We then conducted an 8-week optimization pilot with 20 YMSM to assess acceptability of the app using the System Usability Scale (SUS) and qualitative interviews.

Results: From March-June 2018, 20 YMSM enrolled in the 8-week pilot (10 San Francisco, 10 Atlanta). Mean age was 28; 75% were Black, 25% Latino. Most (85%) had some college education, 35% had income <\$20,000, and 60% were insured. At baseline, mean number of anal sex partners was 8, 70% reported condomless anal sex, and 40% were diagnosed with an STI, all within the past 3 months; 35% were currently taking PrEP, 30% had previously taken PrEP, and 35% were PrEP-naïve. The app was highly acceptable, with median SUS scores of 85/100 at week 4 and 80/100 at week 8; 36% and 22% of scores fell within the “best imaginable” and “excellent” categories, respectively. At exit, two-thirds of participants were very satisfied and the remainder was mostly satisfied with the app. Most (83%) participants reported the app helped with taking PrEP, 72% would definitely recommend the app to a friend, and 83% were likely/extremely likely to use the app to help take PrEP. In qualitative interviews, most found the app useful and liked the daily reminders, dosing/sex diaries, and ability to see protection levels. Participants felt recording their pill-taking kept them accountable and motivated adherence, although some disliked having multiple dosing steps. The efficiency of the app is continuously improving to minimize time-on-task for dosing.

Conclusions/Implications: An advanced visual-recognition platform employing artificial intelligence and an electronic sex diary to support PrEP monitoring and adherence was reportedly highly acceptable among YMSM. A randomized clinical trial will evaluate the accuracy of the app compared with pharmacokinetic measures and the effectiveness of DOT Diary in improving adherence among YMSM.

Session B16 - Mitigating Risks for Injection and Non-Injection Drug Users

Room: Regency VII (Hyatt Regency Atlanta)

Abstract 5417 - Changes in non-injection use of prescription opioids among heterosexually active adults in 14 U.S. cities

Author(s): *Catlainn Sioanean, Dita Broz, Cyprian Wejnert*

Background: Research on drug use associated with increased risk of heterosexually acquired HIV typically has focused on illicit stimulants (crack cocaine, methamphetamine). Prescription opioid misuse may precede initiation of injection; yet few studies have examined opioid use among adults in high HIV prevalence areas who have no history of injection drug use. We analyzed data from the heterosexual cycle of National HIV Behavioral Surveillance (NHBS) to assess the prevalence of non-injection use of prescription opioids by demographic characteristics and to evaluate changes in use between 2010 and 2016.

Methods: In 2010, 2013, and 2016, low-income heterosexually active men and women aged 18 to 60 years were recruited using respondent-driven sampling in 14 U.S. cities with high HIV/AIDS prevalence. Participants self-reported the frequency of their recent (past 12 months) non-injection use of opioids (e.g., Oxycontin, Vicodin, or Percocet) not prescribed for them. Analyses were limited to participants who reported no lifetime history of injection drug use. We calculated prevalence ratios (PRs) and 95% confidence intervals (CIs) from log-linked Poisson regression models to estimate changes in the prevalence of any non-injection opioid use and in the prevalence of frequent use (more than once a week) per three-year increase in time.

Results: The percent reporting any non-injection opioid use was stable over time with 487/5536 (9%) in 2010, 645/5600 (12%) in 2013, and 600/6130 (10%) in 2016 (PR=1.07, CI: 0.95-1.20; P>.05). In each year, the percentage reporting opioid use was higher among participants aged 18-29 years compared to those ≥30 years, among those who were unemployed, and among those who lacked health insurance. Frequent use increased overall from 3% in 2010 to 4% in 2013 and 5% in 2016, for an adjusted relative increase of 29% per each 3-year increase in time (aPR=1.29, CI: 1.10-1.51). Increases in frequent use were observed for both males and females and for each racial/ethnic group, and were highest among participants who were aged 18 to 29 years (aPR=1.46, CI: 1.25-1.70), reported a race/ethnicity other than black or Hispanic/Latino (aPR=1.49, CI: 1.13-1.96), were unemployed (aPR=1.47, CI: 1.20-1.80), or were uninsured (aPR=1.53, CI: 1.27-1.83).

Conclusions/Implications: Among samples of men and women at increased risk for heterosexually acquired HIV interviewed in 2010, 2013, and 2016, prevalence of non-injection opioid use did not increase overall. However, frequent use of opioids increased. Monitoring of frequent non-injection opioid use among heterosexuals with no history of injection drug use may help inform local prevention efforts by identifying groups at risk of transitioning to drug injection.

Abstract 5557 - Syringe vending machines in Nevada: preliminary results and expansion into rural areas

Author(s): *Chelsi Cheetom, Jessica Johnson, Monica Adams, Kathryn Barker, Marlo Tonge, Rich Reich, Lyell Collins, Michael Johnson*

Issue: Persons who inject drugs (PWID) are at high risk of contracting blood-borne pathogens, including HIV and Hepatitis C Virus (HCV), due to unsafe injection practices. A primary harm-reduction approach to reduce infections is through provision of sterile syringes to PWID. However, the opioid epidemic has resulted in increased injection drug use among persons in rural areas. Provision of sterile syringes in these areas can be complicated by lack of infrastructure (e.g., Syringe Services Programs, hospitals), experience servicing this population, and community readiness for harm reduction. Recently, syringe vending machines (SVMs) were introduced in Nevada as an innovative approach for the distribution for harder-to-reach people who inject drugs.

Setting: The Southern Nevada Health District and Nevada Division of Public and Behavioral Health- HIV Prevention Program, partnered with Trac-B Exchange, a nonprofit syringe exchange that is a part of The Harm Reduction Center—Las Vegas. Three sites were selected in urban Las Vegas, Nevada for Trac-B to implement SVMs. One at the storefront syringe exchange, one at an HIV/AIDS service organization, and

one at a full-service family practice medical clinic that specializes in LGBTQ health. Another two potential sites in rural Nevada have been identified for SVM placement due to being recognized as at-risk for an HIV or HCV outbreak by CDC's national vulnerability analysis.

Project: SVMs are stand-alone units that dispense sterile syringes and other harm reduction supplies, such as education materials, condoms, and sterile injection drug preparation equipment. These SVMs dispense a free kit with 10 syringes and needles, tourniquets, bandages, alcohol wipes, cotton filters, and sterile cookers. The machines confidentially monitor product dispensing, and a registered client is allowed two kits weekly. SNHD worked with local, state, and federal partners to analyze preliminary program data, create a streamlined informatics data monitoring system, develop a structured evaluation plan, and expand the program to rural areas in NV.

Results: Two hundred seventy-one unique users accessed the SVMs during the first year. Preliminary baseline programmatic data included consumer sociodemographics, risk behaviors, and product dispensing will be presented for the three urban SVMs. Formative data on the rural expansion efforts, including community stakeholder engagement and response will be discussed, as well as the design of the monitoring and evaluation system for ongoing assessment.

Lessons Learned: Input at all levels, including the community at large, agency, individual service providers, and consumers were keys to successful site adoption. Other considerations such as privacy, safety, and demand were critical for identifying SVM location. Program barriers include keeping the machines stocked, certifying new consumers, and staff readiness for harm reduction. While rollout of the SVMs is in early stages, there are opportunities to share experiences, challenges, and key findings from the first year of implementation.

Abstract 6076 - Attitudes of local governmental and community organizations regarding implementing syringe service programs in rural southern Illinois

Author(s): *Rebecca Bolinski, Lawrence Ouellet, Jerel Ezell, John Schneider, Wiley Jenkins, Sam Friedman, Mai Pho*

Background: In 2015, an estimated 2 million Americans suffered from substance use disorder related to prescription opioid pain relievers and 591,000 people were estimated to be addicted to heroin. In Illinois, overdose-related deaths due to opioids increased by 63% between 2013 and 2015, while non-opioid-related deaths decreased by 11%. From 2013 to 2014 Illinois was one of 14 states that experienced a statistically significant overdose death rate between 2013-2015. Moreover, there is potential for increased rates of infectious disease transmission in rural areas experiencing opioid injection, poverty, and lack of healthcare access to disease screening, substance use disorder treatment and syringe services. Syringe service programs (SSP) minimize some of these risks and represent an evidence-based approach to reducing disease.

Methods: Non-medical use of prescription opioid pain relievers is more prevalent among rural, as compared to urban, populations. The present work examines the scope and nature of opioid use disorders, with particular attention to SSPs, in the Illinois Delta Region (IDR). The IDR is a large rural area covering the southernmost 16 counties in the State. Importantly, this geographical area, spanning 6,038

square miles, is home to only one SSP. To make sense of community perceptions of and accessibility and receptiveness to SSPs, we conducted semi-structured interviews with local stakeholders, including law enforcement and criminal justice officials, health care professionals, and mental health and drug treatment clinicians. Interview guides were developed after exploring relevant literature. Interviews were audio recorded and transcribed verbatim. Coding followed inductive methods and grounded theory.

Results: Preliminary analysis suggests that participants are more likely to vocalize resistance to SSPs than to assert support of such harm reduction programs. This resistance is often related to an overarching concern of SSPs enabling injection drug use that supersedes notions of public health and disease prevention. Moreover, participants, regardless of their own support of, or objection to, SSPs, indicated that within the community at large, prospective SSPs would face substantial resistance.

Conclusions/Implications: Despite the highly publicized HIV outbreak in Scott County, Indiana and increasing rates of HIV infection in other rural areas neighboring Illinois, key government and community agencies in rural areas of the state express and predict resistance to SSPs based on the expectation that their presence encourages injection drug use or undermines moral prohibitions against drug misuse. Strategies to counter this belief and promote the benefits of SSPs to rural communities at large are needed.

Abstract 5352 - Probable serious mental illness among young people who inject drugs – an assessment of injection risks, and health care usage

Author(s): *Monica Adams, Catlainn Siorean, Dita Broz, Rashunda Lewis, Cyprian Wejnert, NHBS Study Group*

Background: The increases in drug injection among young people due to the opioid epidemic is a growing concern for HIV prevention. Mood disorders and psychological distress are highly prevalent among people who inject drugs, and mental health disorders are linked to injection risk behaviors. However, data on the correlates of comorbid mental health disorders among young people who inject drugs (PWID) are limited. We examine injection risk behaviors and health care use among young people who inject drugs by probable serious mental illness.

Methods: PWID aged ≥ 18 years were recruited in 20 U.S. cities for the 2015 National HIV Behavioral Surveillance using respondent-driven sampling, interviewed and offered HIV testing. Questions included drug injection practices, HIV risk behaviors, and use of health care. All participants completed the Kessler-6 screening scale for serious mental illness (SMI). Consistent with the scale authors, respondents with scores of 13-24 were classified as having probable SMI (scale range 0-24). Bivariate analyses using log-linked Poisson regression with generalized estimating equations were conducted to examine associations between SMI and injection risk behaviors and health care usage among PWID ages 18-29 years. Analyses were adjusted for sampling design covariates. Adjusted prevalence ratios (aPR) and 95% confidence intervals (CI) were presented.

Results: The analysis sample included 1,759 young PWID, with a median age of 26 years, of whom 69% were male, 65% were white, 21% Hispanic/Latino, and 7% black. Seventy percent lived at or below the

poverty level, the majority were homeless (77%) in the past 12 months, and over half had been incarcerated in the past 12 months (54%). Forty-one percent began injecting drugs prior to age 18. Nearly half (45%) scored at or above the cutoff for probable serious mental illness. Injection risk behaviors were higher among those with probable SMI than among those without probable SMI, including receptive syringe sharing (56% vs. 61%, aPR=1.22, CI: 1.09-1.37), receptive sharing of injection works (e.g., cookers) (74% vs. 64%, aPR=1.28, CI: 1.13-1.44), receptive sharing of a syringe to divide drugs (52% vs. 41%, aPR=1.24, CI: 1.12-1.37), and distributive syringe sharing (61% vs. 56%, aPR=1.15, CI: 1.03-1.28). There were no significant differences in whether they saw a health care provider, or received a HIV test in the past 12 months; there was also no difference in whether they had heard of PrEP. However, those with probable SMI were less likely to report that syringe services programs (SSPs) were their most common source of syringes (30% vs. 34%, aPR=0.88, 95% CI: 0.78-0.99).

Conclusions/Implications: Nearly half of young PWID had probable SMI. Young PWID with probable SMI were more likely to engage in risky injection practices, and less likely obtain the majority of their syringes through SSPs. A better understanding of the interaction between injection risk and SMI, especially potential barriers to safer injection practices related to SMI, may be needed to optimize HIV prevention efforts for young PWID.

Abstract 5269 - Preliminary evidence for feasibility and acceptability of an mHealth-based strategy to improve adherence to pre-exposure prophylaxis (PrEP) among drug users

Author(s): *Roman Shrestha, Frederick Altice, Brian Sibilio, Yerina Ranjit, Michael Copenhaver*

Background: Mobile technologies for health (mHealth) have emerged as effective and cost-effective strategies to improve individual and public health. Text messaging, also known as short message service (SMS), in particular, represents a low-cost, convenient route to enhance health behaviors. To our knowledge, however, there is a lack of empirical evidence on the utilization of text messaging services for HIV prevention among high-risk opioid-dependent people who use drugs (PWUD). In response, we conducted an in-depth feasibility and acceptability study on the use of SMS reminders to promote HIV prevention among this risk group.

Methods: As part of our formative work, we utilized a user-centered approach to develop text messages related to PrEP adherence and HIV risk reduction. These tailored text messages were then pilot tested among 40 HIV-negative, opioid-dependent PWUD who reported drug- or sex-related behaviors (past 6 months). Participants were recruited from an inner-city methadone clinic in New Haven, Connecticut. Participants received two types of text messages: 1) a daily text message with reminders to take their daily dose of PrEP timed to match with individually-stated dosing preferences, and 2) four weekly text messages related to HIV risk reduction. Participants were assessed at baseline and immediately post-intervention using audio computer-assisted self-interview (ACASI). Following the post-intervention assessment, participants completed an in-depth qualitative interview.

Results: Self-reported HIV risk behaviors were highly prevalent in this sample and most participants perceived themselves to be at medium to high risk of contracting HIV (80.0%) based on their own behavior. Participants reported having taken PrEP in the past 30 days with a mean adherence score of 87.6 (\pm 18.6). Feasibility of text messaging service was high, as assessed by participants' willingness to

receive text messages (100%), retention (95%), and successful delivery of text messages (97%). Results further showed that participants were satisfied and perceived the use of daily PrEP reminder text messages as valuable and acceptable [mean: 75.0 (range 0–100)]. Whereas, acceptability for the weekly text messages on HIV risk reduction was 60.3 (± 15.6), with 58.3% recommending them for future use. Thematic data exploration revealed important information for understanding and refining SMS content as well as logistical preferences.

Conclusions/Implications: Our findings provide preliminary evidence of feasibility and acceptability of a text messaging-based approach as a potential tool for primary HIV prevention to improve PrEP adherence and HIV risk reduction among this underserved population. These findings are crucial to optimize PrEP programs in addiction treatment settings, where high-risk opioid-dependent individuals are concentrated, and are ideal settings to implement primary HIV prevention interventions among this risk group.

Session C06 - Addressing Stigma to Improve Engagement in HIV Prevention and Care Services

Room: Imperial B (Atlanta Marriott Marquis)

Abstract 5450 - Viviendo Valiente: development and implementation of a comprehensive, multi-level and sustainable model of care and services for Latinos/as

Author(s): *Manisha Maskay, Martha Guerrero, Nicole Chisolm*

Issue: Latinos continue to experience higher rates of HIV infection and AIDS diagnoses and are disproportionately impacted in comparison to the overall population. In 2016, Hispanics/Latinos made up 18% of the U.S. population but accounted for 25% of new diagnoses of HIV infection. Also, between 2010 and 2015, the annual number of individuals with new HIV infections increased among Hispanic/Latino MSMs. Stigma related to HIV/AIDS, sexual orientation and even addressing sexual health poses significant challenges in terms of individuals getting tested for HIV and/or accessing care in a timely manner.

Setting: AIDS Arms, Inc. dba Prism Health North Texas (PHNTX), Dallas is a community based organization providing comprehensive and coordinated primary and secondary prevention and treatment for HIV and related conditions. Services are provided onsite as well as in community settings at times when populations of focus are accessible in Dallas and in surrounding counties.

Project: As one of 10 demonstration sites selected by the Health Resources and Services Administration Special Projects of National Significance for its Latino Initiative, PHNTX developed and implemented Viviendo Valiente – a multi-layered model which applies a combination of community, group and individual level interventions. At each level, the model focuses on the theme of “Inform Yourself, Talk About It, Take Action”. The interventions integrate staff and volunteers from the Latino community to reduce HIV-related stigma, engage in dialogue and promote acceptance of HIV testing and treatment if positive. The model includes HIV education provided within a health and wellness perspective. All interventions are culturally tailored and grounded in principles of Culturally and Linguistically Appropriate Services and the transnationalism theory.

Results: Outreach efforts over a 4 1/2 year period resulted in almost 3000 Latinos receiving education, 570 getting tested and over 20,000 condoms being distributed. 104 individuals of Mexican descent ages 18 or older, diagnosed with HIV who engaged in HIV medical care enrolled in a study that examined HIV related outcomes. At baseline 59% were new to care, 37% were out of care and 4% were at risk of falling out of care. Study participants were primarily male, age 18 to over 55 years; 35% stated they were bilingual and 38% were mono-lingual Spanish. Among those who had been enrolled in care for at least one year, 78% were virally suppressed compared to 12% at baseline. Additional results will be included in the presentation.

Lessons Learned: In order to achieve successful outcomes related to HIV prevention and treatment at the individual level, it is necessary to present consistent messages at regular intervals through the most appropriate channels and platforms for specific populations of focus. For Hispanics/Latinos, radio and social media were found to be effective platforms in addition to the use of interactive interpersonal processes at the community, group and individual level. This multi-layered approach was successful with regard to enabling people of Latino descent to get tested, as well as to engage and stay in care if they received a diagnosis of HIV infection.

Abstract 5281 - We have to hide our identity, and now we have to hide that we're HIV-positive, too: describing multiple stigmas among transgender women in HIV treatment

Author(s): *Clarke Erickson, Nikita Malcolm, Julia Rollison, Jamie Hart, Alex Mijares, Cynthia Klein, Damian Denson, Deborah Gelaude*

Background: Transgender women experience stigma due to their gender identity, often resulting in inequalities in employment, housing, and access to gender affirming health care, and fewer opportunities for social and economic advancements. Lack of access to such opportunities is often associated with increased susceptibility to HIV infection. Data show that 22-28% of transgender women are living with HIV. In turn, transgender women living with HIV (TGWLWH) can face additional stigma related to HIV status.

Methods: From April to August 2017, we implemented a multi-city (Atlanta, GA; Washington, DC; and Philadelphia, PA) qualitative study among TGWLWH to understand the barriers and facilitators for HIV prevention, care, and treatment. We conducted in-depth, semi-structured interviews and a brief quantitative demographic survey with 20 TGWLWH. We analyzed quantitative descriptive statistics in SPSS (v. 21) and coded and analyzed transcripts in NVivo 10.0 using a qualitative content analysis approach.

Results: Of the 20 TGWLWH enrolled, 9 (45%) were 46+ years old, 17 (85%) were black, 9 (45%) had a high school diploma/GED, 15 (75%) were receiving public assistance, 12 (60%) resided in public or transitional housing, and 15 (75%) had healthcare coverage (primarily Medicaid). In addition, 6 (30%) reported experiencing difficulties with healthcare (e.g., primary care) due to disclosure of their gender identity. In the qualitative data, themes emerged highlighting how gender identity-related stigma is often compounded by HIV stigma for TGWLWH in various contexts: 1) Community - TGWLWH described experienced HIV and gender identity stigmas, often by employers, leading to joblessness, homelessness, and the need to engage in survival sex work; 2) Healthcare – TGWLWH described being misgendered by

healthcare staff and provider, or refused gender affirming care (i.e., hormone therapy), often resulting in healthcare avoidance; 3) Interpersonal – TGWLWH described severed relationships with family and friends after sharing gender identity and differential treatment after disclosing HIV status; and 4) Intrapersonal – Despite descriptions of self-acceptance of their gender identities at the time of the study, some TGWLWH described internalized stigma related to coping with their HIV status, including feelings of shame and fear.

In the face of these experiences, TGWLWH also described their motivators to overcome stigmas including receiving acceptance or support for their gender identity and HIV status from healthcare providers, family, friends, and partners, as well as an intrinsic desire to become and remain agents of their own health and become advocates for others in their communities.

Conclusions/Implications: Healthcare providers, community based organizations, and researchers can use these rich, qualitative findings to understand experiences of multiple stigmas experienced by TGWLWH, as well as to understand motivators that may improve overall health and quality of life-related outcomes for transgender women and other gender minorities. This study highlights the need for further research to understand how additional intersecting factors affect the lived experiences of transgender women (e.g. race/ethnicity, socioeconomic status, history of incarceration) and the effect of multiple stigmas on other health outcomes for transgender women.

Abstract 5596 - “We are just a dollar and a number!”: minimizing medical research distrust and stigma among black MSM through more community-informed HIV/STI research approaches

Author(s): *Kevon-Mark Jackman, Carla Tilchin, Suzanne Grieb, Charles Clark, John Denny, Simone Sawyer, Patrick Chaulk, Adena Greenbaum, Jacky Jennings*

Background: Black men who have sex with men (BMSM) share a disproportionate burden of HIV and syphilis incidence and are a priority population for HIV/STI prevention. In Baltimore, Maryland, BMSM have been increasingly recruited by research institutions for participation in studies focused on improving HIV/STI prevention and more broadly sexual health and wellbeing. Among a population who has experienced medical distrust and stigma, our overall goal was to learn how to attend to the sexual health needs of this priority population while not increasing medical research distrust and stigma. With the initiation of a new study focused on a local syphilis epidemic among BMSM mirroring national trends, our objectives were to explore perceptions about participation in HIV/STI research, to identify strategies for increasing engagement and to learn how to increase the value of research for BMSM.

Methods: Seven focus groups (n = 38) were conducted with BMSM ages 18-45 years between March and May 2018. We employed thematic content analysis to systematically code and synthesize textual focus group data.

Results: Participants expressed feelings that MSM, particularly BMSM, are recruited predominantly for studies pertaining to HIV/STIs, yielding perceptions that BMSM are a diseased population. Furthermore, studies go in-depth in exploring sexual behaviors and fail to investigate lived experiences within BMSM communities, such as trauma or socioeconomic factors, which may impact sexual decision-making. Distrust of researchers was expressed on multiple levels. Participants described a lack of transparency regarding research investigators and their motives, and study requirements and outcomes. Participants

also described minimal to no dissemination of research findings after a study was completed and they felt this significantly limited the ability for the research to have an impact on sexual health and well-being among BMSM. Participants made several actionable recommendations to reduce stigma and medical research distrust and to increase meaningful participation by BMSM in research including (1) hiring and investing in research staff from the community; (2) increasing transparency and visibility of research staff including principal and co-investigators; (3) engaging authentically in trusted spaces with trusted community partners; (4) use of positive imagery in advertising and inclusion of groups outside of BMSM; and (5) creating dissemination plans with BMSM to increase the shareback of study findings to participants and their communities.

Conclusions/Implications: Research seeking to reduce HIV/STI transmission and increase sexual health and well-being often requires the participation of priority populations most impacted by disease. Local BMSM articulated clear recommendations regarding how to conduct more community-informed HIV/STI research that attends to sexual health needs while minimizing any increases medical research distrust and stigma. Implications: Our local syphilis study, entitled Understanding Sexual Health In Networks (USHINE) is using these findings to inform a recruitment, participation and a bi-directional dissemination plan, as well as the formation of a community advisory board.

Abstract 5716 - Using HIV-focused monologues to address HIV-related stigma among African Americans in Louisville, Kentucky

Author(s): *Jelani Kerr, Lesley Harris, Elizabeth Glass, Verena Schmidt, Tammi Thomas, Timothy Crawford*

Issue: HIV-related stigma impedes remediation of racial/ethnic HIV disparities in the US. HIV-related stigma undermines all facets of continuum of care participation, impacts the mental health of persons living with HIV (PLWH), and impairs PLWH quality of life. As African Americans experience poorer access to health care and African American PLWH report higher levels of social rejection than other groups, HIV-related stigma exacerbates African American HIV vulnerability. Arts-based interventions, specifically those involving media, demonstrate potential in reducing HIV-related stigma. In particular, interventions to address HIV-related stigma perpetuation may foster a social environment that can translate into improvements in continuum of care participation and PLWH mental health outcomes.

Setting: The research team partnered with AIDS service organizations and faith-based communities to develop an arts-centered, media-based approach to address HIV-related stigma within African American communities in Louisville, Kentucky.

Project: Drawing upon brokered dialogue methodology (an iterative process for media-based intervention development) and Intergroup Contact Theory (a theory positing that prejudice and discrimination against marginalized groups can be addressed with greater interpersonal contact), we developed HIV-focused monologues as a strategy to reduce the perpetuation of HIV-related stigma. To do this, we used qualitative interviews of 5 African American PLWH aged 50 years and older and repurposed them for this intervention. Interviews were transcribed and participant responses were organized to create narratives on lived experiences of PLWH. Narratives focused on HIV-related stressors, HIV-related stigma, and sources of resilience. Study participants collaborated with researchers to refine and edit narratives and the study team employed actors to perform the narratives as

monologues. Study participants coordinated with actors to develop their performances over a 1 month period. The research team collaborated with an HIV-focused faith-based organization to stage a live performance of the monologues for the National Black HIV/AIDS Awareness Day. Surveys were developed to assess audience reaction and the monologue's potential effectiveness in reducing HIV-related stigma and understanding stressors related to HIV. Actors recorded a studio performance after the live monologues. Studio performances were uploaded onto social media platforms (i.e. Facebook, YouTube).

Results: Approximately 120 individuals attended the live performance and 90 attendees completed surveys. Among survey respondents, 94% reported that the presentation was effective in reducing HIV-related stigma, 98% reported that the presentation was effective in helping understand stressors of individuals living with HIV, and 99% reported that the presentation was enjoyable. Onsite HIV testing was provided and 22 individuals received HIV tests after the presentation. Social media views and comments will serve as indicators of intervention uptake, acceptability, and effectiveness.

Lessons Learned: Arts-centered interventions, particularly HIV-focused monologues, demonstrate potential as a HIV-related stigma reduction strategy. This approach may also increase testing behavior when coupled with increased access to confidential HIV-testing but the mechanisms for this necessitate further exploration. More media-based, arts-centered interventions should be developed, implemented, and evaluated to address HIV-related stigma and the subsequent influence on racial/ethnic HIV disparities.

Abstract 5327 - Does it matter where you live? HIV-related stigma in rural and urban counties in Georgia

Author(s): *Fay Stephens, Pascale Wortley, Kiswana Branch, LaShanna Daniels, Melissa Gousse, Timothy Lockhart, Shaunta Rutherford, Natalie Lucas, Cherie Drenzek*

Background: Despite advances in treatment and care, HIV-related stigma remains a challenge faced by many people living with HIV (PLWH). We used data from the Georgia Medical Monitoring Project (GA MMP) to determine the prevalence of HIV-related stigma and whether it differs by rurality of residence in Georgia.

Methods: The GA MMP is a surveillance system which produces representative data for HIV-infected adults receiving HIV care in Georgia. From 2011-2014, 678 GA MMP participants sampled from their outpatient HIV care facility completed an interview about their experiences living with HIV. Stigma was measured with the Internalized AIDS-Related Stigma Scale (IA-RSS). Two dimensions of stigma were analyzed-internal stigma, defined as a response of "agree" or "strongly agree" to one or more of the following statements: "Being HIV positive makes me feel... (1) Dirty (2) Guilty (3) Ashamed (4) Worthless", and anticipated stigma, defined as agreement with either "It is difficult to tell people about my HIV infection" or "I hide my HIV status from others". Rurality was determined by the county of participants' residence at the date closest to their time of sampling for GA MMP.

Results: Among the 678 GA MMP participants (71 rural, 538 urban), overall stigma prevalence was high with 79% (95% confidence interval: 77%-82%) reporting any HIV-related stigma. The prevalence of

anticipated stigma was substantially higher than that of internal stigma (72.1% vs. 47.2%). Younger (age < 40), African American, and heterosexual or bisexual (compared with homosexual, gay, or lesbian) participants reported significantly more internal stigma; these demographics were not associated with anticipated stigma in the overall cohort. There was no difference in internal stigma by residence location (51% vs. 46% reported among rural vs. urban residents, $p=0.6$), but anticipated stigma was significantly higher among rural than urban residents (87.8% vs. 70.4% respectively, $p<0.001$). Overall, more internal and anticipated stigma were reported by participants more recently diagnosed with HIV (59% vs. 43% reported internal, diagnosed < 5 vs. ≥ 5 years ago, $p<0.001$; 81% vs. 69% reported anticipated, respectively, $p=0.02$). Internal stigma was higher among those diagnosed with HIV less than five years ago in both rural and urban areas, with a particularly large difference by time since diagnosis in rural areas (80% vs. 42% reported in rural areas, diagnosed < 5 vs. ≥ 5 years ago, $p=0.001$; 55% vs. 44% reported in urban areas, respectively, $p=0.03$). Anticipated stigma was significantly higher among persons more recently diagnosed in urban counties (79% vs. 68% reported, diagnosed < 5 vs. ≥ 5 years ago, $p=0.03$); in rural areas, anticipated stigma was high regardless of time since HIV diagnosis (89% vs. 88% reported, diagnosed < 5 vs. ≥ 5 years ago, $p=0.9$).

Conclusions/Implications: HIV-related stigma continues to be prevalent among PLWH in Georgia. Stigma, particularly stigma anticipated from other people, must be addressed as a challenge faced by the majority of PLWH especially those who live in more rural areas and those more recently diagnosed, for whom early engagement and retention in HIV care is critical to long-term positive health outcomes.

Track C

Session C12 - Approaches to Inform Hepatitis C Virus Surveillance and Reporting Within the Health Resources and Services Administration's (HRSA) Ryan White HIV/AIDS Program (RWHAP)

Room: A703-A704 (Atlanta Marriott Marquis)

Abstract 6009 - Targeted access to community knowledge, linkage to treatment, and education for HIV/HCV in people of color (TACKLE HIV/HCV in people of color)

Author(s): *Waridibo Allison*

Issue: Approximately 25% of people living with HIV (PLWHIV) are coinfecting with hepatitis C virus (HCV). PLWHIV co-infected with HCV have more rapid progression of liver disease. Screening PLWHIV for HCV infection and linking them to curative HCV treatment is therefore of importance to limit morbidity and mortality. Surveillance is a critical tool to ascertain disease burden in a community and can additionally be utilized to identify those who are out of care for a specific disease. A well-designed sentinel surveillance system can provide a rapid, economical alternative to other surveillance methods. In Texas, acute HCV infection is a notifiable diagnosis reportable to the Texas Department of State Health Services (TX DSHS). Chronic HCV infection is, however, not a notifiable diagnosis.

Setting: UTHSA's Targeted Access to Community Knowledge, Linkage to treatment and Education for HIV/HCV in people of color or "TACKLE HIV/HCV" program. Sentinel surveillance sites are TACKLE HIV/HCV clinic sites across South Texas – San Antonio AIDS Foundation, Coastal Bend Wellness

Foundation (Corpus Christi), City of Laredo Health Department, and Valley AIDS Council (Harlingen and McAllen). All sites are RWHAP funded clinics.

Project: As part of the TACKLE HIV/HCV project, a chronic HCV sentinel surveillance system will be piloted in collaboration with the TX DSHS. Additionally, the existing acute HCV surveillance system will be optimized by educating providers on symptoms of acute HCV and streamlining the reporting processes. Within this chronic HCV sentinel surveillance system, data will be collected on both antibody seropositivity and confirmed chronic HCV infection as well as demographic variables. Data to care variables have been determined to assist in identifying where a person is on the HCV care continuum. Data will be entered on an online REDCap database. Electronic medical record modifications will be made at clinical sites to facilitate collection of surveillance and other project data. Surveillance data from clinical sites will be supplemented by population level serosurvey surveillance data collected at community education and screening events that will be held in Years 2 and 3 of the TACKLE HIV/HCV project (October 2018 – September 2020) in San Antonio, Corpus Christi, Laredo and Harlingen/McAllen.

Results: Planning of the sentinel surveillance system including determination of surveillance variables and data to care variables, database development, infrastructure implementation and launch (October 2017 – October 2018) will be described. Initial ongoing data collected (from October 2018) will be presented. Additionally, optimization of the existing TX DSHS acute HCV surveillance system will be described and any subsequent changes in reporting of acute HCV infection reported.

Lessons Learned: Enhancing existing surveillance systems in Texas has the potential to positively impact the quality of care and treatment for HIV/HCV coinfecting patients by providing information that will inform about access gaps along the HCV care continuum and by utilization of ‘data to care’ to identify those who are out of care.

Abstract 6019 - Jurisdictional approach to curing hepatitis C among HIV/HCV co-infected people of color

Author(s): *Dan Czajka, Debbie Isenberg*

Issue: Twenty-five percent of all persons living with HIV (PLWH; 2 million) are coinfecting with Hepatitis C virus (HCV). Although HIV treatment outcomes continue to improve among people living with HIV (PLWH), HCV coinfection has emerged as a major concern. HCV in the United States also disproportionately affects racial and ethnic minorities, and people with HCV/HIV coinfection have higher liver-related morbidity and mortality, even when their HIV infection is well controlled. While the Centers for Disease Control (CDC) funds each state’s health department to support the position of viral hepatitis prevention coordinator (VHPCs); it does not include monies for activities such as testing or surveillance.

Setting: Two RWHAP Part B recipients (Louisiana and North Carolina) funded through HRSA HAB’s Special Programs for National Significance as part of a national initiative focused on building capacity to increase numbers of HIV/HCV coinfecting people who are diagnosed, treated, and cured of HCV infection.

Project: The demonstration project is funded by the Secretary’s Minority AIDS Initiative Fund and administered by HRSA HAB. It supports three RWHAP Part A current grant recipients and two RWHAP Part B current grant recipients to increase jurisdiction-level capacity to provide comprehensive screening, care, and treatment for hepatitis C (HCV) among HIV/HCV coinfecting RWHAP clients and thus, increase numbers of HIV/HCV coinfecting people who are diagnosed, treated, and cured of HCV infection. At the beginning of the project, both state health departments reported a lack of confidence in the initial data requirements to demonstrate estimates of HIV/HCV coinfecting people of color in their jurisdiction as reflected by surveillance and clinical data. As part of this project, NASTAD assessed the readiness of the states to support data needs and capacity to effectively estimate HIV/HCV coinfection among PLWH of color and provided peer-based technical assistance to support the health departments in preparing data estimates. NASTAD is working with the state health departments and the participating clinics to identify and address system-level barriers to monitoring and surveillance, with the aim of enhanced surveillance statewide.

Results: NASTAD will provide an overview of the CAREWare enhancements taking place in North Carolina and Electronic Health Record (EHR) enhancements occurring in Louisiana within the scope of the HRSA HAB project, both of which are contributing to improved HCV surveillance.

Lessons Learned: Enhancing existing surveillance systems at the state level can positively impact the capacity and quality of care and treatment for HIV/HCV coinfecting patients.

Abstract 6022 - Viral hepatitis surveillance capacity to identify and describe HIV/HCV co-infections

Author(s): Danae (Dee) Bixler

Issue: As part of the Centers for Disease Control and Prevention’s (CDC) National Notifiable Diseases Surveillance System (NNDSS), viral hepatitis case-reports are received electronically from state and territorial health departments via CDC’s National Electronic Telecommunications System for Surveillance (NETSS), a computerized public health surveillance system that provides CDC with data on cases of nationally notifiable diseases on a weekly basis. Although the surveillance infrastructure is in place for reporting of both acute and chronic infections, case-reports of chronic hepatitis B virus (HBV) and past or present hepatitis C virus (HCV) infections, which account for the greatest burden of disease, were submitted by 41 states and 37 states, respectively, in 2013. As noted in a recent report from the Institute of Medicine, surveillance capacity to monitor viral hepatitis is limited at the state and local level, resulting in underreporting and variable data quality. The limitations of HCV surveillance also affect the ability of health departments to identify persons living with HIV (PLWH) who are coinfecting with HCV, who are at much higher risk of HCV complications than persons who are HCV mono-infected.

Setting: Acute and chronic HCV in the United States.

Project: This presentation will provide an overview of current HCV surveillance challenges in general and among PLWH in particular as an introduction to the proposed HRSA HAB panel titled, Improving Hepatitis C Virus Surveillance Capacity to Identify and Treat HIV/HCV Coinfection Within the Health Resources and Services Administration’s (HRSA) Ryan White HIV/AIDS Program (RWHAP).

Results: A number of states do not report cases of chronic hepatitis B and C through the NNDSS. Collecting, verifying and reporting the many chronic cases of hepatitis B and C in the United States (estimated at over 4 million) are beyond the capability of many health departments.

Lessons Learned: A major public health challenge is to increase the proportion of persons tested for HCV and the proportion of those who test positive who are referred for care and treatment. Given that approximately 25% of PLWH are coinfecting with HCV, it is critical to improve ways to identify coinfecting PLWH. Addressing limitations in HCV surveillance is critical mechanism to improving this problem.

Abstract 6025 - Elimination of Hepatitis C Among PLWHIV in Louisiana

Author(s): *Emilia Myers*

Issue: Twenty-five percent of all persons living with HIV (PLWH; 2 million) are coinfecting with Hepatitis C virus (HCV). It is well established that HIV infection adversely influences the natural history of HCV, including a higher rate of viral persistence, increased viral load, and more rapid progression to fibrosis, end-stage liver disease, and death. With current available treatment regimens, cure of HCV is possible for all HIV/HCV coinfecting patients. It is critical to identify HCV coinfecting PLWH and connect them to HCV care and treatment, but this remains a challenge. Improving HCV surveillance can help RWHAP jurisdictions identify, monitor, and connect coinfecting PLWH to HCV care and treatment.

Setting: Three RWHAP Part A recipients, two RWHAP Part B recipients, NASTAD, two academic centers, and one multisite coordinating center are funded by HRSA's HIV/AIDS Bureau (HAB) through its Special Programs for National Significance as part of two national initiatives focused on building capacity to increase numbers of HIV/HCV coinfecting people who are diagnosed, treated, and cured of HCV infection.

Project: The demonstration projects are funded by the Secretary's Minority AIDS Initiative Fund and administered by HRSA HAB. The projects have two goals: 1) the development, implementation and evaluation of comprehensive jurisdiction-level HCV screening, care, and treatment systems and 2) the enhancement of state and local health department surveillance systems to increase capacity to monitor acute and chronic coinfections of HIV and HCV. This presentation will describe strategies used at the state level and the local jurisdiction level to improve surveillance and the interface between HIV and HCV surveillance systems to expand the care and treatment services available for PLWH coinfecting with HCV.

Results: This presentation will share example strategies of enhancing HCV surveillance among PLWH, as well as partnerships between HCV and HIV surveillance systems to improve HCV coinfecting PLWH linkage to HCV care and retention.

Lessons Learned: By enhancing existing surveillance systems using strategies such as expanding the electronic data transfer of lab tests and piloting a sentinel surveillance system for acute and chronic HCV, implementing these strategies at the jurisdictional level can positively impact the capacity and quality of care and treatment for HIV/HCV coinfecting patients.

Session LB06 - The Young and the Very Young

Room: Embassy D-F (Hyatt Regency Atlanta)

Abstract 6172 - Trends in universal perinatal HIV screening among pregnant women: implications for prevention – a scoping review

Author(s): *Gema Dumitru, Melanie Gwynn, Margaret Lampe, Steve Nesheim, Lauren Fltzharris, Sheila Salvant Valentine, Amrita Tailor, Priya Jakhmola*

Background: The primary goals of CDC’s 2006 “Revised Recommendations for HIV Testing of Adults, Adolescents, and Pregnant Women in Health-Care Settings” are to increase universal opt-out HIV screening of patients, including pregnant women, in health-care settings; foster earlier detection of HIV; identify and counsel persons with unrecognized HIV infection; link patients to clinical and prevention services; and further reduce perinatal transmission of HIV in the United States. Additional opportunities for HIV prevention among women and their sexual partners during the entire perinatal period need to be further explored. This scoping review mapped out research related to key HIV testing and prevention topics during the perinatal period, highlighted gaps in knowledge, and explored new strategies that have emerged since 2006.

Methods: The review used the Joanna Briggs Institute methodology for the translation of research evidence into practice; followed the Arksey and O’Malley scoping review framework; and addressed this key research question: “What are the new topics related to HIV testing for pregnant women, their partners, and their infants?” The scoping review workgroup developed a research protocol and screening tool with instructions for eligibility criteria and nine key coding themes. A search of MEDLINE, EMBASE, Cochrane Library, and CINAHL databases identified 3,079 articles. After downloading these articles into EndNote and removing duplicates, the abstracts of 2,988 articles were screened for relevancy yielding 174 articles that met the inclusion criteria.

Results: After full-text review and qualitative synthesis, 137 articles included in the final analysis were binned into the nine key topics. Five of the topics were preexisting in the 2006 recommendations: single/one-time HIV screening/testing of pregnant women (n=38), repeat HIV screening/testing of pregnant women (n=10), rapid testing during labor and delivery (n=20), HIV screening/testing women postpartum (n=1), testing newborns for HIV exposure (n=1). Four were newly identified: HIV screening/testing women while breastfeeding (n=0), HIV testing breastfed infants (n=2), HIV testing partners of pregnant women (n=38), and HIV testing couples (n=27). Subset analyses and data extraction using Distiller software provided relevant information, including types of rapid test technology used, type of consent for testing, type of provider initiating testing, referral for treatment, and barriers to testing. Findings signal that very few studies from industrialized countries focus on several topics of interest: HIV testing/screening of breastfeeding women, among postpartum women, infants, newborns after exposure, or within primarily rural settings.

Conclusions/Implications: These findings improve our understanding of current research related to universal HIV screening and prevention among women, their infants, and their male partners in the context of pregnancy and parenting infants. Findings could also contribute to a better understanding of

strategies that lead to preventing HIV transmission in mixed-HIV-status heterosexual couples; preventing perinatal HIV transmission; identifying infection in women and men; linking patients with newly diagnosed HIV infection to treatment; and informing providers and policy makers of the need to streamline research and allocate resources for identifying additional risk-reduction strategies to prevent HIV transmission. Furthermore, these findings will inform a revision of CDC's HIV testing recommendations now being undertaken by the Division of HIV/AIDS Prevention.

Abstract 6138 - Mother's HIV care impacts perinatal transmission and postpartum infant care, Florida

Author(s): *Emma Spencer, Karalee Poschman*

Background: The proliferation of perinatal transmission interventions has led to a successful decrease in the number of vertical transmissions occurring in the United States, including Florida. Despite these successes, many women living with HIV who have given birth to an infant exposed to HIV do not engage in routine HIV care either before, during or after pregnancy. We aim to examine the mother's engagement in HIV care and assess impacts of the mother not engaging in care on postpartum infant care for infants exposed to HIV.

Methods: Using epidemiological and clinical data reported to the Florida Department of Health Enhanced HIV/AIDS Reporting System, we conducted a retrospective cohort study of all women living with a known HIV diagnosis prior to pregnancy who gave birth to an HIV-exposed infant during 2014–2017 (n=1,602, including 22 vertical HIV transmissions) in Florida. The pre-birth care status of mothers living with an HIV diagnosis was defined as being in care with either one HIV-related care lab, HIV-related medical visit, or antiretroviral prescription pick-up within one year prior to birth. Adequate postpartum care was defined as either 1) two negative virologic tests, one at age 0–3 months and one at age 4–6 months, for infants perinatally exposed to HIV or 2) a suppressed viral load (<200 copies/mL) by age six months for infants with perinatally-acquired HIV.

Results: Mother's pre-birth HIV care status or viral suppression did not significantly influence infant postpartum follow-up. However, women who were not virally suppressed in the year before delivery were more likely to vertically transmit HIV (OR 17.3, 95% CI 5.9–73.7, p<0.0001). Only 35% (n=558) of infants received adequate postpartum care, with infants less likely to receive adequate postpartum care if the mother was not in HIV care six months after birth (74.9% vs 36.7%, p<0.001). Further, if the mother was not virally suppressed six months following birth, infants also experienced inadequate postpartum care (68.6% vs 39.5%, p<0.001).

Conclusions/Implications: Following delivery, the postpartum period can be a difficult time for mothers living with HIV to maintain their own care and viral suppression, which influences the care infants exposed to HIV receive. Increasing provider awareness of the testing requirements for all infants exposed to HIV, in addition to wrap-around healthcare services coordination for women living with HIV would safeguard adequate preconception and postpartum mother and infant HIV-related care.

Abstract 6204 - A parent's dilemma: communication privacy management and parental disclosure decisions regarding adolescents' HIV status

Author(s): *Anna Marie Campbell, Cady Berkel, Paul Mongeau*

Background: In 2016, 2,225 children under 13 years were infected with HIV and 81% of these infections were due to perinatal transmission (Centers for Disease Control and Prevention, 2018). One difficult conversation facing both parents and pediatric health care providers is how and when to disclose HIV-status to these adolescents. The American Academy of Pediatrics (2013) encourages full HIV-status disclosure at a child's transition to adolescence. This information is essential for their ability to manage their health condition and prevent transmission to others. Parents struggle with determining whether, when, and how much of their private information to disclose to their adolescent so as not to disrupt the parent-adolescent relationship (Tenzek, Herrman, May, Feiner & Allen, 2013) or bring shame to the family (Li, Qiao, Harrison & Li, 2017). HIV disclosure may be especially difficult for the parent who transmitted HIV to the child because this disclosure might exacerbate feelings of guilt and a fear of difficult questions focusing on the parent's personal history. Furthermore, family privacy rules regarding health information are influenced by a family's communication patterns (Hays, Maliski & Warner, 2017). An additional challenge for providers is gaining an understanding of the communication patterns implicit in the family around disclosing private health information. Using Petronio's (2010) Communication Privacy Management Theory (CPBM), this qualitative study examines the management of family privacy boundaries within the context of pediatric health care.

Methods: A focus group was performed with seven health care providers at a hospital-based pediatric HIV clinic. A chart review was conducted with a culturally diverse sample of 40 patients. Demographic and anecdotal information, if available, was collected regarding disclosure conversations with patients and their parents from each chart. The anecdotal information was coded using codes developed directly from the data (emic) and data was also coded using concepts derived from Petronio's (2010) CPBM theory (etic).

Results: Findings from the provider focus group indicate that health care providers must navigate the tension between their obligation to inform patients about their HIV status and their perceptions of the internal family privacy boundaries around the HIV status information. Findings from the chart review indicate that providers insist that parents disclose an adolescents' HIV status when two emergent issues present. First, when patients are non-adherent and second, when the adolescent starts engaging in sexual relations. When these two emergent issues are absent, parents generally agree with the provider's recommendation to disclose HIV status when adolescents began asking many questions about the medications they were taking. In addition, sibling relationships have emerged as a possible factor influencing the disclosure process. Next, we will interview patients and parents about parent-adolescent communication about HIV status and other factors, such as sibling relationships, which may influence communication within the family and may play a role in the disclosure process.

Conclusions/Implications: These findings provide empirical support for CPBM theory and insight into the catalysts leading to disclosure of stigmatized health information. Results also have implications for supporting families for whom communication patterns around health issues are less open.

Abstract 6127 - Is there a dose-response relationship between frequency of prescription opioid misuse and HIV risk behaviors and HIV testing?

Author(s): Heather Clayton, Michele Bohm, Carmen Ashley, Sanjana Pampati, Jon (Mike) Underwood

Background: Risky sexual behaviors, use of illicit substances, and injection drug use have been associated with increased HIV risk among adolescents. The US is in the midst of an opioid overdose epidemic, with deaths from opioids increasing more than five-fold from 1999 to 2016. Nonmedical use of prescription opioids (NUPO), defined as use in any way not directed by a doctor, is a risk factor for opioid overdose and other negative health outcomes and risk behaviors. According to the 2017 national Youth Risk Behavior Survey (YRBS), 14.0% of high school students reported lifetime NUPO. However, there is limited nationally representative information on the association between NUPO and HIV risk behaviors among adolescents. This study examines the association between frequency of lifetime NUPO and HIV risk behaviors and HIV testing among US high school students.

Methods: Data from the 2017 national YRBS, a cross-sectional survey conducted among a nationally representative sample of students in grades 9–12 (N=14,765) were used to examine the association between frequency of lifetime NUPO and HIV risk behaviors and HIV testing. Frequency of lifetime NUPO was ascertained by the question: “During your life, how many times have you taken prescription pain medicine without a doctor's prescription or differently than how a doctor told you to use it?” Response options were categorized as: 0 times, 1 or 2 times, 3 to 19 times, 20+ times. Outcome variables included sexual risk behaviors (ever had sexual intercourse, currently sexually active, 4+ lifetime sexual partners, and no condom use during last sexual intercourse), substance use (ever use of illicit drugs, injection drug use), and never having been tested for HIV. Logistic regression models (adjusted for sex, race/ethnicity, grade, and sexual identity) estimated adjusted prevalence ratios (PR) and 95% confidence intervals (CIs). Linear contrasts were used to determine dose-response relationships between lifetime frequency of NUPO and all HIV risk behaviors – significant at $p < 0.05$ level.

Results: The prevalence of lifetime NUPO did not vary significantly by sex or race/ethnicity, but was significantly greater among 11th and 12th graders (compared to 9th) and among students who were gay/lesbian/bisexual or unsure of their sexual identity (compared to heterosexual). In unadjusted analyses, students who reported lifetime NUPO were more likely to engage in HIV risk behaviors (ranging from PR=1.66 for not using a condom to 5.99 for illicit drug use), but were significantly less likely to not have received an HIV test (PR=0.53;95% CI:0.46-0.62). In adjusted analyses, all frequency levels of lifetime NUPO were associated with HIV risk behaviors and HIV testing. Significant positive dose-response relationships were observed for ever had sex, 4+ sexual partners, currently sexually active, illicit drug use, and injection drug use.

Conclusions/Implications: Study findings suggest that increasing frequency of lifetime NUPO puts students at an incremental greater risk for many HIV risk behaviors. HIV testing among this higher risk population is, fortunately, more prevalent than among students without lifetime NUPO. Nonetheless, youth with more frequent NUPO may be an important risk group for HIV primary prevention efforts.

Session SS03 - Increasing STD Rates and PrEP: Unpacking a Complicated Connection

Room: Regency VI (Hyatt Regency Atlanta)

Abstract 1018 - PrEP's effect on STD incidence among men who have sex with men balancing increased STD screening and potential behavioral risk compensation

Author(s): *Ian Spicknall*

I give a critical appraisal of the effect that PrEP may have on either increasing or decreasing STDs among men who have sex with men. I review the evidence from four domains to inform this appraisal. First, I summarize evidence related to how sexual behaviors might change while on PrEP; this is in terms of factors like condom use, rate of sex partner acquisition, HIV serosorting, and other sexual behaviors. Second, I review the evidence related to rates of STD screening while on PrEP; this examines what percent of men on PrEP adhere to different frequencies of screening. Third, I review evidence related to PrEP stoppage; this examines the expected duration of PrEP usage and reasons for stoppage. Finally, to combine all of this evidence in order to give an appraisal of the effect of PrEP on STD rates, I review the mathematical modeling literature which combines behavioral risk compensation while on PrEP, increased rates of screening, and PrEP stoppage. This will highlight what the literature currently suggests regarding the likely effect of PrEP on STD rates, and also highlight gaps in the literature.

Abstract 1022 - Network effects and transmission dynamics

Author(s): *John Schneider*

In this presentation, Dr. Schneider will review network analyses, visualization, and interventions from diverse communities of young Black MSM and transgender women. He will situate this in the context of HIV elimination and call for additional research to better understand syphilis transmission networks.

Abstract 1024 - Collateral damage? HIV PrEP and STI epidemics among MSM

Author(s): *Elizabeth Torrone*

The significant reduction in risk of HIV acquisition for gay, bisexual, and other men who have sex with men (MSM) taking HIV pre-exposure prophylaxis (HIV PrEP) provides a substantial HIV-related, individual-level benefit and may confer a population-level benefit with evidence of decreased HIV incidence among MSM when high HIV PrEP coverage is obtained. Unfortunately, the effect of HIV PrEP on sexually transmitted infection (STI) epidemics among MSM is less clear. Recent reports of increasing rates of reported cases of STIs among MSM in the United States have led to questions about the role of HIV PrEP in STI prevention and control efforts. This presentation will review recent trends in STIs among MSM in the United States, highlighting the challenges of interpreting trends in reported cases, provide current trends in HIV PrEP uptake among MSM, and discuss the different mechanisms by which HIV PrEP may impact STIs among MSM at the individual and population level.

Abstract 1037 - Addressing the paradox in the real world: declining HIV in the era of increasing STDs

Author(s): *Susan Philip*

As elsewhere in the U.S. and worldwide, rates of STDs in San Francisco are increasing even as new diagnoses of HIV decline; both PrEP and HIV Treatment are important contributing factors to this divergence. This talk will focus on the practical implications of this paradox for health departments and others who aim to maximize sexual health overall while we continue to scale up access to these profoundly effective HIV prevention tools. What approaches can we try, and how do we better engage our communities and our teams in framing this work.

WEDNESDAY, MARCH 20 | CONCURRENT SESSIONS | 10:30 AM – 12:00 PM

Track A

Session A06 - Come Together! Integration and Collaborations to Improve Engagement Along the Prevention and Care Continuum

Room: Imperial A (Atlanta Marriott Marquis)

Abstract 6013 - Swimming upstream: integrating HIV prevention in Ryan White HIV/AIDS programs

Author(s): *Peter DeMartino, Terry Hawkins, Dana Wachter, Hope Cassidy-Stewart*

Issue: Maryland has an estimated 5,500 individuals living with undiagnosed HIV and a significant population at risk of acquiring HIV based on background prevalence and risk behaviors. Ryan White infrastructure exists in each jurisdiction throughout the state but was not engaged in traditional prevention activities. This presentation will review Maryland's Upstream initiative to integrate HIV prevention activities in Ryan White programs. It will provide a detailed description of the methodology of integrating Early Intervention Services (EIS) and provide insights on the challenges and successes of Maryland's integration initiative including program culture, funding restrictions, and data collection requirements.

Setting: Beginning in 2016 the Maryland Department of Health funded 18 providers for Upstream activities which include outreach, HIV testing, health education and risk reduction activities. This cohort included community-based organizations, local health departments, and large hospital-based systems in urban, suburban, and rural areas of Maryland.

Project: The Upstream projects implement and evaluate service delivery models aimed at achieving two main outcomes: 1) identification of undiagnosed individuals; and 2) increased engagement of high-risk individuals in health care services including HIV prevention. A key service delivery strategy is to implement a paradigm shift in communities experiencing health disparities, medical mistrust, or lack of engagement with the traditional health care system. By increasing outreach, testing, and linkage opportunities, Upstream providers develop individual acceptance of prevention services. This presentation will describe strategies to integrate prevention activities in Ryan White access points, review initial results, and describe tactical challenges to program success.

Results: As part of a multisite evaluation of engaging and retaining Upstream populations at funded facilities, Maryland has cataloged best practices and implemented an integration model that is variable to meet the needs of populations across a diverse state, feasible as it is adapted to a variety of provider services models, and desirable to populations with HIV prevention needs. In addition, Upstream has provided program expansion to address PrEP access including sustainability for CDC 15-1506 and plans for 15-1509, Hepatitis C screening and linkage to care, sexually transmitted infection screening and treatment capacity, and expanded access to housing, behavioral health, and health insurance navigation for vulnerable populations.

Lessons Learned: Maryland's integration initiative to improve our state undiagnosed rate leverages existing infrastructure and braids funding to ensure programs continue to meet the evolving needs of populations living with HIV risk. Innovations grew from challenges in fiscal management, funder compliance, provider culture, and data collection; transforming our barriers to opportunities as we implemented our Upstream program. By integrating prevention activities through Ryan White EIS at funded sites, Maryland is working toward achieving broader engagement of populations experiencing the greatest barriers to HIV prevention services and achieving a more coordinated response.

Abstract 5937 - Business development implementing DIS Field Services reimbursement strategy

Author(s): *Michelle Jorgensen*

Issue: Washington is ramping up our HIV and STD testing efforts as we see rises in STD rates and race to prevent new HIV infections. Current resources for publicly funded services will not sustain the growth so like many states, we are looking to Medicaid to fill the gap. The Business Development team is taking on the policy and infrastructure development challenge of negotiating reimbursement policies for services provided in non-clinical settings. Business Development is an innovative model that, when applied to Public Health, is dedicated to marketing our internal programs to our external partners. The team is a unique resource tasked with developing and cultivating public health-health care linkages, working with insurers, purchasers, and payers to resolve coverage, policy and reimbursement issues to improve access to care and health care quality.

Setting: The Business Development Team resides in the Washington State Department of Health, Infectious Disease Prevention Section within the Disease Control and Health Statistics Division. Washington's Health Care Authority purchases health care for more than 2 million Washingtonians through Medicaid and public employee benefits. They are a long-standing public health partner and count on us to do our job with controlling STDs and HIV.

Project: The End AIDS WA report recommends Medicaid pay for STD and HIV services performed in communities by our disease investigation specialists (DIS). The Business Development team is developing and implementing policies to support this work. It requires extensive planning and documentation, starting with the first step; developing statewide DIS standards. Continuity and standardization must be in place for any Medicaid program or insurance company to pay for any service. Statewide standards ensure that the same services are offered by all contracted partners across the state. We know that publicly funded testing is expensive and unsustainable so we are developing model practices through our DIS reimbursement effort that we intend to employ as we expand our screening and testing efforts in other community-based settings.

Results: Business Development will share tips, lessons learned, and information about our practices, approaches, and experience negotiating and developing policies to support and implement reimbursement strategies in partnership with Medicaid.

Lessons Learned: Business Development serves as a bridge or work bench between the program and Medicaid and other payers so translating information back and forth is time intensive but critical. Our state does not have documented standards or guidelines, nor are there national ones for DIS. We have a

limited staff with bandwidth and capacity and a working knowledge of DIS protocols so documentation was challenging and had a lot of starts and stops. Medicaid looks to us for this guidance so it is much easier to make necessary changes when we work with them often to keep information about prevention and public health services up to date and ensure they represent public health resources and systems. It is better to have the research, documentation, and request prepared before asking Medicaid to revise policies.

Abstract 5974 - Building on the success of a robust HIV testing program: responding to the needs of injection drug users

Author(s): *Marie Sutton, Winona Holloway, Brittney Marshall*

Issue: According to the Centers for Disease Control and Prevention (CDC), 6% of HIV diagnoses in 2015 were as a result of injection drug use (IDU), with 1 in 23 female and 1 in 36 male injection drug users being at risk for contracting HIV in their lifetime. Additionally, in 2016, the CDC identified four counties in Georgia considered extremely vulnerable to an HIV and Hepatitis C (HCV) outbreak among people who inject drugs. Circumstances that may lead to an HIV and HCV outbreak in Georgia include a lack of needle exchange programs, lack of HIV counseling and testing, limited addiction recovery programs, and the growing opioid epidemic. Georgia, which ranks 11th in prescription opioid overdoses, had a 241% increase of newly reported HCV infections among Georgians under 30 from 2010 to 2015. Previous studies have found a correlation between the national increase in acute HCV infection and the country's opioid epidemic and associated IDU. The presentation will discuss successes of integrating an HCV testing and linkage with an existing robust HIV testing program.

Setting: Imagine Hope has managed an HIV testing program on behalf of Georgia's DBHDD since 1996; testing nearly 200,000 individuals for HIV over the past two decades. HIV knowledgeable nurses and counselors are embedded in 40 substance abuse treatment facilities including Medication Assisted Treatment (MAT). Facilities are located in rural, suburban, urban settings. Newly diagnosed HIV + clients are linked to care. Additionally, clients entering substance use services that self-identify as HIV positive who are disconnected from care secondary to their drug use are offered a variety of support services including re-engagement with HIV medical care.

Project: In response to long-standing client requests from those testing for HIV and in partnership with Gilead Sciences FOCUS in March 2015 Imagine Hope began offered HCV testing and linkage in tandem with HIV testing in 24 substance use and MAT facilities across Georgia. Individuals testing HCV antibody positive (Ab+) received RNA confirmatory testing, with emphasis on linking newly identified HCV+ individuals to education, care, and treatment through 3 dedicated linkage coordinators.

Results: While HIV sero-prevalence rates have remained well under 1% annually for this testing program, from April 2015-March 2018 of the 18,834 individuals were tested for HCV in 24 clinics across the state, 10.3% (1,922) tested HCV Ab+, and 70% (1,294) were confirmed HCV RNA+ and 78.9% of HCV Ab+ were outside of the baby-boomer birth cohort. Of those HCV RNA+, 63.9% (828) were linked to care.

Lessons Learned: Enhancing HCV testing and linkage to care at substance abuse clinics will aid in the prevention of an HIV and HCV outbreak in Georgia. Public health actions for preventing HCV transmission outside of the boomer cohort should be considered as HIV incidence continues to increase in younger populations, primarily those aged 25-34. The implementation of a HCV testing and linkage to care in tandem with an HIV testing program embedded in substance use and MAT programs provides an example of how the growing opioid epidemic can best be addressed in our nation's most vulnerable communities.

Abstract 5824 - Working together to change the narrative in Florida

Author(s): *William Duquette, Heather Melbourne, Giselle Gallo, Kira Villamizar, Glenda Butterfield, Luis Rodriguez*

Background: Florida continues to experience high numbers of new HIV infections and Miami was the top city in the U.S. for new HIV infections (CDC, 2016. HIV Surveillance Report 2017;28.). Homestead Hospital (HH) embraced the state of Florida's revision to their HIV testing statutes and the Centers for Disease Control and Prevention's (CDC) testing recommendations by implementing a routine HIV and hepatitis C (HCV) screening program in the Emergency Department (ED). HH was the first hospital in the state of Florida to implement routine HIV/HCV screening. HH previously did not test for HIV in the ED and worked closely with the Florida Department of Health in Miami-Dade County (DOH-Miami-Dade) as they developed the program to ensure streamlined communication and strong linkage. The routine screening model and effective partnership between DOH and a private hospital has been replicated at other Florida hospitals.

Methods: Patients presenting to the ED in need of blood work receive an HIV/HCV test unless they decline. The opt-out screening model is facilitated by the electronic health record (EHR) and maximizes the use of information systems to seamlessly integrate screening as a routine practice in a high-volume ED. Working in partnership with the DOH-Miami-Dade, HH's program has the benefit of a dedicated Disease Intervention Specialist (DIS). The formalized partnership allows HH to verify whether cases are new or known/out-of-care, immediately link individuals to care and increase efficiencies with real-time data reconciliation. The close collaboration facilitates a team approach to ensure the DIS can easily access the individual for partner services notification.

Results: Since implementation, the HH ED screened over 28,000 patients and identified nearly 300 HIV (1.1% seropositivity) and over 800 HCV Ab positive individuals (3% HCV Ab seropositivity) and 12 acute HIV cases (Data represents program findings from May 2016 through June 2018). Linkage to care specialists and DIS are helping patients access care and reduce the chance of HIV acquisition. Of those diagnosed, 86% of the HIV patients (100% of newly or acutely infected) and 65% of the HCV patients were successfully linked to care.

At HH, black females account for 16% of those screened, but represent nearly 40% of the HIV cases (2.4% newly-diagnosed HIV seropositivity among black females; 5.4% in one month). In comparison, the nation's most affected sub-population, black men who have sex with men (MSM), account for 27% of HIV cases. HH is closely monitoring disease prevalence in our community through the partnership with the DOH-Miami-Dade. Since the program began, 11 cases of maternal HIV transmission were prevented due to early diagnoses and immediate interventions.

Conclusions/Implications: The long-term impact of this program is incredible because it demonstrates a replicable algorithm, a model for collaboration between DOH and a private hospital, and surprising findings highlighting the need for routine screening. HH is sharing this model in an effort to promote replication of routine HIV/HCV screening programs in other large hospital settings.

Abstract 1039 - Integrated HIV screening at an urban hospital in the deep South

Author(s): *Bijal Shah*

Background: Georgia ranks 5th in the U.S. for estimated new HIV diagnoses, and 60% of Georgians living with HIV are located in the Atlanta metropolitan area. Many patients receiving care at Grady Health System (GHS) come from two counties - Fulton and DeKalb - with the highest HIV prevalence in Georgia and some of the highest across the U.S. As a safety-net hospital, GHS is uniquely accessible to individuals who may not otherwise have reliable access to healthcare or other venues for HIV testing. To address this need, Grady initiated the “FOCUS” project in 2013.

Objectives: The primary goal of Grady FOCUS is to implement routine, integrated, non-targeted, opt-out HIV testing across GHS, reducing the number of patients unaware of their HIV status. We aim to diagnose patients earlier in their disease course and provide patients with timely linkage to care (LTC) for HIV.

Methods: FOCUS integrates opt-out HIV testing into the triage process using an EMR-based algorithm. Patients are offered a test if they are at least 18 years old, not known to be HIV positive, and able to consent to testing. FOCUS medical social workers (MSW) or the patient’s provider are notified of HIV-positive results in real-time and provide education, counseling, and assistance with linkage to HIV medical care. Patients are followed through two medical appointments with an HIV care provider. MSWs also provide similar services to patients with known HIV infection who are not in care; identified by patient self-report or notification from the Georgia Department of Public Health via a Health Information Exchange.

Results: Prior to FOCUS, there was no platform for routine HIV testing throughout GHS. From July 2013 to September 2018, more than 116,400 unique patients were tested for HIV through FOCUS, leading to 830 new HIV diagnoses (0.7%) and identification of almost 1,000 known HIV-positive patients who were out-of-care. 85% of all new diagnoses (709 patients) were identified in the Emergency Department. Among patients with a new HIV diagnosis, 41% had an initial CD4 \leq 200 cells/uL. Based on available data, 55% of newly diagnosed and 61% of previously known HIV-positive patients have attended at least one medical appointment for HIV care.

Conclusions: Despite successes in EMR integration, expansion across GHS, collaboration across multiple administrative and clinical departments and forward progress in sustainability, important challenges remain. More than five years after the start of routine testing at GHS, the frequency of new diagnoses, and diagnoses among patients with an initial CD4 count below 200 cells/uL, have not decreased over time; highlighting the importance of continued routine HIV screening. Achieving national LTC goals in our ED setting is challenging; further improvement of LTC rates is needed.

Session LB01 - Routinized Opt-Out Screening and Linkage to Care

Room: Imperial B (Atlanta Marriott Marquis)

Abstract 6208 - One urban emergency department's experience with opt-out, non-targeted HIV testing and culturally competent care

Author(s): *Wayman Edwards, James 'Dennis' Tankersley, Teckah Lawrence*

Background: Although opt-out, non-targeted screening has been recommended by the Centers for Disease Control and the US Preventive Services Task Force, for many hospitals these recommendations have not been widely implemented. Our Emergency Department (ED) initiated an opt-out, non-targeted HIV screening program in 2017. Here we report the effectiveness of this new process to detect HIV diagnoses and our approach to focus not only on newly diagnosed, but also previous positive patients who are out of care, partners of our positive population, and high risk negative patients.

Methods: A retrospective analysis was done to compare the first 12 months of opt-out, non-targeted HIV screening and 12 months of retrospective, targeted testing results in a southern California ED. The electronic medical record was utilized to create an integrated screening process, providing rapid confirmation testing, and provider notification with linkage to follow-up care for those found to be positive for HIV. Opt-out, non-targeted testing including all patients ages 18-65 presenting to the ED who required serum labs as part of their standard medical evaluation in the ED. Rapid HIV testing was performed via 4th generation HIV tests, which were automatically reflexed for confirmatory testing if positive. Confirmatory testing was done onsite utilizing an additional tube collected at the initial testing, enabling same day results and patient notification of their HIV status. Imbedded in this program is a full-time, seasoned linkage to care specialist, who not only coordinates the development of the program, but also navigates all patients through a clear diagnosis, education on prevention, and into treatment as necessary.

Results: The previous 12 month period utilizing opt-in, targeted testing yielded 2,273 initial HIV tests, 72 confirmatory tests, and 21 new HIV diagnoses (positive rate = 0.9%). A 12 month period following initiation of the opt-out, non-targeted testing yielded 11,794 rapid HIV tests, 121 reflexed confirmatory tests, and 38 new HIV diagnoses (positive rate = 0.3%).

We found that by engaging patients directly in the Emergency Department and promptly after testing, we enable our HIV positive population with high-impact, precision, client-centered counseling. Additionally, educating patients beyond the visceral aspects of their diagnosis empowers patient's to take direct and immediate control of their personal circumstance and life choices. With stigma, discrimination, and apathy still playing a prominent role in discouraging patients to seek care, get tested, and participate in their care continuum.

Conclusions/Implications: This opt-out, non-targeted screening approach produced a 6 fold increase in the number of HIV tests and, more importantly, doubled the number of new HIV diagnoses which otherwise would have gone undetected. Same day results in the ED provided an opportunity to engage the patient in a dialog about HIV, explain the disease and methods of prevention, treatment options, and other health implications and expectations. Additionally, prompt diagnosis coupled with dedicated

work of a full-time, seasoned linkage to care HIV specialist has led to many newly diagnosed and known positive patients to be connected to proper care and anti-retroviral therapy.

Abstract 6168 - Early detection and linkage of acute HIV infections through routinized opt-out emergency department screening in Miami, FL

Author(s): *Girish Kapur, Monica Bahamon, Giselle Gallo, Patricia De Melo Panakos, Mehruba Anwar Parris*

Issue: Early intervention has shown to improve clinical outcomes in HIV infection and may reduce the risk of spreading disease to others. The acute phase of HIV infection is the early phase characterized by high viral loads and the absence of antibodies. Individuals in the acute phase of infection have an elevated risk of transmitting HIV, but are less likely to be diagnosed. The detection of these newly infected individuals is paramount in the prevention of further infections, particularly in Miami-Dade County, which has the highest rate of new HIV infections in the country. This presentation will share an overview of the screening and linkage to care infrastructure used in the busiest emergency department (ED) in South Florida, Jackson Memorial Hospital (JMH). The Chief of Emergency Medicine and Program Director will discuss seropositivity findings, expansion to other EDs, and replicable strategies for linkage and retention.

Setting: JMH is a quaternary care, urban hospital with an annual ED volume over 100,000. Jackson South Medical Center (JSMC) has an annual ED volume of 40,000. Both Miami-Dade County EDs were awarded the On the Frontlines of Communities in the United States (FOCUS) grant to implement policy-driven HIV/HCV screening and linkage to care.

Project: FOCUS was introduced in June 2017 as an opt-out HIV screening protocol in JMH's ED to facilitate the identification of infected patients and to link or relink patients to care. The program was expanded to JSMC in June 2018. All patients who have blood tests drawn as part of their medical evaluation and do not opt-out of testing are screened for HIV using a 4th generation antibody/antigen immunoassay. Through a formalized partnership with the Florida Department of Health in Miami-Dade County, we are able to verify whether HIV cases are new or known/out of care with real-time reconciliation and immediately initiate linkage protocols for these individuals. The opt-out screening model is facilitated by the electronic health record (EHR) and maximizes the use of information systems to seamlessly integrate screening as a routine practice in a high-volume ED. The EHR also helps manage the immediate linkage or re-linkage of individuals diagnosed with HIV through electronic alerts.

Results: Routinization of opt-out screening allows for higher rates of testing and diagnosis as well as earlier detection of HIV. This, in turn, allows patients to receive immediate linkage and risk-reduction counseling. The blood-based screening model and lab technology elevated the standard of care by markedly increasing the testing volume (over 40,000) and identifying acute HIV infections. The presentation will share the program's seropositivity findings (2.8% at JMH, 1.4% at JSMC), including a discussion on acute cases (1.7% of positives at JMH, 5.3% of positives at JSMC), and linkage to care strategies.

Abstract 6170 - Linkage & re-engagement after emergency department testing: implications for 90-90-90

Author(s): *Maira Sohail, Lauren Walter, Jeremiah Rastegar, Aadia Rana, James Galbraith, Sonya Heath*

Background: In line with the CDC's recommendation for universal, opt-out HIV testing, the University of Alabama at Birmingham Emergency department (UAB-ED) introduced opt-out testing as standard of care in September 2011. Since inception, ~20,000 individuals/year have been tested. In addition to newly diagnosed (N-dx) cases of HIV, we also identified patients who are re-diagnosed and out of care (Re-dx OOC). Intensive linkage and retention efforts were implemented for both new and re-diagnosed cases. We sought to compare the success of reengaging this Re-dx OOC group with linkage of N-dx patients

Methods: HIV-infected individuals consecutively identified in the UAB-ED (Sep 2011-Mar 2017) were stratified into 2 groups: N-dx, and Re-dx OOC. We compared characteristics of patients who were N-dx and Re-dx OOC at presentation to the ED. Additionally, we examined factors associated with linkage within 90 days. Cochran-Mantel-Haenszel chi-square tests were performed for the univariate analyses. For the multivariate analyses, we used Firth's penalized maximum likelihood logistic regression.

Results: Of 265 individuals who tested positive for HIV, 168 (63%) were N-dx and 97 (37%) were Re-dx OOC. Compared to N-dx, Re-dx OOC were more likely to be older (age of 40-64), black, publicly insured, unemployed, and reported use of illicit substances. Successful 90-day linkage from the ED visit occurred in 117 (70%) of N-dx compared to re-linkage/engagement in care of only 47 (48%) of Re-dx OOC. Among N-dx, those divorced/separated/widowed (OR: 0.17, 95% CI: 0.03-0.94), and uninsured (OR: 0.38, 95% CI: 0.16-0.87) were less likely to link to care within 90 days. Among Re-dx persons, those who reported use of illicit substances (OR: 0.26, 95% CI: 0.09-0.77) were less likely to successfully re-link/engage in care. However, those privately insured were more likely to link among the Re-dx OOC.

Conclusions/Implications: Successful re-engagement in care remains a key hurdle in achieving the UNAIDS 90-90-90 goals. Our findings suggest that ED opt-out testing combined with intensive linkage and retention efforts may provide a novel opportunity for successful re-linkage, retention, and viral suppression of those disengaged with medical care. Disparities in engagement persist as evidenced by demographic differences between N-dx and Re-dx OOC. Those who are Re-dx OOC and report use of illicit substances may be a particular focus for intervention in ED programs.

Abstract 6187 - A tale of two FQHCs: implementing HCV and HIV EMR screening in primary care

Author(s): *Anthony Lee, Ebony Williams, Sandra Karumberia, Ashley Gilmore, Tavessa Wilson, Ricardo Franco, Sonya Heath*

Issue: It is estimated that approximately 48000 individuals are infected with hepatitis C virus (HCV) 12000 are living with HIV in Alabama. Despite significant disease burden locally, routine HCV and HIV testing is not practiced in Alabama primary care settings. We seek to increase compliance to screening guidelines, by engaging clinics to adopt routine testing, as part of the broader goals of reaching HCV elimination targets and HIV 90-90-90 goals.

Setting: We recruited two strategically distinct sites serving vulnerable populations. One is in an urban setting with a high black patient population. The other is in a rural county ranked 37th by CDC for possible outbreaks of blood-borne infections among people with injection drug use (PWID).

Project: Both sites adopted a provider-engaged, nurse-led, opt-out EMR screening (EMR) for both HCV and HIV, following current CDC guidelines. A centralized coordinator linked HCV-infected subjects to partnering community health centers competent in managing HCV, and HIV-infected subjects to both the Alabama Department of Public Health (ADPH) and a local Ryan White program.

Results: In the rural clinic, a total of 1145 unique individuals underwent HCV screening during a 12 month period ending October 2018. Among screened subjects, 87 (8%) were positive for HCV-antibody. Of these, 50 (57%) were viremic and 16(18%) had indeterminate viremic status. Among HCV viremic individuals, 66% (33/50) successfully attended an appointment with an HCV treatment provider. In comparison to 2016 and 2017, before the launch of systematic EMR HCV screening, 108 individuals were screen, and among those, 63 were seropositive.

Universal HIV screening was launched in Dec of 2017. In the first month, 237 (91% white, 8% black) were screened with no positive cases detected. The number of patients screened in December 2017 far exceeded the total number screened from Feb to Nov 2017, when 75 subjects were screened with 1 positive detected.

In the urban clinic, from May to November 2018, 405 subjects underwent HCV screening with a 14%% (56/405) sero-positive rate. 13 were viremic and 11 were linked for HCV treatment in primary care setting.

In the urban clinic, 5969 patients (78% black and 64% Female) were EMR tested from March 2017 to August 2018. 13 were positive, with 6 new cases and 7 subjects with known positive status and not engaged in care. All were linked to care and currently engaged in care.

Abstract 6143 - Implementing a routine opt-out testing program in Alameda County jails: a six year case study

Author(s): *Shailey Klinedinst, Jessica Steele, Holvis Delgadillo, Jonathan Garcia, Lorenzo Hinojosa*

Issue: Prevalence of HIV among incarcerated individuals in the US is three times higher than the general population. While we have made great strides in recent years to routinize HIV testing in clinical settings, we still lack adequate HIV testing and care in correctional settings due to competing priorities and limited resources. This presentation will introduce successes and challenges experienced while implementing a routine HIV testing program in Alameda County jails. It will also address strategies that may be used to enhance HIV testing programs in jails or to start new programs, particularly when working within public-private partnerships.

Setting: Alameda County is a large metropolitan county in Northern California with a diverse racial, ethnic and socioeconomic makeup. Approximately 6400 people are living with HIV in Alameda, and there were 207 new diagnoses in 2017. Rates of new infection disproportionately impact young MSM of color. Alameda County jails hold approximately 2,600 individuals daily. Beginning in 2011, the Alameda County Public Health Department embarked on an initiative to expand and routinize HIV testing at Santa

Rita Jail and the Glenn Dyer Detention Facility, using funding from the CDC and California Office of AIDS, in addition to training and technical assistance support from Cardea Services.

Project: The goal of the program was to create and sustain a routine testing program to identify undiagnosed HIV cases, link newly diagnosed to care, and re-engage those who were previously diagnosed but not in care. Cardea Services provided training to doctors, nurses and medical assistants on HIV 101, HIV-related stigma, care and treatment, and how to implement routine testing. Staff were also trained in data collection to support program improvement efforts and assess whether the program effectively identified new cases of HIV and linked individuals into care. Testing began in limited areas of the jail and is now offered routinely during health and physical exams.

Results: Between 2012 and 2017, 15,819 HIV tests were conducted at Alameda County Jails. A total of 87 confirmed positive cases were identified over the five-year period, yielding a positivity rate of 0.54%, nearly three-fold that of other state-funded routine testing programs in California. Over 79% of those who tested positive were linked to care within 90 days, compared to 74% in the general Alameda county population. Note: during the conference we will submit testing and positivity data through 2018.

Track B

Session B15 - Social Media: Making it Work for You

Room: International North (Hyatt Regency Atlanta)

Abstract 5611 - Strategic partnerships to inform the creation and dissemination of CDC's Act Against AIDS transgender-focused communication products

Author(s): Sara Bresee, Donna Mitrani, Elana Morris, Jeffrey Rinderle, Dayle Kern, Eloisa Montes, Francisco Ruiz, Nakesha Powell, Euna August, Jo Stryker

Issue: Approximately 1.4 million people identify as transgender or gender non-binary (TGNB) in the US. TGNB people face multiple obstacles that affect their ability to stay healthy and place them at risk for acquiring or transmitting HIV. Although data are not uniformly collected, many studies estimate that transgender people, specifically transgender women of color, are among those at highest risk for HIV. Effective materials that address HIV among TGNB should include stakeholder and partner engagement to ensure that messages resonate and are trusted by the population. CDC partnered with key stakeholders and organizations to create transgender-focused HIV communication products. This presentation will provide an in-depth discussion of CDC's approach to partnerships and recommended strategies for establishing working relationships with transgender organizations.

Setting: Act Against AIDS (AAA) is a national communication initiative created to address the importance of prevention, testing, and linkage to and retention in care among healthcare providers and consumers. AAA focuses on raising awareness and targeted behavior change among communities at increased risk for HIV, including the transgender population.

Project: In order to ensure that AAA resources resonate with TGNB people and healthcare providers who serve them, CDC partnered with multiple TGNB-serving organizations on the development and dissemination of transgender-focused products. CDC conducted external consultations comprised of

diverse groups of community-based providers, clinicians, researchers, TGNB advocates, and other stakeholders to provide feedback on strategies and materials at key development points.

Results: Since 2015, the AAA initiative has collaborated with three different organizations to support its TGNB-focused communication and education efforts: the Center of Excellence for Transgender Health (CoE), the National LGBT Health Education Center, and the Callen-Lorde Community Health Center. The partnership with the National LGBT Health Education Center resulted in the development of several materials (forthcoming) and the launch of a continuing medical education program. The partnership with the CoE resulted in the creation and dissemination of co-branded social media and blog posts for National Transgender HIV Testing Day. The collaboration with the Callen-Lorde Community Health Center enabled CDC to recruit over 100 TGNB applicants to participate in the development of new AAA TGNB-focused materials. Previous recruitment attempts that were conducted in the absence of partnering organizations were not as successful (yielding approximately 15 applicants). In addition, CDC conducted three external consultations with almost 35 stakeholders, who provided content review of TGNB-focused materials and provided feedback on proposed dissemination strategies. These partners have been continually engaged to support message dissemination through their organizations' social media channels.

Lessons Learned: Engaging TGNB stakeholders and involving them in materials development helps to ensure buy-in from the TGNB community, enhance TGNB outreach efforts, and enhance the quality of the products themselves. Stakeholders and partners should be engaged at the outset of the project to take full advantage of their strengths and contributions at every stage of development and implementation.

Abstract 5469 - #ProtectYourselfRI: evaluation of a data-driven, multimedia, HIV/STD prevention campaign

Author(s): *Thomas Bertrand, Katharine Howe, Aaron Frechette, Philip Chan*

Background: In 2017, Rhode Island experienced an uptick in HIV cases and the highest rates of chlamydia, gonorrhea, and infectious syphilis in over 10 years. Based on surveillance data, the Rhode Island Department of Health (RIDOH) developed a multimedia, HIV/STD prevention and testing campaign focused on priority populations, including youth (15-24), high-risk members of the African American or Latino/Hispanic communities, as well as gay, bisexual, and other men who have sex with men (GBMSM).

Methods: The State funded STD clinic, as well as a community-based organization serving LGBTQ+ youth, conducted a needs assessment evaluating social media usage. Using these results, RIDOH worked with a social media marketing firm to implement a social media campaign, and develop new materials including static ads, and videos providing information about PrEP, HIV/STD testing, STD information and free condom locations in Rhode Island. Students from three colleges and universities participated in focus groups to test and improve content. Phase 1 of the campaign ran from November 1, 2017 to March 31, 2018 with paid advertisements on Facebook, Instagram and YouTube; online banner advertising through Google Adwords targeting consumers based on demographics, interests or geography; and Scruff BenevolAds which are free ads for nonprofits and public health agencies. Phase 2,

which ran from May 10, 2018 to June 9, 2018 included a locally developed Spanish-language video related to sexual health promoted on Facebook, Instagram and YouTube. Ongoing evaluation of campaign analytics was conducted which allowed RIDOH to focus resources on the most effective advertisements.

Results: The most popular social media platforms among both the STD clinic patients (n=546) and youth (n=29) were Facebook (56% and 97% respectively), Instagram (41% and 90% respectively), Grindr (42% among GBMSM at the STD clinic), and Scruff (23% among GBMSM at the STD clinic). During Phase 1, there were over 1.6 million views with 230,000 unique views on Facebook and Instagram alone. The banner advertising received another 1.4 million views with 0.12% of views ending with a click for more information, higher than the industry standard of 0.1%. The YouTube results achieved another 104,000 views with almost 40% of viewers watching at least 30 seconds of the video – the industry standard for this metric is 20%. RIDOH saw an increase from baseline to post-campaign of GBMSM who reported hearing about the STD clinic through RIDOH (9% to 15%) or through an internet search/website (25% to 31%). The Phase 2 video had an additional 26,500 impressions with 40% of people watching at least 30 seconds of the video, double the industry standard.

Conclusions/Implications: This social media campaign successfully drove traffic to the RIDOH webpage, and may have played a significant role in raising awareness and increasing patient volume at the STD clinic. The STD Clinic saw an increase in individuals who reported hearing about the STD clinic through RIDOH or through an internet search/website. The popularity of this social media campaign was evidenced by the social marketing outcome metrics that exceeded industry standards, and its success is attributed to the extensive formative research conducted.

Abstract 5584 - Ask Me About PrEP: a 3-part digital campaign to increase PrEP uptake in MSM of color and transgender women

Author(s): *Hilda Sandoval*

Issue: Despite FDA approved use of Truvada in form of Pre-Exposure Prophylaxis for the prevention of HIV in 2012, there has been minimal awareness and even less uptake from populations at greatest risk of acquiring HIV including Black and Latino Men who have Sex with Men (MSM) and Transgender women. These communities' access and uptake have trailed far behind white men who have sex with men. Additionally, primary care doctors and nurses hold a significant role in the prescription of PrEP, however, the Centers for Disease Control (CDC), reports that 1 in 3 primary care doctors and nurses have not heard about PrEP. To address this gap, AltaMed Health Services launched a 3-part video campaign designed to increase PrEP uptake among Black MSM, Transgender Women and person most at risk of acquiring HIV. This multifaceted media campaign is a statewide effort to engage those most at risk of becoming HIV infected but are not typically represented in large scale media campaigns around high impact prevention.

Setting: Funded by the CA State Office of AIDS, the Ask Me About PrEP campaign is a statewide strategy which aims to increase awareness and understanding on the effectiveness of PrEP and provide resources through the use of an online search engine, PleasePrEPMe.org. Using a digital approach, the campaign models conversations around PrEP, answers key concerns around its effectiveness and highlights

scenarios where PrEP can be incorporated into a person's daily routine. The videos are accessible for free online through www.AskMeAboutPrEP.org and are promoted through our online social media channels @altapride.

Project: AltaMed has become a pioneer in content marketing for the promotion of HIV prevention and PrEP services. Using a digital approach they created online conversations for Black and Latino Men who have Sex with Men (MSM), Transgender women and primary care providers, resulting in increased awareness in this prevention strategy. The campaign uses innovative approaches to engage communities most impacted by HIV. The three part series reaches medical providers through PrEP Provider Education Training Videos and training model; young Black MSM through Kiki n' Brunch, a scripted segment which follows a group of friends as they gather to discuss life, love, dating and PrEP; and transgender women through Fierce: Tran Empowered, PrEP Protected Campaign, an empowering 5-part bilingual video series highlighting scenarios that reflect real life issues and experiences of trans women while addressing HIV risk and access to PrEP.

Results: The AskMeAboutPrEP Campaign (Provider PrEP Education, Kiki n' Brunch, Fierce/Ella) was an effective strategy to reaching a diverse audience. The online efforts resulted in 12M people reached and 3M video views, 75% were from Facebook and 25% from YouTube. The AskMeAboutPrEP.org website reached 129,607 unique webpage hits with 1,320 inquiries with PleasePrEPme.org, where they were able to access PrEP resources. Objectives: Demonstrate effectiveness of social marketing to increase PrEP knowledge and access by communities most impacted by HIV, specifically young Black and Latino gay and bisexual men and transgender women. Demonstrate the effectiveness of using video to increase provider knowledge on PrEP and address HIV disparities in communities of color. Identify strategies for collaborating with partner organizations, such as PleasePrEPme.org, to improve the communities' knowledge and access to PrEP resources using digital media.

Lessons Learned: The trend in content marketing has grown significantly over the past two decades as audiences have shifted to new media, consuming content in entirely new ways. The campaign models conversations around PrEP and answers key concerns around the use of this effective HIV prevention method and sexual risk taking. Innovative approaches to engage those most impacted by HIV remains a priority for HIV Prevention efforts. The three part series reaches medical providers through PrEP Provider Education Training Videos; young Black MSM through Kiki n' Brunch, a scripted segment which follows a group of friends; and transgender women through Fierce: Tran Empowered, PrEP Protected Campaign, an empowering 5-part bilingual video series highlighting scenarios that reflect real life issues and experiences of trans women while addressing HIV risk and access to PrEP. Presentation will highlight this innovative effort to reach those most at risk for becoming infected with HIV.

Abstract 6205 - Going Viral to Fight Viruses (and Bacteria): a public health/dating app collaboration to produce a webseries and PSAs

Author(s): *Dan Wohlfeiler, Casey Crawford, Jen Hecht*

Issue: More and more individuals use video to share and seek out information. Producing high-quality, wide-reaching educational materials aiming at reducing HIV and STD transmission for gay and bisexual and other MSM has been hampered multiple factor, including cost and the challenge of producing

explicit materials in a compelling manner: While many materials have been produced by local health jurisdictions, few explicit campaigns have a national reach. While many campaigns focus on one prevention strategy (i.e., condoms, PrEP, treatment or testing) few promote comprehensive prevention strategies. Long-utilized and widespread strategies, such as partner services, have never been widely marketed despite the suspicion that key populations harbor about it. Newer concepts, such as promoting Undetectable=Untransmittable, have had limited marketing to key communities.

Setting: In 2017, Building Healthy Online Communities, a national consortium of HIV and STD prevention organizations, partnered with the gay dating site Daddyhunt to produce a third season of a successful webseries, as well as public service announcements using the same actors. These were promoted by the app itself, on YouTube, Facebook, Instagram, and BHOC website and partners.

Project: Daddyhunt produced a highly successful marketing video to promote the viability of an intergenerational relationship between two gay men. Following on a model similar to that used by Hollywood, Health and Society, BHOC and Daddyhunt then produced a second series that incorporated a storyline about PrEP and condoms, as well as PSAs on PrEP, three-site STD testing, and making informed choices about sexual health strategies. In October of 2018, a third series and PSAs were released. These included a much more racially diverse cast than season 1 and 2, as well as focusing on additional sexual health topics including HIV status disclosure, undetectable viral load, STD treatment and partner notification (both initiated by the index case as well as role of health-department assisted partner services). PSAs encourage users to seek more information at gettested.cdc.gov, pleaseprepme.org, and undetectable.love. All materials were subtitled in Spanish. All materials are open-license, and can be used by any organization as long as not for profit.

Results: In the first five weeks, Season 3 was viewed 1.38 million times on YouTube, and 31,500 times on Facebook. PSAs were viewed 179,141 times on YouTube and 143,772 times on Facebook. 28% of the views of the PSAs on Facebook were between 18 and 24, and 36% between 25 and 34. On YouTube, 20% of viewers were between 18 and 24; 36% were between 25 and 34. 87% of YouTube viewers watched the PSAs & Serial in English; 13.4% of YouTube viewers watched the PSAs & Serial using the Spanish subtitles. This far surpasses the number of viewers who watched Season 2 in the same time period. The most comments about the Series on YouTube have reflected the anticipation of seeing the characters again, Additional promotion has been planned for the next quarter.

Abstract 5527 - "PrEP Facts" and Facebook: creating new paths for reducing HIV transmissions, improving sexual communication, enhancing community participation

Author(s): *Damon Jacobs*

Issue: New HIV infections in the U.S. remained consistent at approximately 50,000 new infections each year for most of the past the past twenty years. Despite the FDA's approval PrEP on July 16, 2012, most people remained unaware and uninformed about this medical prevention strategy. Those who did use PrEP were often confronted with stigma, rejection, and accusations by friends, family, peers, and potential dates on dating applications. Meanwhile, most organizations and public health departments continued to expound "condoms only" messaging.

Setting: Facebook is a global interactive social media platform that is utilized not only for personal connections, but for individuals seeking information, resources, support, and community. Yet there were no resources or groups that specifically offered interactive facts, data, science, community, and support, related to PrEP in 2013.

Project: I launched the Facebook group, “PrEP Facts: Rethinking HIV Prevention and Sex,” on July 1, 2013, as a response to lack of information and education about PrEP. The group was intended to promote scientific data, medical facts, local resources, as well as honest discussions about connection, intimacy, love, and joy not typically associated with HIV prevention efforts. Sexual pleasure was used as the basis to improve health decisions and personal agency. It set out to build community-based support where members could get help navigating anti-PrEP stigma, finding local providers, adhering to medication regimen.

Results: From July 1, 2013 to July 1, 2018 over 21,200 members joined the group to learn about PrEP and discuss their experiences, fears, struggles, triumphs. Approximately 4,000 of the 21,200 members openly identify as active users of PrEP, and many have used group guidelines to launch similar groups in their local geographic area. The CDC reported an 18% drop in new HIV diagnoses in 2014 during the same year our membership increased by 493%. The three cities representing 16% of our membership (New York, London, San Francisco) all reported historic drops in HIV diagnoses in 2016, partly due to consumers of social media normalizing HIV testing and celebrating sexual health. Although the state of California lags behind the national average in HIV decreases at 2.6% [from 5092 in 2011 to 4916 in 2016], San Francisco and Los Angeles, two of the cities with the most members represented in the group, reported higher than average drops during the same time period at 53% and 22%, respectively. Our members routinely report a sense of feeling appreciated, supported, and respected.

Lessons Learned: Social media offers a platform for providing education, information, and empowerment for consumers. It allows individuals to engage in explicit discussions related to sexual activities, pleasure, joy, agency, and consequently improve health outcomes. Crucial to the successful implementation of this tool is a team of moderators who seek to actively change the culture of fear around HIV testing, normalize feelings of ambivalence, prioritize empirically driven research, celebrate human connections, universalize experiences of stigma. Access, uptake, and adherence to PrEP are more successfully implemented in a context of supporting sexual pleasure, emotional gratification, and personal agency, versus approaches that increase fear and shame.

Session B19 - Promoting PrEP Awareness Among Women

Room: Regency V (Hyatt Regency Atlanta)

Abstract 5444 - Promoting HIV prevention services for pregnant people in public health settings

Author(s): Shannon Weber, Dominika Seidman

Issue: The American College of Obstetrics and Gynecology and the Centers for Disease Control & Prevention recommend offering pre-exposure prophylaxis (PrEP) for HIV prevention to women in pregnancy with appropriate counseling. Nearly all women engage in some prenatal care, making

pregnancy an opportune time to educate about and offer HIV prevention. However, few models exist for routinely providing these services in pregnancy.

Setting: HIVE Clinic is located in San Francisco’s public safety-net hospital. HIVE began offering PrEP in pregnancy to pregnant women with viremic partners in 2010. Since, the program has grown to serve pregnant women transgender men with potential exposure to HIV ranging from: partners of known HIV status to those who exchange sex, inject drugs, or experience multiple social determinants of HIV. After a 2016 chart review revealed missed opportunities for offering PrEP and post-exposure prophylaxis (PEP) to pregnant people, HIVE launched an education campaign for San Francisco providers in contact with pregnant people regarding HIV prevention services.

Project: HIVE hosted departmental grand rounds, provided on-site trainings, lead case reviews of HIV diagnoses, and mailed provider and patient-facing materials to clinics with new HIV diagnoses in cisgender women. Outreach initially focused on obstetricians, family medicine physicians, midwives and nurse practitioners. To reach women served outside of traditional prenatal care settings, HIVE partners with the homeless outreach/street medicine team, opiate treatment programs, partner notification program for syphilis, teen clinic, abortion clinic, and primary HIV care clinics for cisgender men. Key education components included: (1) universal education for all pregnant people about PEP/PrEP; (2) offering PrEP as part of a prevention package including treatment as prevention and post-exposure prophylaxis; (3) offering “HIV neutral services” - the same wrap-around services (e.g. intensive case management, housing, violence prevention services, addiction care) to pregnant people vulnerable to HIV as to pregnant people living with HIV.

Results: To support implementation of universal education, screening questions based on CDC recommendations were integrated into the electronic medical record, prompting providers to both provide universal education about PEP/PrEP and inquire about HIV vulnerability. Trainings emphasized the importance of offering PrEP as one of multiple HIV prevention options, and using shared decision-making with patients to identify the appropriate individual HIV prevention method. HIVE built on existing relationships to provide PEP/PrEP adherence support via medication administration through methadone clinics and the homeless outreach team and housing support by advocating for pregnancy to be viewed as “high risk” and eligible for urgent housing services.

Lessons Learned: Implementation of universal screening, education and offering comprehensive HIV prevention for women in and around pregnancy is feasible in diverse clinical settings. Facilitators include pre-existing clinics caring for pregnant people affected by HIV and building on their relationships with other support services. Barriers include ongoing training needs, as well challenges to providing PEP/PrEP services (and pregnancy services in general) to women who access care outside of traditional outpatient settings. Further work is needed to promote an HIV-neutral and pregnancy-neutral approach to HIV prevention care, ensuring people have consistent support during pregnancy and throughout their lifetime.

Abstract 5400 - Evaluation of a web video to promote PrEP uptake and equity among women engaged in care at Planned Parenthood

Author(s): Sarah Calabrese, Rachel Galvao, Susan Lane, Abigail Caldwell, Clair Kaplan, Damon Ogburn, John Dovidio, Cara Safon, Mehrit Tekeste, Tamara Taggart

Background: Although about 200,000 US women are estimated to have indications for PrEP, less than 5,000 have active prescriptions. The gap between candidacy and uptake is especially striking among Black and Latina women, who are 17 and 4 times more likely than White women to acquire HIV. In many healthcare settings where PrEP is prescribed, providers selectively educate women about PrEP. This non-standardized approach may contribute to suboptimal PrEP uptake and uptake disparities. In the present PrEP implementation study, we evaluated an online educational video as a tool for broadly disseminating PrEP information to women and assessed differences in acceptability by race/ethnicity.

Methods: In 2018, two Connecticut Planned Parenthood centers with similar patient demographic profiles and PrEP prescription histories participated in a 3-month PrEP implementation study. Prior to initiation, clinicians at both centers underwent training, during which they were encouraged to routinely inform all patients about PrEP. At one of the two centers (Web Condition), an email announcing the availability of PrEP at Planned Parenthood was sent to all patients who were 18 and older and had received care in the preceding 10 months. The email linked to a seven-minute, online video about PrEP, which included content tailored to women. At the other center (Standard Condition), patients were informed about PrEP in person during health visits. Patients at both centers were surveyed online immediately after learning about PrEP (by video or in person) and approximately one month later. Differences between conditions were assessed using Fisher's exact tests and logistic regressions ($\alpha=.05$).

Results: Seventy-six sexually active, HIV-negative women watched the video. The Web Condition sample was racially diverse (51% non-Hispanic White, 18% non-Hispanic Black, 25% Latina, and 5% other) and representative of health center clientele. Immediately after watching the video, most participants reported that it increased their interest in PrEP (58%), likelihood of using PrEP (57%), and comfort discussing PrEP with a provider (79%). There were no differences by race/ethnicity. When compared to the Standard Condition (n=52), there were no differences in immediate levels of interest, intended use, and comfort discussing PrEP with a provider. However, differences emerged one month later in both unadjusted and adjusted analyses: Web Condition (n=39) vs. Standard Condition (n=25) participants reported thinking about PrEP more frequently (36% vs. 4% thought about PrEP "sometimes" or "often") and expressed greater comfort discussing PrEP with a provider (82% vs. 48% were "very" or "extremely" comfortable). Differences between Web Condition vs. Standard Condition participants with respect to having talked about PrEP during the one-month follow-up period (67% vs. 44%) and having done so with a provider specifically (15% vs. 0%) were not significant. No participants in either condition reported initiating PrEP during the follow-up period.

Conclusions/Implications: Electronic dissemination of an educational video about PrEP offers a simple patient empowerment strategy requiring minimal cost and effort. This strategy was well received across racial/ethnic groups. When compared to standard in-person education, the web video led to greater PrEP contemplation and comfort discussing PrEP with a provider, thereby supporting future uptake among women.

Abstract 5495 - Universal PrEP-plus: promoting HIV pre-exposure prophylaxis awareness, education, and access for women in clinical practice

Author(s): *Jaime Morrill, Ashley Zuppelli, William Valenti, Michael Lecker*

Issue: Among men who have sex with men, PrEP uptake has flourished and the rate of new HIV infections has decreased. Concurrently with this success, women continue to be vulnerable to HIV, to seroconvert, and to be left out of the PrEP conversation. To change this, programs must first change their culture and approach to PrEP education, screening, and access for women.

Setting: Trillium Health (TH) is a community health center in Rochester, NY. Founded in 1989 in response to the AIDS epidemic, TH has expanded services to everyone, providing both primary and specialty care in addition to other supportive services. TH's PrEP program launched in 2012 and currently supports over 650 patients. We use a "Universal PrEP-Plus" approach as part of our inclusive and comprehensive sexual health programming.

Project: "Universal PrEP-Plus" began with a shift in focus to provide PrEP education for all patients and staff regardless of their gender, HIV status, or assumed sexual activity. To encourage conversations about PrEP, our electronic medical record provides a prompt to discuss PrEP with each patient. Training is provided to all staff members to foster these conversations and provide direct linkages. In addition to universal education for all, efforts have been made to engage women. New marketing campaigns for women emphasize PrEP as a tool for empowerment. Physical outreach to women vulnerable to HIV takes place at salons, bars, faith-based events, jails, substance use treatment programs, and homeless shelters. To expand the network of providers providing PrEP, TH offers education for family planning and OB-GYN providers. To achieve the "plus" aspect of our PrEP program, access has been expanded along with education and outreach. Same-day appointments for PrEP initiations as well as a "PrEP Line" which is always answered by a PrEP Specialist during business hours make accessing PrEP possible as soon as someone is ready. Postexposure prophylaxis is offered by our pharmacy 24/7 and often leads to transitions to PrEP. Preparedness and accessibility of additional services is a key aspect of upholding our PrEP-Plus standard. Creating practices that are trauma-informed and anticipate the various needs that women may present with have helped to redefine our offering of wrap-around services. Internally we link patients to food assistance, care management, insurance enrollment, behavioral wellness, and support groups.

Results: TH has seen an increase in women accessing PrEP through our program from 25 women in March to 72 in May of 2018. Digital marketing has resulted in countless engagements and many direct linkages to care. Support groups specific to trans women have also provided linkages to care. Thousands of providers continue to learn about the necessity of PrEP through newsletter submissions to the local Accountable Care Organization network which has led to referrals.

Lessons Learned: To reach women and keep them engaged, services must continue to be informed and evolve based on the needs and requests of this population. To effectively deliver PrEP services to women we must focus on empowerment, universal education, and innovative ways to provide immediate access.

Abstract 5784 - Identifying women who may benefit from PrEP: a retrospective review of newly HIV diagnosed women and the application of CDC PrEP guidelines

Author(s): *Eleanor Friedman, Jessica Schmitt, Alvie Bender, Andrew Richardson, Jessica Ridgway*

Background: The Centers for Disease Control and Prevention (CDC) issued updated clinical practice guidelines on Pre-Exposure Prophylaxis (PrEP) for the prevention of HIV infection in March of 2018. These guidelines outlined several ways to identify heterosexual women, including those who are also persons who inject drugs (PWID) who might benefit from PrEP. We retroactively applied the guidelines for identifying women who would benefit from PrEP to women who were diagnosed with HIV in an urban emergency department (ED) with a high prevalence of HIV infection.

Methods: Using Electronic medical records we identified 22 African American women who were newly diagnosed with HIV between January 1st 2011 and June 1st of 2018 at the University of Chicago Hospital emergency department. We examined past medical encounters in the ED to determine if any of the recommended indications for PrEP were present at the visit that resulted in HIV diagnosis or prior to it. We used the specific guidelines given in Box B2: recommended indications for PrEP use by heterosexually active men and women and Box B3: recommended indications for PrEP use by persons who inject drugs.

Results: Using the new CDC PrEP guidelines we were only able to identify 2 women (9.1%) who would have been recommended PrEP; one who was a PWID and confirmed sharing of injection equipment, and one woman who had a partner who was a man who had sex with men (MSM). We also tested a less restrictive set of PrEP guidelines that relied on 1) confirmed injection drug use without confirmed needle sharing 2) confirmed inconsistent condom use in a high prevalence area without confirmation of high risk partner. Using these expanded guidelines we were able to identify 12 (54.5%) of the women as benefiting from PrEP. Women identified as benefiting from PrEP either under the strict CDC guidelines, or by our more expanded guidelines were older and had more prior visits to the ED, although neither factors were statistically significant given the small size of this study.

Conclusions/Implications: These findings suggest that the current CDC recommendations for heterosexual women with or without injection drug use would not have identified women in need of PrEP in this setting. The expanded PrEP criteria we developed take into account the multilevel risk factors known to particularly affect heterosexual African American women, including differences in sexual networks and community HIV prevalence. This more expansive set of guidelines may be more appropriate for use in urban ED settings.

Abstract 5579 - Collaboration and innovation to bring PrEP to scale for African-American Heterosexual Women in Washington, D.C.

Author(s): *Michael Kharfen, Veronica Urquilla, Ashlee Wimberly, Andrea Augustine*

Issue: Washington, DC has a significant HIV epidemic with disproportionately impacted populations. Overall, 1.9% of residents are diagnosed and living with HIV. While African-American gay and bisexual men are the highest proportion of all living and newly diagnosed persons with HIV, African-American women are the second highest proportion. Of all women with HIV, 90% are African-American. One in

five new HIV diagnoses are among African-American women. Nationally, Pre-Exposure Prophylaxis (PrEP) was promoted among gay/bisexual men, while little PrEP education, outreach, and accessible services have been directed to women.

Setting: The PrEP for Women Project is set in Washington, DC with a focus population of African-American heterosexual women. The project identified three different settings: a federally qualified health center (Mary Center), a family planning/reproductive health center (Planned Parenthood), and a hospital-based setting for adolescent and young women (Children’s National Medical Center).

Project: Washington, DC launched a public-private partnership to initiate PrEP programming for women in 2016. M•A•C AIDS Fund provided \$1 million for the project matched by \$220,000 in local DC funds. The project’s aims are: (1) to leverage HIV and women’s health providers to adopt and offer PrEP; (2) to engage women in the community to change and expand the conversation about PrEP from “protecting her from him” to “taking care of yourself;” and (3) to increase the knowledge and number of medical providers prescribing PrEP for women. The DC Department of Health implemented “Dominate Your Sex Life” #PrEPforHer, a complementary social marketing campaign. The 3 partners integrated PrEP into their clinical practices among OB/GYNs, pediatrics, and primary care practitioners by adding PrEP into the “One Question” reproductive health approach asking women when they want to have a baby. The Project convened an advisory committee and conducted educational outreach activities. The activities included one-on-one conversations, group presentations, counseling and testing, community outreach, provider education, and PrEP enrollment.

Results: Overall, the sites provided HIV/STI testing to 19,925 persons, educated 4,563 persons, and trained 135 clinical and 149 non-clinical staff. To date, 57 women started PrEP. There has been an increase PrEP knowledge and intention: 45.1% gained new knowledge and 26.5% sought out more information. While PrEP surveillance data is incomplete, the Department of Health estimates approximately 2,000 unduplicated persons utilized PrEP in 2017. The health department’s PrEP practice had 8% women participants. Using that conservative estimate, 160 women are using PrEP in DC. The project represented 35.6% of all women in DC on PrEP.

Lessons Learned: A coordinated and multi-sectorial combination of community mobilization and social marketing yielded a promising increase in awareness and acceptability of PrEP among women. Integrating PrEP into core reproductive health associates PrEP with other contraceptive considerations. Community-wide marketing adds credibility to the prevention option. While awareness was increased, there is more to learn to support women from pre-decisional to uptake of PrEP.

Session B22 - Dual Purpose: the Role of STD Clinics and Partner Services in HIV Prevention

Room: International South (Hyatt Regency Atlanta)

Abstract 5993 - Partner services fatigue: does the number of previous STIs and partner services interviews predict PS interview completion and provision of identifiable partners?

Author(s): *Roxanne Kerani, Christina Thibault, Dawn Spellman, Matthew Golden, Lindley Barbee*

Background: STI partner services (PS) interviews are an opportunity for delivering HIV prevention services for individuals at high risk for acquiring or transmitting HIV. Increases in STI rates and declining PS interview completion have led to concerns that people contacted multiple times may be less likely to complete PS interviews.

Methods: We analyzed King County, WA STI surveillance and PS data for gonorrhea, chlamydia, and syphilis (all stages) cases diagnosed from January 1, 2007-February 28, 2018 among persons 14 years and older. HIV status at the time of diagnosis was acquired by matching STI surveillance data to eHARS data. Episodes in which individuals were coinfecting with multiple STIs were counted as one case. We considered a PS interview attempt as completed or partial interviews, refusals, and unsuccessful contact attempts. We used log binomial regression with robust standard errors to evaluate the association of number of previous STIs and PS interviews with PS interview completion and providing identifying information >1 sex partner.

Results: From January 1, 2007-February 28, 2018, 102,898 cases of STI were reported, including 80,558 cases of chlamydial infection, 23,578 gonorrhea cases, and 5,353 cases of syphilis. Disease intervention specialists attempted 47,512 (46.2%) PS interviews, of which 29,973 (63.1%) resulted in a complete or partial interview. Of these 29,973 interviews, 16,695 (65.7%) included identifying information for >1 partner. The proportion of PS interview attempts resulting in an interview decreased over time from 74.9% in 2007 to 57.4% in 2018. Of the 102,898 cases, 30,398 (29.5%) occurred among people with at least 1 previous STI (range: 1-29), including 16,074 (15.6 %) with >1 previous PS interview (range 1-18). Remaining results exclude those without a PS interview attempt. Among those with no previous STI, PS interview completion decreased from 64.3% (19,654/30,582) among those with no previous STI to 53.1% (197/371) for those with >9 previous STI. Similarly, the proportion of persons providing identifying information for >1 partner decreased with subsequent STI, from 57.0% (11,199/19,654 interviewed) for no previous STI, to 30.0% (61/197) for those with >9 previous STI. In a multivariate model those with 1-4 (PR=0.90, CI:0.89-0.91) and > 5 previous STI (PR= 0.79, CI:0.75-0.83) were less likely to complete a PS interview compared to those with no previous STI, adjusted for sex, sex of sex partners, age, race, ethnicity, HIV status, and syphilis infection. In a model adjusted for the same covariates, those with 1-4 previous interviews were less likely to complete a PS interview, but those with >5 interviews were not significantly different than those with no previous interviews. In a multivariate model adjusted for sex, sex of partners, age, race, ethnicity, HIV status, meeting partners at bathhouses (PR=0.89 , CI:0.84-0.94), and travel with sex (PR=0.86 , CI:0.84-0.89), those with >5 previous STI were less likely to identify a partner compared to those with no previous infections (PR=0.84, CI:0.77-0.91).

Conclusions/Implications: In an era of increasing STI, identifying facilitators of STI partner services and partner identification is important to ensure delivery of high impact HIV prevention services to people with bacterial STI.

Abstract 6067 - Linkage to partner services - strengthening collaborations between disease intervention specialists (DIS) and community based organizations (CBOs)

Author(s): *Lila Rubenstein, Jamila Shipp*

Issue: Partner services is essential to detecting new sexually transmitted infections (STIs) and preventing the transmission of HIV. While partner services is a mandated strategy, many states struggle with identifying partners. Multiple challenges exist within the continuum of partner services including a lack of trust of the health care system, a high paperwork burden, and a lack of understanding of the roles and function between providers, Disease Intervention Specialists (DIS), and front line staff of community based organizations (CBOs). Michigan Community Department of Health's HIV Prevention Program was struggling with low linkage to partner services and wanted to understand root causes in order to develop actionable solutions.

Setting: Capacity for Health's pilot workshop was delivered in two locations in Michigan - Lansing and Detroit. The intended audience is health department's DIS and front line staff at CBOs. This training can be adapted for any jurisdiction in the US where linkage to partner services is problematic.

Project: This program was developed in partnership with the Michigan Community Department of Health's HIV Prevention Program. The program, delivered as a full-day workshop, is aimed at addressing a rift between local health department's DIS and front line staff at CBOs. Historically, these two stakeholder groups have had difficulty working in effective partnership to ensure that HIV positive clients will be linked to partner services. The workshop has three objectives: 1) increase knowledge of linkage coordination best practice models for DIS and front line staff at CBOs; 2) increase the understanding of the importance of linkage to partner services in order to increase viral suppression as evidenced with the presentation of epidemiologic data; 3) encourage DIS and CBO partners to work collaboratively to identify solutions for increased linkage to partner services. The workshop implemented a set of human-centered design tools to increase collaborative and creative thinking between DIS and CBOs. These tools include journey mapping, persona development, group brainstorming, and rapid prototyping to methodically identify problem areas from a client perspective and design innovative solutions centered around client needs.

Results: This program is being developed and improved for use with partner services programs in health departments around the country. The presentation will share tools and methods to increase collaboration between DIS and front line staff at CBOs, as well as preliminary participant-driven strategies to increase linkage to partner services from workshops in Michigan.

Lessons Learned: Many complex challenges exist with newly diagnosed clients feeling comfortable disclosing their sexual history and partners with partner services: fear of intimate partner violence, fear stigma around HIV positive status, and fear of being criminalized for unintended HIV transmission. The partner services continuum varies between jurisdictions due number of identified positives, the existing relationship between CBOs and DIS, and the partner services referral system. Continued support from state health departments in each local jurisdiction is necessary in order to make lasting changes to improve the partner services continuum.

Abstract 5947 - Bringing PrEP to scale: weaving PrEP into the fabric of STD partner services in Los Angeles County

Author(s): *Leo Moore, Jianning Luo*

Issue: Despite a long history of HIV prevention programs in Los Angeles County (LAC), nearly 2,000 people are diagnosed with HIV annually. While PrEP offers an opportunity to protect high-risk individuals from acquiring HIV, uptake has been slow among those at highest risk of HIV, with an estimated 3% of men who have sex with men (MSM) using PrEP in 2014. In addition, data from an online survey conducted in LAC in 2015 demonstrated disparities in PrEP use among MSM by race/ethnicity. Approximately 15% of White MSM reported history of PrEP use while 12% of Black and 3% of Latino MSM reported ever taking PrEP. Furthermore 45% of White, but only 21% of Black and 26% of Latino MSM reported knowing where to access PrEP. Moreover, identifying clients at highest risk for HIV may be challenging, due to insufficient STD history and patient or provider discomfort with sexual history taking among other factors. Partner Services (PS) presents an opportunity to provide HIV prevention messaging to high-risk MSM clients.

Setting: LAC is a large and diverse region with over ten million residents across 4000 miles.

Project: In June 2017, the Division of HIV and STD Programs (DHSP) at the LAC Department of Public Health integrated a PrEP needs assessment and referral process into the PS interview for high-risk clients with a recent STD diagnosis who are HIV-negative. This project involved training PS staff on the basics of PrEP and implementing the PrEP needs assessment into the surveillance system. The needs assessment consists of 3 questions: 1) Does client need PrEP? 2) Did the disease investigation specialist discuss PrEP with the client? 3) Was the client referred to PrEP? Need PrEP was defined as a client who met criteria of the LA County PrEP guidelines, an adaptation of the CDC guidelines informed by county epidemiological data.

Results: From July 1, 2017 – June 30, 2018, 2188 HIV-negative MSM underwent the PrEP needs assessment of which 47.5% (n = 1039) were Hispanic, 29.1% (n = 637) White, and 10.1% (n = 222) Black. The majority of clients were between the ages of 18 – 29 (48%, n = 1054), followed by 30 – 39 (29%, n = 640). Of all clients who underwent the PrEP needs assessment, 63% (n = 1374) needed PrEP and 32% (n = 706) reported currently being on PrEP. Of those who needed PrEP, PrEP was discussed with 91% (n = 1248) of clients. Of those clients with whom PrEP was discussed, 72% (n = 898) were referred to PrEP services.

Lessons Learned: PS offers an opportunity to provide PrEP information and referrals to a large and diverse population of MSM at high risk for HIV. There was a high referral rate among those who needed PrEP and with whom PrEP was discussed. Next steps will be to use surveillance and clinic data to match clients and determine the percentage of clients referred who attended an initial PrEP visit. Ongoing monitoring and evaluation will be employed to improve prioritization of clients and the referral process.

Abstract 5987 - Awareness of HIV pre-exposure prophylaxis (PrEP) among people who engage in transactional sex presenting to a sexually transmitted disease clinic

Author(s): Collette Sosnowy, Jun Tao, Hector Nuñez, Madeline Montgomery, Colleen Daley Ndoye, Katie Biello, Matthew Mimiaga, Philip Chan

Background: People who engage in transactional sex work in the United States have an elevated risk of HIV infection. Pre-exposure prophylaxis (PrEP) is highly effective in preventing HIV transmission and is

recommended by the Centers for Disease Control and Prevention (CDC) for individuals at increased risk of HIV, including both male and female sex workers (MSW and FSW, respectively). PrEP awareness is the critical first step to care, yet awareness and use among sex workers is largely unknown.

Methods: Demographic and behavioral data for all individuals presenting to the Rhode Island Sexually Transmitted Disease (STD) Clinic from January 2013 - December 2017 were reviewed. The data were collected using a patient intake form as part of routine clinical care prior to HIV/STD testing. Bivariate associations between those who did and did not report exchanging sex for drugs, money, or other needs within the past year were examined using Chi-square and Kruskal-Wallis equality-of-populations rank test. Multivariable logistic regression adjusted for age, race/ethnicity, sexual orientation, and insurance status, which were determined by directed acyclic graphs (DAGs) and a priori, was used to assess the associations between sex work and PrEP awareness and use among MSW.

Results: Of 6,904 unique individuals who presented to the STD clinic during the study time period, the median age was 28 years (interquartile range [IQR]: 23-37). The majority were male (71.1%), Caucasian/White (53.6%), non-Hispanic (74.6%), and heterosexual (70.9%). Among all patients, 1.6% (108/6904) reported engaging in past-year transactional sex (74 men; 34 women). Individuals who had engaged in sex work were more likely to report having ever been tested for HIV (82.2% vs. 69.4%), having a medium or high perceived risk of contracting HIV (46.8% vs. 14.0%), having ever had an STD (47.2% vs. 25.3%), and having more sexual partners in the past 12 months (median: 2, IQR:1-5 vs. median 10, IQR: 2-20) compared to the general clinic population. Among male patients, MSWs were 5% (adjusted odds ratio: 1.05, 95% confidence interval: 0.61-1.82) more likely to report ever having heard of PrEP. Among female patients, FSW were less likely than non-FSW to be aware of PrEP (16.6% versus 5.9%, $p=0.11$).

Conclusions/Implications: Dedicated local outreach efforts among MSW have increased PrEP awareness in this population. Similar efforts are needed among FSW. Efforts to increase use of HIV prevention services, including PrEP, are needed among individuals who engage in transactional sex work.

Session B23 - PrEP for Transgender Communities: The California HIV/AIDS Research Program PrEP Demonstration Initiative

Room: Embassy A-C (Hyatt Regency Atlanta)

Abstract 5528 - Barriers and facilitators to PrEP initiation and adherence among transgender and gender non-binary individuals in southern California

Author(s): *Caitlin Wei-Ming Watson, Elizabeth Pasipanodya, Eric Ellorin, Katya Corado, Risa Flynn, Chloé Opalo, Elizabeth Lampley, Brook Henry, Jill Blumenthal, Robert Bolan, Sheldon Morris, David Moore*

Background: Transgender and gender non-conforming (TG/GNC) individuals are disproportionately affected by HIV and often experience severe discrimination and incompetent medical care, limiting their utilization of medical services including HIV prevention. Although pre-exposure prophylaxis (PrEP) has been shown to be effective in preventing HIV in several populations, few studies have specifically evaluated PrEP use in this important and underserved population. Thus, in preparation for an open-label PrEP study designed for the TG/GNC community as a part of the California HIV/AIDS Research Program-

funded PrEP for Trans Initiative, we sought to assess PrEP awareness as well as perceived barriers and facilitators of PrEP uptake and adherence.

Methods: We conducted three focus groups with 37 TG/GNC individuals 18 years or older in San Diego (n=9; n=9) and Los Angeles (n=19) between December 2016 and January 2017. Participants were recruited through local clinics, community-based organizations and advisory boards, HIV/STI testing sites, and participant referral of TG/GNC social network members. Participants were ethnically diverse (Black, Latinx, and White), with some were living with HIV, and a minority had previously used PrEP. A semi-structured format, with a series of open-ended questions, was utilized to elicit discussion about barriers and supports to PrEP initiation and adherence. All focus groups were audio-recorded, transcribed, and coded using thematic analysis.

Results: Although overall PrEP awareness was relatively high, some participants reported limited knowledge and misinformation about PrEP in the TG/GNC community. Participants reported concerns about the potential side effects of PrEP, interactions with other medications, in particular gender-affirming hormone replacement therapy (HRT), and lack of protection from other STIs as barriers to PrEP usage. Furthermore, participants cited barriers to PrEP access including high co-pays, problems with insurance, and a complicated multi-step process to obtaining PrEP prescriptions. Additionally, participants reported past discrimination from doctors and hospital systems, limited knowledge of TG/GNC-friendly service centers and providers, and stigma. Some perceived judgment when requesting PrEP from providers and felt that stringent eligibility criteria for PrEP were being applied making it difficult to obtain PrEP. Despite these socio-medical barriers, some participants reported recent widespread PrEP availability, willingness of some doctors to prescribe, and the presence of TG/GNC services centers providing subsidized PrEP as facilitators of access and uptake. When asked about possible supports to PrEP adherence, participants reported high levels of comfort with taking medications regularly, use of alarms and other reminder systems, and encouragement from friends and community. Finally, participants described PrEP as allowing for sex- and romance-positive relationships and furthering active and healthy sex lives without fear of contracting HIV as important benefits of taking PrEP.

Conclusions/Implications: In focus groups among TG/GNC individuals, levels of PrEP awareness were relatively high. However, informational, financial, logistical, and socio-structural factors were identified as barriers to PrEP access and initiation. Despite largely external limitations to PrEP use, participants reported significant intra- and inter-personal facilitators to PrEP uptake and continued adherence. These findings may have implications for efforts to improve PrEP linkage and uptake and are foundational to designing effective PrEP interventions among TG/GNC individuals.

Abstract 5612 - PrEP for transgender people: lessons learned from the I-BrEATHe study (Interactions BEtween Antiretrovirals and Transgender Hormones)

Author(s): *Marion Pellegrini, Patricia Defechereux, Jae Sevelius, Shalender Bhasin, Peter Anderson, Joshua O'Neal, Madeline Deutsch, Robert Grant*

Background: In the iPrEx study, a trial of tenofovir disoproxil fumarate/emtricitabine (FTC/TDF) for HIV pre-exposure prophylaxis (PrEP), a subgroup analysis of transgender women revealed lower levels of

PrEP drug concentrations when compared to cisgender men who have sex with men. Reasons for lower drug concentration could be behavioral or biomedical, or a combination of both. Although information extrapolated from other settings has been reassuring, no formal study of interactions between feminizing or masculinizing hormones and FTC/TDF has been conducted to date. I-BReATHe is a study of drug-drug interactions between TDF/FTC for daily PrEP and gender affirming hormone therapy using directly observed therapy and laboratory-confirmed drug concentrations.

Methods: HIV-negative transgender women and HIV-negative transgender men were enrolled. All participants were on a stable hormone therapy regimen and not currently taking FTC/TDF for PrEP. Participants engaged in daily oral PrEP directly observed therapy (DOT) via video calls over a duration of 4 weeks. Demographics, hormone therapy regimen, and information about drug and alcohol use were collected at enrollment via interviewer-administered questionnaires. Changes in hormone therapy regimen, concomitant medications, adverse effects, and drug concentrations (FTC, FTC-TP, tenofovir, and tenofovir-DP) were assessed at weekly visits for 4 weeks. Serum hormones levels were measured at enrollment and at last study visit. The study coordinator and one of the co-principal investigators are themselves transgender, and several other transgender staff persons were involved in the study.

Results: 51 participants were screened and 48 participants enrolled (24 transgender women and 24 transgender men). Participants ranged in age from 22 to 55 (mean 33.67), and more than 50% were people of color. 47 participants completed the 4 weeks of directly observed therapy. No participants had more than two single missed doses of the DOT, and all required specimens were collected and preserved per protocol. Upon the study exit interview, 48% of participants said they were interested in continuing to take PrEP. While participants reported that the DOT calls were convenient, challenges included certain aspects of the clinic site, transportation, and scheduling. Flexibility, rapport, and consistent communication with participants were critical to the success of the study.

Conclusions/Implications: Enrollment and retention of diverse transgender people is feasible in intensive, video DOT-based studies of interactions between antiretrovirals and gender affirming hormones. Many transgender people are motivated to contribute to research in transgender health and HIV prevention. Clinic and systems issues should be taken into consideration when designing studies, which can and should include transgender investigators and program staff to support building the trust with communities that was critical to the success of this study.

Abstract 5613 - TRIUMPH: Transgender Research-Informed Communities United in Mobilization for the Prevention of HIV

Author(s): *Jae Sevelius, Luis Gutierrez-Mock, Robert Grant, Kimberly Koester, Michelle Yu, Ben Hudson, Layla Welborn, Madeline Deutsch*

Background: Transgender women, particularly trans women of color, are disproportionately affected by HIV. Because transgender people have unique facilitators and barriers to healthcare, coupled with high levels of medical mistrust, HIV prevention interventions must be developed that are led and informed by the experiences of transgender people themselves, rather than adapted from or subsumed by cisgender, MSM-focused strategies for pre-exposure prophylaxis (PrEP) delivery. As part of the California HIV/AIDS Research Program's trans-specific PrEP demonstration initiative, we are implementing TRIUMPH to

develop a culturally relevant, community-led HIV prevention program that will identify the best methods to deliver PrEP safely and effectively to trans communities while achieving the most effective patterns of uptake and use. While transgender men, genderqueer, and non-binary people, as well as other trans community members are eligible, the project is specifically designed to address the needs of those communities most impacted by HIV, namely trans women of color. TRIUMPH is conceptually grounded in the Model of Gender Affirmation, and all aspects of service provision are trauma-informed.

Methods: The primary aims of TRIUMPH are (1) to develop an efficient PrEP delivery system specifically designed to serve trans communities, (2) to develop a culturally relevant, adaptive intervention to increase PrEP uptake and support adherence among trans communities, and (3) to determine feasibility, acceptability, and effectiveness of PrEP implementation for trans communities. TRIUMPH will enroll 188 HIV-negative transgender people at risk of acquiring HIV at one of two sites in Northern California and follow them for 48 weeks. Our clinic sites are Gender Health Center, a community-based trans-specific mental health and hormone clinic in Sacramento, and La Clinica de la Raza, a Federally-Qualified Health Center in Oakland that predominantly serves Latino communities.

Results: As of June 2018, we have successfully enrolled 72 people across both sites, with 43 participants (60%) identifying as transgender female or female, 22 (30%) transgender male or male, and 4 (6%) identifying as genderqueer. Of those currently enrolled in the study, 45 (71%) have completed their one-month follow-up, 33 (66%) have completed their 3-month follow-up, 14 (58%) have completed their 6-month follow-up and 1 participant has completed the 9-month follow-up visit. Using both quantitative and qualitative evaluation methods, we will identify what predicts uptake of and adherence to PrEP, how long PrEP is used, and the best methods to determine when and how to discontinue PrEP use among transgender people. We will also present lessons learned, identifying unique facilitators and challenges to implementing trans-specific, trans-led PrEP programs in two very different types of community clinics.

Conclusions/Implications: Through implementation of TRIUMPH, we will generate highly actionable information related to developing culturally relevant PrEP services for transgender persons. By working alongside trans communities instead of relying on MSM-adapted interventions and including performance sites in diverse geographic locations, TRIUMPH will demonstrate that through capacity building and technical assistance, diverse types of community-based clinics with an interest in providing PrEP to trans people can be successful in reaching these communities.

Abstract 5517 - The Stay Study- a PrEP demonstration project for transwomen in the San Francisco Bay area

Author(s): *Erin Wilson, Albert Liu, Caitlin Turner, Sean Arayasirikul, Jayne Gagliano, Christina Rodriguez, Corey Drew, Royce Lin, Anne Rosenthal, Tiffany Woods, Ming Ming Kwan*

Background: Transgender people are disproportionately impacted by HIV and data point to low utilization of PrEP for HIV prevention. The Stay Study is a demonstration project to increase uptake and adherence to PrEP among trans people in the San Francisco Bay Area, part of the CHRP-funded PrEP for Trans Initiative. We are implementing an innovative public-community partnership between health department researchers, public health clinics and community clinics located in San Francisco and the

East Bay (Fremont). The Stay Study uses a patient-centered medical home model of PrEP delivery in clinics providing trans culturally competent care. Peer navigators are a critical component of the intervention model, performing outreach and engagement, PrEP education, benefits navigation, and adherence counseling and support. Peers utilize an online tailored risk survey using behavioral surveillance data to provide information about risk for HIV (the Stay Quiz), a bi-directional text-messaging PrEP adherence and support intervention tailored for the trans community (PrEPmate), and an online panel management tool to track clinic retention and missed visits.

Methods: This presentation will describe our intervention components and PrEP delivery model, initial baseline characteristics of the sample, and barriers and facilitators to PrEP use.

Results: Between August 2017 and June 2018, 112 individuals were screened, of whom 96 (86%) were eligible, and 86 (77%) enrolled. Most enrolled participants are ethnic/racial minority group members (47% Latinx, 14% African American, 11% Asian, 9% mixed, and 7% other). Median age was 35 (range 26-42), and most are transwomen/women (82%), while 7% are transmen/men, 4% are gender nonconforming, genderqueer or non-binary, and 4% are another gender identity. Over a third of participants (38%) finished high school, 29% had some college, AA or technical degree (29%), and 13% had a college degree or higher. More than half of participants are enrolled in the San Francisco Department of Public Health clinics (55%), while 45% are enrolled in community-based federally qualified health centers. Almost all (90%) participants are currently using hormones provided by their clinic. At baseline, almost all participants had already heard about PrEP (99%). Participants reported a number of barriers to taking PrEP, mostly centered around medical concerns [medication side effects (15%); concerns about hormone and medication interactions (10%); worries about the ability to take a daily pill (9%)]. A number of facilitators to taking PrEP have been identified, such as, the majority (59%) reported having a trusting relationship with their provider. We will discuss additional facilitators and implementation challenges our team has experienced to inform other efforts to best serve the prevention needs of the trans community.

Conclusions/Implications: Interest in initiating PrEP among trans people is high when PrEP delivery is integrated with comprehensive transgender care services within a patient-centered medical home model. Barriers to PrEP implementation experienced in our study so far are both general problems that many other community clinics likely face with all populations, and some are specific to reaching people in the trans community. We will discuss strategies to address these barriers and facilitate expansion of PrEP delivery to trans populations.

Abstract 5543 - Characteristics of transgender and gender non-conforming individuals interested in linkage to HIV pre-exposure prophylaxis

Author(s): *Katya Corado, David Moore, Sonia Jain, Eric Ellorin, Risa Flynn*

Methods: Discuss how these strategies can facilitate access to PrEP for women

Results: Of the 101 participants consented, 55% identified as trans-female, 23% as trans-male, and 21% had a GNC identity. By race/ethnicity, 33% self-reported as Non-Hispanic White, 18% Non-Hispanic Black, and 29% Hispanic/Latinx. Sexual orientations were heterosexual (37%), pansexual (18%), queer

(14%), and bisexual (13%). Primary HIV risk factor was sex with cis-men (35%). Most participants were single (60%) or in an open relationship (26%). Nineteen percent had a bachelor's degree or higher. Many were unemployed (39%) and experienced homelessness in the past year (34%).

Of those consented, 73% completed the CASI survey. Only 28% had no or limited knowledge of PrEP. Reasons for considering PrEP included having multiple partners (49%), "desire for condomless sex" (31%), and peer referral (18%). Many participants reported difficulty accessing gender-affirming surgery (41%) and legally changing their name (41%). Hormone use was 68%, with 26% not having health insurance and 33% reporting difficulty in accessing hormones. Participants reported experiencing discrimination for being LGBTQ including 76% publicly harassed, 61% sexually harassed, 35% sexually assaulted and 42% punched, kicked or beaten. Apart from marijuana (45%) substance use was low; with < 5 participants reporting methamphetamine or injection drug use. Referrals for mental health services were triggered by 87% of participants, followed by need for medical services (81%) and social support services (78%). Unemployment was associated with mental health referral triggers ($p=0.014$).

Conclusions/Implications: TG/GNC individuals interested in linkage to PrEP are diverse in their race/ethnicity and gender identity. These individuals have commonly faced harassment, violence, homelessness and unemployment, and many have struggled to find gender-affirming care. When assessed for the need of non-PrEP services, the majority of participants indicated possible need for mental health services and other psychosocial services. These findings are important for PrEP providers to assure adequate referral services are made, which may ultimately support PrEP uptake and adherence as well as improve overall quality of life.

Track C

Session C03 - Viral Hepatitis Surveillance and Prevention Strategies Among Persons Living with HIV
Room: A706-A707 (Atlanta Marriott Marquis)

Abstract 5829 - Syndemic model of Oregon substance use, overdose, HIV, and viral hepatitis

Author(s): *Judith Leahy, Ann Thomas, Jeffrey Capizzi, PTodd Korthuis, Joshua VanOtterloo, Peter Geissert*

Issue: Like other states, Oregon has experienced dramatic rise in non-medical use of opioids, including heroin. The state has also suffered a longstanding methamphetamine epidemic. Together the opioid and methamphetamine crisis have led to increases in substance use disorders, overdose, injection drug use, HIV, hepatitis C, syphilis and other infections related to substance use and injection drugs. Underpinning the substance use and health issues are economic, structural and social challenges, including intergenerational poverty, shortages of primary care, behavioral health and substance abuse treatment resources, trauma and toxic stress.

The term syndemic is used to describe two or more interacting epidemics that share a common cause, consequence or needed response and were precipitated by adverse economic, structural, or social conditions. Effective syndemic responses identify shared structural, social, and individual risk factors and assist in developing responses, policies and interventions that address the determinants of health, health disparities and behavior.

Setting: State of Oregon

Project: Oregon developed a syndemic model based upon existing published work on syndemics and the critical conditions, issues and outcomes identified by staff members from program across the Oregon Health Authority's divisions. Additional feedback on the model was provided by community stakeholders.

Results: The model developed illustrates the relationships between infectious disease and substance use, overdose, other drug-use related issues and outcomes, such as neonatal abstinence syndrome (NAS).

Lessons Learned: The model provides a framework for our efforts to: (a) communicate how issues, conditions and outcomes are linked; (b) facilitate collaborations across health, social and justice systems; (c) support effectual policy analysis and coordinated actions; (d) implement integrated interventions; and (e) coordinate surveillance and monitoring of shared indicators. The model has been shared with state planning groups, including the Oregon Opioid Strategy Meeting, the Reducing the Burden of Opioids Policy Academy for local public health authorities and partner agencies. The model is valuable for coordinating responses to existing and new funding opportunities.

Abstract 5796 - Molecular surveillance of HCV/HIV coinfections among people who inject drugs

Author(s): Yury Khudyakov

Background: The recent application of complex computational and molecular technologies has advanced molecular surveillance beyond a simple strain characterization into a fundamental tool for informing and guiding public health (PH) interventions to control infectious diseases.

Methods: Global Hepatitis Outbreak and Surveillance Technology (GHOST) developed at CDC to assist in the hepatitis C virus (HCV) and hepatitis B virus (HBV) elimination offers a new framework for integrating molecular surveillance into comprehensive PH programs.

Results: Implementation of the GHOST-based surveillance during a large HIV outbreak associated with injection of oxycodone in Indiana in 2015 revealed a complex transmission network, which supported infections with numerous HCV strains of different genotypes for years, indicating an introduction of HCV to the community of people who inject drugs (PWID) before the HIV outbreak. A high prevalence (92.3%) of HCV coinfection among HIV cases suggests that the outbreak HIV strain was spreading among PWID through the HCV transmission network. This supposition is consistent with the fact that HCV/HIV coinfections are common among high-risk groups such PWID and men who have sex with men, owing to shared modes of transmission for both viruses. Phylogenetic clusters of HCV strains from the HIV-coinfected cases and a high eigenvector centrality of the HCV/HIV-coinfected members of the HCV transmission network identified by GHOST in Indiana suggest that the topologically central, HCV-infected PWID can serve as sentinels for the early detection of HIV outbreaks in PWID communities infected with HCV. Complex genetic testing showed that HIV-coinfection has a very strong effect on the intra-host HCV evolution, thus presenting another opportunity for the cost-effective and efficient HIV tracking among HCV-infected PWID communities.

Conclusions/Implications: In conclusion, novel computational and molecular technologies allow for the integration of HCV and HIV molecular surveillance programs for the most efficient detection of outbreaks and spread of the infections among PWID.

Abstract 5341 - Disparities in hepatitis C care among HIV co-infected persons incarcerated in the United States

Author(s): *Lauren Canary, William Thompson, Noele Nelson*

Background: An estimated one-quarter of people living with HIV (PLWH) are co-infected with hepatitis C virus (HCV), though this estimate is as high as 50-90% among HIV-infected persons who inject drugs. Treatment for HCV is recommended among PLWH, as co-infection puts this group at heightened risk of developing serious liver disease. Addressing risk factors associated with HCV infection may provide opportunities for counseling related to the prevention of HIV transmission. This analysis aimed to better understand the receipt of guideline-concordant HCV care among persons incarcerated in the U.S. with concurrent HIV infection.

Methods: Viral hepatitis test results performed in the United States by one large commercial laboratory (LabCorp) from 2011-2017 were analyzed. Text mining, and cross-referencing of department of corrections listings, were used to successfully identify tests performed at 38 federal, 257 state, and 3,117 county/city correctional facilities. International Classification of Disease (ICD; versions 9 & 10) indicative of an HIV diagnosis were used to identify PLWH. Progress through the HCV care continuum was measured sequentially: HCV antibody (Ab) test, confirmatory ribonucleic acid (RNA) test among Ab+, genotype test among RNA+, and RNA negative test at least 90 days after genotype test, to indicate successful HCV treatment.

Results: Over the period from 2011 through 2017, we identified 1,756 persons with an HIV ICD code who were administered an HCV Ab test in a correctional facility. Among those individuals, 137 (8%) were tested in federal facilities, 163 (9%) in state facilities, and 1,456 (83%) in county facilities or jails. Two-hundred four (68%) PLWH had a 'reactive' Ab result indicating prior or current HCV infection among all facilities, which represented 7%, 27%, and 10% of the HIV-infected persons tested in federal, state, and county facilities or jails, respectively. Confirmatory RNA testing is necessary to determine current HCV infection and was performed on 27% (n=55) of the individuals. Among those receiving an RNA confirmatory test, the proportion determined to be currently infected, was 78% (n=43).

Conclusions/Implications: This study demonstrated that among the PLWH tested for HCV in county facilities and jails in the U.S, the burden of HCV was substantial. The results also found that progression along the HCV care continuum was lacking. Among PLWH who tested positive for HCV Ab, indicating prior or current infection, the majority did not appear to have been provided with a confirmatory RNA test as would be considered standard medical practice, to determine which individuals were currently infected. HIV programs among incarcerated persons should address access to recommended HCV care.

Abstract 5980 - Provider education to enhance the hepatitis C care continuum among people living with HIV

Author(s): *Boatema Ntiri-Reid, Risha Irvin, Mary Kleinman, Peter DeMartino, Jeffrey Hitt, Onyeka Anaedozie*

Issue: Hepatitis C virus (HCV) is a blood-borne viral infection that causes significant liver-related morbidity and mortality. In the US, HCV-related deaths exceed the total number of deaths from 60 other infectious diseases combined, including HIV. An estimated 2.7-3.9 million people in the US are living with chronic HCV.

Hepatitis C disproportionately impacts people living with HIV. An estimated 25% of people living with HIV in the US are co-infected with HCV. That number is believed to be as high as 75% among people living with HIV who inject drugs. Additionally, HIV/HCV co-infected individuals are three times more likely to experience liver failure and liver-related death than HCV mono-infected individuals.

Setting: Based on national estimates, about 82,000 Marylanders are living with HCV antibodies. As of 2016, 4,032 cases of HIV/HCV co-infection had been reported in Maryland. However, this likely underrepresents co-infection due to underreporting. Significant efforts are underway in Maryland to identify undiagnosed individuals with HCV. Therefore, it is essential that a clinical workforce exist with the capacity to provide HCV treatment to HCV mono-infected and HIV/HCV co-infected people.

Project: In 2015, through a cooperative agreement from the CDC, Maryland Department of Health (MDH) and Johns Hopkins University (JHU) launched Sharing the Cure (STC), an HCV clinician training and teleconference program. This intensive training covers HCV screening, diagnosis, and treatment. To date, the over 50 clinicians trained have provided care to 2,650 HCV patients, with 576 having completed HCV treatment. Given the success of STC and HCV's disproportionate impact on people living with HIV, MDH and JHU will expand the program to enhance the capacity of HIV providers (MD, NP, and PA) to provide HCV care services at Ryan White-funded health centers throughout Maryland.

Results: The expanded STC training for HIV providers will launch in January 2019. Quantitative and qualitative data will be collected to evaluate training outcomes, including data from provider surveys administered pre and post training. This presentation will include an overview of preliminary data from the first three months of implementation.

Lessons Learned: The availability of quality HCV screening and treatment services is critical to improving health outcomes for mono-infected as well as HIV/HCV co-infected individuals. The expanded STC training for HIV providers, as well as similar models, are essential tools to improve access to and delivery of comprehensive care to people living with HIV.

Abstract 6055 - Case management and capacity building to enhance hepatitis C treatment-uptake at community health centers providing HIV services in a large urban setting

Author(s): *Maggie Kaufmann, Andrew Aronsohn, Daniel Johnson, Erin Antalis, Tamara Hamlisch, Karen Lee, Jill Wolf, Alexander Millman, Lauren Canary, Basmattee Boodram*

Background: In 2016, the National Academy of Medicine deemed hepatitis C virus (HCV) elimination feasible in the United States. Direct-acting antivirals (DAAs) along with prevention/harm reduction strategies are crucial to achieving this goal. Low DAA initiation and completion rates persist due to cost, access to care, and policy restrictions. Due to the emerging opioid epidemic, HCV rates are increasing and 1 in 10 new HIV infections occur among people who inject drugs. HIV/HCV coinfection triples the risk for liver disease, liver failure, and mortality due to HCV. The Hepatitis C Community Alliance to Test and Treat (HepCCATT), a CDC-funded, community-academic coalition was formed to address the HCV epidemic in Chicago.

Methods: HepCCATT Case Management Program (H-CMP) provides direct case management services to HCV-infected persons and capacity-building support to streamline and improve HCV care within community-based primary care, including many providing HIV care. The H-CMP has two arms: treatment case management (T-CM) and capacity building case management protocol (CB-CM) for community health center systems (CHCS). T-CM case managers addressed individual barriers to HCV care. CB-CM included workflows for HCV care coordination, a patient registry, other efficiency augmentation tools, and partnership with HIV case management programming at the sites. Trialed first as a six-site CHCS with a robust HIV treatment and case management program, the CB-CM protocol was then incorporated into a 9-session telehealth training series using ECHO-Chicago's (Extension for Community Healthcare Outcomes) videoconferencing platform that was designed to assist CHCS to build HCV treatment capacity infrastructure.

Results: From 09/30/2014-09/30/2017, four T-CM case managers delivered services to 181 HCV-infected clients to address barriers to treatment initiation and adherence, including linkage to care, care coordination, and support service referrals. Seventy one percent (71.3%) of the 129 clients were current or former opioid users. T-CM outcomes for those linked to care by the H-CMP (n=75): 31% received DAAs, and 19% achieved sustained virologic response. CB-CM protocol was first implemented at a six-site CHCS from 01/2016-11/2016. Between 01/17/2017-10/24/2017, 40 participants from 10 other CHCS completed the ECHO CB-CM series. Pre and post ECHO series self-efficacy scores rose from 4.1 to 4.8 ($p<0.001$) on a 7-point Likert scale. Across all participants, the mean scores significantly improved.

Conclusions/Implications: T-CM is useful in improving access and movement across the care cascade and novel capacity building strategies can be used to augment these efforts. ECHO trainings provided technical assistance to support CHCS changes, such as task shifting, HCV care team creation, and resource coordination. Utilization of existing HIV infrastructure was important for the incorporation of HCV services including the combination of HIV/HCV programming and case management services. Our approach combines both direct case management and capacity building services to improve patient progression through the HCV care continuum from linkage to care to cure.

Session C04 - This is How We Do It: Case Studies in Implementing Data 2 Care Programs

Room: A703-A704 (Atlanta Marriott Marquis)

Abstract 5272 - Strategies for re-engaging and retaining out-of-care persons with HIV: a qualitative systematic review

Author(s): Darrel Higa, Christina McDonald, Mary Mullins, Prevention Research Synthesis (PRS) Project

Background: Identifying persons with HIV (PWH) who have fallen out of HIV care and helping them return and remain in care is an important, but challenging, undertaking. The CDC recommends using surveillance data to locate out-of-care PWH, also known as data-to-care, to re-engage PWH, but identifying other effective supplemental strategies may help with retaining PWH in care. We conducted a qualitative systematic review to describe strategies for re-engaging and retaining PWH, and summarize the evidence.

Methods: We searched the CDC HIV/AIDS Prevention Research Synthesis (PRS) cumulative database of electronic searches (MEDLINE, CINAHL, EMBASE, PsycINFO) and manual searches to identify intervention studies for re-engaging out-of-care PWH. Inclusion criteria were studies that: 1) focused on out-of-care PWH; 2) measured re-engagement (one HIV medical visit) or retention in care (multiple visits over time); 3) were U.S.-based; and 4) published between search dates 1996 and 2018. We excluded international and qualitative studies, and those that exclusively focused on never-in-care PWH. Two reviewers independently screened titles and abstracts, and extracted data from full reports of eligible studies such as intervention strategies and effects. We assessed study quality using the tool developed by the Effective Public Health Practice Project. We grouped studies by research design (comparison group, pre-post, post-only data) and resolved discrepancies via discussion.

Results: Twenty-five studies met inclusion criteria. Fourteen mentioned data-to-care strategies. Other common strategies included appointment help (scheduling, reminders, accompaniment), patient navigation/case management, and transportation assistance. Ten studies reported re-engagement outcomes, 6 reported retention outcomes, and nine reported both. Out of the 25, 6 used a comparison group (3 were randomized control trials [RCTs]), 5 used pre-post designs, and 14 included post data only. Study quality was either moderate or weak. The evidence from two-group studies was mixed. One small RCT comparing outreach nurses to usual care found a significant positive effect for retaining multiple-diagnosed women, but the remaining RCTs using peers reported non-significant findings for retention. Two of the 3 non-RCTs reported higher percentages for re-engagement using alerts and advocates respectively. The remaining non-RCT that tested the inclusion of field workers in case conferences reported null findings for re-engagement. For the 5 pre-post studies, 1 reported significant positive findings for re-engagement and 4 reported significant positive findings for retention. Using a trained specialist was the most common strategy. All 14 post-only studies reported re-engagement outcomes; 7 also reported retention outcomes. Percentages of PWH re-engaged in care ranged from 16% to 88% with different timeframes for re-engagement. Retention percentages ranged from 22% to 82%.

Conclusions/Implications: Appointment help, patient navigation/case management, and transportation assistance were the most common strategies that supplement data-to-care strategies. The evidence for re-engagement and retention is promising, particularly from pre-post study designs. Using a trained specialist to re-engage and retain PWH may be beneficial. The inability to disentangle re-engagement and retention strategies is a study limitation. Setting a national goal for re-engagement that includes standardizing a timeframe in which re-engagement should occur will help with evaluating interventions for re-engaging and retaining PWH.

Abstract 5720 - Real-time data to care: using an emergency department-based health information exchange to facilitate relinkage to HIV care

Author(s): *Tigran Avoundjian, Matthew Golden, James Hughes, Brandon Guthrie, Janet Baseman, Julia Dombrowski*

Background: Health departments conduct “Data to Care” (D2C) activities to identify and re-engage out-of-care and virally unsuppressed people living with HIV (PLWH). The effectiveness of D2C has been hindered by difficulty contacting individuals who appear to be out of care. In 2015, Public Health Seattle & King County (PHSKC) implemented a “venue-based” D2C program in which PHSKC staff receive an automated text notification when an individual who appears to be poorly engaged in HIV care has a visit at a University of Washington (UW) Medicine emergency department or inpatient hospital. Health department staff attempt to contact the patient while they are in the ED/hospital or soon after to facilitate re-engagement in care and treatment. We evaluated the impact of the PHSKC-UW D2C program.

Methods: We used a pre/post design to assess the impact of the intervention on care re-engagement and viral suppression 6 months after an eligible visit. Patients were eligible for an alert if their most recent viral load before the visit was >200 copies/mL. We defined relinkage to care as > 1 viral load or CD4 result reported within 6 months and viral suppression as an HIV RNA <200 copies/mL reported within 6 months after the qualifying visit. The intervention period included all alert-eligible encounters in the two years after the alert system was implemented (7/20/2015-7/20/2017). The control period included all alert-eligible encounters in the 7-30 months prior to the implementation of the system, excluding the 6 months prior to implementation (1/20/2013-1/20/2015). Because alerts were only triggered 8AM-6PM on weekdays, we excluded visits that occurred outside that window. If a patient had more than one visit in a 6-month period, we included only the first. Separate generalized estimating equation (GEE) models with a log-link function were used to assess the impact of the alert system on the study outcomes. Age, gender, race, injection drug use history, and type of eligible visit were included as covariates.

Results: There were 171 alert-eligible visits in the intervention period and 263 visits in the control period. 29% of eligible visits were inpatient hospitalizations. During the intervention period, 75% (129/171) of patients relinked to care and 52% (89/171) achieved viral suppression within 6 months after their eligible visit. In the control period, 82% (206/263) relinked to care and 41% (107/263) achieved suppression within 6 months after their eligible visit. Patients in the intervention period were 1.29 times more likely than patients in the control period to achieve viral suppression within 6 months after their eligible visit (95% CI: 1.04, 1.60). There was no statistically significant difference in care re-engagement between the intervention and control periods (RR: 0.94; 95% CI: 0.84, 1.05).

Conclusions/Implications: Implementation of the PHSKC-UW D2C program was associated with improved viral suppression, but not increased care relinkage. However, our results may reflect a secular trend resulting from diverse interventions, of which ours was only one. Real-time health information exchange with emergency departments and hospitals can identify PLWH who are inadequately engaged with care and facilitate D2C efforts.

Abstract 5734 - Implementation of data to care in Alameda County, California – lessons from local experience

Author(s): *Joyce Ycasas, Elisabeth Gebreegziabher, Neena Murgai*

Issue: Data to Care (D2C) has been widely adopted as a high impact prevention strategy nationally and in states across the US. Among the challenges of implementing D2C in local jurisdictions are barriers to accessing and sharing real-time surveillance data. The presentation will describe our approach, review initial data related to program outcomes, discuss challenges, and outline future strategies based on lessons learned.

Setting: Alameda County ranks among the top five California counties for HIV burden, with 275 new HIV diagnoses and about 6,000 people living with HIV in 2016. The HIV Epidemiology and Surveillance team investigates and reports cases from an extensive network of public hospitals, community-based clinics, private hospitals or clinics, and a large health maintenance organization; laboratory and case reporting is supported by a locally developed database.

Project: In 2015 Alameda County initiated D2C, using a surveillance-based approach to: implement timely, county-wide partner services (PS) and linkage to care (LTC) for newly-diagnosed persons; enhance re-engagement of persons living with HIV who were out-of-care (OOC); and support integrated HIV STD prevention services. Key strategies included development of a new case management database to make client-level data accessible to HIV and STD prevention staff, and protocols maximizing the use of HIV and STD surveillance data to: identify newly-diagnosed persons for PS and LTC, determine care status of OOC clients, and identify HIV-STD co-infected clients. Presumed OOC clients were identified through referrals from providers; their care status was ascertained using surveillance data. The presentation will describe methods, initial results, and strategies to address gaps in our D2C program.

Results: The Alameda County D2C program has supported services for 690 newly-diagnosed cases and 331 OOC cases since 2016. Of the newly-diagnosed, 85% were linked to care within three months and 46% within 30 days; of OOC cases 59% and 42% respectively were linked within three months and within 30 days. Among the newly-diagnosed, 85% were already in care at the time of initial follow up; among OOC cases, 26% were already re-engaged when contacted and 22% returned to care on their own. Of the remaining cases in need of services, 52% of the newly-diagnosed clients were linked and 31% of the OOC were re-engaged; those who could not be provided these services were largely not locatable. Among PS clients, 31% had already self-disclosed or otherwise declined services and 27% accepted services.

Lessons Learned: Although our D2C program successfully expanded prevention services using surveillance data, our initial D2C outcomes suggest the need to adopt strategies for: more rapid LTC and re-engagement of clients; accurate ascertainment of those truly OOC; enhanced methods to locate clients; and prioritization of disproportionately impacted populations. We will present our proposed strategies to: (1) integrate surveillance and prevention staff workflows, (2) use more targeted provider referral criteria to identify the truly OOC, (3) create surveillance- and provider-based lists of OOC clients, (4) focus our LTC and PS efforts on clients from facilities that lack these services, (5) use Accurint as a person-search tool to enhance client outreach.

Abstract 5967 - We see you: improving data collection strategies to accurately identify and prioritize transgender persons during data-to-care activities

Author(s): *Raven Bradley, Larry Roberts, Ricardo Mora, Camden Hallmark, Biru Yang, William Campbell, Marlene McNeese*

Issue: According to the CDC in 2015, transgender people were 3 times more likely to receive a new HIV diagnosis when compared to the national average. In 2010, the Houston Health Department (HHD) only captured 29 transgender persons living with HIV (PLWH) in surveillance, which drastically differed from the 68 transgender PLWH who were served by Ryan White in 2011. Transgender individuals are at higher risk for acquiring HIV when compared to other risk groups. However, the invisibility of this population in data capture prevents identification of individuals to appropriately assist them in accessing the care they need and deserve. To address these gaps, the HHD created an enhanced process and tools for capturing information on this vulnerable population.

Setting: Houston/Harris County accounts for the greatest burden of HIV in Texas and is ranked tenth in rate of new HIV diagnoses nationally. The HHD's Bureau of HIV/STD and Viral Hepatitis Prevention (BoP) provides re-linkage services to identified persons who appear to have fallen out of HIV medical care. Data-to-Care activities are conducted in collaboration with the HHD's Bureau of Epidemiology (BoE), which houses the HIV surveillance program.

Project: Houston's Data-to-Care project, prioritized transgender individuals, particularly those of color, who have fallen out of HIV medical care. The HHD expanded upon previous activities to better identify transgender individuals. Internal data collection tools were developed for the tracking of sexual orientation and gender identity (SOGI) data. This data is collected and recorded by both Surveillance Investigators who conduct record searches, and by Service Linkage Workers (SLWs) who locate and re-link clients to HIV medical care. Confirmed gender identity was also captured and shared with surveillance staff to improve the accuracy of the surveillance system. Additionally, cultural humility trainings were provided to promote active elicitation of SOGI data by frontline and surveillance staff.

Results: A total of 129 transgender clients were identified through the record search process from August 2016 – April 2018. Of the total clients identified, 44% were confirmed as transgender by a SLW or data system. Fifty-six percent of the confirmed clients were black, non-Hispanic, 26% were white, Hispanic and 2% were black, Hispanic. This presentation will further detail the HHD's data collection efforts and activities implemented, the types of SOGI data captured, strategies used to prioritize transgender persons, internal data collection tools developed and their utilization, and the on-going data collection trainings of surveillance and HIV SLWs.

Lessons Learned: The execution of in-depth data collection activities for transgender PLWH informed the HHD of the insufficiencies of transgender data reporting in local surveillance systems. Inadequacies in capturing this data allows for the misrepresentation of the transgender community, and therefore, the misappropriation of the public health resources required to address this population's health needs. Such inaccuracies led the HHD to develop and implement added capacity to our internal data system and the development of internal tracking/follow-up tools. Collaboration will continue between the BoP

and the BoE to monitor changes in the number of PLWH identified as transgender in Houston's surveillance system.

Abstract 5242 - Link-up Rx: re-engagement in HIV care using pharmacy refill data

Author(s): *Lindsey Kinsinger, Leanne Savola, Katrease Hale, Mary-Grace Brandt, Kathryn Macomber, Satrise Tillman, Jacob Watson*

Issue: Today, it is well understood that viral suppression (VS) is important for both individual health and HIV prevention. When people living with HIV (PLWH) have an undetectable viral load (VL), they have better health outcomes and the likelihood of HIV transmission to sex partners approaches 0%. Therefore, we must take every reasonable measure to engage PLWH in care and improve VS in our communities.

One program that works to engage PLWH in care is Data-to-Care. Data-to-Care uses surveillance lab data to determine PLWH who are not in care and attempts to re-engage these individuals. Due to delays in lab reporting, Data-to-Care programs typically attempt outreach 12-15 months after the last lab. An ideal program would engage individuals more expeditiously, avoiding this 1-year interval when VL and therefore transmission likely increase.

This presentation highlights the development and initial results from a new linkage program – Link-Up Rx. Link-Up Rx is modelled after Data-to-Care, but rather than lab data it utilizes prescription refill data, allowing for faster re-engagement than traditional Data-to-Care.

Setting: Detroit is Michigan's HIV epicenter, with nearly one-third of the state's estimated HIV prevalence. In 2016, there were 4,809 PLWH in Detroit and 62% of them were virally suppressed (VL <200) at their last care visit. In Detroit, 89% of PLWH are African American and the majority are men who have sex with men.

Project: Link-Up Rx is a partnership between Detroit Health Department (DHD), Michigan Department of Health and Human Services (MDHHS) and pharmacists. Link-Up Rx has a 3-tiered approach over a 3-week period. First, pharmacists identify PLWH who have not gotten their HIV medication and attempt to assist them with obtaining their medication. If this intervention is not successful, pharmacists contact clinicians to attempt to re-engage these individuals. In a tertiary intervention, pharmacists share individuals' information with DHD. DHD uses Data-to-Care investigation techniques to obtain additional locating information and attempts to re-engage these individuals through calls and text messages. Upon locating, DHD re-connects individuals with the pharmacy and makes referrals to HIV community-based organizations (CBOs) to assist with any non-medical needs.

Results: Planning for Link-Up Rx started in May 2017, after the CDC released a Request for Proposal for a Data-to-Care Rx program. Since then, DHD and MDHHS have been meeting with pharmacists, PLWH, CBOs and providers to develop the program model and consider ethical and legal concerns with data sharing. The Link-Up Rx pilot began in July 2018 with MedCart Specialty Pharmacy. MedCart services 23% of PLWH who are in care in Detroit (880 out of 3,880). Preliminary data collected from March to June showed an average of 133 clients missed their medication pick up monthly. Of these, MedCart engages 97 (73%) within the first week of outreach and an additional 15 (11%) are engaged during the second week. On average, about 16 people per month need DHD investigation.

Lessons Learned: Using prescription refill data allows for faster re-engagement than traditional Data-to-Care. Additionally, increased coordination with pharmacists improves service delivery for many PLWH, not just those engaged through Link-Up Rx.

Session LB05 - Latino Culture in Prevention and Care

Room: Embassy D-F (Hyatt Regency Atlanta)

Abstract 6199 - HIV testing embedded in culturally responsive services for immigrant Latina sex worker/trafficking survivors

Author(s): *Nathaly Rubio-Torio*

Issue: Sex Trafficking and forced sex work among undocumented, monolingual immigrant Latinas in Jackson Heights Queens continues to grow placing them at higher risk for HIV/STI/ violence, trauma, isolation, etc. This population has never been tested for HIV, knows little to nothing about transmission, not been to a doctor or had any health screening in years. Getting tested for HIV not only allows them to know their status but also opens the doors to other health screenings.

Setting: Jackson Heights Queens NY – Bars, underground brothels, massage parlors. Outreach staff made up of cis gender women and transLatinas identify bars where immigrant Latinas work dancing with patrons and/or offering sex. Outreach staff offer HIV/STI testing & sex education on site at the bars, while connecting women to GYN care, pep/prep, and birth control. Intended audience is for program coordinators and direct service staff.

Project: Embedded health and social services are provided to immigrant Latinas who are currently or have a history of being sex trafficked and/or being forced into sex work to pay off debt. This population is fearful, isolated and distrusting. Grassroots outreach, non-traditional partnerships, culturally responsive strategies, and embedded services are key to reaching and testing them for HIV/STI's and other medical care including mental health. This approach allows us to provide education, testing and opportunities to link to other medical care regardless of immigration status.

Results: In 2017–2018 We Tested Over 600 women for HIV, of which 200 immigrant Latinas had a history of being trafficked, forced sex work, or currently experiencing violence; As a result we connected over 100 for STI screenings; connected over 10 to Pep/Prep; connected 60 to GYN services, connected 100 to mental health screenings.

Abstract 6209 - Best practices for maintaining access to HIV prevention and care services in an era of restrictive immigration policy: lessons from California

Author(s): *Emily Arnold, Shannon Fuller, Emma Bohannon, Emma Botta, Wayne Steward*

Background: Changes since 2016 in federal policy surrounding immigration to the United States have included increases in deportations, separation of minor children from their families at the border, poor and even fatal treatment of LGBTQ-identified people living with HIV within detention facilities, and threats to the accessibility of public resources such as nutrition assistance and medical care. These changes in the federal-level policy landscape have been felt within immigrant communities, and the

public health clinics that serve them. In early 2017, HIV service providers and clinicians in California anecdotally reported increases in no-shows and loss to follow ups among their immigrant clients and patients. With public health efforts to end the HIV epidemic relying heavily on HIV treatment adherence and viral suppression for those who are living with HIV, and regular HIV testing and PrEP uptake for those who are uninfected, it is vital to ensure access to clinical services for immigrant community members. We sought to document how HIV prevention and care clinics are reaching, engaging, and maintaining their immigrant community patients during a period of retrenchment of accessible public resources and immigrant rights.

Methods: From May through October 2018, we conducted 18 in-depth interviews with providers, case workers, advocates, legal experts, and peer navigators in HIV prevention and care clinics in San Francisco, Alameda, and Fresno counties. Interviews lasted between 60 and 90 minutes, were audio recorded and transcribed. We asked about current clients, levels of viral suppression and engagement in care, any changes in client experiences in accessing services since January 2017, linguistic and cultural competency within staff and clinic practices, medical-legal partnerships, and case management and access to wrap-around services. Using our guide and an initial review of transcripts, we developed and applied thematic codes to capture and organize our data across all our interviews.

Results: Several themes emerged which can be grouped into 3 primary areas: changes post-election, challenges in meeting the needs of patients, and best practices for maintaining access to prevention and care services. Post-election, providers reported some of their patients skipping clinic appointments due to fear of ICE raids and deportation, and others noted that some patients had moved to locations that they felt were less policed. Challenges emerged around meeting basic needs such as housing, food security and employment for immigrant clients, and treating mental health sequelae resulting from trauma experienced in home countries or during migration itself. Best practices include hiring bilingual and bicultural staff, doing community outreach and home visits to maintain engagement in care, providing culturally competent and comprehensive case management, linking clients to legal services, ensuring access to adequate health insurance, holding trainings around immigrant rights and responses to ICE raids for both clinic staff as well as patients themselves, and building trust with immigrant patients by assuring them that their status would not be collected or reported.

Conclusions/Implications: Documenting best practices to maintain access to HIV prevention and care services for immigrant community members is an essential step in addressing the HIV epidemic in California and nationally.

Abstract 6202 - Culturally specific tailored Mpowerment for young immigrant Latino MSM leads to viral suppression

Author(s): *Nathaly Rubio-Torio*

Issue: Connection to Medical and Emotional care are equally important for HIV positive young immigrant Latino MSM to reach viral suppression. Recently diagnosed and known HIV positive Latino MSM in the US for less than 3 years often experience tremendous loneliness, isolation, lack of a support system. Fear of immigration laws together with lack of health insurance are just some of the obstacles keeping them from connecting to services. In addition, the level of depression and trauma as a result of

the persecution, their journey to the US, the lack of support system and loneliness, takes a tremendous toll on their overall health and interferes with viral suppression. Connection to medical care is not enough.

For Latinos, doctor visits are only made when feeling very ill. Latinos recently diagnosed with HIV often learn about other health issues at the time of HIV diagnosis. Treatment often requires medical procedures. For someone alone in the country it's difficult to follow through with such procedures as no one is available to accompany them and ensure their well-being. Loneliness causes much stress which also interferes and affects overall health outcomes.

Setting: Western Queens (Jackson Heights, Corona, Elmhurst, Woodside) Queens NY – Bars and clubs for Latino MSM. Social Media outreach and Grindr and Adam for Adam are utilized. Latino MSM staff regularly visit bars where immigrant Latino MSM socialize. Outreach staff offer HIV/STI testing & sex education at the bars, while connecting young MSM to HIV testing, Prep/Pep. Intended audience is for program coordinators and direct service staff.

Project: Adaptation of Mpowerment into a culturally specific intervention is effective in reaching viral suppression among HIV positive immigrant Latino MSM. The adapted intervention ensures to address the emotional and medical needs (both equally important) of HIV positive young immigrant Latino MSM. The adaptation ensures incorporation of cultural values and norms such as family. The intervention addresses mental health and immigration, social determinants of health affecting the overall health of immigrants. It also ensures to meet the top three needs identified by group members: family, resources, and accessibility to staff. Most importantly, the intervention takes into account the continuum of care from diagnosis to viral suppression by the same support network. This provides a sense of safety opening up, asking for help, and being accepted for who they are.

Results: To date in 2018 we tested 200 immigrant Latino MSM. Of these we diagnosed 5 new HIV positives; Identified 13 known positives. Of these, 15 are currently Mpowerment participants. In 2018 we connected 21 Latino MSM to Pep/Prep.

Abstract 6192 - Quality of life and medication adherence of Latino MSM with suppressed viral loads

Author(s): *David Garcia, Bryan Medina, Guillermo Chacon*

Background: The HIV epidemic continues to disproportionately affect the Latino population, especially Latino MSM. Latinos living with HIV infection need improved levels of care, medication adherence and viral suppression. Research that explores the care and treatment needs among Latino MSM must include the realities of Spanish speaking Latinos who are often foreign-born.

Methods: A cross sectional design via a mixed methods approach was used to collect quantitative and qualitative data. Quantitative data included a survey available in Spanish and English administered to a convenience sample of diverse Latino MSM. Recruitment of US born and foreign-born Latino MSM were from three cities with high rates of diagnosed HIV prevalence and high concentrations of Latinos: New York City, Miami, and Los Angeles. Validated scales were used to assess the following domains: quality of life (HAT-QoL) and HIV medication adherence (SMAQ). Survey recruitment was primarily done through a gay app for dating and social networking. Narrative qualitative data was collected through

semi-structured, facilitated focus groups. Focus group participants were recruited with the assistance of community-based organizations.

Results: A total of 559 Latino MSM completed the survey. About 329 (59%) were done in English and 230 (41%) in Spanish. The majority of participants were foreign-born (56%; n=314) and college educated (72%; n=401). Participants ranged from 18 to 49 years of age with a mean age of about 36 years (SD = 8.08). The mean annual income of the sample was \$38,135 (SD = 35,155.34). The majority, 90% were retained in care and 91% (n=304) reported viral suppression of <200 among a total of 334 participants. Among those who achieved viral suppression, 60% (n = 183) were foreign-born. Among foreign-born, seven of the nine dimensions had mean scores below 75, demonstrating impairment in quality of life. These included the following: life satisfaction (36.7), financial worries (47.9), disclosure concerns (62.7), provider trust (64.8), HIV mastery (65.8), overall function (71.9), and sexual function (73.1). The domains of life satisfaction (p=.039) and provider trust (p=.032) were statistically significant. Among those with suppressed viral loads, 51% (n= 153, p=.022) cited forgetting and 41% (n=124, p=.077) carelessness as affecting their medication adherence. About 44% rarely, sometimes, often and always missed a dosage of medication in the last week and 18% did not take it the past weekend. The crucial barriers to healthcare engagement and treatment adherence that emerged from the research include access-to-care challenges, coping with comorbidities, treatment fatigue, substance use, and cultural issues. Such obstacles complicated adherence to care and treatment.

Conclusions/Implications: Strategies to improve the health care services and treatment adherence for Latino MSM include the need for culturally responsive training that goes beyond just speaking Spanish. Developing trust and a close relationship with the provider and creating routines that support a healthy lifestyle were key to improving treatment adherence. Likewise, the innovation of new pharmaceuticals with less side-effects were cited as facilitators for improved health and adherence. Socio/cultural context, immigration factors, and documentation status continue to diminish quality of life and health for foreign-born Latino MSM, thereby perpetuating health disparities.

Track D

Session D03 - We Can't Do It Alone: Engaging Community and Other Partners in Responding to HIV Transmission Clusters

Room: Regency VII (Hyatt Regency Atlanta)

Abstract 5896 - Clusters of HIV transmission present opportunities to target HIV prevention interventions

Author(s): Anne Marie France, Nivedha Panneer, Amy Board, M. Cheryl Ocfemia, Sheryl Lyss, Laurie Linley, Meg Watson, Paul McClung, Neeraja Saduvala, Tianchi Zhang, Joel Wertheim, Alexandra Oster

Background: Identification of active HIV transmission can help direct proven HIV prevention strategies—such as HIV testing, efforts to ensure viral suppression, and pre-exposure prophylaxis—and maximize impact where they are needed most. HIV sequence data can be used to identify clusters of related infections in which HIV has been transmitted recently and rapidly. During 2013–2017 in the United States, 27 jurisdictions reported HIV molecular sequence data to the National HIV Surveillance System

(NHSS). In 2015, CDC began routinely analyzing these data to identify clusters suggestive of recent and rapid growth. We monitored continued growth after initial cluster identification to assess opportunities for prevention impact.

Methods: To identify clusters, quarterly analyses were conducted using data reported to NHSS through December 2015, March 2016, June 2016, and September 2016 for persons with HIV diagnosed during the previous 36 months. We analyzed partial HIV-1 pol sequences, calculated the genetic distance for each pair of sequences, and inferred clusters using a pairwise threshold of 0.005 substitutions/site. Rapidly growing clusters were defined as those with ≥ 5 diagnoses during the most recent 12-month period. To monitor growth of clusters, we analyzed data reported through December 2017 to identify additional persons found to be part of the cluster through sequence analysis. Persons with HIV diagnosed after the time of cluster identification whose sequences linked to the cluster represented cluster growth. Persons with HIV diagnosed prior to the date of initial cluster identification but whose sequences were reported after the time of cluster identification were included in the size of the initial cluster.

Results: In the 4 quarterly runs, 43 clusters with ≥ 5 diagnoses during the most recent 12 months were identified. These clusters were in 17 jurisdictions, in all regions of the country, and in both urban and rural settings. Initial clusters ranged in size from 5 to 46 persons. Between the time of cluster detection and December 2017, 41 of 43 clusters grew by at least 1 diagnosis. Clusters added 0 to 26 new diagnoses (median, 5; mean, 6). Compared to the number of persons in the initial cluster, clusters grew by a median of 27% and mean of 44% (range: 0%–325%).

Conclusions/Implications: High levels of continued cluster growth in the majority of clusters suggest substantial opportunity for prevention. Molecular clusters represent only the subset of persons in a transmission network who have engaged in care and have had genotype testing. Identification of clusters presents opportunities for the prevention of future transmission, through the identification of previously undiagnosed infections associated with the cluster, intensified efforts to achieve viral suppression, and the identification of at-risk persons associated with the cluster who might benefit from pre-exposure prophylaxis. Leveraging these prevention opportunities requires effective strategies to identify and engage persons in the network and identify and address barriers to care and prevention services and other factors that might facilitate high rates of transmission. This work is now expanding to all CDC-funded state and local health department HIV programs.

Abstract 5881 - Investigating HIV sequence clusters across state lines: Maryland's experience in regional cooperation with Virginia and the District of Columbia

Author(s): *Colin Flynn*

Issue: The Washington DC metropolitan area extends across four states, including five counties in Maryland. Five of the six HIV sequence clusters identified by CDC during 2016-2017 and assigned to Maryland to investigate were located in the Washington metropolitan area. Each cluster contained cases from Maryland, Virginia, and the District of Columbia, and many cases were receiving care in a different jurisdiction than their jurisdiction of residence. No one health department had complete information on the cluster or the ability to respond to all persons in the cluster.

Setting: HIV surveillance units in the state health departments for the State of Maryland, the Commonwealth of Virginia, and the District of Columbia.

Project: The project was to build upon the existing cross-jurisdiction collaborations in the Washington metropolitan area to establish data and information sharing on HIV sequence clusters, to develop consistent procedures, and to collaborate on investigations and programmatic responses.

Results: The three jurisdictions established monthly conference calls to discuss HIV sequence clusters. Agreements were reached to fully share case and partner data on persons in cluster investigations. The topic of cluster investigations were added to the agenda of quarterly regional in-person meetings of surveillance, prevention, and services staff. A data sharing agreement was signed by each of the jurisdictions with the CDC to permit the simultaneous release by CDC of the quarterly cluster identification reports, with identifiers, to all of three jurisdictions for any cross-jurisdictional clusters. Maryland developed SAS code to extract data from eHARS for use in Tableau generated tables, graphs, and maps for each cluster and shared this code with VA and DC for them to extract data to send to Maryland. Through review of jurisdiction-level data, sharing of these investigations across jurisdictions, and then pooling and reviewing the data at a regional-level, many more connections and interactions were observed between cases and partners in the clusters. Referrals for further investigations and linkage-to-care services were then made across jurisdictional boundaries, resulting in more complete data and higher levels of care engagement and viral suppression.

Lessons Learned: Many CDC identified HIV sequence clusters include cases that cross state lines, and this is greatly amplified in areas of the country where metropolitan areas are multi-jurisdictional, such as Washington, DC. In order to efficiently and effectively respond to HIV clusters, it is essential that there is full and open collaboration between surveillance programs while doing cluster investigations. Building on existing HIV program collaborations in the DC/MD/VA region, Maryland was able to share cluster investigation data with DC and VA, providing a clearer description of the cluster and resulting in improved outcomes.

Abstract 5893 - Collaborative state and local health department response to intervene in a rapidly expanding molecular HIV cluster in Michigan

Author(s): *Jacob Watson, Mary-Grace Brandt, Jennifer Erskine, Cathleen Wilczynski*

Issue: Analysis of molecular HIV surveillance data can identify growing clusters of genetically-related HIV virus that indicate transmission networks in a population. Prompt identification of transmission creates the opportunity for targeted intervention activities to interrupt further transmission. A national analysis of recent and rapidly growing molecular clusters identified by the CDC show an average transmission rates 11 times higher than the national rate of 4 transmission events per 100 PLWH per year, and some clusters with substantially higher rates.

Setting: In November of 2017 a high priority cluster was identified in Southeast Michigan (centered over 2 counties) growing at a rate of 119 transmission events per 100 PLWH per year. Within the cluster 89% of the individuals were already in care and virally suppressed. However, most (79%) had not named any partners during their partner services (PS) interview.

Project: Acknowledging that most individuals within this growing cluster were currently in-care, an intervention strategy emerged drawing on the understanding that, most likely, there were a significant number of individuals who were linked to this cluster but were either not diagnosed or for whom genotypes were not available. The strategy focused on partner re-elicitation and hinged on open discussions with cluster members to leverage their support in the interruption of transmission in their social network. County representatives were consulted and two, county specific, plans emerged. One county drafted letters to the medical providers of cluster members (10 total) encouraging their assistance in educating the cluster member on MHS and the importance of naming partners in their network. This letter was a follow-up to an earlier provider-specific letter from MHS staff providing an introduction to MHS and its prevention goals and objectives. The second county elected to call the cluster members (4 total) directly to openly describe MHS and attempt to re-elicite partners and empower them to actively interrupt transmission events in their social network.

Results: All providers contacted agreed to share MHS information at the cluster member's next visit. Unfortunately, no evaluation process was established to track partner re-elicitation by physicians but no additional partners have been shared with the county health department as of this writing. However, due to spacing of appointments, not all visits have occurred. Further, physicians' feedback on the MHS education process with their patients was evaluated and deemed positive and constructive. Following the delivery of the letters a local physician requested an informational session for providers at his hospital. The county electing to contact individuals directly re-interviewed 4 individuals. No additional partners were reported but interactions were again positive and the feedback will be helpful in informing future engagements with PLWH.

Lessons Learned: This outreach highlights MHS potential beyond an extension of Data to Care or Care Re-engagement activities. It also afforded self-directed and empowering prevention opportunities by and for PLWH in a social network. Engaging providers is an innovative solution to the problem of how to reestablish health department contact with in care individuals. In future investigations more guidelines and forms will be developed to allow for the evaluation of MHS interventions.

Abstract 5788 - Biomedical intervention meets community engagement: introducing molecular HIV surveillance (MHS) cluster analysis to community and stakeholders

Author(s): *Marlene McNeese, Camden Hallmark, Zhiyue Liu, Ricardo Mora, Biru Yang, Lupita Thornton, Moctezuma Garcia,*

Issue: In summer 2016, the Houston Health Department (HHD) began receiving line lists of people living with HIV who had genetically similar genome sequences, termed HIV molecular clusters. These clusters were described by the CDC as "concerning for recent and rapid transmission" and were immediately used locally in Houston/Harris County, TX as a prioritization tool for re-linkage to care efforts. Additional interventions were also suggested by the CDC, such as re-interviewing cluster members for partner information and/or re-testing their HIV-negative or unknown status partners.

Setting: Houston is the fourth largest city in the US with a population of approximately 2.3 million people. According to the CDC, the Houston Metropolitan has the tenth highest rate of new HIV diagnoses in the country. Analysis of molecular HIV surveillance (MHS) data and subsequent

intervention is undertaken by two Bureaus within the Disease Prevention and Control Division of the HHD: the Bureau of Epidemiology and the Bureau of HIV/STD and Viral Hepatitis Prevention.

Project: Before application for MHS cluster-specific funding and implementation of intervention based on cluster analysis, the HHD introduced the concept of MHS cluster analysis to community stakeholders. The HHD was funded for a demonstration project in September 2017 which includes community engagement activities, especially with Hispanic/Latino MSM and the agencies who serve this population.

Results: National analysis from December 2015- December 2017 revealed that the highest proportion of cluster cases were among Hispanic/Latino MSM (43.3% of cluster cases were Hispanic/Latino MSM with another 3.0% among Hispanic/Latino MSM/injection drug users). The HHD received formal support in May 2017 for application of MHS cluster funding focused on Hispanic/Latino MSM from both HIV planning bodies in Houston, in addition to 8 major local HIV prevention and/or care agencies. Since award, agencies have signed onto membership in a Community Advisory Board whose mission is to provide input and direction for the MHS demonstration project being implemented by the HHD. Deliverables include: advisement on messaging and materials, development of an in-depth questionnaire to discover service needs and barriers to service uptake, and recommendations for dissemination of culturally informed HIV-related services.

Lessons Learned: Upon engagement of community agencies, the HHD found a large knowledge gap by seasoned HIV prevention and care staff on surveillance data and almost no knowledge of MHS data collection. Bringing community stakeholders into communication prior to implementation of activity has fostered collaboration built on transparency, including on-going partnership through a Community Advisory Board.

Abstract 5581 - Community response to HIV clusters in San Antonio, Texas, 2017-2018

Author(s): *Andrew Pack, Yvonne Venegas, Jesus Ortega, Barbara Taylor, Chichi Woo*

Issue: In 2017, San Antonio learned it was home to the nation's largest HIV cluster, characterized by rapid and ongoing transmission among young Latino MSM (82% under age 30), missed opportunities to diagnose, and a median linkage to care time of 32 days. This presentation addresses our community response.

Setting: South Central Texas among HIV/AIDS organizations, stakeholders and their community.

Project: The End Stigma End HIV Alliance (ESEHA) coalesced in September 2017 in response to the HIV clusters, joined by every community AIDS service organization, advocates living with HIV, the Ryan White Administrative Agency and Planning Council, academics, clinicians, the local public health department and mental health and substance treatment organizations. ESEHA's structure is non-hierarchical, and meetings are public. Cohesion and trust increased with transparent communication, third-party facilitation, and agreed-upon goals of health equity, ending HIV-related stigma, and achievement of the Fast-Track Cities Initiative 90-90-90 metrics. Novel elements included a "listening tour" of 23 community organizations and 198 individuals, primarily youth; formation of a youth planning council to address health disparities, including in mental health; a health equity stipend for ESEHA

members unaffiliated with any organization; and engagement by local politicians, including the mayor, county judge and entire City Council in an HIV testing drive called #IKnowMyStatusSA. ESEHA members also acted as ambassadors to create systems changes within their institutions.

Results: Our community's 90-90-90 metrics were 86-72-85 as of December 2016, with an update expected in fall 2018. Sites offering PrEP grew from 4 to 17 since 2016. The county safety-net hospital will start opt-out HIV testing in August 2018. We achieved our goal of 7 days from diagnosis to medical care in the first quarter of 2018, more than 1 year ahead of schedule. The #IKnowMyStatusSA campaign resulted in 4,000 HIV tests in April 2018, quadruple the usual number, and positivity rates in different geographic areas will help refocus communitywide testing.

Lessons Learned: Ingredients for a successful coalition:

Shared urgency based on shared data.

Because ESEHA formed out of a sense of crisis after news of the HIV clusters, members were persuaded to check egos and agency roles at the door and break down silos of care.

Transparency and communication.

Early on, the group agreed upon clear expectations for communication and roles and committed to including perspectives of people living with HIV ("nothing about us, without us.") This built trust among agencies and within the community. Meeting weekly the first 3 months, and later biweekly, provided consistent communication. Inclusivity. Membership in ESEHA is broad based, including agency executives, front-line staff, and HIV peer advocates. This fosters equitable decision making and strategy New approaches. A refrain at early meetings was, "What we've been doing isn't working." Youth outreach and other novel strategies demonstrate an embrace of innovation.

WEDNESDAY, MARCH 20 | POSTER SESSION B | 12:30 PM – 1:30 PM

AP26

Abstract 5215 - Receipt of STI/HIV services among those with gender dysphoria, 2016

Author(s): Kendra Greenwell, Chirag Patel, Gouyu Tao

Background: Persons experiencing gender-related psychological distress, commonly known as gender dysphoria (GD), are at risk for sexually transmitted infections (STI) and HIV. Due to issues of social stigma and marginalization, those with GD often have difficulty accessing health care services. There is a lack of studies assessing receipt of STI/HIV services among persons with GD. We use the most recently available data from a commercial claims database, MarketScan, to assess receipt of STI/HIV services among persons with GD.

Methods: Using 2016 MarketScan data, we assessed for receipt of STI/HIV related services among adolescents (15-17) and non-elderly adults (18-65) with GD. Receipt of a STI/HIV service was defined as having an ICD-10 diagnosis or current procedural terminology (CPT) code related to any STI or HIV service (e.g., exposure assessment, screening, testing, and counseling services). GD was defined as persons with any diagnosis code related to transsexualism or gender identity disorder. Receipt of services related to STI/HIV, and high risk behavior (HSB) were identified and stratified by patient demographics, HSB, and provider facility type.

Results: A total of 5,398 persons were identified with GD. A majority were adults (78.2%) followed by adolescents (21.8%). Less than a third (27.7%) received any STI/HIV-related service. Most who did receive services (64.6%) did so at a medical office or clinic. The most common services received were related to chlamydia (14.6%), gonorrhea (14.3%), syphilis (9.1%), and HIV (5.6%). Specifically, among those with a diagnosis code indicating HSB (1.1%), all received ≥ 1 STI/HIV service and the most common services received were chlamydia (79.3%) and gonorrhea (77.6%) related.

Conclusions/Implications: This study shows that less than a third of persons identified with GD received any STI/HIV related service in 2016. Future analyses may consider assessing trends in receipt of STI services over time and underlying factors for receipt of STI/HIV services.

AP27

Abstract 5275 - Intimate partner violence and HIV testing among heterosexuals at increased risk for infection – National HIV Behavioral Surveillance, 17 U.S. Cities, 2016

Author(s): Susan Cha, Monica Adams, Christine Agnew-Brune, Cyprian Wejnert

Background: Intimate partner violence (IPV) is a significant public health problem. Nearly 1 in 5 women (22%) and 1 in 7 men (14%) in the U.S. have experienced severe physical violence from an intimate partner in their lifetime. Sexual violence and other forms of IPV can increase a person's risk of HIV and other sexually transmitted infections (STI), and may adversely affect their access to sexual health services. We assessed the prevalence of IPV and HIV testing among heterosexuals at increased risk for HIV infection using data from National HIV Behavioral Surveillance (NHBS).

Methods: NHBS collects data from populations at high risk for HIV infection from selected metropolitan statistical areas (MSAs). For the 2016 NHBS cycle, heterosexual people were recruited from 17 MSAs using respondent-driven sampling. Participants were eligible if they were 18-60 years old, resided in one of the participating MSAs, could complete the interview in English or Spanish, and reported having sex with a person of the opposite sex in the previous 12 months. People who did not report injection drug use within the past 12 months or prior HIV diagnosis, and those with valid responses to questions regarding the most recent HIV test (≤ 12 months ago, >12 months ago, never tested) and experience with physical or sexual IPV victimization over the past 12 months were included in the analyses for a final sample size of 7,777 participants.

Results: Overall, 19.3% of participants had never been tested for HIV. Almost one in six reported physical or sexual violence from an intimate partner in the previous 12 months. Among those who reported IPV ($n=1,303$), 39.1% last received an HIV test more than 12 months prior to interview, and 17.1% were never tested. Among those who did not report IPV ($n=6,474$), 40.0% had an HIV test more than 12 months prior to interview, and 19.8% were never tested. More people with history of IPV reported their last sexual partner injected drugs or had sex with other people, exchanging sex for money or drugs, having multiple sexual partners over the past year, and being diagnosed with an STI in the past 12 months.

Conclusions/Implications: Overall, one in five people reported never being tested for HIV. Despite being at high risk for HIV infection, those who experienced IPV were not more likely to have tested, or tested recently, than people who did not report IPV. This highlights the importance of screening for IPV and HIV among heterosexuals at high risk for infection. Future studies could assess how improved integration of violence and HIV prevention reduces the risk of HIV and other STIs.

AP28

Abstract 5342 - Trends in HIV risk behaviors among transgender women enrolled in CDC-funded behavioral risk-reduction interventions, implemented by health departments in the United States, 2014-2017

Author(s): *Hui Zhang Kudon, Mesfin Mulatu, Wei Song, Veronica McCants*

Background: Transgender women (TGW) have a higher rate of HIV infection compared to other gender groups. Although increased risk among TGW is attributed to multiple individual, social, and structural factors, past studies have documented higher levels of behavioral risk factors as the most proximal determinant of HIV infection. Compared to cisgender men and women, TGW were more likely to engage in HIV sexual risk behaviors such as condomless sex, selling sex, and sex with multiple partners. However, these published studies were conducted with relatively small sample sizes in a limited number of large cities. In addition, few studies examined trends in such behaviors. CDC's comprehensive HIV prevention funding to health departments has included support for implementation of behavioral risk-reduction interventions. We examined patterns and trends in HIV-related risk behaviors.

Methods: Client-level demographic and sexual risk behavior information (i.e., condomless sex, selling sex and sex with multiple partners) reported by 52 local and state health departments that implemented behavioral risk-reduction interventions from 2014 to 2017 were analyzed. We used current gender

identity and assigned sex at birth to determine gender groups. A TGW is a person whose assigned sex at birth was male and currently identifies as a female or a male-to-female transgender. Persons whose current gender identity matches their assigned sex at birth are categorized as cisgender men or women. SAS9.3 was used for descriptive and logistic regression analyses. Estimated Annual Percent Change (EAPC) was used for trend analyses.

Results: Of 328,652 clients who participated in at least one behavioral risk-reduction intervention, 208,150 (63.3%) were cisgender men, 100,813 (30.7%) were cisgender women, and 7,244 (2.2%) were TGW. Among TGW, 25.0% reported selling sex. TGW were more likely to report selling sex compared to cisgender men (5.2%) (aOR=4.9; 95% CI=4.6, 5.2) or cisgender women (9.8%) (aOR=2.3; 95% CI=2.2, 2.4). Multiple sex partners was reported by 30.5% of TGW. TGW were more likely to report having multiple sexual partners compared to cisgender men (20.9%) (aOR=1.4; 95% CI=1.3, 1.4) or cisgender women (14.1%) (aOR=2.1 95% CI=2.0, 2.2). There was no significant difference ($p>.05$) among the three gender groups for reporting condomless sex in the last 12 months. The percentage of TGW engaging in condomless sex increased significantly from 39.5% in 2014 to 49.7% in 2017 (EAPC=9.5%, 95% CI=7.0%-12.1%). There was also an increase among TGW in the percentage selling sex, from 23.4% in 2014 to 27% in 2017 (EAPC=5.8%, 95% CI=2.1%-9.6%) and having multiple sex partners, from 27.2% in 2014 to 37.8% in 2017 (EAPC=14.1%, 95% CI= 10.7%-17.6%).

Conclusions/Implications: TGW are more likely than cisgender men and women to report selected sexual risk behaviors that may put them at risk for HIV infection. Significant increases in condomless sex, selling sex and sex with multiple partners suggest the need to intensify risk-reduction programs along with other biomedical, social and structural interventions that addresses the unique needs of TGW.

AP29

Abstract 5363 - Reducing missed opportunities in a vulnerable population: HIV testing of trauma surgery patients

Author(s): Jenna Wick, Josue Oyola-Jimenez, Davone Singleton, Samantha Webster, Jill Volgraf, Amy Goldberg, Gina Simoncini

Background: In 2015, there were 1.1 million people living with HIV (PLWH) age 13 and older in the US. An estimated 15% of PLWH are undiagnosed. Of the newly diagnosed cases, 21% had already progressed to AIDS, highlighting the urgency of early diagnosis. We developed an HIV screening and linkage program among trauma surgery patients seen within our institution. Trauma surgery patients are often a vulnerable population who miss opportunities to engage in routine health care, including HIV screening.

Methods: Prospective HIV screening was performed on patients evaluated at an urban Level I trauma center after consent was obtained. Data were collected from the onset of screening on August 1, 2016 to March 31, 2018. Demographics were collected on gender, race, age, and history of intravenous drug use (IVDU). Data were collected on the number of tests ordered by the trauma service and the test results. HIV incidence and prevalence were determined. For each patient with a positive test result, a member of the HIV Comprehensive Program performed a face-to-face disclosure. Patients were linked to care or re-engaged in care by the navigator. A best practice advisory (BPA) alert for HIV testing was

introduced on September 18, 2017 to remind providers to order the test. Data collected prior to and after implementation of the BPA were compared.

Results: In total, there were 3,039 trauma surgery patients eligible for HIV screening and 776 were screened (25.5%). There were 1,672 (55%) patients who did not have the test ordered, and 591 (19.4%) patients who had the test ordered but not completed, which was most commonly due to discharge. Before the BPA was introduced there were 0.89 patients screened per day (366) and after BPA implementation 2.10 patients were screened per day (410). Men comprised 565 (72.8%) of patients screened. Of the patients' charts with a documented race, 371 (47.8%) Black, 169 (21.8%) Hispanic, 143 (18.4%) White, and three (0.4%) Asian/Pacific Islander were tested. The mean age of patients screened was 41 years. There were 12 (1.5%) PLWH. Eight (1.0%) patients were previously aware of their diagnosis and 2 (0.3%) patients were deceased prior to investigation. There were two (0.3%) patients newly diagnosed with HIV. Of the PLWH, six (50%) were Black, five (41.7%) Hispanic, and one (8.3%) White. There were four PLWH with a history of IVDU. One of the previously aware PLWH was re-engaged in care, and the remaining seven were currently engaged in care. Both newly diagnosed PLWH were linked to care services from our program.

Conclusions/Implications: Routine HIV screening can be successfully implemented in trauma surgery centers. The high rate of PLWH (1.5%) in this patient population demonstrates that the setting has substantial potential to capture patients, particularly ones who may not receive care in other locations. The increase in patients tested with the BPA shows alerts can be an effective method to improve screening rates. Additionally, navigators are able to link and re-engage patients. Combined, these strategies reduce rates of undiagnosed PLWH, and connect patients to care, to ultimately improve treatment and transmission.

AP30

Abstract 5365 - Can a pictorial brochure improve HIV/AIDS and HIV testing knowledge among adult emergency department patients with lower health literacy as well as a video?

Author(s): *Roland Merchant, Melissa Clark, Michael Carey, Sarah Marks, Tao Liu*

Background: We previously demonstrated that an animated and live-action short video ("What do you know about HIV and HIV testing?") improves HIV/AIDS and HIV testing knowledge among English- or Spanish-speaking adult emergency department (ED) patients, notably among those with lower health literacy. However, a pictorial brochure that presents identical information as a video (text with accompanying images) would be less costly, less interruptive of medical care, and more feasible to self-administer in busy ED settings. Because it requires reading text in addition to viewing explanatory images, we hypothesized that a pictorial brochure might not be as helpful as a video for those with lower health literacy. Therefore, we designed the current study to determine if a pictorial brochure is as efficacious as a video in improving HIV/AIDS and HIV testing knowledge for adult English- or Spanish-speaking ED patients with lower health literacy.

Methods: This randomized, controlled, trial recruited 18-64-year-old, HIV uninfected, English- or Spanish-speaking patients at four US EDs in Alabama, California, Ohio and Rhode Island. Health literacy (lower or higher) was determined using the Short Assessment of Health Literacy. Participants were

randomly assigned (1:1 allocation) to watch a video or to read an equivalent pictorial brochure within strata of language (English or Spanish) and health literacy level (lower or higher). Before and after reviewing the video or the pictorial brochure, participants completed an assessment of their HIV/AIDS and HIV testing knowledge using a previously rigorously developed and tested 25-item questionnaire. Participants scores on the questionnaire reflected total correct responses (range: 0 to 25). Mean differences (Δ) in scores after vs. before reviewing the video or pictorial brochure were compared by information delivery arm (video or pictorial brochure), health literacy level, and language spoken.

Results: Of the 671 English- and 718 Spanish-speaking ED patients, 63% were female, their median age was 44 years-old (IQR 34-53), 49% were classified as having lower health literacy, and 74% had been tested previously for HIV. HIV/AIDS and HIV testing knowledge questionnaire scores increased among all participants (Δ 3.0; 95% CI 2.7, 3.3), increased slightly more among participants in the video than the pictorial brochure arm (Δ 3.4 vs. 2.6; $p < 0.01$), increased much more for higher health literacy than for lower health literacy participants (Δ 4.1 vs. 1.9; $p < 0.001$), and increased slightly more for Spanish speakers compared to English speakers (Δ 3.4 vs. 2.7; $p < 0.01$). Although video arm participants tended to have slightly higher scores than pictorial brochure participants, there was no statistically significant interaction between information delivery arm and health literacy level: lower health literacy (Δ 2.3 video vs. 1.4 pictorial brochure; $p < 0.23$) and higher health literacy participants (Δ 4.5 video vs. 3.7 pictorial brochure; $p < 0.17$).

Conclusions/Implications: The video “Do you know about HIV and HIV testing?” improved HIV/AIDS and HIV testing knowledge more than a pictorial brochure containing equivalent information. Yet, this improvement was small and was not related to health literacy level. Other considerations, including resources and video access, can guide EDs on how best to provide this information to patients undergoing HIV testing.

AP31

Abstract 5367 - Substance use, violence experiences, and mental health: are these health risks associated with HIV testing among sexually experienced U.S. high school students?

Author(s): Sanjana Pampati, Riley Steiner, Richard Lowry

Background: Substance use, violence victimization, and suicidal ideation and behaviors are associated with sexual risk-taking and increased risk of HIV acquisition among adolescents. In light of recommendations for routine HIV testing, including annual testing for young people at high risk, we examined whether risk behaviors and experiences in these domains are associated with HIV testing independently of sexual behaviors using a national sample of sexually experienced high school students.

Methods: We used data from the 2017 national Youth Risk Behavior Survey (YRBS). YRBS is administered biennially using a three-stage cluster sampling design that yields a nationally representative sample of 9th-12th grade students attending public and private schools. The dependent variable of interest was a lifetime measure of HIV testing. Substance use items included three measures: injection drug use (ever), prescription opioid misuse (ever), and other illicit drug use (any use of cocaine, inhalants, heroin, methamphetamines, ecstasy, or hallucinogenic drugs) (ever). Violence experiences included: forced sexual intercourse (ever), physical dating violence (past 12 months), and sexual dating violence (past 12

months). Mental health indicators included past year feelings of hopelessness for two or more weeks in a row, suicidal ideation, and suicide attempt. All analyses were limited to sexually experienced participants (n=5,192). We examined unadjusted prevalence ratios for each of the substance use, violence, and mental health indicators. Then, adjusted prevalence ratios were calculated for each indicator, controlling for sexual behavior (same-sex behavior and a sexual risk index based on recent sexual activity, condom use, and number of partners) and demographic characteristics (sex, grade, and race/ethnicity).

Results: Overall, the prevalence of HIV testing among sexually experienced students was 17.2%. In unadjusted models, students who reported substance use, violence, and mental health risk behaviors or experiences were more likely to be tested for HIV, with the exception of those experiencing sexual dating violence or misusing prescription opioids, for which associations were null. In adjusted models, forced intercourse (APR=1.60, 95% CI=1.34-1.91), injection drug use (APR=1.92, 95% CI=1.23-3.01), other illicit drug use (APR=1.38, 95% CI=1.17-1.64), and feelings of hopelessness (APR=1.26, 95% CI=1.06-1.50) remained associated with a higher likelihood of testing for HIV. In contrast, physical dating violence, sexual dating violence, misusing prescription opioids, suicidal ideation, and suicide attempts were not associated with HIV testing after controlling for sexual behavior and demographics.

Conclusions/Implications: The prevalence of HIV testing overall was low among sexually experienced high school students. Certain indicators of HIV risk were independently associated with a higher likelihood of HIV testing, including behaviors and experiences directly linked to HIV transmission (e.g., injection drug use, forced sex). However, sexual dating violence and prescription opioid misuse were not associated with HIV testing, even in unadjusted analyses, despite the fact that these behaviors may indicate HIV risk. Efforts to increase receipt of HIV testing may benefit from considering multiple dimensions of HIV risk in addition to sexual behavior. In doing so, HIV testing could also provide an opportunity to connect high school students to health services for substance use, violence, and mental health issues.

AP32

Abstract 5512 - Missed opportunities for early HIV diagnosis in the pediatric emergency department

Author(s): *Colleen Gutman, Claudia Morris, Andres Camacho-Gonzalez, April Zmitrovich, Lauren Middlebrooks*

Background: Of the 40,000 new HIV infections in the US, 45% (18,161) were classified as stage 3 (AIDS) in 2016. Of these, 13,851 stage 3 classifications were among adult and adolescent males. Late HIV diagnosis has individual and public health implications by increasing morbidity and mortality in the infected individual as well as increasing risk of transmission. We aim to 1) identify young adults (< 25 years) diagnosed with HIV through an adult ED based opt-out screening program and 2) estimate potential missed opportunities for HIV diagnosis in those individuals when previously seen in the pediatric emergency department.

Methods: This was a retrospective chart review of young adults diagnosed with HIV through adult ED based opt-out screening between 2013-17. Patients were identified through laboratory test results and were included if they had a positive HIV screen. CD4 count at the time of diagnosis was used to

determine the potential window of infection prior to diagnosis: patients with a CD4 above 500 were assumed to have been infected for one year or less. After that, we assumed a conservative decline of the CD4 by 60 per year, as described by Eckerle et al (1). Records of PED visits in the 10 years prior to HIV diagnosis were identified and reviewed.

Results: There were 206 patients with positive HIV screen (mean age 22 +/- 1.8 years; 88% male). Of the 134 patients with available CD4 counts, 29% had stage 3 HIV (CD4 < 200) on presentation. Thirty-eight of the 206 HIV+ patients (18%) had at least one PED visit in the preceding 10 years (mean 5.3 +/- 2.1 years between most recent PED visit and HIV diagnosis), for a total of 108 PED visits. The most common reasons for PED visit were injury (22%) and non-GU/GYN infectious symptoms (19%). Sexual history was documented in 12% of PED visits and an STI test was sent in 6%. Two patients had HIV testing in the PED, of which one test was positive; the patient was referred for outpatient care and did not follow-up. Based on the presenting CD4 count, 10 patients had 26 PED visits during the window in which they were likely already infected with HIV. Sexual history was documented in seven of these visits and STI testing was sent in two of these visits, which included the one positive HIV test.

Conclusions/Implications: Young adults who screen positive for HIV as part of an adult ED based opt-out screening program often present with late stage HIV. Many of these patients have previously had visits in the PED, where sexual history is infrequently documented and HIV testing is rare. Adolescents with HIV who are asymptomatic will likely go unrecognized in pediatric healthcare visits, putting them at risk for deteriorating health and ongoing HIV transmission; implementation of CDC recommended universal screening in these settings may improve patient outcomes and decrease HIV transmission.

1. Eckerle MD, Namde M, Holland CK, et al. Opportunities for earlier HIV diagnosis in a pediatric ED. *The American journal of emergency medicine.* 2015;33(7):917-919.

AP33

Abstract 5540 - Changes in HIV risk self-perception among higher HIV risk heterosexual and injection-drug using emergency department patients after an HIV/AIDS and HIV testing knowledge intervention

Author(s): Sarah Marks, Roland Merchant, Michael Carey, Melissa Clark, Tao Liu

Results: Of the 1,132 participants, 75 (6.6%) reported IDU; 40 (3.5%) condomless exchange sex; 91 (8.4%) condomless casual sex; 177 (16%) condomless sex with only main partners; and 749 (66%) no condomless sex during the past three months. The proportions of participants by HIV risk categories who perceived themselves as being “not at risk” or “not much at risk” for an undiagnosed HIV infection before the intervention were: 66% IDU; 60% condomless exchange sex; 67% condomless casual sex; 77% condomless sex with only main sexual partners; and 83% no condomless sex. Among participants who perceived themselves as being “not at risk” or “not much at risk” before the intervention, the adjusted odds of an increase in self-perceived HIV risk after the intervention were: IDU: aOR 0.9 (0.5-1.7); exchange aOR 2.2 (1.2-4.2); casual aOR: 1.8 (1.1-2.9); and only main partners aOR 1.2 (0.8-1.8), in comparison to participants who reported no condomless sex.

Conclusions/Implications: There is a high degree of discordance between self-perceived versus reported risk among heterosexual and IDU adult ED patients. Despite this discordance and their risk behaviors, the intervention had only a modest effect on increasing self-perceived risk in higher HIV risk sexual

groups. Of importance, the intervention had no impact on patients who reported IDU. Effective interventions are needed to reduce this discordance.

AP34

Abstract 5630 - Acceptability of digital gaming to increase HIV testing among young men who have sex with men in Washington, D.C.

Author(s): *Brittany Wilbourn, Daniel Greenberg, Lawrence D'Angelo, Connie Trexler, Rashida Carr, Tyriesa Howard Howell, Gabriel Ralte, Amanda Castel*

Background: High rates of new HIV diagnoses occur among young men who have sex with men (YMSM), ages 13-24, in the U.S. and particularly in Washington, D.C. YMSM are at an increased risk of HIV for many reasons including low HIV testing rates. Given this context, creative and engaging HIV testing interventions tailored to the unique needs and preferences of YMSM are critical. We developed a life-and-dating simulation game that allowed participants to engage in relationship scenarios tailored to both same sex and opposite sex couples. The game also utilized the CDC HIV Risk Reduction Tool to demonstrate potential HIV risk based on selected sexual behaviors and allowed youth to search for local HIV testing locations in a specific zip code. The objectives of this study were to (a) assess the perceptions and experiences of youth regarding HIV infection, HIV testing, risk assessment, and risk reduction, and (b) determine the acceptability of the game.

Methods: Youth between the ages of 13-24 who were HIV-negative or status-unknown were eligible to participate. Youth completed a cross-sectional survey that included demographics; gaming and social media use, HIV knowledge and testing history; and perceived susceptibility, barriers, benefits, and norms regarding HIV testing and risky behaviors. We compared participant behaviors by self-reported sexual orientation. Acceptability of the game was measured using a scale from 1-5 with 1 being 'strongly disagree' and 5 being 'strongly agree' and potential game use was measured on a scale from 1-3 with 1 being 'not at all likely' and 3 being 'very likely'.

Results: Of the 46 youth who completed the survey, 35% were male, 74% were non-Hispanic Black, and 13% identified as YMSM. There were no significant differences between YMSM and non-YMSM regarding HIV testing, sexual activity, or condomless sex. Compared to non-YMSM, YMSM reported a significantly lower self-perceived risk of acquiring HIV (mean: 3% vs. 15%; $p=.0253$) and were also significantly more likely to perceive locating a testing facility as difficult (50% vs. 12%, $p=.0238$). Game prototype acceptability was high overall: both YMSM and non-YMSM strongly agreed that the game was interesting, fun, easy to play, indicated that they enjoyed playing HIV-related games, and would share the game with friends to help them get tested (median score 5 for all). Both YMSM and non-YMSM also indicated high potential game use with both groups reporting they would be very likely to use the game to help get tested and would be more likely to get tested if their game character were found to be at risk (median score 3 for both).

Conclusions/Implications: Given the low perceived risk of acquiring HIV and reported difficulties locating testing facilities experienced by YMSM in this study, a life-and-dating simulation game that incorporates both HIV risk-assessment and an HIV testing locator could facilitate HIV testing among this high-risk population.

AP35

Abstract 5785 - The implementation of dried blood spot collection for HIV testing in the field – National HIV Behavioral Surveillance

Author(s): *Amanda Smith, Dita Broz, Silvina Masciotra, Sherry Owen, Cyprian Wejnert*

Issue: Dried blood spot (DBS) specimens have been used in international settings to allow HIV-related testing when venipuncture blood collection is not feasible. DBS can be collected in the field without special laboratory processing, the filter paper on which the blood is collected is inexpensive and easily stored, and DBS can be shipped as non-hazardous material using regular mail. DBS is not commonly used in routine surveillance or research surveys in the US. National HIV Behavioral Surveillance (NHBS) monitors HIV infection and behaviors among populations at highest risk of HIV. To expand HIV testing to include detection of recent infections and viral load testing, NHBS implemented DBS collection in 2012. We document lessons learned from DBS collection among people who inject drugs (PWID) and men who have sex with men (MSM).

Setting: PWID and MSM are recruited using respondent-driven sampling (RDS) and venue-based, time-spaced sampling (VBS), respectively, in up to 22 US cities. RDS is conducted in field site offices in locations accessible to PWID, and VBS is conducted in locations where MSM socialize such as gyms, bars, and restaurants.

Project: PWID and MSM participants who consented to HIV testing were asked for consent to DBS specimen collection for future HIV testing. Staff from each project site were trained in DBS collection, packaging, storage and shipping methods at the annual NHBS Field Operations Training and monitored through local staff evaluations and observations. DBS were collected by fingerstick or made from venipuncture whole blood. DBS specimens were shipped at ambient temperature within 10 days by regular mail to CDC for storage at -20° C.

Results: Acceptance of DBS collection by participants was high among PWID (2012: 93%; 2015: 97%) and MSM (2014: 91%; 2017: 94%). DBS were rarely deemed insufficient for testing. In such cases, the limiting factor was typically small volume of blood due to blood collection challenges that were addressed with training on proper fingerstick procedures and switching to a blade lancet. Despite the use of desiccants for storing DBS at the collection site, keeping specimens in a low-humidity environment was another challenge in some regions of the US. Staff were instructed to monitor changes in the humidity indicators and to replace desiccants in the DBS packages when needed. To date, 5160 MSM DBS and 1668 PWID DBS have been tested at CDC for HIV recency and/or viral load.

Lessons Learned: The collection of DBS proved to be feasible to expand our HIV testing across multiple cities and recruitment settings, and among both MSM and PWID. With proper training, practice, and blade lancets, fingerstick collection resulted in sufficient blood volume for DBS collection and testing. While collecting, handling, and storing DBS in the field is simple, following standard procedures is key to specimen integrity. Avoiding long-term exposure to high humidity and storage at -20° C or lower are recommended for quality test results. DBS collection has become standard NHBS procedure and is important for informing HIV prevention for PWID and MSM.

AP36

Abstract 5885 - Increasing substance use and sexually transmitted infection diagnoses among young men who have sex with men in the United States from 2013 to 2017

Author(s): *Maria Zlotorzynska, Travis Sanchez, Patrick Sullivan*

Background: New HIV infections among young men who have sex with men (YMSM) have risen at a faster rate compared to older MSM and other subgroups. Many YMSM are meeting sexual partners online and through smartphone apps which necessitates leveraging technology-based behavioral surveillance to supplement traditional in-person surveying. Since 2013, the American Men's Internet Survey (AMIS) has conducted annual online behavioral surveillance of MSM in the United States and collected data on HIV/STI-related risk behavior in key sub-populations, including YMSM.

Methods: Participants were recruited through banner ads placed on a variety of websites and apps. The present analysis focuses on YMSM age 15-24 who reported having sex with another man in the past 12 months. Poisson models using generalized estimating equations were used to test for linear trend in sexual behavior, substance use, and testing behavior (all within 12 months preceding interview), for the total sample and stratified by age group (15-19 and 20-24). All models included AMIS year, age, race/ethnicity, recruitment source, county population density, and self-reported HIV status (except model for HIV testing which excluded HIV-positive YMSM).

Results: Between 2013 and 2017, a total of 11,604 MSM age 15-24 completed the AMIS survey. The mean age of this group was 20.7 (SD=2.4) and participants were mainly non-Hispanic white (62.8%), living in the South (36.1%), living in urban counties (35.0%) and recruited from general social networking websites (69.6%). Overall HIV prevalence was 2.6% (n=300) and varied over time (AMIS-2013=87/1965 [4.4%]; AMIS-2014=65/1374 [4.7%]; AMIS-2015=50/2821 [1.8%]; AMIS-2016=59/2718 [2.2%]; AMIS-2017=39/2726 [1.4%]; trend $p < 0.001$). Reported condomless anal intercourse (CAI) with a serodiscordant partner decreased in the total sample of YMSM (AMIS-2013=486/1965 [24.7%]; AMIS-2017=498/2726 [18.3%]; $p < 0.0001$), while significant increases were observed for marijuana use (AMIS-2013=666/1965 [33.9%]; AMIS-2017=1028/2726 [37.7%]; $p = 0.003$) and use of other illicit substance (AMIS-2013=416/1965 [21.2%]; AMIS-2017=609/2726 [22.3%]; $p = 0.006$). STI diagnoses increased significantly over time (AMIS-2013=54/664 [8.1%]; AMIS-2017=240/2726 [8.8%]; $p = 0.008$) but not STI testing (AMIS-2013=228/664 [34.3%]; AMIS-2017=900/2726 [33.0%]; $p = 0.48$). Upon stratification between those age 15-19 and those age 20-24, a significant downward trend persisted for serodiscordant CAI among the older group but not their younger counterparts. Both groups had significant increases in marijuana and other substance use. Only about one-fifth of participants age 15-19 reported recent STI testing and, among HIV-negative and unknown status participants in this age group, less than one-third reported HIV testing in the past 12 months. These trends remained unchanged over time. Significant increases for those age 20-24 were observed in STI diagnosis but not in STI testing. Among HIV-negative and unknown status participants age 20-24, HIV testing in the past 12 months significantly increased (AMIS-2013=755/1500 [50.3%]; AMIS-2017=858/1491 [57.6%]; $p = 0.002$).

Conclusions/Implications: While HIV testing has increased among MSM age 20-24, both STI and HIV testing among younger MSM age 15-19 have stagnated at low rates. Furthermore, STI diagnoses among MSM age 20-24 have increased without a concomitant increase in testing, and the use of illicit

substances is on the rise in YMSM. These findings highlight the need for further efforts to promote risk reduction and HIV/STI screening among sexually active YMSM.

AP37

Abstract 5383 - PS 18-1802 Evaluation and Performance Measurement Plans (EPMP): identifying performance-related challenges earlier in the evaluation process

Author(s): *Aba Essuon, Shubha Rao, Norma Harris, Erica Dunbar, Debra Karch*

Issue: In 2016, the Centers for Disease Control and Prevention (CDC) modified its notice of funding opportunity (NOFO) template to require recipients of CDC-funded NOFOs to develop and maintain an Evaluation and Performance Measurement Plan (EPMP). This modification was made to 1) better align recipients' program activities and measures with CDC requirements; 2) clarify and align recipients' program approach with the performance and evaluation plan; and 3) affirm recipients' ability to collect and report NOFO specified performance data. The EPMP is required to be developed during the planning phase of the funding cycle and is expected to be updated at least annually throughout the funding period. CDC will use EPMPs to detect and address technical assistance (TA) needs prior to and during program implementation and to provide contextual information for program performance. In 2017, CDC announced the 5-year PS18-1802 NOFO: Integrated Human Immunodeficiency Virus (HIV) Surveillance and Prevention Programs for Health Departments. PS18-1802 is the first Division of HIV and AIDS Prevention (DHAP) flagship NOFO to require the development and use of an EPMP. It is also DHAP's first attempt at using EPMPs to identify TA needs prior to program implementation.

Setting: Sixty US state, local, and city health departments (HD) funded by CDC to implement the first integrated and comprehensive HIV surveillance and prevention program to prevent new HIV infections and achieve viral suppression among persons living with HIV.

Project: EPMPs support the systematic collection of information to describe and understand program activities, characteristics, and outcomes. PS18-1802 applicants were required to submit an EPMP with their application. Applications were reviewed pre-award for technical acceptability and post-award for overall evaluation approach. All HD EPMPs were reviewed to ensure data can and will be collected for PS18-1802 performance measures/indicators; required activities are monitored and evaluated; and technical assistance (TA) needs are identified. This presentation will describe the approach used to review pre-award EPMPs and how results were used to inform the development of CDC's EPMP Template for post-award EPMP submissions.

Results: Fifty-nine (98%) of 60 EPMP reviews were completed. Of those completed (n=59), 36 (61%) required additional TA of which six (17%) of the 36 required more extensive TA to address evaluation-related concerns. Identified concerns included projected accomplishments estimated below NOFO targets and inadequate description/performance of primary activities related to key program indicators (e.g., providing PrEP materials but not providing PrEP screenings and referrals as required). This presentation will share preliminary findings, strategies to address identified challenges, and discuss possible performance implications.

Lessons Learned: A structured evaluation template, such as the EPMP, helps to clarify and streamline information needed to understand and monitor the program to be implemented. It also helps to identify and intervene with data related challenges (e.g., primary activities for which data are not generated, collected, or reported) that may affect a health department's ability to meet NOFO targets. With time, the EPMP's potential to provide a contextual understanding of program performance may prove to be a strong compliment to more quantitative monitoring efforts.

AP38

Abstract 5456 - Sustainability of (re)linkage to care efforts in HIV+ individuals following universal HIV screening and identification in two emergency departments in San Diego, CA

Author(s): *Susan Little, Chris Coyne, Jill Blumenthal, Gary Vilke, Martin Hoenigl*

Background: Universal opt-out HIV screening in emergency department (ED) settings has been shown to reach populations who do not perceive themselves to be at risk or are otherwise less likely to participate in HIV testing. These programs have been successful at identifying new HIV diagnoses and known HIV positives not linked to care, though their sustained impact on retention in care at six months has infrequently been assessed.

Methods: The objective of this analysis was to evaluate the sustained impact on retention in care during the six month follow-up after initial (re)linkage to care. All newly HIV diagnosed individuals were identified through electronic medical record (EMR)-based universal opt-out HIV screening for persons aged 13-64 years (excluding persons known HIV+ or reporting an HIV test within the last 12 months) in two EDs at the University of California San Diego and subsequently linked to care. The EMR algorithm also identified known HIV+ individuals who had been out of care for >12 months of which approximately 50% were re-linked to care.

Results: Between July and December 2017, 15 participants newly diagnosed with HIV infection during ED screening were linked to care, and 19 known HIV+ and out of care individuals were relinked to care. At the six-month follow-up, 11 of 15 (73%) of the newly diagnosed individuals were still linked to care, and two of 15 (13%) were confirmed out of care (we were unable to contact the remaining two of 15 individuals). Among the known HIV+ and relinked to care persons, eight of 19 (42%) were still linked to care at six months, while eight of 19 (42%) were out of care (including one person in hospice; we were unable to contact the remaining three of 19 individuals). There was a trend ($p=0.069$) towards a lower proportion of retention in care at six months among known HIV+ who had been relinked vs. new HIV diagnoses linked for the first time.

Conclusions/Implications: Sustained engagement in following linkage and relinkage to care of individuals identified through universal opt-out ED HIV screening was less than perfect. Six months following linkage and relinkage to care respectively, 13% of newly HIV diagnosed persons and 42% of known HIV+ already out of care. Given that a history of falling out of care increases the likelihood of falling out of care again in the future, additional strategies are needed address the underlying barriers to sustained engagement in care in these populations.

AP39

Abstract 5484 - Observational surveillance: use of non-traditional data for program decision making

Author(s): *Janelle Taveras, Simone McPherson*

Issue: Per Centers for Disease Control and Prevention (CDC), the Fort Lauderdale Division (Broward County) of the Miami Metropolitan Statistical Area has the second highest rate of new HIV infections (40.1/100,000 persons) in the United States, in 2016, and has seen an increase from 2015 (34.8/100,000 persons). Primary and secondary syphilis rates have also increased in Broward County (2015: 15.3/100,000 persons; 2016: 15.6/100,000 persons). Even with the use of the most current epidemiologic and surveillance data, there is still a need to use real-time program level data that ensures resources are provided effectively within the jurisdiction. This presentation will provide an overview of Observational Surveillance (OS), which is the continuous, systematic collection, analysis, and interpretation of observed health related behavioral and community level data by geographic location used for the planning, implementation, and evaluation of public health practice.

Setting: To ascertain priority areas of greatest need in Broward County, HIV prevalence and syphilis, four-year incidence data, were superimposed, utilizing geographic information system (GIS) mapping. A total of six zip codes were identified: 33304, 33305, 33309, 33311, 33313 and 33334. Four zip codes demonstrated overlap among both diseases; 33304, 33305, 33311, and 33334.

Project: Using the program collaboration and service integration (PCSI) framework, Communicable Disease staff, from various program areas, were deployed to conduct community outreach in all areas of the priority zip codes, even beyond traditional days/times. The goals of this initiative were to 1.) Identify geographic areas of high social network interactions, 2.) Maximize public health impact by delivering concerted messaging about all communicable diseases and 3.) Identify the services needed by Broward's most vulnerable neighborhoods. Using the OS methodology, tailored forms captured the following information: identification of observed priority populations by demographic characteristics; type of services delivered; type of print materials distributed; and the identification of services needed along with type of referrals and linkage to prevention and other essential support services. Qualitative information was also documented. Data was then entered and analyzed using SPSS software and frequencies were run to summarize efforts.

Results: From October 31 through January 2018, a total of 501 OS activities were documented. Over 30 percent (30.4%) of the observations were conducted in 33311, 20.2% in 33313, 15.4% in 33309, 13.0% in 33304 and 9.2% in 33334. The top priority populations observed were Black heterosexual men and women (32.9%) followed by Black (22.0%) and 17.0% were missing a priority population. The OS activities resulted in 143 volunteer/business contacts/key informants/gatekeepers identified, 10,698 individuals observed, 166 services delivered, 19 referrals and 3 linkages to services. Next, "Hot spots" or areas having observed 100 or more individuals were further examined to stratify services needed and recommended program activities for these areas.

Lessons Learned: Using the PCSI framework strengthens collaborative work across disease areas through addressing communities with shared needs. Observational surveillance creates opportunities to obtain vital feedback from the community on what services are needed and best strategies to engage

specific populations. It also leverages routine program level data to identify specific geographic areas for program improvement and implementation.

AP40

Abstract 5516 - FQHCs and HIV: the impact of billing on HIV testing and sustainability in federally qualified health centers in Virginia, a non-Medicaid expansion state

Author(s): *Felencia McGee*

Issue: The implementation of billing was a requirement under HIV Prevention Grant 12-1201. In 2016, Virginia transitioned two contracted Federally Qualified Health Centers (FQHCs) from performing rapid HIV testing, funded by the Virginia Department of Health (VDH), to performing venipuncture 4th generation HIV testing and billing the test for insured patients.

Setting: Two FQHCs comprised of 14 individual clinics within the Eastern region of Virginia.

Project: FQHC sites transitioned to billing on January 1, 2016. Prior to implementation, there were several meetings to discuss the logistics of implementation. VDH set up an additional laboratory account with the state contracted lab so that an HIV test for any uninsured or underinsured (Medicaid) patient was billed directly to VDH (VDH tests). The sites determined whether they would order VDH tests electronically or through a paper requisition. HIV tests for insured patients were billed directly to insurance, along with any other services the person was receiving during the visit.

Results: From 2016 to 2017, approximately 51% of HIV tests performed in the FQHCs were billed to insurance and 49% funded by VDH. From 2014 to 2015 (prior to VDH billing implementation), 29% of HIV tests performed in the FQHCs were billed to insurance and 71% funded by VDH. From 2014 to 2017, there was approximately a 248% increase in tests billed to insurance (592 to 2058) and a 26% (2295 to 1704) decrease in tests funded by VDH. There was an overall 30% increase in testing in the FQHCs, regardless of funding source.

Lessons Learned: While progress was slow, there was overall success with implementing billing for HIV testing in the FQHCs. Going through this process has resulted in a more efficient transition to billing for other FQHCs that are interested in routine HIV testing. The implementation has helped VDH identify points of consideration in engaging medical providers around conversations related to the implementation of routine HIV testing.

AP41

Abstract 5598 - Online outreach and home-based self-testing to engage MSM for HIV prevention

Author(s): *William Patterson, Christina Crowley, Madeline Montgomery, Thomas Bertrand, Theodore Marak, Aaron Frechette, Philip Chan*

Issue: Rhode Island signed UNAIDS' 90-90-90 initiative in 2015, committing to the goals of 90% of individuals living with HIV diagnosed, 90% engaged in care, and 90% virally suppressed by 2020. Rhode Island achieved its first goal, 90% of those living with HIV diagnosed, in 2017. However, men who have sex with men (MSM) remain disproportionately impacted by HIV. New strategies to engage underserved

and hard-to-reach communities, including MSM, are needed to achieve 90-90-90 goals. HIV home-based self-testing (HBST) has the potential to overcome barriers to clinic-based testing. We evaluate a pilot social media campaign designed to engage and distribute HBST kits to MSM who meet partners online.

Setting: The Rhode Island STD Clinic is the sole publicly-funded STD clinic in the state and provides safety-net HIV/STD testing and care to a diverse patient population, over 30% of whom are MSM.

Project: From July 2017 to July 2018, HBST kits were mailed at no cost to individuals who requested them through the Rhode Island STD Clinic website (DoItRight.org). HBST kits were supplied by the Rhode Island Department of Health. The program was promoted through a campaign developed with a local marketing firm and delivered through a smartphone application used to meet sexual partners (“hookup app”). Advertisements in English and Spanish linking to the HBST website were placed on the hookup app Grindr over three time periods. Individuals requesting HBST kits provided demographic information, sexual behaviors, and HIV testing history over the past year.

Results: During the 12-month pilot project period, 162 HBST kits were mailed to Rhode Island residents. Seventy-seven percent of kit recipients were MSM based on reported past-year behavior. Higher uptake than expected among other sexual risk groups indicates wider acceptability of HBST as an intervention tool. Despite high HBST acceptability, only 4% of respondents indicated that they would be willing to pay the current retail price (\$40) for the testing kit. More than half of kit recipients had either never had an HIV test or had not had one in over 12 months. Further, 41% of respondents listed being “uncomfortable in a clinical setting” as their primary reason for choosing HBST over a clinic-based test.

Lessons Learned: HBST provides a potential opportunity to reach high-risk MSM who have not recently had an HIV test. By advertising through a hookup app and mailing HBST kits directly and at no cost to recipients, this program facilitated HIV testing among individuals who may otherwise not have sought HIV testing. However, promoting HIV diagnosis and linkage to care statewide will require systemic efforts to overcome barriers to HIV testing. Eliminating cost and access barriers to HIV testing, as well as reducing perceived and experienced stigma, are essential steps in achieving 90-90-90 goals.

AP42

Abstract 5696 - Oye Boricua, Sin Buscar Excusas/No Excuses!: a new group level intervention for MSM to re-start conversations on HIV prevention, sexual safety, testing and health care

Author(s): *Peter Shepard-Rivas, Jose Mulinelli-Rodríguez, Cesar Concepcion-Acevedo*

Issue: Puerto Rico (PR), with more than 49,000 people living with the HIV infection (as of May 31, 2018), is ranked 10th on the list of states/territories with the highest number of reported cases. In 2013, MSM became the priority population for new HIV infections. Requirements for integrated services, limited resources, deterring socio-economic factors, limited linguistic and cultural appropriate interventions, and the widespread damage of natural disasters (Irma & Maria), make the work in HIV prevention a big challenge and requires strategic investment and efforts. However, “Sin Buscar Excusas/No Excuses” (SBE/NE) presents a great opportunity to serve the community with a behavioral intervention that integrates other prevention services.

Setting: Coai's - Aché Taking on Prevention (A-TOP), under PS15-1502, is a program for Latino MSM 18 to 59 years old with two main offices: Metropolitan Area, and west side of the Island. Our participants are reached throughout social media and street testing events. The fatigue of traditional prevention information; and PrEP education has shifted our participants interest in services. Also, in a post hurricanes Irma and María times, the priorities and needs of services for MSM have changed.

Project: A-TOP program provide testing; prevention for HIV positive and high risk; and linkage to support and health care services. Following a Technical Assistance (TA) for "Recruitment Strategies for HIV Testing Services", A-TOP staff and CAG identified the need to increase testing in the program space using a Group Level Behavioral Intervention as in previous program announcements. "Sin Buscar Excusas/No Excuses" (SBE/NE) was identified as an intervention that responds to today's program prevention needs. It also provides an opportunity to increase sexual safety - having fewer partners, condom use, lowering risky behaviors, using PrEP or PEP as needed, communication, testing and care - among our target population. A pilot was conducted with the MSM CAG participants.

Results: Six men participated in the SBE/NE pilot session. At the end of the session, all the participants were interviewed. All (100%) of the participants reported a high level of satisfaction with the intervention. In addition qualitative information was gathered: 1) content: participants did relate to the characters and scenarios. 2) materials: participants liked the posters and videos; 3) language: participants found the materials linguistically appropriate and a few regional terms were suggested; 4) intervention mechanics: participants were very positive to having a space and time to share with peers, and they liked the opportunity to access one-on-one follow-up with staff to access other services (i.e. HIV and STI testing).

Lessons Learned: In a setting where cost-effective programs are highly needed, SBE/NE provides a great opportunity to integrate programs and services. The intervention will not only provide an effective behavioral change intervention but increases the likeliness and engagement of clients to existing services. Peer driven group level interventions, such as SBE/NE, provides a space and time highly needed for social support after major natural disasters like hurricane Irma and Maria.

AP43

Abstract 5849 - HIV & intersectionality: how social identities influence varying incidence rates of HIV among black cisgender and transgender women and the need for comprehensive data collection

Author(s): *Gabrielle Perry, Joseph Olsen*

Issue: Over 20,000 people are living with HIV in Louisiana as of the year 2016; with New Orleans 2nd in the United States in incidence rates. Roughly 70% of that number identify as Black and 30% are women. However, little research has been done on intersectionality between growing incidence rates of all of those who are Black and identify female.

Setting: We began as a Community Based AIDS Service Organization and in 2014 we became a Federally Qualified Health Center, now providing ubiquitous and low-cost services to the greater New Orleans area across six clinic/community sites. Outreach initiatives and programs that aim to continue lowering the incidence rates of HIV, the dissemination of risk information and harm reduction materials, rapid HIV

and HCV testing, linkage to HIV treatment and PrEP are provided to all persons in the community seeking care and counseling but especially the LGBTQ+ and racial minorities.

Project: Using data collected across six testing sites for calendar year 2017 we provided 12,024 HIV tests with a 1.9% positivity rate; all Black women (cisgender and transgender) who tested HIV positive were included in the study. Clients who test HIV positive are linked to care and treatment within a 72-hour period. There was an overall 97% linkage rate.

Results: A total of 3,779 persons identifying as women, both cisgender and “MTF”, were tested during the specified time period. Stepwise regression analysis of variables showed, in order of relevance, that of those who tested positive being Black (N=39 positive clients, P=0.0593), having an age range of 25 to 34 (N=23 positive clients, P=0.0593), being heterosexual (N=25 positive clients, P=0.0345), and being a woman who identifies as her gender assigned at birth (N=13 positive clients, P=0.0226) are the biggest predictors of HIV diagnosis amongst participants. Black cisgender women were the most likely race of women to be diagnosed with HIV. Transgender women in New Orleans were least likely to be diagnosed with HIV when compared to women who identified as their gender assigned at birth.

Lessons Learned: Though MSM, gay, and bisexual Black men are the demographic with the highest incidence rates, this data supports 2017 CDC research that it is Black cisgender women who are at the greatest risk of contracting HIV. It’s important to note there weren’t enough participants identifying as transgender over the specified time for results to be conclusive and likely why it contradicts the national incidence and prevalence rates of the transgender community. Like the results on transgender women, there weren’t enough participants identifying as bisexual in the specified period for significant results. To move research forward, when planning to collect data for new HIV testing/linkage programs designing research questions to capture intersectionality will be key.

AP44

Abstract 5953 - Targeted testing in non-clinical settings: is it still relevant?

Author(s): *Amy Leonard, Jason Black, Jennifer Hadayia, Jiatian Qu*

Issue: For several years, CDC has endorsed the model of HIV targeted testing in non-clinical settings. Venues for targeted testing in non-clinical settings include, but are not limited to, bars, bathhouses, nightclubs, local social events, and other places where persons at high risk for HIV infection may congregate. Non-clinical HIV testing programs focus on reaching priority populations in environments in which clients feel most safe and comfortable, in order to identify persons testing negative and properly link them to HIV prevention and support services, including PrEP and PEP; and preliminary HIV-positive individuals and link them to confirmatory testing, HIV treatment and support services. Data uncovered a shift in testing preferences from non-clinical to clinical settings. This revelation led to an assessment of testing location and motivation preferences of the priority population, men who have sex with men (MSM), by groups. The presentation will review the results of the data collection. Additionally, the presentation will explore the reasons behind the shift in preferences and the programmatic adjustments in response.

Setting: Legacy Community Health Services is (Legacy) is a Federally Qualified Health Center that has a long-standing history in successfully providing HIV testing, programs and services. Legacy provides approximately 2,500 HIV tests annually in clinic-based and outreach settings to increase HIV serostatus awareness among general MSM populations within the Houston area.

Project: An HIV testing pattern survey was developed and administered in April 2018 to individuals receiving an HIV test through the organization's Counseling, Testing and Referral (CTR) program.

Results: 176 surveys were collected and indicated 1) the top reasons for selecting an HIV testing location are: convenience, safety, and legitimacy (of the testing site); 2) more young adults (aged 18 – 24) cited word of mouth as a criteria for deciding where to test when compared to testers over age 24, who most often cited convenience; and 3) when asked where the respondent would prefer to test in the future, 81% said a clinic, hospital, or doctor's office, while only 7% said a club or bar and only 1% said a bathhouse. The presentation will delve deeper into differences by demographic groups and settings.

Lessons Learned: A shift in HIV targeted testing from non-clinical to clinical locations was identified and examination of this trend indicates that the reasons a person preferred testing at a non-clinical location are not the same as they were in earlier in the HIV epidemic. Some possible reasons individuals now prefer clinical locations are reduction of stigma, elimination of concerns around confidentiality, clinical setting is perceived as more holistic, such as overall primary care or provision PrEP. HIV testing programs need to be flexible and responsive to community preferences for testing sites. Ongoing assessment of preferred testing locations among priority populations, as well as understanding the reasons for these preferences, helps to build community confidence and engagement of individuals into the prevention care continuum.

AP45

Abstract 6003 - CDC-HRSA partnership for the expanded HIV testing program

Author(s): *Erica Dunbar, Renee Freeman, Jeff Bosshart*

Issue: The CDC's Division of HIV/AIDS Prevention and HRSA's HIV/AIDS Bureau (HAB) entered into an Interagency Agreement (IAA) to provide funds to HAB to make supplemental awards to currently funded regional AIDS Education and Training Centers (AETCs). The awards supported the development of curricula and the provision of technical assistance (TA) and training to health department (HD) staff, health care providers, and health care settings to facilitate the adoption of CDC's 2006 Revised Recommendations for HIV Testing of Adults, Adolescents, and Pregnant Women in Healthcare Settings. The presentation will summarize TA and training activities provided by the AETCs for PS12-1201 Category B funding recipients from January 1, 2012 through December 31, 2017.

Setting: The 34 state and local HDs that were funded in 2012 by CDC under PS12-1201 Comprehensive HIV Prevention Programs Category B: Expanded HIV Testing Program (ETP). The purpose of the ETP was to support HDs to implement expanded HIV testing efforts, primarily in health care settings, for populations disproportionately affected by HIV – African Americans; Hispanics; men who have sex with men (MSM); and people who inject drugs (PWID).

Project: The goal for the ETP was to increase the number of persons who received HIV testing as well as to increase the number and proportion of HIV-infected persons who were aware of their infection. Under the IAA, the regional AETCs provided training related to routine HIV screening for clinical practitioners who were not primarily HIV care providers, especially those who worked in communities or clinical settings with populations disproportionately affected by HIV. Data submitted in progress reports by the AETCs were used to summarize TA/training activities conducted under the IAA from January 1, 2012 through December 31, 2017.

Results: Each regional AETC used a CDC-provided reporting tool to present TA/training information biannually. The presentation will summarize the following information: TA/training events; TA/training tools and resources developed; successes; challenges; and collaborations and partnerships related to ETP.

Lessons Learned: The ETP has shown promise in moving towards meeting the program goals of implementing expanded HIV testing efforts, primarily in health care settings. Future collaborative efforts will involve coordinating activities with AETC regional leadership, other capacity building assistance providers, and the ETP funded HDs to improve the TA/training delivery process. With the continued implementation of High-Impact Prevention, National HIV Prevention Goals, HIV Testing Guidelines for Health Care Settings, pre-exposure prophylaxis (PrEP) guidelines and non-occupational post exposure prophylaxis (nPEP) guidelines, and the HIV Care Continuum Initiative, future AETC TA/training efforts will prioritize (1) helping funded HDs with sustaining routine HIV testing programs using data to inform prevention and care activities, (2) promoting the use of PrEP and nPEP to reduce the transmission of HIV among high-risk populations, and (3) utilizing third-party reimbursements and billing procedures.

AP46

Abstract 6068 - From piloting to programming: building educational opportunities for Georgia's HIV providers

Author(s): *Cicely Richard, Michael Seabolt, LePaige Godfrey, Brooke Mootry, Jamila Ealey, Bobby Bowden, L. William Lyons*

Issue: Prior to 2016, Georgia Department of Public Health (GDPH) Office of HIV AIDS (OHA) utilized a two-day classroom curriculum to train all HIV counseling and testing staff funded or supported by the program. The two-day, in-person training did not meet the demands in Georgia's continually expanding, high turn-over public health system. Challenges ranged from overnight travel expenses, driving distance to training sites, lack of access for community organizations that were not funded, busy clinic schedule, limited numbers of trainers, and an overall lack of knowledge concerning HIV testing technology.

Setting: Georgia's 18 health districts and funded/supported providers.

Project: In 2016, the Centers for Disease Control and Prevention (CDC) released its updated Implementing HIV Testing Protocols in Nonclinical Settings guidance. In accordance with these protocols, Georgia revised its HIV Testing and Counseling Quality Assurance Protocols which required more efficient methods of disseminating information to testers and a more accessible training curriculum. Following the example of CDC, assessing the capacity of various distance Learning

Management Systems (LMS), considering costs and data management, OHA and GDPH Office Information and Technology (OIT) created the Georgia Public Health Academy (GPHA). An online LMS developed to allow OHA to offer distance educational opportunities for funded and supported providers through the use of technology. OHA streamlined the HIV counseling and testing training curriculum through the creation of six online modules which reduced the classroom training requirement to one day. This allows each participant to learn and access much of the training curriculum at their own pace, reducing the need for overnight travel, and allowing OHA to monitor the progress of trainees without the use of a third-party vendor.

Results: This fast-paced training curriculum combines an online web-based learning platform, GPHA with an interactive and kinesthetic classroom learning experience designed specifically for busy adult learners. This system allows public health professionals to maximize time, increase HIV testing & counseling knowledge, and expand the capacity to provide HIV testing and counseling training throughout Georgia.

Access was a key objective in this curriculum development project. During a three month period from April to June 2018, 119 individuals established an account with the GPHA and 88 completed the training including both HIV online modules and the one-day in person training. Comparatively, in 2017 the OHA reached fewer people during a period that was twice as long, 75 individuals from January to June.

Lessons Learned: In order to employ the GPHA learning system, buy-in from leadership was a key component of the process, as senior level management approval is required before embarking on a major project such as this. Local stakeholder engagement was another major driver of this work, it was imperative that this novel concept of a LMS was accessible and highly effective in the delivery of educational material. A major takeaway from this work is that limited monetary resources should not deter innovation, support from key stakeholders can be just as important in many cases. Leveraging of resources and stakeholder support are key factors in ensuring the sustainability of GPHA.

AP47

Abstract 5212 - The impact of Hurricane Sandy on HIV testing rates: an interrupted time series analysis, January 1, 2011–December 31, 2013

Author(s): *Linda Ekperi, Erin Thomas, Tanya Telfair LeBlanc, Erica Adams, Grete Wilt, Noelle-Angelique Molinari, Eric Carbone*

Background: Hurricane Sandy made landfall on the eastern coast of the United States on October 29, 2012 resulting in 117 deaths and 71.4 billion dollars in damage. Persons with undiagnosed HIV infection might experience delays in diagnosis testing, status confirmation, or access to care due to service disruption in storm-affected areas. The objective of this study is to describe the impact of Hurricane Sandy on HIV testing rates in affected areas and estimate the magnitude and duration of disruption in HIV testing associated with storm damage intensity.

Methods: Using MarketScan data from January 2011–December 2013, this study examined weekly time series of HIV testing rates among privately insured enrollees not previously diagnosed with HIV; 95 weeks pre- and 58 weeks post-storm. Interrupted time series (ITS) analyses were estimated by storm impact rank (using FEMA's Final Impact Rank mapped to Core Based Statistical Areas) to determine the

extent that Hurricane Sandy affected weekly rates of HIV testing immediately and the duration of that effect after the storm.

Results: HIV testing rates declined significantly across storm impact rank areas. The mean decline in rates detected ranged between -5% (95% CI: -9.3, -1.5) in low impact areas and -24% (95% CI: -28.5, -18.9) in very high impact areas. We estimated at least 9,736 (95% CI: 7,540, 11,925) testing opportunities were missed among privately insured persons following Hurricane Sandy. Testing rates returned to baseline in low impact areas by 6 weeks post event (December 9, 2012; by 15 weeks post event (February 10, 2013) in moderate impact areas; and by 17 weeks after the event (February 24, 2013) in high and very high impact areas.

Conclusions/Implications: Hurricane Sandy resulted in a detectable and immediate decline in HIV testing rates across storm-affected areas. Greater storm damage was associated with greater magnitude and duration of testing disruption. Disruption of basic health services, like HIV testing and treatment, following large natural and man-made disasters is a public health concern. Disruption in testing services availability for any length of time is detrimental to the efforts of the current HIV prevention model, where status confirmation is essential to control disease spread.

AP48

Abstract 5549 - Investigating forum theatre's potential to reduce stigma: end stigma, end HIV/AIDS

Author(s): *Rohan Walawalkar*

Background: Stigma is the largest social factor preventing PLWHA from getting tested, into care, and virally suppressed at the national and international levels (Department of State, 2014; Dillon & Basu, 2014; UNAIDS, 2015; Chesney & Smith, 1999). Addressing stigma therefore is essential to controlling the spread of the HIV/AIDS epidemic. Forum theatre (FT), an interactive alternative to conventional theatre, has been used internationally to address complex social problems such as stigma (Boal, 1988). In these performances, audience members are encouraged to intervene in a dramatic scene to address problems, test solutions, and resolve conflicts. FT prompts emotional involvement and interaction with audience members, making it a powerful tool to change opinions, develop communal solutions, and bring social change. This paper investigates a FT intervention to reduce stigma around HIV/AIDS in San Antonio, Texas, during the summer of 2018.

Methods: A team at Trinity University created, performed, and analyzed a play titled End Stigma, End HIV/AIDS. The play was based on 33 interviews conducted in summer 2017 in San Antonio with PLWHA and MSM and consisted of two 10-minute scenes. The first scene portrayed a testing facility where results of a positive HIV test were given to a client. The second scene depicted an HIV-positive daughter trying to explain her undetectable status to her family. Each scene was preceded by brief monologues taken from the aforementioned interviews to contextualize the scene that followed. The play was performed at nine locations for four audience types: HIV/AIDS service providers, LGBTQIA+ youth, HIV/AIDS consumers, and the general public. Scenes were followed by group discussion and a repetition of the same scene in which the audience was invited to participate on stage and attempt to improve the outcome. This inclusion of "spect-actors" in the performance is integral to the FT method.

Audio recordings of discussions and written feedback cards were collected at performances. Data were analyzed using inductive coding.

Results: Results demonstrated that performances promoted discussion about individual and structural solutions to reducing HIV/AIDS stigma, fostered emotional connections with audience members, and empowered audience members to look for and act in situations exhibiting stigma. During the performance, audience members exhibited enthusiasm to intervene and suggest solutions to the oppression presented, often sparking lively discussions regarding techniques to use to diffuse situations of stigma and help people experiencing it. Comments in response cards and performance recordings indicated attendees' desires to engage challenging situations of stigma in their lives and promote this performance to others who may benefit from it.

Conclusions/Implications: Audience members reported feeling validated, involved in the conversation, aware of the consequences of stigma around HIV/AIDS, and confident in their ability to intervene in situations of stigma in their own lives due to the performance. The data largely suggest that FT interventions may be beneficial to reducing stigma and could be useful depending on the audience served. FT is largely unexplored in HIV/AIDS prevention, and these data suggest that FT's ability to provide a "rehearsal for life" (Boal, 1988) make it a compelling intervention to explore to reduce stigma around HIV/AIDS.

AP49

Abstract 5926 - Yo lo estoy haciendo. ¿Y tú? (I am doing it. Are you?)

Author(s): *Mildred Gonzalez, Javier Morales, Milton Torres*

Issue: National YRBS data for 2017 indicates that 28.7% of high school youth are sexually active with 9.7% report having sexual intercourse with four or more persons during their life. The data highlights that 46% report not using a condom during their last sexual intercourse with only 35% reporting ever receiving education on how to correctly use a condom. In 2017, only 9% of high school aged youth report ever testing for HIV. According to surveillance data from the Puerto Rico Department of Health HIV/AIDS Surveillance Program, young people between the ages of 13 and 29 years represent 26% of the total accumulated HIV/AIDS cases in Puerto Rico through 2018.

Setting: Art and theater workshop for middle school, high school, as well as university students at the Central University of Bayamón to develop social marketing campaigns that target young people between the ages of 13 and 29 years aimed at raising awareness of routine HIV testing.

Project: Yo lo estoy haciendo. ¿Y tú? is a localized social marketing campaign developed by a unique collaborative of public and private stakeholders. The primary objective of the campaign is to raise awareness on the importance of routine HIV testing among adolescents and university students ages 13 – 29. As a secondary objective, Yo lo estoy haciendo. ¿Y tú?, utilizes messages that promote communication between couples about healthy sexual practices and risk behaviors. Using an art and theatre workshop, the project employs a self-efficacy and empowerment model to engage participants from the target group who in turn function as peer-models in the design and execution of the campaign. The workshops obtained details on the topics of interest of the chosen population, dissemination

strategies and recommendations for campaign messages. In addition, through its collaboration the project incorporated input from the Puerto Rico Department of Health, local government, community-based organizations, public-health organizations, universities and local schools. Currently, the group of community stakeholders forms part of a Community Mobilization initiative for the Prevention of HIV in Puerto Rico, now on its 4th year of existence and counts on the participation of representatives from over 40 organizations.

Results: After validating the information collected from the focal group, a panel of expert judges, and members of the target population, the project developed two posters in Spanish and English that serve as the central focus of the campaign. The artwork uses comic book style illustrations and photos with representational images of the community of interest, which include YMSM and imparts messages promoting routine HIV testing within the target population and the importance of knowing your status.

Lessons Learned: Discussion related to sexuality among the target population continues to be a taboo in Puerto Rican culture. Minimal to no sex education offered in schools can be considered as a factor that contributes to unfamiliarity of healthy sexual practices and the awareness of routine HIV testing. Empowering young people to design and develop public health campaigns aimed at their peers facilitate authentic discussions about sex practices, raises awareness on the importance of routine HIV testing, as well as help incorporate healthy sexual practices based on the needs and vision of the population of interest.

BP30

Abstract 5857 - The evaluation of a novel pre-exposure prophylaxis (PrEP) and culturally competent HIV prevention care curriculum for trainees

Author(s): *Katherine Frasca, Jose Castillo-Mancilla, Monica McNulty, Susan Connors, Nancy Madinger*

Issue: Health disparities exist in HIV risk in the United States among the lesbian-gay-bisexual-transgender-queer (LGBTQ) community. There is also scarce literature on curricula for HIV prevention and pre-exposure prophylaxis (PrEP) for trainees in general medicine. Literature shows medical students and residents have a lack of training and knowledge in PrEP and LGBTQ care, with exposure to LGBTQ patients leading to increased PrEP awareness.

Setting: A dedicated PrEP Clinic and elective was created within a large, urban academic medical center outpatient HIV clinic. Patients were primarily LGBTQ identified, but also included HIV sero-discordant couples and those with experience of homelessness, sex work and substance abuse. Clinicians trained in PrEP supervised the Internal Medicine Residents.

Project: 34 Internal Medicine residents completed a PrEP clinic rotation between November 2017 and May 2018. Curriculum was delivered via online virtual patient cases followed by directly observed clinical care. The aim of the curriculum was to provide comprehensive, culturally competent HIV prevention care. The curriculum covers sexual history, LGBTQ terminology and health disparities, sexually transmitted infections, harm reduction, and HIV risk assessment and risk reduction counseling including PrEP. The effectiveness of the curriculum was assessed through integrated results from matched pre/post self-assessment surveys on a 5-point Likert scale (n = 19), additional post-surveys on the online modules (n = 22) and semi-structured interviews with thematic analysis (n = 9).

Results: The pre-survey response rate was 76.5%, post-survey response rate was 64.7% and there were 19 (55.8%) matched pre-post surveys. Many respondents reported no prior or inadequate prior training, 58% had no prior training in PrEP. As a result of the course, participants reported statistically significant increased comfort in all seven HIV prevention topic areas including sexual history taking in all patients (mean change 0.58, $p = 0.002$) and with LGBTQ patients (0.78, $p = 0.0005$), safe sex counseling (0.63, $p = 0.0078$), and HIV prevention counseling (0.84, $p = 0.0002$). Only 10.5% were comfortable discussing PrEP pre-intervention, increasing to 84% post-intervention (1.58, $p < 0.0001$). Notably, 68% of residents were comfortable with discussing safe sexual practices yet only 26% felt comfortable with the same skill with LGBTQ patients, post-intervention this improved to 84% (1.21, $p < 0.0001$). Six of nine interviewees post-course had applied what they learned to patient care; five indicated their learning would benefit patients.

Lessons Learned: An HIV prevention curriculum focused on culturally competent care can improve trainee skills in PrEP and risk reduction counseling among all patients including those identifying as LGBTQ. Online pre-clinic modules were a safe environment to practice and trainees noted benefit from direct exposure to LGBTQ identified patients. This model can be used in other academic and community settings to improve primary care providers, including trainees, exposure to HIV prevention and PrEP.

BP53

Abstract 5217 - Barriers and facilitators for HIV pre-exposure prophylaxis use in non-MSM key populations identified in national HIV prevention goals: a systematic review

Author(s): *Emiko Kamitani, Yuko Mizuno, Megan Wichser, Adbukola Adegbite, Julia DeLuca, Darrel Higa*

Background: Since the U.S. Food and Drug Administration approved Truvada for HIV pre-exposure prophylaxis (PrEP) in 2012, PrEP use among men who have sex with men (MSM) has significantly increased. A recent meta-analysis found that by 2016, one out of four MSM who met the U.S. Centers for Disease Control and Prevention (CDC) PrEP indications reported having ever taken PrEP. However, PrEP use is still low or unknown among non-MSM key populations identified in national HIV prevention goals (i.e., black women and men, Latinx women and men, people who inject drugs [PWID], youth aged 13 to 24 years, people in the Southern U.S. and transwomen). We conducted a qualitative systematic review to synthesize factors associated with willingness to use PrEP and better understand barriers and facilitators of PrEP use in these vulnerable populations.

Methods: We searched the CDC HIV/AIDS Prevention Research Synthesis cumulative database of HIV prevention literature to identify U.S.- based studies reporting factors associated with willingness to use oral daily PrEP in key populations published between 2000 and 2016. We used the primary study's inclusion criteria to determine the targeted study population. Studies with MSM were excluded. Two reviewers independently screened citations, extracted data, and conducted a quality assessment using the Mixed Methods Appraisal Tool. Discrepancies were resolved through discussion.

Results: We screened 1,728 PrEP-related citations and identified 13 studies that met inclusion criteria. The majority were rated as having good study quality. Studies were either cross-sectional ($n=9$) or qualitative ($n=4$), and there were no intervention studies. Studies focused on people in the Southern U.S. ($n=6$), transwomen ($n=4$), youth ($n=3$), blacks ($n=2$), and PWID ($n=2$) [not mutually exclusive]. No

studies focused on Latinx populations. Common factors associated with lower willingness to use PrEP included: a perception that PrEP is for gay men; the potential for adverse medication effects; and concerns about cost and pill burden. For youth, concerns about others seeing them taking HIV medication was associated with lower willingness to use PrEP. For transwomen, concerns about interactions with hormone therapy and managing multiple medications (i.e, PrEP and estrogen) as well as HIV-related stigma were associated with lower willingness to use PrEP. A desire to remain HIV seronegative was associated with higher willingness to use PrEP for transwomen.

Conclusions/Implications: There are few studies of PrEP use for non-MSM key populations. Multiple factors including misperceptions about PrEP and concerns related to potential side effects and costs may hinder PrEP use for these populations. HIV-related stigma may be a major barrier for youth and transwomen in particular. Tailored information on PrEP and decreasing HIV-related stigma may be critical for increasing PrEP use in these key populations. Intervention studies are needed for these populations, as are studies examining barriers and facilitators of PrEP use specifically focusing on Latinx populations. The small number of included studies is a limitation. By identifying barriers and facilitators to PrEP use, this review may help the HIV prevention field develop effective interventions for increasing PrEP use among vulnerable populations and reduce PrEP-related disparities.

BP54

Abstract 5362 - Estimating the number of women who exchange sex in 4 U.S. cities, 2016

Author(s): *Senad Handanagic, Janet Burnett, Sara Glick, Sarah Braunstein, Emily Higgins, Paige Padgett, Stephanie Schuette, Cyprian Wejnert*

Background: Globally women who exchange sex (WES) are one of the populations most at risk for HIV and among the hardest to reach with surveillance and prevention activities. In the United States (U.S.) very little is known about the risks and behaviors of WES. While knowing the size of key populations is essential for HIV prevention planning, the stigmatized, illicit, and hidden nature of activities that put people at risk for HIV, including sex work, requires that stakeholders rely on imperfect population size estimates (PSEs). Using respondent-driven sampling (RDS) among WES from 4 U.S. cities and the successive sampling PSE (SS-PSE) method, we estimated the number of WES in each city.

Methods: In 2016, National HIV Behavioral Surveillance collected data among women aged 18-60 years who reported exchanging sex for money or drugs in the past 12 months in 4 U.S. cities by using RDS. The SS-PSE employs a Bayesian statistical framework to infer the posterior distribution of PSEs based on prior population size knowledge and RDS data on social network size, date and succession of recruitment. Using the prevalence of self-reported transactional sex among women in the National Survey of Sexual Behaviors (0.8%, 95% confidence interval: 0.4-1.7%) and 2016 Census estimates for number of women aged 18-60 years in each city, we estimated the prior distribution of PSE for WES for each city. We assessed the reliability of PSE-SS results by comparing the mean, median and mode of prior and posterior distributions of PSE. Analysis was conducted using RDS Analyst software.

Results: We recruited 429 WES in Chicago, 389 in Detroit, 352 in Houston, and 298 in Seattle. The estimated number of WES in Chicago was 8,605 (95% probability interval [PI]: 2,109-24,165), Detroit 2,580 (95% PI: 843-6,870), Houston 3,555 (95% PI: 1,410-7,825) and Seattle 2,362 (95% PI: 691-6,901).

The mean, median and mode of the posterior distribution of PSE for Chicago, Detroit and Seattle fall within the 25th and 75th percentile of the prior distribution of PSE, which indicates a good fit. In Houston, these measures fell below the 25th percentile of the prior distribution, which implies the estimate is less robust.

Conclusions/Implications: A good fit between prior and posterior distributions of PSE for WES in 3 cities increases the reliability in SS-PSE, and implies that SS-PSE can be an effective and transparent method for estimating the size of hidden populations by utilizing the RDS data in situations with limited prior knowledge about the size of the population. We were not able to recruit all subgroups of WES in each city (e.g., RDS recruitment is less effective for reaching persons with high income), and therefore SS-PSE may underestimate the total number of WES. Our findings indicate that there are potentially thousands of WES in each of these cities about whom very little is known. We can use these PSEs for better understanding the needs for prevention activities, planning prevention programs and evaluation of service coverage among WES in each city.

BP55

Abstract 5378 - Uptake of HIV-related continuing education courses among primary care providers in southeastern United States

Author(s): *Kirk Henny, Christopher Duke, Angelica Geter, Zaneta Gaul, Chantell Frazier, Kathryn Drumhiller, Jennifer Peterson, Taraz Samandari, Madeline Sutton*

Background: Southern states accounted for most HIV diagnoses (52%) in the United States in 2015. Primary care providers (PCPs) play a vital role in the prevention of HIV in persons at risk for HIV and treatment of persons living with HIV. Recent data show that PCPs in southern states with HIV-related training improved their HIV-related knowledge and practices. However, only one-third of these PCPs reported any previous HIV-related training. Therefore, we evaluated the potential impact of HIV-related practices among PCPs offered online continuing education (CE) courses that addressed their identified training needs.

Methods: Between April 2017 and February 2018, we conducted an online survey consisting of a representative sample of PCPs in six southeastern jurisdictions with high rates of HIV diagnoses (Atlanta, Baltimore, Baton Rouge, District of Columbia, Miami, New Orleans). At baseline (BL), participants' practices were assessed regarding patient history and risk assessment, screening for HIV and other sexually transmitted infections, familiarity of post-exposure prophylaxis (PEP) and pre-exposure prophylaxis (PrEP), and other HIV-related practices. Participants were provided unique web hyperlinks to access specific online CE courses that address training needs based on BL responses. We used six-month follow-up (6M) surveys to assess changes in participants' HIV-related practices. Logistic regression analysis, which incorporated survey design factors, was used to identify statistically significant changes from baseline to six-month assessments.

Results: BL and 6M surveys were completed by 349 participants (61.2% female, 64.6% white, 69.6% physicians, and 27.5% aged 40 years or less); 18 % (n = 63) of sample visited CE training websites. PCPs who took CE training were half as likely to identify "patients' age" (30% vs. 15%) and "patients' race" (3% vs. 1.4%) as barriers to discussing sex with clients; non-CE participants remained unchanged from BL

to 6M survey. Also, PCPs who visited CE training websites were more likely to become familiar with PrEP (38% vs. 58%); non-CE participants remained unchanged at 45% between BL and 6M surveys. These findings indicated statistically significant differences (all $p < 0.05$) in logistic regression models at 6M between those who participated in the CE training and those who did not, controlling for baseline behavior for the same questions.

Conclusions/Implications: Uptake of CE online training improved PCP's comfort level with discussing sex with patients and improved general knowledge about PrEP. Our findings inform the potential benefit for the uptake of online CE HIV training for primary care providers. Future programmatic efforts can build on current findings by assessing and strengthening available training across all HIV content areas. In addition, enhanced strategies are warranted for HIV training availability and dissemination for frontline PCPs in southern states with high HIV burden.

BP56

Abstract 5398 - "Because with this I can have spur of the moment sex:" protecting the rights and welfare of adolescent MSM in PrEP trials

Author(s): *Celia Fisher, Leah Puri, Kathryn Macapagal, Brian Mustanski*

Background: Background/Objectives. Adolescent men who have sex with men (AMSM) account for high numbers of new HIV diagnoses. Non-adherence to daily use of oral PrEP has led to trials with adult MSM comparing safety and efficacy of oral versus a new long-term injectable form of PrEP. Now that oral PrEP is FDA approved for adolescents, once the injectable form is approved for adults, comparative trials with AMSM will follow. Prior research raises the possibility that study access to PrEP may lead to reduced condom use and that access to free sexual health services may unduly influence participation decisions. This study examined whether these concerns are applicable and important to address in future PrEP comparative studies involving AMSM.

Methods: Methods. Two-hundred-fourteen ethnically diverse, AMSM, 14 – 19 years, completed a web-based survey including demographic information, Likert-type sexual health and family disclosure questions, and open-ended and multiple choice items on their understanding of and reasons to participate in a hypothetical year-long oral versus injectable PrEP RCT described in a brief online video, followed by written descriptions of the study in small segments followed by relevant questions. Key elements of the hypothetical study included (1) unprotected sex as an HIV risk factor and study inclusion criterion (2) the importance of continued condom use for protection against HIV and STIs; (3) common and rare side-effects of PrEP (4) study provided HIV/STI testing, treatment for side effects and STI, HIV prevention counseling, and referrals if HIV positive; and (5) other study components including random assignment to the oral and injection conditions; voluntary nature of participation, and compensation for each study visit.

Results: Results. Although most (92%) understood they would be asked to use condoms, only 34% comprehended that condomless anal sex was the inclusion criterion for HIV risk. However, only 5 youth viewed PrEP as a substitute for condom use and 12% indicated receiving condoms was a study benefit. 94% of AMSM correctly listed common and rare PrEP side-effects and although side effects would cause at least some concern for 60%, 91% were likely to participate in the study. In explaining their decision,

most stated that slight discomfort of common side-effects and low probability of rare side effects were outweighed by the benefits of available treatment for such conditions if they occurred, access to PrEP as HIV protection, HIV/STI testing, and STI treatment and prevention counseling. Only 23% explicitly listed “free” access to these services as a primary reason to participate.

Conclusions/Implications: Conclusions/Implications. Results suggest although many AMSM may have preconceptions that PrEP is a substitute for condom use, developmentally appropriate informed consent procedures can ameliorate these misconceptions and encourage condom use as part of a broad spectrum of study-provided sexual health services. In addressing the tension between undue influence of free services and fair access to sexual health research, our data suggest that AMSM are capable of reasonably weighing the risks of side effects against the benefits of PrEP and prevention services. This does not address the post study financial health inequities that AMSM may continue to face.

BP57

Abstract 5502 - Validation of a urine assay to measure tenofovir level in patients taking tenofovir alafenamide

Author(s): *Linden Lalley-Chareczko, Emily Hiserodt, Ganesh Moorthy, Athena Zuppa, Helen Koenig*

Background: Pre-exposure prophylaxis(PrEP) with emtricitabine/tenofovir disoproxil fumarate(FTC/TDF) is effective for the prevention of HIV infection when taken regularly. Previously, we developed and validated a urine assay capable of detecting tenofovir(TFV) in patients taking TDF-based PrEP. However, tenofovir alafenamide(TAF) is a less toxic tenofovir prodrug used for HIV treatment and is currently under study for the purpose of PrEP. To ensure clinicians have access to accurate drug monitoring, it is important to determine whether this assay remains valid for detecting TFV in patients taking TAF.

Methods: Blood and urine samples were collected from 3 patient cohorts: 1)10 HIV-positive participants with suppressed virus on a TAF-based regimen, 2)10 HIV-negative participants administered 1 dose of FTC/TAF followed by urine and plasma sampling for 7 days starting 1-3 hours post-dose, and 3)10 HIV-negative participants administered 7 daily doses of FTC/TAF followed by urine and plasma sampling for 10 days starting 1-3 hours after the last dose. Samples were analyzed using liquid chromatography-tandem mass spectrometry(LC-MS/MS) with high sensitivity and specificity for TFV. Samples from cohort 2 were compared to a historical cohort administered one dose of FTC/TDF.

Results: HIV positive participants(cohort 1) were 90% male, 40% African American, and 10% Hispanic(median age=53.5y; Range=51-79y). HIV treatment regimens in cohort 1 included TAF plus one of the following: dolutegravir(3), boosted elvitegravir(3), boosted darunavir(2), raltegravir(1), or rilpivirine(1). Urine samples from HIV-positive participants demonstrated TFV concentrations 2 logs higher in urine than plasma(1000ng/mL vs. 10ng/mL, respectively). HIV-negative participants(cohorts 2 and 3) were 55% male and 70% Caucasian(median age=30.5y; Range=23-47y). Urine samples following a single dose of FTC/TAF in HIV-negative subjects yielded TFV concentrations ranging from 100-1000ng/mL 1-3 hours post-dose, with TFV concentration remaining >100ng/mL for 6 days in 8 of 10 participants. These concentrations were comparable to those from a historical cohort administered FTC/TDF, although urine TFV concentration rose more rapidly after medication ingestion in subjects receiving FTC/TDF and were, on average, higher for the first 4 days after discontinuation of medication

compared to those receiving FTC/TAF. Urine samples collected after 7 consecutive doses of FTC/TAF yielded TFV concentrations $>1000\text{ng/mL}$ 1-3 hours after discontinuation of dosing with TFV levels $>100\text{ng/mL}$ up to 7 days post discontinuation in 8 out of 10 participants. Plasma TFV concentrations were low ($\leq 10\text{ng/mL}$) in both HIV-negative cohorts at all time points.

Conclusions/Implications: TFV persists in urine at detectable concentrations in patients taking FTC/TAF for at least 7 days despite largely undetectable plasma levels, with urine TFV concentrations comparable to patients taking FTC/TDF. This study demonstrates the feasibility of using a urine TFV assay to assess TAF adherence with reduced opportunity for “white-coat” adherence given a difference in single dose vs steady state TFV concentration patterns in this study. Future studies should address the differences in urinary TFV clearance patterns between TDF- and TAF-based regimens.

BP58

Abstract 5578 - Prevalence of PrEP uptake among gay, bisexual, and other men who have sex with men in Denver, Colorado

Author(s): *Alia Al-Tayyib, Laura Weinberg, Jesse Carlson, Lucy Alderton, Kevin Kamis, Sarah Rowan*

Background: Pre-exposure prophylaxis (PrEP) effectively prevents acquisition of HIV among populations at increased risk for HIV. To assess the current state of PrEP uptake among gay, bisexual, and other men who have sex with men (MSM) in the Denver metro area, we report on PrEP awareness, PrEP use, and preferred clinical setting for PrEP care.

Methods: Between July and November 2017, MSM were recruited using venue-based time-space sampling as part of the National HIV Behavioral Surveillance (NHBS) system in Colorado. NHBS is conducted in rotating annual cycles of surveillance activities to monitor risk behaviors and access to HIV prevention services among three populations at highest risk for HIV, with data collected from MSM every three years. Men are eligible if they are 18 years or older and report sexual activity with a male partner in the preceding 12 months. Participants completed a behavioral survey that included questions about awareness, use, and preferences for where to receive PrEP. Basic univariable and bivariable analyses were conducted. PrEP awareness in 2017 was compared to awareness in the previous two MSM cycles.

Results: Of 768 men who were screened, 533 (69%) were eligible to participate. Of those, 311 (58%) reported being white, non-Hispanic, 135 (25%) Hispanic, 38 (7%) black, non-Hispanic, and 48 (9%) reported other or multiple race categories. Median age was 32 (IQR: 26-43) years. In 2017, a majority (92%) of participants had heard of PrEP (compared to 46% in 2014 and 28% in 2011). Three-quarters (76%) reported knowing someone who was on PrEP. Among the 402 HIV-negative participants, 107 (27%) reported currently being on PrEP or having been on PrEP in the past. PrEP uptake did not differ significantly by race/ethnicity with 26% of white participants reporting PrEP use compared to 25% of non-white participants ($p=0.818$); or age with 25% of those 29 years and younger reporting PrEP use compared to 28% of those 30 and older ($p=0.458$). Among the 21 participants who reported being on PrEP in the past, medication side effects and change in perceived HIV risk level were the top two reasons cited for discontinuing PrEP. Slightly more than half (58%) of participants indicated that they would prefer to get PrEP from a primary care physician compared to 42% who indicated preference for an HIV

specialist. Younger participants (21 and younger) were significantly more likely to indicate preference for receiving PrEP from an HIV specialist ($p < 0.012$).

Conclusions/Implications: In our sample, approximately 1 in 4 MSM reported current or past use of PrEP which is in line with the Centers for Disease Control and Prevention estimate for indications for PrEP use among MSM. Given the disproportionate rates of HIV among young MSM of color, our finding that PrEP use did not differ by race/ethnicity or age is encouraging and may be the result of Denver's PrEP awareness campaigns that have targeted young, non-white MSM. Our finding that young MSM would prefer to receive PrEP care from HIV specialists may suggest the need for specialized PrEP programs for younger MSM.

BP59

Abstract 5636 - HIV vaccine Acceptability in young men who have sex with men: results from a nationwide online pilot study

Author(s): *Daniel Connochie, Ryan Tingler, José Bauermeister*

Background: New cases of human immunodeficiency virus (HIV) among young men who have sex with men (YMSM), aged 18 to 24, underscore the importance of exploring their willingness to use biomedical prevention methods being developed. Among these methods, an acceptable and efficacious HIV vaccine remains a critical HIV priority. We examined factors that might promote vaccine acceptability among young men who have sex with men (YMSM) across two vaccine efficacy scenarios.

Methods: Data for this analysis come from a prospective RCT of online-recruited, single cis-gender YMSM who reported recent unprotected anal intercourse, self-report as HIV negative or are unaware of their HIV status, and meet sexual partners through online dating apps. YMSM ($N=137$; 50% racial/ethnic minority) between the ages of 18 and 24 ($M=21.7$, $SD=1.83$) completed questions on vaccine acceptability in a pilot HIV study. Most YMSM (91.2%; $N=125$) had ever tested for HIV, and 17.5% ($N=24$) had been diagnosed with an STI in the past.

YMSM rated the acceptability of an HIV vaccine with 50% and 85% efficacy (range: 1-10). A paired-samples t-test was conducted to compare differences in efficacy acceptability, followed by a multivariable regression examining whether acceptability varied by vaccine attitudes (altruism (range: 1-4; $\alpha=0.81$) and social concern (range 1-4; $\alpha=0.87$)), controlling for age, education, race/ethnicity, prior HIV testing, and STI diagnosis.

Results: Acceptability for the HIV vaccine with 85% efficacy ($M=8.86$; $SD=1.76$) was greater than acceptability in the 50% efficacy scenario ($M=7.60$; $SD=2.58$); ($t(136)=7.69$, $p < 0.0001$). Altruism scores ($M=3.01$; $SD=.68$) were higher than social concern scores ($M=2.19$; $SD=0.77$). Regressions were significant for 50% ($R^2=0.37$, $F(7,129)=10.77$, $p < 0.0001$) and 85% ($R^2=0.30$, $F(7,129)=9.12$, $p < 0.0001$) efficacy. Altruistic attitudes were associated with greater vaccine acceptability at 50% ($\beta=0.62$, $p < 0.0001$) and 85% ($\beta=0.59$, $p < 0.0001$) efficacy. YMSM with higher educational attainment were less likely to accept a vaccine with 50% efficacy ($\beta=-0.20$, $p < 0.05$); this association was not observed for the 85% efficacy scenario. No other covariates were related to vaccine acceptability.

Conclusions/Implications: YMSM find HIV vaccines as an acceptable prevention modality. Findings highlight the need to consider YMSM's altruistic attitudes in HIV vaccine research and, if a vaccine is found to be efficacious, explore how to leverage these attitudes in future public health campaigns.

BP60

Abstract 5728 - Young men who have sex with men's awareness and willingness to participate in HIV vaccine trials: results from a nationwide online pilot study

Author(s): *Ryan Tingler, Daniel Connochie, Jose Bauermeister*

Background: The development of an efficacious HIV vaccine remains an HIV prevention priority. However, little is known about how much communities most impacted (e.g., young men who have sex with men) know about ongoing vaccine candidate trials and/or their willingness to participate in them.

Methods: Data for this analysis come from a prospective RCT of online-recruited, single cis-gender YMSM who reported recent unprotected anal intercourse, self-report as HIV negative or are unaware of their HIV status, and meet sexual partners through online dating apps. YMSM (N=137; 50% racial/ethnic minority) between the ages of 18 and 24 (M=21.7, SD=1.83) completed an assessment regarding HIV vaccine trial awareness. Most YMSM possessed a college education (N=118, 86.1%). 91.2% had tested for HIV and 17.5% had been diagnosed with a STI in the past. We examined YMSM's willingness to participate in a future vaccine trial if available in their area. Descriptive and bivariate statistics examined whether YMSM's willingness to participate was associated with demographic characteristics (race/ethnicity, age, education, homelessness), recent drug use with sex, HIV testing, and prior STI diagnosis.

Results: A third of the sample (36.5%; N=50) reported having heard of HIV vaccine trials, with most reporting having learned about these trials online (60%; N=30). Most YMSM aware of HIV vaccine trials had a positive opinion of them (72%; N=36). We observed no differences in vaccine trial awareness by demographic characteristics, recent sexual risk behaviors, or HIV/STI testing behaviors. Once informed about HIV vaccine trials, most participants (85%; N=137) reported being willing to participate in a vaccine trial in their area. We observed no differences between vaccine trial willingness and demographic characteristics, sexual risk behaviors, or HIV/STI testing behaviors.

Conclusions/Implications: High-risk YMSM are mostly unaware of ongoing HIV vaccine trials, yet report willingness to participate once informed of these prevention efforts. Community engagement, particularly within online spaces, may help educate and recruit YMSM into these trials.

BP61

Abstract 5823 - Knowledge and perceptions of PrEP among providers in a high prevalence HIV county

Author(s): *Rebecca Edelberg, Jing Luo, Ellen Dancel, Paul Fanikos*

Background: Pre-exposure prophylaxis (PrEP) is an effective strategy for HIV prevention yet only a small fraction of eligible patients are prescribed this medication. This descriptive study reports baseline knowledge and perception of PrEP among a group of health care providers in Shelby County, TN, a region with high rates of HIV.

Methods: Providers in Shelby County, TN were surveyed between March 2017 and July 2018 as part of a larger public health detailing intervention to increase utilization of PrEP.

Results: The purposeful sample consisted of 125 providers (61% female), mostly physicians (58%) and nurse practitioners (36%). The sample was diverse with respect to practice city (65% Memphis; 10% Bartlett, 9% Germantown, 5% Cordova, 12% Other). Most (92%) practiced in primary care clinics. A minority (24%) had prior experience prescribing PrEP. The most commonly cited barrier was self-reported lack of awareness or lack of knowledge (64%). Other perceived barriers were affordability/ lack of insurance coverage (13%); perceived low risk of HIV among patient population (6%); concerns regarding medication safety or side effects (5%); concerns regarding efficacy (4%); and concerns regarding resistance (4%). A theme that emerged qualitatively was the perception that PrEP is an infectious disease topic rather than primary care topic.

Conclusions/Implications: Uptake of PrEP among this sample of providers in Shelby County, TN was low. The primary barrier reported was prescribers' lack of awareness and lack of knowledge concerning patient eligibility, best practices, and follow-up care. Concerns about affordability or medication safety and side effects were modest.

BP62

Abstract 5828 - Gender, mental health, and arrest history associated with HIV risk behaviors in a sample of youth attending alternative schools in Rhode Island

Author(s): *Lacey Craker, Meredith Healy, Ashley Lowery, Laura Whiteley, Larry Brown*

Background: Adolescents in alternative schools are at greater risk for HIV and other STIs than their peers due to earlier sexual onset, higher rates of sexual risk and difficulty managing strong emotions. In addition to mental health problems, the syndemic effects of criminal justice involvement, poorer mental health, and substance use place these youth at an even greater risk. Finding ways to engage these youth in preventative behaviors and improving relevant knowledge and attitudes surrounding HIV and other STIs is a priority.

Methods: Preliminary analyses were conducted with baseline data from a randomized controlled trial of a digital HIV prevention program among 103 youth, ages 13 to 19, attending alternative schools for adolescents with emotional and behavioral problems. Independent chi-squared and T-tests were conducted to explore associations between demographic and psychosocial (psychological symptoms, arrest history) variables, HIV prevention knowledge/attitudes and HIV risk (sexual and substance use behaviors). Logistic regression analyses, adjusted for significant demographic/psychosocial variables, were conducted to assess proportional HIV risk.

Results: Participants were mostly male (62.4%), White (41.0%), non-Hispanic/Latino (65.0%), heterosexual (72.4%). Mean age for participants was 15.9 years (SD=1.4). One third reported having sex (vaginal, anal, or oral) in the past 90 days and 19% used substances at the time of sex. At the bivariate level gender, psychological symptoms (BSI T-score median split) and arrest history were significantly related to HIV risk. Gender, psychological symptoms, and arrest history were associated with recent sex

($p=.01$). Arrest history was also associated with substance use with sex ($p=.08$). In a multiple logistic regressions (MLR) controlling for gender and age, an arrest history ($OR=6.75$, $p=.02$) and greater psychological symptoms ($OR=0.26$, $p<.10$) were associated with recent sex. A similar MLR did not find an association with arrest history and substance use with sex.

Conclusions/Implications: This unique clinical adolescent sample had high rates of recent sexual activity and sex with substance use. These data demonstrate that HIV risk behaviors may be clustered among those students who have greater mental health problems, and have a history of criminal justice involvement. The development of effective HIV prevention interventions for youth, particularly for those attending alternative schools, relies on the inclusion of elements that include all genders and address criminal justice involvement and mental health as they related to HIV risk.

BP63

Abstract 5848 - Investigating factors associated with willingness to take PrEP based on prescription cost among self-identified heterosexual black college students

Author(s): *Donica' Beckett, Philip Danquah, Johanna Andrews, Melva Thompson-Robinson, Carolee Dodge Francis*

Background: Black men and women, ages 15-24 in Jefferson County, Texas experience a disproportionate rate of sexually transmitted infections (STD Epidemiology in Texas, 2016). Pre-Exposure Prophylaxis (PrEP) is a prescription medication used to prevent an HIV-negative person from acquiring HIV before exposure to the virus. Less is known about factors associated with willingness to take PrEP based on cost among Black college students. Limited literature addresses facilitators of PrEP use based on cost among African Americans.

Methods: Formative research was conducted to explore associations between cost of PrEP and HIV status awareness, sexual risk behaviors, drug use alone and in combination with sex, and the influence of a popular opinion leader regarding PrEP use among self-identified heterosexual Black men and women ages 18-24, enrolled in Jefferson County, Texas colleges. Participants were recruited from three colleges to complete a web-based survey. Two hundred and seventy-five self-identified heterosexual Black college students (80 men and 195 women) completed the survey. The data was analyzed using SPSS Statistics version 22. A multiple linear regression analysis (ANOVA test) calculated factors associated with willingness to take PrEP based on cost (\$500 per month out of pocket) among Black college students. A stepwise procedure was utilized in the model building phase.

Results: Willingness of Black college students to take PrEP based on the prescription cost were significantly impacted by factors such as opinion leaders or someone who was credible, liked, and trusted as a user ($\beta=0.251$, $p=0.024$, $p<0.05$; 95% CI: 0.035-0.467), how often a student illegally used prescription drugs before having sex ($\beta=-0.340$, $p=0.001$, $p<0.05$; 95% CI:- 0.501-0.178), how often a student smoked marijuana before having sex ($\beta=0.141$, $p=0.004$, $p<0.05$; 95% CI: 0.048-0.233), how often a student used illegal drugs before having sex ($\beta=0.147$, $p=0.034$, $p<0.05$; 95% CI: 0.011-0.282), and how many hours a week a student worked for pay ($\beta=0.008$, $p=0.011$, $p<0.05$; 95% CI: 0.002-0.014).

Conclusions/Implications: The findings support the proposition that Black college students will consider the cost of PrEP based on factors such as opinion leaders as users, illegal use of prescription drugs before having sex, use of illegal drugs before having sex, smoking marijuana before having sex, and hours a week a student works for pay. Increasing PrEP use amongst this population, particularly when cost of the prescription is an issue, will involve addressing the factors that were identified in this study.

BP64

Abstract 5858 - Four years of surveys of sentinel medical providers prescribing PrEP in King County, Washington

Author(s): *Susan Buskin, Matthew Golden*

Background: Pre-exposure prophylaxis, or PrEP, first launched in 2012, provides HIV prevention with high efficacy when taken daily by individuals at risk of HIV. Monitoring the diffusion of PrEP has typically used surveys of high risk populations, mainly men who have sex with men (MSM), or by using pharmacy records. Our main aim was to examine the feasibility of monitoring community PrEP use with an alternative, rapid, and low cost method, employing a survey sent to medical providers prescribing PrEP. Additional goals included examining PrEP prescribing patterns, calculating the number of local residents prescribed PrEP, and estimating the percent of MSM prescribed PrEP.

Methods: We conducted annual surveys of medical providers in King County prescribing PrEP 2014-2017. Surveys were sent entirely by email, and sent up to five times to each non-respondent to encourage maximal participation. Providers surveyed had volunteered to be on lists hosted by the local and state health departments to help potential PrEP users find a provider able to prescribe PrEP. For the second two years we added medical providers found through HIV surveillance to be using viral load screening prior to prescribing PrEP. To estimate the number of King County residents prescribed PrEP, we tallied the patients of participants, and to adjust for non-response, we divided the sum by the response rate. We also adjusted for non-inclusion, estimating that we had no valid email address for about 10% of the providers prescribing PrEP. To calculate the percent of MSM prescribed PrEP, we assumed that 5.7% of male residents above the age of 14 years were MSM, an estimate based on local data collected through the Centers for Disease Control and Prevention Behavioral Risk Factor Surveillance System.

Results: Over 4 years, Public Health sent 504 surveys to selected medical providers and received 391 (78%) responses. The survey sample size increased from 36 providers in 2014 to 260 in 2017, while the participation rate increased from 61% to 81%. In 2017, respondents reported having a median of 10 patients on PrEP (range 1 - 275). In 2017, 3% of providers had prescribed alternative PrEP regimens in addition to emtricitabine & tenofovir disoproxil fumarate. After adjusting for non-response and non-inclusion, we estimated the numbers of King County residents prescribed PrEP increased from approximately 295 in 2014 to approximately 6,551 in 2017. In 2017 participating providers estimated that, of their patients receiving PrEP, 96% were MSM. The estimated percentage of MSM on PrEP increased from 5.0% in 2014 to 13.8% in 2017.

Conclusions/Implications: Limitations included uncertainty in our estimate of non-inclusion and that, unlike surveys of MSM, it would be difficult to calculate the prevalence of PrEP for higher risk MSM from

a provider survey. Still, surveying medical providers has been an efficient way to monitor PrEP prescribing patterns and the diffusion of PrEP in a community over time.

BP65

Abstract 5935 - Risk of HIV infection after reported STI infection in women in Louisiana 2000-2015

Author(s): *Daniel Newman, Mohammad Rahman, Antione Brantley, Thomas Peterman*

Background: Effective interventions exist for preventing HIV in women including behavioral and biomedical approaches such as: intensive counseling, condom usage and the use of PrEP. Targeting these interventions requires that we can identify populations that can most benefit.

Methods: We used data from Louisiana's STI and HIV registries to estimate risk of HIV acquisition for 13-59 year old women following their first diagnosis of syphilis or if none, first diagnosis of gonorrhea or if none, first diagnosis of chlamydia during 2000-2015. We excluded women reported with HIV before their STI, and measured HIV reported subsequent to STI (through 2016). Rates among women without STI were estimated by subtracting women with STD from the total population based on Census estimates.

Results: 211,603 women had: syphilis (6,574), gonorrhea (64,995), chlamydia (140,034). During 1,865,488 person-years of follow-up. 969 were later diagnosed with HIV. Women with no STI reported, had 5,186 HIV diagnoses over 24,359,397 person-years. The crude rate of subsequent HIV diagnosis (per 100,000 person-years) was higher for women diagnosed with syphilis (177.3), gonorrhea (73.2) or chlamydia (35.4) than women with no STI (21.2). Annual rates of HIV decreased by 21.6% between 2000 and 2016 for women diagnosed with a STI.

Mean time from STI diagnosis to HIV diagnosis for the women with STI was 5.23 years. African American women diagnosed with syphilis had the highest rates of acquired HIV (range 192.6-219.7). This high-risk group accounted for only 61 HIV infections.

There were 6,155 reported HIV infections in 13-59 year old women in Louisiana from 2000-2016. 81% of the women diagnosed with HIV in Louisiana had no reported history of STI.

Conclusions/Implications: We can identify women with a past history of STI who may benefit from HIV interventions, the impact is limited. Most women who acquired HIV did not have a reported past history of STI infection.

BP66

Abstract 5989 - A descriptive account: high risk heterosexual women PrEP intention and missed opportunities

Author(s): *Tarashon Broomes, Hong-Van Tieu, Geneva Ortiz, Debbie Lucy, Annet Davis-Vogel, Bridgette Brawner, Pamela Shaw, Sarah Ratcliffe, Beryl Koblin, Anne Teitelman*

Background: The HIV epidemic among women in the United States is a major public health issue, with Black and Hispanic women being disproportionately affected. Many women at high risk for acquiring HIV infection are not aware of pre-exposure prophylaxis (PrEP). A survey study was conducted among high

risk women in New York City (NYC) and Philadelphia to evaluate risk behaviors and PrEP knowledge and attitudes.

Methods: Women were eligible for the study if they were aged 18-55 years and reported recent condomless vaginal/anal sex or injection drug use and one of following: current at-risk male partner, or in the last 6 months: sharing injection equipment, drug treatment, exchange of sex, frequent stimulant or ecstasy use, a sexually transmitted infection or alcohol abuse and currently not on PrEP. Computer Assisted Self-interview (CASI) surveys were administered to 81 women in Philadelphia and 79 in NYC. Descriptive statistics (e.g., means, frequencies, and percentages) were computed to describe the sociodemographic, HIV risk behaviors, theoretical mediators, and vulnerability domains in relation to women's uptake of PrEP

Results: Among 160 women enrolled, mean age was 39 years, 24% were Latina and 68% African American, and 69% had a high school degree or less. With 65% having an income of less \$12,000, 29% reported being very often financially unstable for basic necessities. Before this study, 61% of the women had not heard of PrEP. Most of the women (99.4%) reported having never taken PrEP, while 62% indicated an intention to start PrEP in the next 3 months. A small proportion (11.9%) of the women heard of PrEP from their healthcare provider and 53.2% agreed if PrEP was offered at their clinic visit it would be easier to start. Two thirds of the woman described that it would be hard to start PrEP if they had to pay for it; 17.7% of the women knew someone was taking PrEP to lower their chances of getting HIV; and 63% strongly agreed that PrEP would reduce their chances of getting HIV. Of the women, 60% strongly agreed that if they started PrEP, they would have more control protecting themselves against HIV.

Conclusions/Implications: Knowledge of PrEP among women at risk for HIV prevention is low, with 61% of women having not even heard of PrEP. Given that 62% reported an intention to start PrEP in the near future, women-tailored interventions should be developed and evaluated to increase awareness and uptake of PrEP among high-risk women. The missed opportunities by healthcare providers warrant additional PrEP education in healthcare settings, with women agreeing that it would be easier to start PrEP if it was offered. Education that is reinforced by some form of documentation that the discussions are occurring between patients and doctors will provide accountability.

BP67

Abstract 6011 - Young men's access to care and health (YMATCH): a pilot study

Author(s): *Jori Mansfield, Celia Lescano, Maria Enriquez-Bruce, Diane Straub, Patricia Emmanuel*

Background: MSMs account for 70% of new HIV infections each year; 27% of these infections occur in young adults. Disparities in access to care occur frequently in sexual and racial minorities. The Ybor Youth Clinic was established as a place for youth, aged 13-25 to seek care in a nonjudgmental environment. The YYC offers free HIV and STI testing as well as preventative care with PEP and PrEP. The goal of this pilot study is to understand the population of young high-risk MSMs seeking care at the YYC, test the feasibility of this study and verify the validity of survey questions to be used in this population.

Methods: This is a single cross sectional prospective health assessment including medical and behavioral assessments. Young men accessing care at YYC were recruited and screened for MSM behaviors to include anal intercourse. After consent, participants completed a computer-based behavioral health survey (ACASI) delivered in both visual and audio formats. Participants were offered free STI testing and given a physical exam. Additional information was abstracted from medical records. The survey consisted of scales adapted from research in the field. These include the Rosenberg Self-Esteem scale (RSES), the Measure of Internalized Sexual Stigma for Gay Men (MISSG), the Brief Symptom Inventory (BSI), Self-Efficacy for Condom Use (SEC), Self-Efficacy for HIV Prevention (SEH), among others. These scales have been used in previous studies but not combined and delivered to a high-risk adolescent MSM population.

Results: Fifty-seven total (T) patients were enrolled: 37 HIV negative (N) and 20 HIV positive (P). Mean age was 21.5±. 44% of participants tested positive for STIs; half of this group tested positive for multiple STIs. On a series of questions, approximately 10% (T) reported transactional sex or physical or sexual abuse by a partner. Daily cigarette use was reported in 24.7% (T). Full-time employment status was 50.9% (T), 65% (P) and 43.2% (N), and insurance coverage was 50.9% (T), 95% (P) and 27% (N). Additionally, 28% (T) reported a past attempt to take their own life. Of these, about half of the incidents were serious enough to require medical attention. Cronbach's alphas were computed for the scales. The BSI alpha was .928, MISSG was .896, RSES was .847, SEC was .905, and the SEH was .824. These scores reflect a high level of internal validity.

Conclusions/Implications: The results of the pilot study show that we are reaching a high-risk population of young MSM based on STI's and medical history. The survey scales have high internal validities. High risk sexual behavior has been shown to be positively correlated with both internalized and enacted sexual stigma in the older MSM population. This will be explored in this population. This assessment can assist in creating targeted HIV prevention materials for MSM youth.

BP68

Abstract 6048 - Evaluation of three measures of PrEP adherence used in a PrEP intervention trial implemented among black MSM and transgender women (TGW) in Harlem

Author(s): *Justin Knox, Hugo Ortega, Paul Colson, Frieda Winterhalter, Yingfeng Wu, Yael Hirsch-Moverman, Julie Franks, Wafaa El-Sadr*

Background: With the scale up of Pre-Exposure Prophylaxis (PrEP) in community clinics serving populations at risk for HIV, measuring PrEP adherence is an important issue. In a trial comparing an enhanced PrEP (EPrEP) adherence package to standard of care (SOC) among Black Men who have Sex with Men (MSM) and Transgender Women (TGW) in Harlem, we used three different measures of adherence: self-report (SR), medical adherence and dried blood spots (DBS) collection, which has been shown to have high feasibility and acceptability in PrEP demonstration projects.

Methods: A total of 204 participants (194 MSM and 10 TGW) were enrolled, randomized to EPrEP or SOC PrEP, and followed for one year. Interviews at 6-months and 12-months assessed SR adherence, defined as ≥87% adherence based on a linear transformation of 3 adherence questions. Medical adherence was measured as the count of medical visits attended and medication pick-ups (bottles). DBS

specimens were extracted from routine blood draws collected at lab visits and analyzed for tenofovir diphosphate (TFV-DP) levels. Optimal adherence was defined as TFV-DP ≥ 700 fmol/punch.

Results: Using SR, 28 (27.7%) in the EPrEP group were adherent at 6-months, compared to 26 (25.3%) in the SOC PrEP group ($p=.69$). At 12-months, 23 (20.8%) in the EPrEP group were adherent, compared to 19 (21.2%) in the SOC PrEP group ($p=.44$). The mean number of medical visits attended was 3.7 and the mean number of medication bottles picked up were 8.1; there was no difference by study arm ($p= 0.61$ and $p=0.32$, respectively). DBS were collected among 46 (35.9%) participants at 6-months and 47 (35.6%) participants at 12-months. The sensitivity and specificity of DBS compared to SR adherence at 6-months were 60.9% and 73.9%, respectively and at 12-months were 45.5% and 88.0%, respectively. There were 6 false negatives at 6-months and 3 at 12-months. Challenges to effectively implementing DBS included participant acceptability and incorporating DBS collection procedures in a busy urban clinic setting.

Conclusions/Implications: No difference was noted in PrEP adherence between EPrEP and SOC PrEP using 3 different measures. These findings indicate the need for additional work to enhance PrEP adherence among black MSM and TGW, as well as potential challenges in assessing adherence when scaling up PrEP.

BP69

Abstract 6064 - The Importance of intimate partner support for women considering PrEP

Author(s): *Anne Teitelman, Gabriella Jackson, Hong-Van Tieu, Bridgette Brawner, Annet Annet Vogel, Jacqueline Bannon, Beryl Koblin*

Background: Women made up nearly 20% of new HIV diagnoses in the U.S. in 2016. Diagnoses rates are 20 times higher for black/African American women and 4 times higher for Hispanic/Latina women, compared to women of other races and ethnicities. Oral PrEP is an efficacious, self-administered, woman –controlled, HIV prevention product. Yet only a small fraction of women eligible for PrEP are taking the medication. Continued under utilization of this life-saving intervention for women at risk for HIV will likely lead to an exacerbation of inequities in HIV, and heightened morbidity and mortality among poor and minority women in the U.S. Little research has been done on the role of intimate partners for women considering PrEP. Although taking PrEP does not require partner cooperation, intimate partners may influence the uptake of PrEP among women. The objective of this study was to describe the role of intimate partner support for women considering PrEP.

Methods: We enrolled 41 high risk, PrEP-eligible women between the ages of 18 and 55 in New York City and Philadelphia, PA. We conducted semi-structured interviews and a brief health and demographic survey. Descriptive statistics were used to summarize the survey data. Grounded theory approaches were used to analyze the transcribed interviews. Open coding techniques were used to code text related to partners as support systems. Coding was compared and discrepancies were rectified. Any code not directly related to intimate partner support was eliminated from consideration. We identified patterns and themes by comparing data within and across coded transcripts. Data analysis was conducted using NVivo11 software.

Results: Eight in ten women reported not having enough money for food, rent or utilities in the past 3 months (once in a while to fairly often). Half had more than one sexual partner in the past 6 months, 69% had not used a condom the last time they had vaginal sex and 66% had a current primary male partner. A majority (64%) reported ever experiencing intimate partner physical violence and 48% had ever experienced forced sex by a partner. Three main themes arose from the interview data: 1) A partner's approval or disapproval plays a major role in a woman's consideration to use PrEP, 2) Women would be more likely to consider an HIV positive partner if taking PrEP, and 3) A partner's negative perception / fear of HIV, and related stigma, would make it difficult to adhere to the medication.

Conclusions/Implications: Intimate partner support—or lack of support—is a key factor in PrEP consideration for at-risk women. Women highlighted the importance of partner support when making health decisions and believed if a partner supported the use of PrEP they would be more likely to take it. However, if a partner disapproved of PrEP, they would be more hesitant to take the drug. Women indicated that intimate partner violence could negatively impact PrEP use. With a better understanding of the role of intimate partner support in women's consideration of PrEP, we can design interventions for PrEP uptake and adherence among at-risk women.

BP70

Abstract 6079 - Steady male partner network correlates of forced sex among black women at increased risk for HIV in Baltimore, MD

Author(s): *Jamila Stockman, Kiyomi Tsuyuki, Gundersen Kristin, Jacquelyn Campbell, Abby Rudolph*

Background: Forced sex, defined as unwanted sex through physical force or threats, is an established risk factor for HIV acquisition. Forced sex has been linked to women's reduced ability to use protection and higher risk behaviors among women and their male partners—some of whom are violent. High risk sexual networks also increase women's risk for HIV acquisition. Research has yet to examine how steady sexual partners' attributes may differ for women who have and have not experienced forced sex. We examined the associations between network characteristics of steady sexual partners and forced sex history since the age of 18.

Methods: Between 2015 and 2018, Black women aged 18-44 years were recruited from STD clinics in Baltimore, Maryland, USA into a retrospective cohort study on sexual assault and HIV risk. Eligible women (n=183) were classified as exposed (n=68) or unexposed (n=115), based on whether or not they experienced forced sex after age 18. Using an audio computer-assisted interview, women were asked to report demographic and relationship-level questions on up to 5 male steady sexual partners within the past year. The 183 eligible women reported a total of 363 recent steady male partners. Log-binomial regressions with generalized estimating equations were utilized to compare the network characteristics of recent steady male partners of exposed women (n=137) to those of unexposed women (n=226).

Results: The average participant age was 25 years and the average steady male sexual partner was 27 years. Controlling for women's age, education, employment, and housing status, steady male partners of the women who experienced forced sex were more likely to experience the following in the previous 6 months: a male sex partner (adjusted relative risk ratio [ARRR]=1.61; 95% CI: 1.00, 2.80), another female partner (ARRR=1.31; 95% CI: 1.12, 1.54), a sexually transmitted infection (ARRR=1.46; 95% CI:

1.11, 1.94), injected drugs (ARRR=2.58; 95% CI: 1.29, 5.14), and snorted, sniffed, or smoked illicit drugs (ARRR=3.03; 95% CI: 1.60, 5.74), compared to steady male partners of women who did not experience forced sex. In addition, steady male partners of the women who experienced forced sex were more likely to use drugs or alcohol immediately before or during vaginal sex within the past 3 months (ARRR=1.77; 95% CI: 1.39, 2.26), have spent time in prison during the past five years (ARRR=1.63; 95% CI: 1.12, 2.39), and were HIV-positive (ARRR=2.03; 95% CI: 1.14, 3.61) compared to steady male partners of women who did not experience forced sex.

Conclusions/Implications: Study findings provide evidence that steady male partners of women with experiences of forced sex engage in risky behaviors, further compounding women's risk for HIV acquisition. Interventions that educate abused women about partner selection as it relates to HIV risk are urgently needed to reduce HIV risk among this marginalized group.

BP71

Abstract 5280 - Are current PrEP indication guidelines appropriate for trans MSM?: Findings on PrEP eligibility from a national study of trans MSM in the U.S.

Author(s): Chiara Moore, Andrew Asquith, Kenneth Mayer, Dana Pardee, Gal Mayer, Sari Reisner

Background: Some trans masculine people who have sex with cisgender (non-transgender) men (trans MSM or TMSM) may be at-risk for HIV infection, and therefore candidates for PrEP. It is not known whether current PrEP indication guidelines are appropriate for TMSM, making it potentially difficult for providers to assess PrEP eligibility.

Methods: Between November-December 2017, a U.S. national sample of TMSM completed an online survey recruited via participatory population methods (e.g., peer-to-peer linkages, dating apps, social media). Self-reported sex (with or without a condom) with a cisgender male sex partner in past 6 months was an eligibility criterion; however, participants reported diverse gender of sexual partners and risks for HIV acquisition. The CDC PrEP indication guidelines for “heterosexual” and MSM were applied to identify TMSM who were PrEP-indicated. Additionally, through a review of research literature, clinical provider input, and community feedback, we developed and applied a more gender-neutral algorithm. Prevalence of PrEP indication was calculated and the results from different algorithms were descriptively compared. The data analytic sample was comprised of 629 HIV-negative or HIV status known respondents who had complete records and were not currently on PrEP.

Results: Overall, 65.8% were PrEP-indicated – 64.7% using the CDC’s “heterosexual” criteria and 44.8% using the MSM criteria. Our gender-neutral algorithm identified 57.7% of the sample as PrEP-indicated. Participants who were PrEP indicated per the CDC guidelines and not PrEP-indicated by our gender-neutral algorithm all reported sex with both cisgender males and females in the last 6 months; many also reported sex with transgender sexual partners. Those PrEP-indicated by the gender-neutral algorithm and not PrEP-indicated by CDC guidelines (for MSM and heterosexual people) were PrEP-indicated due to engaging in condomless receptive sex, inconsistent condom use with a partner of unknown HIV status, or bacterial STI diagnosis in the last 6 months – most of these participants were excluded from the CDC PrEP indication due to being “monogamous.”

Conclusions/Implications: Current PrEP indication guidelines are difficult to apply and may not be appropriate for TMSM. Findings highlight the potential need for more gender-neutral PrEP algorithms which focus on identifying sexual risk of HIV acquisition. Future research should be done to consider gender of sexual partners in PrEP indication, including inclusion of transgender partners.

As described above, we developed an expanded and more gender-neutral algorithm, which was applied for this analysis. The alternative guidelines are as follows:

Adults or adolescents who weigh at least 35 kilograms (77 pounds)

- Without acute or established HIV infection
- Any sex in past 6 months
- Not in a stable relationship with recently tested, HIV-negative partner(s)

AND at least one of the following

- Condomless receptive anal or vaginal/frontal sex in the last 6 months
- Inconsistently uses condoms during sex with partner(s) of unknown HIV status
- Is in an ongoing sexual relationship with an HIV-positive partner
- A bacterial STI (syphilis, chlamydia, gonorrhea) diagnosed or reported in past 6 months

Our proposed PrEP algorithm may distinguish sexual risk for HIV acquisition among transgender sexual minorities while maintaining clinical usefulness.

BP72

Abstract 5306 - HIV/AIDS education in school and sexual risk among adolescent sexual minority males, 3 U.S. cities, 2015

Author(s): *Taylor Robbins, Mingjing Xia, Cyprian Wejnert*

Background: In 2016, more than 90% of HIV diagnoses among young men aged 13-19 years were attributed to male-male sexual contact. Previous studies have found that school-based sex education is an effective strategy for reducing HIV-related risk, however, evidence-based HIV prevention programs are not universally taught in US schools. Less than half of US states mandate both sex education and HIV education and only 8 states require that it be culturally appropriate and unbiased. Using data from National HIV Behavioral Surveillance for Young Men Who Have Sex with Men, we examined the association between HIV infection or AIDS education in school and condomless anal intercourse (CAI) among adolescent sexual minority males (ASMM).

Methods: ASMM ages 13 through 18 were recruited for interview in 3 cities (Chicago; New York City; Philadelphia) via at least 1 of 3 sampling methods: venue-based sampling (VBS), respondent-driven sampling (RDS), and Facebook sampling (FBS). Participants were asked whether they had condomless anal intercourse (CAI) with a male in the past 12 months and whether they had ever been taught about AIDS or HIV infection in school. We estimated adjusted prevalence ratios (aPR) and 95% confidence intervals (CI) for CAI in the past 12 months conditional on HIV/AIDS education in school among ASMM. We used log-Linked Poisson regression with robust standard error to examine this association.

Results: Overall, of the 569 ASMM in our sample, 478 (84%) reported ever being taught about HIV infection or AIDS in school and 231 (41%) reported CAI in the past 12 months. Among ASMM who reported learning about HIV infection or AIDS in school, 180 (38%) reported CAI compared to 51 (57%)

ASMM who reported that they were not taught about HIV infection or AIDS in school (aPR: 0.66, CI: 0.48-0.91). There were no statistical differences by age or race.

Conclusions/Implications: HIV/AIDS education in school appeared to be protective against CAI in our sample of ASMM. However, neither causality, temporality, nor education content could be assessed in this analysis. While 34 states and the District of Columbia mandate HIV education, many are not required to cover information on condom use and a majority allow parents to remove their children from classroom instruction. Further research is needed to assess whether HIV education specifically covering condom use would yield a stronger association. Our findings suggest that exposure to HIV/AIDS prevention education in school settings may be associated with reduced sexual risk among ASMM.

BP73

Abstract 5338 - Condom distribution in 61 CDC-funded state and local health departments, 2012-2016: trends and contextual factors

Author(s): *Renee Freeman, Erica Dunbar, Mesfin Mulatu, Peter Dakutis*

Issue: CDC's High-Impact Prevention (HIP) approach supports national HIV prevention goals of reducing new HIV infections, increasing access to care and improving health outcomes for people living with HIV, and reducing HIV-related disparities and health inequities. Consistent condom use is an effective HIV risk-reduction intervention. Condom distribution programs are efficacious structural interventions that help increase condom use by improving the availability, accessibility, and acceptability of condoms to populations at risk for acquiring or transmitting HIV infection.

Setting: Condom distribution activities occurred in the 61 state and local health departments (HDs) funded by CDC for HIV prevention under PS12-1201: Comprehensive HIV Prevention Programs for Health Departments. This included HDs in all 50 states, eight cities with a heavy HIV burden, the District of Columbia, Puerto Rico, and the U.S. Virgin Islands.

Project: PS12-1201 required HDs to implement HIP programs, including condom distribution targeted to HIV-positive and high-risk HIV-negative persons. This process evaluation addressed three key questions using qualitative (from Year 1 and Year 5) and quantitative program data (from Year 1 through Year 5). First, to what extent did funded HDs achieve their annual condom distribution objectives? Second, to what extent did funded HDs increase condom distribution from Year 1 through Year 5? Third, what contextual factors influenced program implementation, including challenges encountered and facilitators to success? Jurisdictional Program Plans and Annual Progress Reports submitted by 61 HDs funded under PS12-1201 from January 1, 2012, through December 31, 2016, were used to evaluate jurisdictions' progress toward achieving annual condom distribution objectives. Quantitative trend data will be presented along with supporting qualitative programmatic data on successes and challenges with condom distribution.

Results: Overall, the number of condoms distributed increased by about 12% from over 110 million in Year 1 to over 123 million in Year 5. Forty HDs (66%) achieved or exceeded their annual condom distribution objectives by full implementation in Year 5. Facilitators to successful implementation included careful program planning and technical assistance trainings, the use of social marketing

campaigns, availability of free condoms, and establishment of partnerships with the community and stakeholder organizations interacting with the target population. Challenges included lack of funding for condoms, venue-related issues, data collection and tracking issues, staffing issues, and condom shortages that hampered services.

Lessons Learned: HD data shed light on several facilitators to achieving success in condom distribution program, as well as some challenges in implementation. Condom availability and effective data tracking were among the top facilitators. Tracking condom distribution was also one of the biggest challenges, as was having specific client-preferred types of condoms available. This assessment helped identify areas for program improvement and technical assistance needed to address potential challenges. Potential areas of technical assistance include addressing cultural barriers in venues, developing data collection systems for tracking, and identifying strategies to improve condom availability. By using a mixed methods approach, this evaluation presented quantitative findings with qualitative information that improved our understanding of the context of the condom distribution programs.

BP74

Abstract 6169 - “But it runs counter to everything I have been told:” receptivity to treatment as prevention messages among individuals at disproportionate HIV transmission or acquisition risk

Author(s): *Jocelyn Taylor, Jo Ellen Stryker, Jennifer Uhrig*

Background: Recent research has demonstrated the tremendous potential of HIV treatment for the prevention of sexual HIV transmission, sometimes called “Treatment as Prevention” (TasP). Four landmark studies found no linked HIV transmissions between mixed HIV-status couples when the partner with HIV was taking antiretroviral therapy (ART) and had a suppressed viral load, despite having sex without using condoms or pre-exposure prophylaxis (PrEP). Communicating the benefits of TasP requires translating the science into effective messages for people with HIV (PWH) and other audiences at disproportionate risk for transmission or acquisition. We examined comprehension of and receptivity to messages describing the benefits of TasP for preventing sexual transmission and investigated salient beliefs that may increase message receptivity.

Methods: In August and September 2018, we conducted semi-structured, one-hour, in-person interviews with individuals aged 18-64 in six cities (N=138). Eligible participants were either currently or recently in a mixed HIV-status partnership or reported having more than one sexual partner in the past year. We oversampled gay, bisexual, or other men who have sex with men (MSM), PWH, and black or African American and Hispanic or Latino individuals. Interviewers guided participants through two messages: the first defining TasP terminology and the second explaining the findings of landmark scientific studies. Participants then viewed a risk quantification statement, followed by five belief statements generated from previous message testing research. We used an inductive approach to code qualitative data.

Results: Participants responded favorably to messages that were short and easily understandable, aligned with existing knowledge, or perceived as hopeful or reassuring. Negative reactions included mistrust in definitive statements about TasP that omitted caveats (e.g., viral blips, adherence challenges) and counter-arguments when messages were misaligned with participants’ understanding of

transmission risk. The majority of participants understood and responded positively to the summarized scientific findings. However, receptivity varied for the risk quantification statement translating the science into a definitive, plain-language message. Just over half of participants believed the message, and about a quarter indicated that the message described a transmission risk greater than zero. Of the five belief statements added to the risk quantification statement, the belief that a mixed HIV-status couple may combine TasP with other prevention strategies was most appealing and believable. The statement that PWH “do not need to worry about transmitting HIV to a sex partner” was most endorsed as increasing comfort with mixed HIV-status sexual relationships, and PWH indicated this belief was motivational for treatment adherence. Participants were less receptive to statements indicating that TasP is more effective than condom use or describing TasP as novel for providers.

Conclusions/Implications: Effective TasP communications must do more than translate scientific information into plain-language messages. TasP messages may contradict long-standing beliefs about transmission, which may lead to counter-arguments and message rejection. To promote the uptake of TasP for PWH and other key audiences, messaging strategies may include acknowledgement of TasP caveats and coupling TasP with established prevention strategies, such as condom use.

BP75

Abstract 5421 - Rigorously using evaluation strategies to improve reach and focus of new media outreach

Author(s): *Anthony Freeman, Nancy Nancy Morisseau, Stephen Jean III, Lucila Lopez-Bloise, Carolina Alcala, Zoe Edelstein, Jessica Klajman, Jaime Martin*

Issue: New media, including mobile technologies and social networking sites, are being used increasingly in HIV prevention. Community-based organizations (CBOs) are poised to leverage this novel strategy as another tool to engage the clients they already serve and to expand their reach to priority populations more broadly. But strategies to evaluate the success of such activities have lagged behind scale-up. To support funded agencies in their use of new media, the New York City Health Department (HD) developed several strategies to monitor and evaluate use of new media for HIV prevention outreach with the goal of increasing capacity through data-driven technical assistance (TA) to HIV prevention programs.

Setting: In 2016, the NYC HD launched the PlaySure Network (PSN), a formal collaborative of CBOs, testing sites and clinical sites, to facilitate knowledge of and access to comprehensive HIV prevention services, including linkage to and provision of PrEP/PEP. Seventeen PSN CBOs were funded to conduct new media outreach.

Project: In collaboration with PSN CBOs and other stakeholders, the NYC HD piloted a new media data log to monitor new media outreach activities. The tool was piloted March-September 2017 to test the feasibility of core indicators for new media activities. Other standardized strategies included the formation of a HD social media working group, a content calendar to assist agencies with new media content planning and staffing allocation, and timely review and analysis of new media data logs to provide immediate recommendations to PSN CBOs.

Results: The new media evaluation pilot resulted in monitoring data focused on six main indicators (stratified by type of platform/activity): 1) total number of posts; 2) total estimated number of people reached; 3) total people engaged with posts (e.g., likes, comments, shares); 4) total number of interactions (e.g., direct messages); 5) total number of people who received referrals resulting from new media platforms; and 6) click-through rate (paid ads only). To improve data quality, the NYC HD compiled aggregate data to identify incomplete, inaccurate, or missing data and worked with underperforming agencies to develop improvement plans.

After the initial pilot period, feedback from staff and funded agencies were solicited and changes were incorporated that focused on refining indicators and improving usability and flexibility of the data log. An updated log was distributed to PSN CBOs in October 2017. The presentation will share preliminary findings and discuss providing comprehensive TA by offering a menu of support options, including capacity building assistance webinars and learning collaboratives.

Lessons Learned: Collecting and analyzing aggregate new media monitoring data was critical in supporting funded agencies. Evaluation strategies were useful in both 1) helping CBOs complete their new media activities; and 2) helping HD staff gauge whether agencies were meeting their specific goals. An iterative process, including data quality checks, performance reviews, and development of improvement plans facilitated progress toward increased new media activity on key indicators. Moving forward, we will build on this robust TA model and support agencies to increase capacity to conduct new media outreach with the goal of engaging more persons who could benefit from messages and services related to HIV prevention.

BP76

Abstract 5500 - Opportunities for HIV prevention: PrEP implementation in a multi-site federally qualified health center setting

Author(s): *Nancy Glick, Taylor Parsigian, Danielle Lazar*

Background: Currently, the most common biomedical intervention for HIV prevention has centered on the use of emtricitabine-tenofovir (truvada). In the United States many people who are currently utilizing truvada for PrEP are not in the highest risk groups including African American (AA) young men who have sex with men (MSM) and AA cisgender heterosexual women. Ongoing efforts are important to find high-risk individuals, educate on PrEP and initiate therapy. Federally Qualified Health Centers (FQHCs) are in a unique position because they are often located in communities that serve high-risk individuals.

Methods: Access Community Health Network (ACCESS) is a network of 36 FQHCs in the Chicago metropolitan area, serving more than 183,000 patients annually. Many of the health centers sit in community areas with the highest incidence of HIV. In 2014 ACCESS incorporated PrEP into the scope of services, training providers who were interested in providing PrEP on how to prescribe it, creating EMR alerts for patients considered high risk and providing educational material on PrEP for patients who came through the health system. The following year, trainings were done to expand services to all 36 sites, including intensive trainings for clinician champions.

Results: In the year following large format PrEP training, the number of providers prescribing PrEP increased from 16 to 62 providers. After individual health center trainings and focused interaction with the PrEP specialist, prescriptions increased from 62 to 103 over two years.

Conclusions/Implications: Provision of HIV prevention services is important for communities that have been hard hit by the HIV epidemic. Community based, primary care health centers provide the opportunity to locate patients who are at risk for HIV but may not know about PrEP or do not feel comfortable seeking services outside of their community. Educating providers already embedded in communities is an important component of HIV prevention efforts.

BP77

Abstract 5509 - What's the Tea Sis? Candid conversations with black women about HIV/AIDS prevention in Georgia

Author(s): *Rochelle Rich, Brooke Mootry, Jamila Ealey, L Lyons*

Issue: In 2016, an estimated 1.6 million Black women reside in Georgia, which comprises about 32% of the total female population, however, they account for 74% of new diagnosed HIV/AIDS cases reported (Department of Public Health HIV surveillance, 2016). Traditional HIV prevention methods have focused on individual behavior risk reduction strategies which have yielded limited results. Research has shown that the increased HIV infection rates among Black women are not driven by riskier sexual behaviors, but associated with structural and social factors that increase Black women's susceptibility to HIV infection. The Office of HIV/AIDS at the Department of Public Health set out to learn Black women's thoughts and perceptions around the state about the HIV/AIDS epidemic in their communities and learn what actions can be taken to change this narrative. Feedback from women will be used to inform prevention strategies and messaging that speak directly to implementing real world solutions aimed at reducing new HIV infections and improving the lives of Black women living with HIV.

Setting: Georgia Department of Public Health conducted 5 focus groups with the assistance of 2 community based organizations, 1 private medical care provider, and 1 local health department. The partnering entities provided direct services to women and covered subjects areas of economic and education advancement, peer support and/or medical care.

Project: In January 2018 four community focus groups were conducted partnering with four organizations that primarily serve Black women. A total of 54 participants were recruited to complete a focus group and community needs assessment. The women were led through a semi structured set of questions addressing basic HIV knowledge, Pre-Exposure Prophylaxis (PrEP) knowledge and acceptability, provider interactions, stigma, discrimination and prevention.

Results: The major findings identified 4 primary areas of interest among women which included: 1) HIV and PrEP knowledge, 2) knowledge on the intersection of economic status and HIV risk, 3) social networking and building self-efficacy, and 4) enhanced provider communication. Black women in Georgia have a strong desire to improve their knowledge about HIV and other sexual health preventive methods, which is evidenced by their request for educational training and tools to address the social and

structural challenges that impact their community HIV risk. The women want to experience tailored HIV prevention methods that are specific and authentic to their communities.

Lessons Learned: Major themes and findings from the focus groups speak to the complex HIV prevention needs of Black women. Those needs should address the influence of sexual health communication, faith in the Black family, stigma and mental health. Specific recommendations for strategies and activities include: providing HIV education in conjunction with other services such as co-morbidity education, peer support, interventions focused on incarcerated partners, and economic empowerment. Implications from the focus groups have informed programmatic development to be incorporated into a statewide strategic plan and been substantial in identifying activities targeted to Black women living with or at increased risk for HIV.

BP78

Abstract 5530 - PrEP uptake and retention over one year in a New York City sexual and reproductive health services setting

Author(s): *Kate Collier, Lisa Colarossi, Kimberly Sanders*

Background: Community-based sexual and reproductive health (SRH) and family planning providers offer a specialized service delivery model that is key to reaching HIV-vulnerable women and providing them with comprehensive HIV/STI prevention services, including PrEP. Yet most research to understand real-world PrEP delivery has focused on STD clinic and community health center contexts, with research from SRH/family planning settings limited to study of individual providers' knowledge of and attitudes toward PrEP. To expand knowledge of PrEP implementation in SRH/family planning settings, we conducted a descriptive study of PrEP uptake and retention in PrEP care by patients at Planned Parenthood of New York City (PPNYC) over a one year period. PPNYC provides SRH services at five health center locations, operates a mobile medical unit in high-need neighborhoods, and has offered PrEP in at least one location since late 2016.

Methods: We used a diagnosis code to extract data on PrEP patients from our electronic medical record system into Excel, then cleaned the dataset to include only records on patients who received an initial prescription for PrEP from PPNYC between 4/1/2017 and 3/31/2018 (N = 150). Data on additional visits by these 150 patients through their third quarterly PrEP follow-up appointment (n = 128 quarterly PrEP follow-up visits and n = 14 additional visits), 9 months after PrEP initiation, were incorporated into the dataset. Data were quantitatively coded and further analyzed using SPSS. We conducted logistic regression to assess factors (e.g., age, gender) potentially associated with continuation of PrEP care at 3 months.

Results: Most patients who initiated PrEP at PPNYC during the review period were cisgender men (77.3%) and between the ages of 20-29 (61.3%), with a mean age of 27.98 years (SD = 6.68). Forty-one percent were non-Latino white, 28.0% Latino, 20.7% non-Latino black, 6.0% Asian, and 4.6% of other or unknown race/ethnicity. In terms of HIV risk factors, most were either male-identified (67.8%) or female-identified (18.5%) with male sexual partners. A significant minority (42.6%) reported ever being diagnosed with an STI and 12.7% had a positive STI result at their initial PrEP visit. Roughly two-thirds (64.0%) resided in NYC neighborhoods with elevated HIV prevalence relative to the city overall. Of those

patients due for follow-up appointments at 3, 6, and 9 months, respectively, 65.3%, 81.4%, and 76.2% attended. All who attended their appointments and received follow-up HIV testing remained HIV-negative. Logistic regression analyses showed that although gender was not significantly associated with attendance at the 3-month follow-up visit, female-identified patients were 7.69 times less likely (95% CI: 1.69-33.33, $p = .01$) to receive a refill prescription for PrEP than were male-identified patients.

Conclusions/Implications: Findings suggest the need for focused interventions to reach female-identified patients and patients of color with PrEP, in a manner more closely proportional with their representation among the PPNYC patient population and in the NYC HIV epidemic. Additional support to promote retention may be especially critical for patients as they get started on PrEP, to increase knowledge of and comfort with biomedical HIV prevention and to counteract stigma.

BP79

Abstract 5622 - Passport to Wellness pilot intervention trial for black MSM

Author(s): *Nina Harawa, Charles McWells, Charles Hilliard, Ricky Bluthenthal*

Background: We developed and tested the Passport to Wellness (PtW) intervention to improve engagement with the HIV prevention continuum among Black MSM (BMSM) using peer mentors, incentives for service utilization, and client-centered wellness plans (called Passports). We measured the effectiveness of PtW on HIV/STI testing and PrEP/PEP knowledge/uptake using an RCT design.

Methods: We recruited BMSM from a wide range of venues in Los Angeles, California. Consenting participants completed in-person computer-based interviews with interviewer- and self-administered portions at baseline and six-month follow up. A preliminary analysis of intervention effectiveness was conducted examining changes over time across groups and differences between the PtW and control groups (Incentives+Passport+Peer Mentor vs. Incentives+Passport) at follow-up. Paired t-tests of dependent proportions were used to examine temporal changes across groups. Logistic regression was used to compare the full intervention and control groups at six months follow-up,

Results: We screened 388 participants between October 2015 and April 2017, 161 of whom were preliminarily eligible and 105 interviewed. However, 13 of these were found to be ineligible based on their survey responses and 3 were dropped or withdrawn later because they indicated being ineligible or threatened staff members. This left 89 enrolled and eligible participants, lower than the number needed for a fully powered trial. A majority (61%) were 45+ years; 54% self-identified as homosexual, gay, or same gender loving and 46% as bisexual or with other/no labels. Their socioeconomic was quite low (21% employed, 74% with monthly incomes below \$1000, 48% currently homeless). Most (61%) had not received HIV testing in the prior 12 months; 41% had not heard of PrEP; 93% had never used PrEP; and 80% had never attended a PrEP educational session.

The overall six-month follow-up rate was 78% (PtW group: 81%; Control group: 74%). HIV testing within the prior three months increased from 24% at baseline to 71% at six-month follow-up ($p < 0.05$); STI testing from 20% to 67% ($p < 0.05$). Statistically significant overall increases also were observed for having heard of PrEP and PEP and for having attended an educational session or consultation regarding PrEP. Near significant differences between treatment groups, with a strength of odds ratios=2.0 or greater, were found for STI testing in the prior three (OR=2.5 95% CI 0.89-7.2) and six months (OR=3.1 95% CI

0.84-11.8) and for having heard of PrEP (OR=2.4; 0.7-8.5) and having attended a PrEP educational program (OR=2.4; 0.7-8.5) but not for currently taking PrEP (OR=1.4, 95% CI 0.30-6.2). Further analyses to address missing data and potential residual confounding after randomization are in process.

Conclusions/Implications: Given the significant changes observed over time, this pilot trial shows support for the Passport to Wellness intervention elements – personalized wellness plans, incentives, and peer support. Though not significant, the substantial differences between treatment groups point to the unique and potentially potent support that peers can offer in moving Black at-risk MSM along the HIV prevention continuum.

BP80

Abstract 5681 - Prepping providers for pre-exposure prophylaxis (PrEP) implementation: preliminary findings from California Office of AIDS' (OA) local site evaluation of Project PrIDE PrEP training activities

Author(s): *Kolbi Parrish, Hannah Johnson, Sheryl Williams*

Background: Annually, approximately 5,000 Californians are newly-diagnosed with HIV infection. PrEP is a daily pill individuals at high risk for HIV can take to lower their chances of being infected with HIV. Yet, AIDVu estimated only 10,487 Californians in 2016 were on PrEP. Improving PrEP uptake can reduce new HIV infections. Achieving optimal PrEP uptake will require an adequate supply of medical providers willing and able to prescribe PrEP. Using Centers for Disease Control and Prevention PS15-1506 (Project PrIDE) funds, OA supported activities designed to educate medical providers about PrEP. This presentation will highlight evaluation methodology and preliminary findings.

Methods: A retrospective pre-post training questionnaire was distributed to prescribing and non-prescribing provider attendees immediately following Project PrIDE-supported PrEP training events. Prescribing attendees included medical doctors and nurse practitioners. Non-prescribing attendees included other clinic staff such as medical assistants and patient navigators. Four local Project PrIDE grantees submitted training evaluation data to OA. OA analyzed demographic characteristics of training attendees and conducted a series of Wilcoxon signed-ranks tests to compare pre and post training ratings of key metrics among prescribers and non-prescribers. A content analysis was conducted to evaluate provider experienced or anticipated barriers to referring / navigating clients to or prescribing PrEP.

Results: Training evaluation data for the first two years of the project included responses from 44 prescribers and 80 non-prescribers. Wilcoxon signed-ranks tests indicated that overall median post-test scores were statistically higher than the overall median pre-test scores for the following key variables: knowledge of PrEP (non-prescribers: $Z=-6.36$, $p < .001$; prescribers: $Z=-4.99$, $p < .001$), willingness of non-prescribers to refer / navigate clients to PrEP ($Z=-6.03$, $p < .001$), willingness of prescribers to prescribe PrEP ($Z=-4.34$, $p < .001$), non-prescribers' level of confidence in successfully providing referral/navigation services to clients ($Z=-5.56$, $p < .001$), and prescribers' level of confidence in successfully prescribing PrEP to patients ($Z=-4.15$, $p < .001$). The content analysis highlighted similarities and differences in barriers experienced or anticipated by non-prescribers and prescribers regarding referring / navigating clients to PrEP (reported by non-prescribers) and prescribing PrEP (reported by

prescribers). Of non-prescribers and prescribers reporting one or more implementation barriers (n=19 and n=25, respectively), both groups reported insufficient PrEP knowledge (47.4% non-prescribers and 24% prescribers) and client noncompliance / adherence (21.1% non-prescribers and 32% prescribers) as a barrier. Non-prescribers were also concerned with risk compensation behaviors (15.8%) and lack of client interest (15.8%), while prescribers were concerned with cost / client insurance coverage (52%).

Conclusions/Implications: HIV prevention strategies aimed at increasing PrEP uptake should include a PrEP training component for prescribing and non-prescribing providers. PrEP trainings can improve prescribing and non-prescribing providers' PrEP knowledge and attitudes, which in line with the Health Belief Model (HBM), may lead to behavior change such as provider implementation of PrEP. Training content should include information and resources that address common provider- experienced or anticipated barriers to PrEP implementation.

BP81

Abstract 5723 - The New Narrative Project (2NP): an HIV prevention intervention targeting young black gay men

Author(s): *Ron Simmons*

Issue: In the US, young Black gay men (YBGM) are disproportionately HIV infected. Biomedical prevention and Treatment as Prevention are proven methods to reduce HIV transmission. However, a person must have a sense of self-empowerment to access and adhere to such methods. The New Narrative Project (2NP) is an intervention designed to build self-empowerment and resilience in YBGM.

Setting: In 2017 and 2018, 8 series of 2NP was conducted in Washington, DC, for a total of 50 YBGM, ages 16 - 29, with unknown HIV status, both on-site and in a retreat setting. All participants self-identified as Black gay men.

Project: 2NP is a two-day,12-hour HIV prevention intervention. 2NP is unique because: 1) It is based on traditional concepts about gays and lesbians taught by the Dagara people of west Africa before the coming of the Europeans, Christianity or Islam; and 2) 2NP has a holistic theoretical framework of sexual health incorporating modules about the body, mind and spirit. 2NP advocates: a) An African cultural conception of gays and lesbians and their role in society; b) A delaying of sexual intercourse; c) The accessing of HIV counseling and testing for couples; d) Risk reduction modalities (i.e., PrEP, nPEP); and e) Treatment as Prevention. 2NP is culturally responsive to young African-American gay men.

Results: Quantitative and qualitative evaluation data was collected. Pre and posttests were given for each module. McNemar's Test was employed to assess the level of significance in paired repeated-measures dichotomous data. Paired-sample t-tests were employed to assess the level of significance in mean scores. The results found that 2NP had a significant impact on participants: 1) understanding of Dagara teachings about homosexuality; 2) knowledge about PrEP dosage and adherence; 3) knowledge about structural determinants of HIV infection; 4) intentions to keep the lights on when beginning sex to check their partner for visible symptoms of STIs; and 5) intention to engage in sexual outer-course as oppose to intercourse. Qualitative responses after participating in 2NP included: "I feel more connected and less pessimistic about the black gay community" (Age 21); "I learned how to be spiritually intimate

with someone” (Age 16); “I feel more important... and a little more like I’m worth the extra effort to keep myself protected and healthy” (Age 21); “I can find ways and obtain intimacy on many levels other than sexual acts” (Age 26); “I have learned that my purpose in life is much greater than I ever thought” (Age 28); “I am equipped after [2NP] to make healthy lifestyle changes and be a better person” (Age 24); “I feel a stronger connection to my African ancestors as well as a sense of pride” (Age 25); and “I have an understanding and appreciation for the black gay male community... I have a duty to spread the word to others” (Age 25).

Lessons Learned: 2NP is effective as a HIV prevention behavioral intervention. 2NP was self-reported by YBGM participants to be empowering in terms of a positive sense of self and the Black gay community.

BP82

Abstract 5812 - Statewide HIV prevention efforts through online condom distribution and PrEP education

Author(s): Mercedes Ingram, Holly Benavides, Adrienne Henze, Marlene Burriola, Anna Taranova, Anthony Scott

Issue: Although pre-exposure prophylaxis (PrEP) has been shown to be over 90% effective in reducing the risk of contracting HIV, knowledge regarding PrEP remains low. Since the FDA approved PrEP as an effective method to prevent HIV in 2012, there have been a limited number of studies regarding PrEP knowledge and awareness. After implementing a state-wide initiative in Texas for online condom distribution and education, preliminary data showed very limited knowledge regarding PrEP. This presentation will review study methodology and initial data related to measuring PrEP knowledge and use in the second most populous state in the country. It will also address current innovative efforts to provide HIV prevention through online condom distribution and PrEP education.

Setting: Texas Wears Condoms (TWC) is funded through Texas Department of State Health Services (DSHS). TWC was originally funded to prevent HIV and STIs through condom distribution and education within one county. However, as various barriers to accessing condoms across the state became known to TWC, efforts were made to provide services and education statewide through an online format.

Project: The project implements and evaluates an innovative service delivery model aimed at: 1) increasing statewide access and use of condoms to prevent HIV; and 2) increasing awareness of PrEP. A key service delivery strategy is the use of an online condom distribution system, which offers free condoms to anyone in Texas, in efforts to increase statewide access. As part of this service, consumers are asked to complete an online survey about behavioral health risks and knowledge regarding appropriate condom use and PrEP. Once the survey is submitted, answers to the knowledge items are provided. This presentation will describe strategies used to measure knowledge regarding HIV prevention and will describe strategies used to increase condom usage and provide PrEP education.

Results: As part of a statewide effort to prevent HIV and STIs, members of the Texas Wears Condoms staff developed a measure addressing behavioral health risks and knowledge regarding HIV prevention methods. Innovative methods of providing education regarding these topics are provided to 100% of consumers who complete the electronic survey. The presentation will share preliminary baseline

findings and discuss strategies to address increasing condom usage, PrEP knowledge and use across an entire state.

Lessons Learned: Findings show awareness and use of PrEP is limited within Texas, primarily restricted to men who have sex with men and those who are living with HIV. In the wake of 16 rapidly growing clusters of HIV infections within Texas, DSHS has encouraged healthcare providers to enhance efforts to prevent, diagnose and treat HIV. TWC recognizes there are barriers to accessing HIV prevention methods and education. Learning about appropriate condom usage and broadening PrEP knowledge/use is an important facet to enabling individuals with poor access or limited means to become engaged in safer sexual health behaviors. Pioneering strategies from TWC may be applied to future programs as way to interact with hard-to-reach populations and provide new ways of increasing knowledge to a broader public regarding PrEP.

BP83

Abstract 5897 - Harnessing the popular opinion leader (POL) model to address HIV/AIDS: lessons learned from a retrospective, mixed-methods evaluation of a community-based POL program in Philadelphia, PA

Author(s): *Jamile Tellez Lieberman, Kristin Giordano, Maho Okumura, Bianca Chun, Emily Nolasco-Barrientos, Yoshiaki Yamasaki, Cristina Perez, Omar Martinez, Elizabeth Hassrick-McGhee, Ana Martinez-Donate*

Background: Peer-to-peer interventions, such as the Popular Opinion Leader Model (POL), are effective strategies to address HIV/AIDS disparities among underserved populations. POL is an HIV/AIDS risk-reduction model wherein groups of trusted, well-liked individuals are trained to conduct community outreach focusing on risk-reduction behaviors via 1-on-1 conversations with people in their networks. We evaluated a past CDC-funded POL program focused on HIV prevention implemented in Philadelphia by a community-based organization (CBO) from 2010-2015. This academic-community collaborative study sought to understand the reach and implementation of the program, as well as the perspectives and experiences of the POLs themselves. These results will inform the design of “Cultivating Resilient and Strong Opinion Leaders” (CRISOL), a new intervention which will integrate core elements of the POL model to address HIV and other syndemic health issues among Latinos in Philadelphia.

Methods: A mixed methods approach was used. We conducted descriptive, bivariate, and multivariate analyses with process data accrued by the CBO during the implementation of the program. We also conducted in-depth interviews with program staff and POLs (N=13). Interview transcripts were analyzed utilizing interpretative content analysis and using both a priori and emerging codes. Results from the quantitative and qualitative analyses were triangulated.

Results: Over a 5-year period, 279 individuals were trained as POLs, but only 62 (22.2%) reported engagement in risk reduction conversations with other community members. On average, these “active” POLs engaged in 39.8 interactions (SD=78.2). Adjusted analyses indicated that ethnicity, age, and year of training were independently associated with a POL’s likelihood of reporting risk reduction conversations. Cumulatively, POLs reported 2,431 conversations focused mostly on promoting behavior change (79.7%), social determinants of health (10.3%), and other syndemic factors, like substance use, domestic

violence, and mental health (9.9%). Conversations took place in a wide range of settings, including at the leading CBO (16.5%), churches (11.5%), other community locations (17.5%) and private residences (8.4%). POLs tended to reach individuals similar to them in age, ethnicity, and race. Their demographic profile was also significantly related to the content and location of their conversations. In general, the POL training was well received by participants and improved their capacity to disseminate healthy HIV-related messaging, their ability to dispel myths and misconceptions about HIV/AIDS, and their own professional and personal skills. POLs described challenges with community outreach following the training as they struggled to establish themselves comfortably as agents of change. POLs also reported the need for on-going support and a shared sense of community with other POLs to more effectively fulfill their roles.

Conclusions/Implications: POLs can be trained to disseminate healthy messaging to combat HIV-related risk behaviors among their peers. When implemented in real world settings, the POL model demonstrates a high level of reach and appears promising to mitigate sexual risk behaviors and promote the health of vulnerable urban communities. The model can and should be enhanced to promote POL resilience and further address other concomitant health issues and related social determinants of health.

BP84

Abstract 5929 - Paving the way for PrEP. Implications for increasing prescribing capacity in Detroit

Author(s): *Mary Roach*

Background: In 2015, Michigan Department of Health and Human Services received funding to expand PrEP services in Wayne county. Wayne County is the most populous county in the state. As of January 1, 2014, there were 7,041 persons living with HIV/AIDS (PLWH) in Wayne County, including Detroit. Sexually Transmitted Disease (STD) data provides an important indicator of men who have sex with men (MSM) who may be at risk for HIV and, therefore, a strong candidate for PrEP. In 2014, there were 210 primary and secondary syphilis cases in Wayne County; 143 of these from the city of Detroit which were predominately MSM. In addition, gonorrhea infection among individuals with HIV indicates that those most at risk for acquiring HIV have multiple infections. Identifying males, especially MSM/transgender of color, who may have repeat gonorrhea infections before they become infected with HIV is an imperative intervention opportunity.

Methods: Providers in Wayne County were selected to participate in the survey if they reported at least one syphilis and/or gonorrhea diagnosis to the Michigan Disease Surveillance System within the past two years. Providers were sent a hard copy of the survey via mail with a \$5 Starbucks gift card, and a prepaid envelope to return the survey upon completion. The survey asked about provider background, characteristics of their patient population, their experience providing sexual health services, their capacity to prescribe PrEP, and experiences prescribing PrEP (if any).

Results: This survey had a relatively high response rate of 263 health care providers from a wide variety of institutions/practices and board certifications. Findings highlighted gaps in PrEP service delivery; mainly, a lack of: taking comprehensive sexual health histories, conducting 3 site testing, willingness to oversee PrEP care. Data showed only 26% of providers test rectal and pharyngeal samples when testing

MSM. Over 50% of providers reported they do not test rectal and pharyngeal samples with MSM patients, and 15% responded “N/A, I don’t think any of my patients are MSM.” Private practice providers had the highest survey response rate for indicating they do not ask about the gender of sex partners (59%). While 64% of providers had heard of PrEP before the survey, only 42% of providers reported feeling comfortable prescribing PrEP. If a patient wanted to initiate PrEP, 72% of providers would refer the patient to another provider, as opposed to overseeing their PrEP care. Only 15% of providers who responded had prescribed PrEP.

Conclusions/Implications: Findings from this survey provided evidence to adapt a variety of MDHHS supported PrEP activities and strategies specifically for providers. Providers reported seeing patients with characteristics consistent with populations most at risk for HIV, and that their offices provide HIV testing and STD screenings. However, most respondents had not prescribed PrEP despite having heard about it. Many providers explained that they would like to have more information about prescribing PrEP, as well as educational materials for patients.

BP85

Abstract 5986 - Perceptions of pre-exposure prophylaxis (PrEP) and acceptability of peer navigation among HIV-negative Latinx and black men who have sex with men (MSM) in western Washington

Author(s): *Jahn Jaramillo, Jade Pagkas-Bather, Jsani Henry, Vanessa Grandberry, Luis F. Ramirez, Lorenzo Cervantes, Joanne Stekler, Michele P. Andrasik, Susan M. Graham*

Background: HIV PrEP (pre-exposure prophylaxis) is an effective biomedical approach for HIV prevention. However, PrEP is an underutilized resource among Latinx and Black men who have sex with men (MSM) in the United States. Peer navigation approaches are being widely scaled up to support PrEP uptake and adherence, though it remains unclear what strategies work best to effectively address the diverse social and cultural needs of Latinx and Black MSM. This study is based on qualitative research with Latinx and Black MSM residing in Western Washington who participated in an online CAPI REDCap survey.

Methods: We conducted semi-structured in-depth interviews with 21 men (14 Latinx, 7 Black) selected through purposive sampling to evaluate how lived experiences of intersectional stigmatized identities (ie, race, ethnicity, sexual orientation, and other identities) impacted men’s views on PrEP in general, and on peer navigation specifically. Thematic analysis was used to identify and analyze emergent themes.

Results: Four major themes emerged as relevant to PrEP interest and uptake: 1) disclosure concerns for bisexual/gay masculine identified men; 2) specific challenges for Latinx MSM, including migration status and need for advocacy; 3) specific challenges for Black MSM, including discrimination and lack of trust in providers; and 4) special considerations for younger men, including limited knowledge and experience discussing sexual health and an interest in more comprehensive peer intervention content. Interest in peer navigation was high among study participants, particularly for men with limited social support or English proficiency and for men who had moved from out of state or another country. Several potential approaches to improve peer navigation were identified, including developing culturally congruent programming to match peers with men based on various identity considerations and identified needs,

employing social media such as chatrooms and informational phone lines as complementary strategies, and incorporating trauma-informed care into a peer navigation program for Latinx/Black MSM.

Conclusions/Implications: Tailored peer navigation approaches may help MSM of color at the individual, community, and systems levels by increasing knowledge, promoting PrEP uptake and engagement, and supporting PrEP adherence and retention in care. These strategies could ultimately reduce racial and ethnic HIV disparities, if implemented, and have the potential to increase resilience to societal stigma, enhance social support, and connect men to providers.

BP86

Abstract 6010 - Effective use of the toolbox - quality assessment of outreach STI testing in an inner city clinic as a starting point for targeted HIV prevention

Author(s): *Isabella Lopez, Lisa Sanders, Michelle McKinney, Bernard Washington, Elizabeth Enriquez-Bruce, Diane Straub, Carina Rodriguez, Patricia Emmanuel*

Issue: Factors such as HIV testing, use of HIV medications for viral suppression and prophylaxis, condom and sterile syringe distribution programs, and diagnosis and treatment of sexually transmitted infections (STI's), coupled with educational programs and behavioral interventions have been shown to reduce the risk of HIV acquisition and transmission. However, the troubling trend of increasing infections in young gay and bisexual men and the disparity in infection rates by race and ethnicity point to the need for targeted prevention strategies.

Setting: The Ybor Youth Clinic (YYC), a non-profit, university-affiliated, inner-city clinic in Tampa, Florida, provides healthcare services at no or reduced cost to medically under-served and disenfranchised youth aged 13 to 24 in an environment tailored to them. Services include STI and HIV testing and treatment; gynecologic examinations and birth control; HIV prevention regimens; access to research protocols, and referrals to other community organizations.

Project: The YYC performs STI testing on a walk-in basis three days a week and at scheduled on and off site outreach events. In 2017, YYC outreach programs tested over 900 youth and diagnosed 6 new HIV infections. At their outreach encounter, youth receive basic information and counseling regarding testing. If testing is positive or if the patient reports acute symptoms, a clinician provides additional risk reduction counseling along with appropriate treatment. In March of 2018, we began a quality assessment (QA) of our walk-in program with the goals of:

1. Developing a database to characterize our testing population, track testing and results, and increase the efficiency of our process
2. Identifying patients at particularly high risk of acquiring HIV infection to target for more focused interventions
3. Creating opportunities for collaboration with community organizations to provide additional services, patient education, and risk reduction strategies

Results: We developed an Excel-based database that allowed us to eliminate several paper-based redundancies from our STI testing process and obtain data regarding demographics, test results, and identification of high-risk subgroups. Preliminary results show about 25% of patients testing positive for

STI's. Further analysis will allow us to identify walk-in patients who would be good candidates for PrEP and other interventions. The clinic has formalized partnerships with community organizations that target homelessness, substance abuse, and crisis management. The presentation will detail how those joint efforts, guided by information from our database, will be used to better meet the needs of our youth.

Lessons Learned: The YYC's large population of under-served, marginalized youth is a prime example of a group where risk reduction efforts could have dramatic beneficial results. While effective strategies exist to reduce the risk of HIV transmission and acquisition, funding constraints dictate that these resources must be used where they are most likely to be effective. Our walk-in STI testing QA allowed us to streamline our processes, better quantify our patient population, and identify new ways to collaborate with community partners thereby allowing us to efficiently target our risk reduction efforts.

BP87

Abstract 6017 - Prevalence and predictors of HIV-related stigma among Hispanic/Latino adults in the United States

Author(s): *Tiffiany Aholou, Felicia Hardnett, Revae Downey, Euna August*

Background: Hispanics/Latinos are the largest ethnic minority group in the US, constituting approximately 18% of the total population. This population is also disproportionately affected by HIV, accounting for nearly one-fourth of all new HIV diagnoses in the US in 2016, with the greatest incidence among MSM (87%). While research has recognized the impact of HIV-related stigma on the uptake and benefits of prevention, care, and treatment across multiple populations, few studies have assessed the prevalence and predictors of HIV-related stigma among the US Hispanic/Latino community.

Methods: To examine the sociodemographic (e.g., age, gender, marital status, education, US region) and sociocultural (e.g., language spoken at home, years in US, Hispanic heritage) predictors of three different aspects of HIV-related stigma – enacted stigma, felt stigma, and sexual stigma, we used data from the 2013 and 2014 data collection cycles of the Estilos survey, a market research survey consisting of a nationally representative sample of Hispanic/Latino adults in the US (N=1,920). We conducted bivariate and multivariate analyses for each of the three measures of HIV-related stigma using log binomial regression to directly estimate unadjusted (PR) and adjusted prevalence ratios (aPR) and 95% confidence intervals (CI). The final multivariate model was arrived at using a forward stepwise variable selection procedure. Analyses were performed using SAS version 9.3.

Results: In our sample of Hispanic/Latino adults, 58% expressed discomfort having a person with HIV prepare their food (enacted stigma), 33% anticipated being stigmatized if diagnosed with HIV (felt stigma), and 24% disagreed with the acceptance of homosexuality (sexual stigma). Selected results from the multivariate analysis revealed that Hispanics/Latinos who are less educated (<high school [aPR =1.47, CI=1.16-1.88] or high school graduate [aPR=1.42, CI=1.18-1.71]) v. Bachelors or higher, reside in the Midwest (aPR=1.32, CI=1.07-1.63) and South (aPR=1.34, CI=1.16-1.54) v. West and who were of Central American heritage (aPR=1.25, CI=1.04-1.49) v. Mexican were more likely to report enacted stigma.

Additionally, Hispanics/Latinos who were male (aPR=1.27, CI=1.12-1.44) v. female, widowed (aPR=1.66, CI=1.11-2.48) v. married, < high school education (aPR=1.28, CI=1.04-1.57) v. Bachelors or higher, and who were of Central American heritage (aPR=1.50, CI=1.21-1.87) or South American heritage (aPR=1.46, CI=1.21-1.75) v. Mexican were more likely to report felt stigma. Lastly, Hispanics/Latinos who are less educated (<high school diploma [aPR =2.65, CI=1.92-3.66] or high school graduate [aPR=1.60, CI=1.24-2.05]) v. Bachelors or higher, who only/mostly spoke Spanish at home (aPR=1.33, CI=1.06-1.66) v. Spanish/English Equal, and reside in the South (aPR=1.7, CI=1.43-2.01) v. West were more likely to report sexual stigma.

Conclusions/Implications: HIV-related stigma among Hispanics/Latinos in the US appears to be associated with factors related to education, marital status, region of residence, and Hispanic heritage (or country of origin). These findings underscore the fact that Hispanics/Latinos are not a monolithic group. As such, to curb HIV-related stigma in the Hispanic/Latino community, it is imperative to conduct audience segmentation to inform the development of culturally appropriate interventions and social marketing campaigns, tailor anti-stigma messaging with attention to educational level, disseminate messages using channels that are appropriate for the target audience, and allocate resources to areas where HIV-related stigma is most pervasive.

BP88

Abstract 6033 - Integrating PrEP referrals into STD partner services among high risk groups in the Jackson MSA

Author(s): *Christie Lewis, Tigran Avoundjian, David Peyton, Kendra Johnson, Matthew Golden, Christine Khosropour*

Background: Mississippi has the 10th highest rate of HIV diagnosis among all adults in the United States (U.S.) and the 2nd highest rate of HIV among men who have sex with men (MSM). Persons with bacterial sexually transmitted diseases (STDs), particularly MSM with syphilis, are at elevated risk of HIV infection. Promotion of pre-exposure prophylaxis (PrEP) to persons with bacterial STDs may reduce the incidence of new HIV infections. The Mississippi State Department of Health (MSDH) has not previously integrated systematic referral of PrEP into routine health department activities.

Methods: In October 2017, Disease Intervention Specialists (DIS) in the Jackson Metropolitan Statistical Area (MSA) began offering PrEP referrals to persons receiving partner services (PS) and meeting the following criteria: HIV negative MSM with an STD, HIV negative sex partners of MSM with an STD, HIV negative persons with early syphilis, and any HIV negative sex partner of a person with early syphilis or HIV. DIS educate clients about PrEP and systematically complete a standardized questionnaire to document the referral process, which is subsequently entered into an electronic Access database. DIS assist clients making medical appointments and contact PrEP medical providers to verify whether or not clients attend their PrEP appointment.

Results: From October 2017 to May 2018, DIS assessed PrEP eligibility for 79 clients. Of these, 18 (23%) were already HIV positive and not eligible for PrEP, and 7 (11%) were already on PrEP. Of the 54 clients who were offered PrEP, 36 (67%) were MSM, 7(13%) were heterosexual men, 11 (20%) were women, and 46 (85%) were younger than 35 years old. Of the 31 (57%) clients who did not accept the referral,

7(23%) reported lack of interest, 6 (19%) reported perceived low risk of HIV, 5 (16%) declined PrEP for an unknown reason, 4(13%) reported poor medical adherence and concerns of health issues from taking the medication, 3 (10%) were undecided about starting PrEP, and 4 (13%) declined for other reasons. Of the 23 (43%) who accepted the referral, 18 (75%) were MSM and 8 (35%) were a sex partner of someone with HIV. Also, 8 (35%) of those who accepted the referral attended their first PrEP appointment. Of the 11 clients who did not attend the appointment, 3 (27%) reported transportation issues, 2 (18%) preferred to attend the appointment with their partner, and 6 (55%) did not attend for an unknown reason.

Conclusions/Implications: Although DIS were able to identify a small number of persons at high-risk for HIV who might be good candidates for PrEP, fewer than half of eligible clients accepted PrEP referrals and only one third of those who accepted referrals attended their first PrEP appointment. Successful integration of PrEP promotion into STD PS in MS will require more consistent identification of at-risk persons, enhanced patient education to increase patient acceptability, and systematic efforts to address barriers to attending PrEP appointments.

BP89

Abstract 6042 - Improving efficiency by assignment of daily vs non-daily PrEP based on sex frequency: lessons from HPTN 067/ADAPT

Author(s): James Moore, Marie-Claude Boily, Kate Mitchell, Maoji Li, James Hughes, Deborah Donnell, Sharon Mannheimer, Robert Grant, Dobromir Dimitrov

Background: HPTN 067/ADAPT evaluated the feasibility of daily and non-daily HIV pre-exposure prophylaxis (PrEP) regimens among different high-risk populations including men who have sex with men (MSM), and transgender women in Harlem, New York, US. Based on the data collected in the trial, daily PrEP was predicted to be more effective — more likely to provide protective drug concentration — but also associated with more than twice the pills used by non-daily PrEP. We aim to evaluate the effectiveness (fraction of infections prevented) and efficiency (infections prevented per 1000 pills taken) of the dosing strategies tested in the trial and compare them to an alternative strategy in which people with less frequent sex are prescribed to non-daily PrEP.

Methods: An individual-based Markov model, based on reported sex act frequency and pill taking behavior during the trial was used to simulate sexual behaviour and probability of HIV infection over 1 year. We resampled from the trial population to create 1000 simulated populations the same size as the original trial (119). We estimated the daily probability of taking PrEP for each individual assuming uniform pill distribution for individuals in daily PrEP (DD, one pill per day) but elevated probability within 2 days before and 1 day after each sex act for individuals in event-driven PrEP (EDD, one pill within 48 hours before and another within 2 hour after sex. In the mixed scenario (MIX), individuals with an average of less than 1 sex act per week were assigned to EDD while the rest to DD. PrEP efficacy per sex act was based on the efficacy estimates from the iPrEx trial associated with 2+ (76%) or 4+ (96%) pills taken per week. Regimen effectiveness and efficiency were estimated in comparison to simulations without PrEP use. Infection probability in the absence of PrEP was calibrated to an annual incidence between 1.3 and 4.4% representative for MSM in New York City.

Results: We estimated 82% (95 % CI 81.2-82.4), 67% (63.5-70.4), and 75% (71.7-77.3) effectiveness for DD, EDD, and MIX regimens respectively with an average of 72% of the cohort participants in the MIX regimen being assigned to EDD. Correspondingly, the predicted number of infections prevented per 1000 person-years was 18 (95% CI 12-26), 14 (9-22), and 16 (10-24) respectively. In comparison, the number of infections prevented per 1000 pills was 0.07 (0.05-0.11), 0.13 (0.09-0.20), and 0.12 (0.08-0.17) for DD, EDD, and MIX regimens, respectively.

Conclusions/Implications: There is a clear trade-off between efficiency and effectiveness when comparing daily and event-driven PrEP dosing. Assigning only individuals with frequent sexual activity to the daily PrEP, provides substantial effectiveness improvement over the event-driven PrEP at the cost of slightly worsen efficiency. The optimal threshold that separate regimen recommendations should be further investigated.

BP91

Abstract 5308 - The PrEP revolution: getting the pen to hit the pad

Author(s): *Terri Wilder, Christopher Ferraris*

Issue: Pre-exposure prophylaxis (PrEP) plays an important role in ending the HIV epidemic. PrEP is supported with research that demonstrates its effectiveness and acceptability among priority populations at-risk of acquiring HIV. Despite its promise, only 10% of Americans who meet behavioral criteria for PrEP have actually received a prescription. This gap is especially stark among key populations who are carrying the majority of HIV burden such as young Black and Latino men who have sex with men (MSM) and women. In order to fully realize PrEP's role in ending the epidemic, there is a need for clinical education, training, and tools to implement, scale up, and systematize PrEP screening, provision, and management.

Setting: With a focus on New York State (NYS) rural and health professional shortage areas, PrEP clinical education, training, and tools were provided to practicing medical providers (i.e. MD, NP, RN, PharmD). Of these programs, 75% were offered outside of New York City.

Project: The Mount Sinai Institute for Advanced Medicine HIV/HCV Center of Excellence is funded by the NYS Department of Health Clinical Education Initiative to provide progressive education to NYS medical providers on the latest guidelines and best practices related to HIV to enhance capacity to deliver clinical services. After the approval of Truvada as PrEP in July 2012, an identified need of the Center was to provide PrEP education and training to medical providers and create clinical tools. Throughout a three-year time period, the Center conducted 13 half-day trainings. In year one, six half-day trainings focused on the NYS and CDC PrEP guidelines, patient cases, and real-life testimonies of people on PrEP in an effort to reduce stigma. From these foundational trainings came a more focused series of seven half-day trainings on the implementation of PrEP within clinic settings. These were a mix of didactic presentations, small group subject- based discussions, and a SWOT (Strengths, Weakness, Opportunities, and Threats) analysis. PrEP clinical cards and a PEP/PrEP action kit were distributed. Across the three-year time period over 250 medical providers received training, 31,000 PrEP clinical cards were dispensed, and 500 action kits were provided across NYS.

Results: A conventional analysis of programs from years one to three was performed identifying barriers in integrating PrEP into clinical settings. Three key themes were identified: a need for more intensive HIV testing guidance, information on a comprehensive model for healthcare inclusive of supplementary services and counseling without relying solely on the medical provider, and a desire to enhance Electronic Medical Records (EMR) to aid in the screening and managing PrEP patients.

Lessons Learned: Across the three years, medical providers expressed a growing comfort in PrEP-prescribing however still requested additional training and technical assistance on the systematization and scale-up of PrEP. Training and education programs on both state and national levels need to look beyond foundational PrEP education and provide supportive clinical tools, trainings, and technical assistance on how PrEP can be folded into day-to-day clinic practice as well as how the needs of specific key populations (i.e. women) can be addressed.

BP92

Abstract 5468 - Availability of PrEP in urgent care centers: findings from a rapid gap assessment in metro Atlanta

Author(s): *Samantha Williams, Jennine Kinsey, Monique Carry, Latasha Terry, Joy Wells*

Background: Urgent Care Centers (UCCs) have a growing role in sexual health services. Screening for human immunodeficiency virus (HIV) has been recommended in UCCs in urban areas since 2006. Recent studies have shown UCCs were used for sexually transmitted disease (STD) prevention and care among privately insured individuals. Pre-exposure prophylaxis (PrEP) is considered a valuable HIV prevention tool for persons at high risk for HIV/STDs. Although UCCs' roles in HIV/STD testing, care, and preventive services are growing, it is unknown if and how PrEP is incorporated in the array of preventive services offered at UCCs.

Methods: From January-February 2017, a semi-structured qualitative assessment and checklist were used to collect data from 19 UCCs in the Atlanta metropolitan area. Using a modified, team-based rapid assessment approach, four interviewers visited UCCs in five metro Atlanta counties. Two search engines were used to identify UCCs within the area. UCCs were prioritized and ranked using STD morbidity data, and cross-checked with a list of facilities reporting cases to the Georgia STD Program. Teams of two (interviewer/note-taker) conducted interviews at each site. Note-takers recorded responses using a modified STD preventive services gap assessment (STD-PSGA) checklist tool. Additional notes and observations were transcribed in Microsoft Word and reviewed by the team. Data were aggregated using Microsoft Excel and analyzed using qualitative methods and NVIVO 10.

Results: All UCCs (N=19) reported offering HIV testing, however protocols for referrals varied. UCCs varied in their provision of PrEP information and PrEP prescription protocols. UCCs in areas with higher STD morbidity, and that indicated serving MSM, also reported offering PrEP information. One-third (n=6) of the UCCs indicated they provided information or counseling about PrEP to patients. Eight UCCs did not provide PrEP information or referrals to patients, nor did these UCCs report having patients who asked about PrEP. Staff at 2 UCCs not providing PrEP information were not familiar with PrEP. The 6 UCCs that provided information also provided a prescription for PrEP, with varying follow-up procedures ranging from the provision of a first PrEP dose to provider follow-up recommendations. Key concerns providers expressed included the affordability of PrEP and continuity of use over time.

Conclusions/Implications: Some UCCs offered PrEP-related services including information, prescriptions, recommendations to follow up with primary care providers, and sometimes the first PrEP dose. However, it is unknown if patients who were given PrEP also received other recommended services (i.e. labs) prior to receiving PrEP. The combined growth and patients' use of UCCs for services may open opportunities for HIV/STD programs to broaden their prevention reach to other at-risk patients. Ensuring UCCs have the most recent CDC clinical practice guidelines for PrEP, in addition to the STD and HIV prevention guidelines, particularly in areas of higher HIV/STD morbidity, could enhance preventive services and public health efforts.

BP93

Abstract 5508 - HIV and the opioid epidemic: how to address it locally

Author(s): *Laura Gerard, Hannabah Blue, Katy Shea*

Issue: The opioid crisis has reached epidemic levels with a public health emergency declared. According to the Centers for Disease Control and Prevention, more than 90 Americans die each day from opioid overdose, including heroin. Increases in injection drug use are driving rates of infectious diseases and related conditions: Hepatitis C virus rates have increased almost 300 percent, and increases have been seen in some areas in Hepatitis B virus and HIV. As rates of opioid use have risen, so have the rates of related infections. Communities should develop local plans to address this public health emergency.

Setting: JSI has provided community-level evaluation and technical assistance to support the Strategic Planning Framework (SPF) for 10 years. The SPF can be used as a comprehensive guide to plan, implement, and evaluate prevention practices and programs. The 5 steps and 2 guiding principles of the SPF offer prevention professionals a process for addressing the substance misuse and related health problems facing their communities. The 5 steps include: 1. Assess Needs; 2. Build Capacity; 3. Plan; 4. Implement; and 5. Evaluate. The 2 guiding principles are cultural competence and sustainability. The presentation will review the steps and principles of the SPF and participants will discuss how this approach may be used within their organizations and communities to address the opioid epidemic and increasing rates of viral hepatitis and HIV. A case example using the SPF will be discussed.

Project: JSI has helped in the implementation of the SPF to address alcohol and other drug use among youth in New Hampshire. A key data source to assess outcomes of prevention strategies is the Youth Risk Behavior Survey (YRBS) administered in high schools every other year. Consistent administration of the YRBS over time has enabled New Hampshire to monitor substance use trends at an important, formative stage of development. The presentation will describe the steps taken to implement the SFP and how HIV prevention organizations can use this framework to inform their prevention and outreach strategies.

Results: Statewide, we have observed positive, statistically significant trends (decreased prevalence) for use of alcohol, cigarettes and prescription drugs over a 10-year period. The presentation will share findings, including trends of decreased prevalence for substance use, and connect these findings to goals to address the opioid epidemic locally to stop the trend of increasing rates of viral hepatitis and HIV.

Lessons Learned: One feature of the SPF is that it is data driven. Community-based organizations (CBOs) must gather and use data to guide all prevention decisions including which substance misuse issues to address and the most appropriate ways to address those problems. Access to accurate and the right type of data can be challenging. Additionally, the SPF is reliant on a team approach. The SPF is most valuable when there is participation from a diverse set of partners. Presenters will discuss how local health departments and CBOs providing HIV prevention services can collaborate to obtain data and support a team approach to address opioid use and increasing HIV and viral hepatitis rates.

BP94

Abstract 5545 - Can health departments develop and implement structural interventions to address HIV-related social determinants of health? Results of a pilot training program

Author(s): *Alice Gandelman, Tim Vincent, Patrick Piper, Deborah Wyatt O'Neal, Renyea Colvin* ,

Issue: Social Determinants of health (SDH), conditions outside of an individual's control, significantly affect HIV-related health outcomes. Health Department (HD) programs recognize their impact, but often face challenges when attempting to respond in meaningful ways. Both past and current efforts have primarily emphasized behavioral or biomedical approaches that rarely address SDH or get to the root causes of health conditions affecting HIV. Broader recognition of the impact of SDH, and new approaches are needed to reduce new infections. This presentation will describe a new training delivered to HDs to develop HIV-related structural interventions (SI).

Setting: HD planners and community based organization (CBO) partners throughout the US working in HIV prevention programs participated in 4 different trainings to develop SIs using a specialized logic model (LM). The training was conducted by the California Prevention Training Center (CAPTC), a HD Capacity Building Assistance provider funded by DHAP, in HD settings throughout the US.

Project: CAPTC delivered trainings to HDs and CBOs to develop SIs to address SDH. Trainings covered key concepts from the literature, including the 3 A's (availability, accessibility, and acceptability), types of SIs (environmental, social, economic, policy), levels at which SIs can be applied (community, organizational, societal), and incorporated interactive activities throughout the training to reinforce/apply concepts. Focusing on one gap in the HIV Prevention in Care continuum, participants identified a priority population and completed a LM designed to develop an SI. They prioritized: 1-2 SDH, one of the 3As, identified the type of SI, level of focus, outputs, and intermediate outcomes. Correlated long-term outcomes were then selected from the 10 National HIV/AIDS Strategy (NHAS) outcome indicators. Each small group conducted peer reviews of completed LMs by other groups which reinforced key concepts.

Results: Training was delivered to 90 participants representing 16 HDs and 15 CBOs from 32 US cities in 15 states. Fourteen LMs were completed by participants working in small groups based on priority population and/or geographic jurisdiction. Transgender women of color, Black and Latino MSM, women of color in the southeastern US, and PLWHIV were evenly represented in all LMs. Stigma was identified as the primary SDH contributing to continuum gaps in 9 (64%) LMs. SIs aimed at the organizational level were significantly selected over those with a community or societal focus. Policy and social SIs were favored over environmental and economic SI types. During the presentation we will summarize data

from completed LMs, describe the links between each step, and include illustrations of the LM templates. Additional data will be presented, as more trainings and LMs are completed.

Lessons Learned: HDs and CBOs easily understand the impact of SDHs on HIV-related health conditions and their influence on HIV continuum gaps. They also recognize that broader strategies such as SIs, can reduce those gaps. The LMs offer a first step, or blueprint to address external factors beyond individual control that impact HIV-related health outcomes. More detailed planning on implementation strategies for SIs, supported by funders, are needed to move closer to reaching HIV continuum goals.

BP95

Abstract 5640 - Where the Boys Are: using dating apps to prevent HIV

Author(s): *Julio Fonseca*

Issue: The Centers for Disease Control and Prevention (CDC) estimates that there were 38,500 new diagnoses of HIV in the United States in 2015. Of these, approximately 57% (26,000) are men who have sex with men (MSM). Through our cooperative agreement with CDC, Partnering and Communicating Together to Act Against AIDS (PACT), AIDS United is charged with identifying and executing innovative approaches to broad dissemination of HIV education and prevention messaging to reach MSM. One of our approaches is going to where the boys are: dating apps. Through dating apps, we get HIV prevention messages to people who may not be served by traditional HIV or LGBTQ organizations, perhaps because they are in rural areas, not “out,” or do not feel comfortable accessing this information in a public setting. By meeting MSM where they are – on dating apps – we successfully disseminate HIV prevention messages that help combat stigma and prevent new HIV diagnoses among MSM.

Setting: Dating apps Grindr and Jack’d were the settings for the project. These apps are GPS/location-based apps designed for MSM interested in connecting with other men through the privacy of an online medium.

Project: AIDS United partnered with Building Healthy Communities Online (BHOC) on project design and implementation. BHOC is a consortium of public health leaders and gay dating website and app owners who are working together to support HIV and STI prevention online. AIDS United and BHOC jointly reviewed national incidence and prevalence data as well as how communities were resourced to address HIV. The partnership purchased and placed banner ads and full interstitial ads in 4 cities (North Conway and Little Rock, AR, Augusta/Richmond, and Columbia, SC) with high rates of new HIV incidence for one month in two different years where each user saw CDC Act Against AIDS Messaging.

Results: An analysis of data at the end of the month showed a significant rate of impressions delivered, clicks and a strong click through rate. All data indicated strong access of information at a reasonable cost. These results and trends will be shared with participants and comparative data from the first year to the second will be available as well.

Lessons Learned: Lessons learned and implications that will be shared with session participants include:

- Basics and strategies of how to replicate the project
- The value of a partner knowledgeable in the negotiation of ad rates

- Apps online are good platforms for people to access information in private settings
- Many people that access online or digital apps do not identify into the “bar scenes” or “lifestyle” traditionally associated with a gay identity and are more likely to access HIV information online
- There will be an opportunity for Q&A among session participants.

BP96

Abstract 5673 - Prioritizing transgender and gender non-conforming New Yorkers in updating sexual orientation and gender identity data collection categories

Author(s): *Rosy Galvan, Jayleen Gunn, Rick Cook, Bethsabet De Leon-Stevens, Julie Harris, John Fuller*

Issue: Transgender, Gender Non-Conforming and Non-Binary individuals are disproportionately affected by HIV/STIs, yet data collection methods often do not include gender identities beyond male, female, transgender male-to-female, and transgender female-to-male. This underrepresentation of gender identities in data collection often leads to HIV/STI rates that do not adequately reflect the disease burden within these populations.

Setting: In support of New York State (NYS) Ending the HIV Epidemic initiative goals, the NYS Department of Health (DOH) AIDS Institute (AI) created population-specific strategies to ensure that no communities are left behind. Several advisory groups were formed, including the Transgender and Gender Non-Conforming (TGNC) Advisory Group. The TGNC Advisory Group developed a comprehensive set of recommendations, including updating the sexual orientation and gender identity (SOGI) data categories in the AIDS Institute Reporting System (AIRS) to better reflect Lesbian, Gay, Bisexual, Transgender, Queer (LGBTQ) identities.

Project: The AI engaged the TGNC Advisory Group to assist in updating the following data category changes:

Sexual Orientation:

- Gay
- Lesbian
- Straight or Heterosexual
- Bisexual
- Something Else
- Don't Know
- Chose not to Respond

Current Gender:

- Female
- Male
- Transgender ID as Female
- Transgender ID as Male

Sex Assigned at Birth:

- Female
- Male
- Decline to Answer

An internal workgroup comprised of staff from across divisions was instated to gain health department employee perspectives on implementation. Additionally, an HIV Advisory Body (HAB), comprised of funded providers and stakeholders, provided feedback on what was needed to adopt the changes. The TGNC Advisory Group provided input on which categories and definitions were chosen, while the AI workgroup and HAB developed implementation procedures for providers and health department employees.

Results: The new SOGI data categories were launched in May 2018 and now include:

Sexual Orientation:

- Lesbian
- Gay
- Bisexual
- Straight or Heterosexual
- Queer
- Pansexual
- Asexual
- Not sure/Questioning
- Sexual Orientation not Listed (write-in field provided)
- Chose not to Respond

Current Gender Identity:

- Woman/Girl
- Transgender Woman/Girl
- Man/Boy
- Transgender Man/Boy
- Non-Binary Person
- Gender Non-Conforming Person
- Not Sure/Questioning
- Gender not Listed (write-in field provided)
- Chose not to Respond

Sex Assigned at Birth:

- Female
- Male
- Intersex

Gender Pronoun:

- She/her
- He/him
- They/them
- Pronouns not Listed (write-in field provided)

Lessons Learned: By intentionally creating community and government partnerships, the NYSDOH has moved towards more effective, culturally relevant representation of LGBTQ individuals in both HIV/STI surveillance and data systems and AIDS Institute programming. Representation of TGNC individuals was critical to project success. The approach acknowledges that community members are experts in their own lives, and should therefore influence public health strategies. Involving the TGNC Advisory Group in

the development of the recommendations resulted in data collection categories that more accurately reflect LGBTQ New Yorkers. Inclusive data collection provides a broader picture of who is most at risk or living with HIV/STIs, it creates opportunities for more affirming client/provider interactions, increases provider awareness of diversity, and ultimately results in better clinical experiences.

BP97

Abstract 5739 - Utilizing a collaborative community engagement model to improve HIV prevention, care, and behavioral health and support services for MSM of color in New York City

Author(s): Robert Jones, Stephanie Hubbard, Anthony Freeman, Marné Garretson, Kathleen Scanlin, Benjamin Tsoi

Issue: In New York City (NYC), gay, bisexual, and other men of color who have sex with men (MSM) experience the highest estimated rates of new HIV diagnoses and disparities in HIV-related health outcomes. In 2016, Brooklyn, New York had the highest number of new HIV diagnoses among NYC boroughs and, among newly diagnosed men, 76% were Black or Latino (referred to subsequently herein as men of color) and 64% were MSM, proportions that reflect recent trends. Building collaborations across organizations is an essential strategy to address health inequities. In response, the NYC Health Department (HD) built a unique, collaborative community engagement model to improve access to and delivery of HIV prevention, care, and behavioral health and social services among MSM of color in Brooklyn, under Project THRIVE NYC, a CDC-funded demonstration project.

Setting: Project THRIVE NYC community engagement activities are conducted throughout Brooklyn and aim to reach MSM of color and key stakeholders invested in their health and well-being. Activities are conducted at community-based organizations that have strong relationships with MSM of color or at commercial venues frequented by MSM of color.

Project: Project THRIVE NYC's collaborative community engagement model utilizes a three-pronged approach and includes a variety of stakeholders. The model includes: 1) holding annual community listening sessions among MSM of color, 2) conducting monthly community advisory board (CAB) meetings, and 3) supporting quarterly meetings for community-based HIV prevention and care service providers in Brooklyn. Each prong has a unique set of goals and reaches a different stakeholder group, and yet all benefit from data and information gathered within other prongs. Under this framework, the NYC HD incorporates input from both community members and service providers through an iterative and cooperative process between all groups.

Results: Through the listening sessions, community members identified that although sexual health and HIV prevention are important to MSM of color residing in Brooklyn, these issues are of lower priority than behavioral health and social support needs such as housing, employment, education, and mental health services. Using this information, in concert with NYC HD staff, the CAB is working to develop recommendations to address these needs among MSM of color in Brooklyn that will also be informed by and shared with Brooklyn prevention and care services providers.

Lessons Learned: The NYC HD's three-pronged approach to community engagement allows for continuous revisions to the model. Involving an array of stakeholders in ongoing evaluation and

refinement of the process is key to its success; however, working with a diverse set of stakeholders and ideas requires more time for consensus building and planning. Additionally, promoting activities through community organizations and non-NYC HD social media outlets was key to reaching the intended populations, especially for the listening sessions. For the CAB and provider meetings, attendance and participation often varied between meetings; this challenge was mitigated by regular review of the goals, intended outcomes and progress. Overall, this model has proven successful and NYC HD is considering replicating it for additional local projects.

BP98

Abstract 5811 - Using chatbots to deliver bite-sized HIV prevention messages

Author(s): *Aisha Moore, Jessica Holli*

Issue: Disseminating HIV prevention messages is a routine undertaking for nearly all HIV programs. In the last 10 years, providing HIV prevention information using social media, apps, and other digital tools has revolutionized the way we communicate and has opened up a world of opportunity. With the need to continually communicate these messages, there is an opportunity to leverage new communications technologies to reach those most at risk for HIV and people living with HIV. However, those communications must be effective and the intended audience must consume the information. In the past two years organic social media reach has decreased with engagement rates under 10% for most accounts. Industry average email open rates are 20-30% and click-through rates are 5%. These statistics are forcing organizations to consider other options for digital engagement.

Setting: This project takes place online and is intended to reach people most at risk for HIV and people living with HIV.

Project: The use of messaging platforms has exploded, surpassing even the use of social networks by active users. HIV.gov has developed a Facebook Messenger bot to help users receive information directly in Facebook before linking them to our website. The user either opt-ins to communicate with 1) the HIV.gov messenger via a landing page or 2) a widget in an email or blog, or 3) by messaging HIV.gov via Facebook. Once the user consents to communicate, they receive a series of automated messages that deliver HIV prevention information. The user is able to answer questions based on a menu of options and is provided information within the messenger platform. The current content of the pilot bot is HIV Basics information and event coverage of AIDS 2018.

Results: This project is ongoing so final results are not available. In the first week 49 people subscribed to the Facebook Messenger bot. Our average open rate for the chatbot is 86.2% and the click-through rate is 16.9%. These open rates and click rates are significantly higher than our email open and click rates. While the reach is lower than a single Facebook post, we are able to measure consumption of messages with call-to-action buttons and are seeing higher engagement.

Lessons Learned: As an early adopter to technologies, HIV.gov educates our audiences about the tools at the same time we are encouraging them to use them. This includes education about their privacy. Chatbots are a useful tool to share information with people about HIV prevention. It's key to make sure the messages are short and users truly feel like they are having a conversation with a real person. The

bot does require monitoring to ensure that people are reacting to the conversation as intended and the content should be improved as we learn the users needs.

BP99

Abstract 5902 - Confronting institutional racism, homophobia, & transphobia in preventing HIV acquisition within a state health department setting

Author(s): *Rocky Block, Julie Fitch, William Robinson*

Issue: HIV inequities related to race, sexual orientation, and gender identity prove to be a major barrier to preventing HIV acquisition in Louisiana. The burden of HIV is highest among African Americans, gay, bisexual, other men who have sex with men and transgender women. The Louisiana Office of Public Health STD/HIV Program (OPH SHP) began focusing on institutional racism, homophobia, and transphobia to address these inequities and work towards building an anti-racist and anti-heterosexist health department. This presentation will review the capacity building process of SHP to engage with systemic barriers to preventing HIV acquisition and highlight successes and challenges to becoming an equitable health department.

Setting: SHP is a statewide program within the Office of Public Health focused on preventing new HIV infections, linking those who test positive to care, and achieving and maintaining viral suppression. The capacity building process described in this presentation will focus on SHP staff, although community partners and OPH colleagues statewide have been involved as well.

Project: SHP began implementing a series of workshops through a CDC-funded demonstration project in 2013, including Undoing Racism by the People's Institute for Survival & Beyond and Deconstructing Homophobia & Transphobia by the California Prevention Training Center and the Center for Transgender Excellence, to analyze how institutional oppression impacts health outcomes. Subsequently, these efforts have been sustainable through creation of the Health Equity Action Team (HEAT) to operationalize lessons learned from these workshops to create institutional change and prevent new HIV infections.

Results: Understanding how race, sexual orientation and gender identity impact HIV risk is imperative to reducing HIV infections. This presentation will examine how these CBA partnerships and the subsequent work of HEAT impacted SHP organizational culture and programmatic activities. Striving to become an anti-racist and anti-heterosexist health department is an ongoing process that impacts all departmental units and is a necessary process in order to reduce the greatest barriers to preventing HIV acquisition. Examples of outcomes of this work include modifications to existing HIV/STD trainings and onboarding processes, shifting language in presentations, fact sheets, and reports, and enhanced feedback from community representatives on various programs and data collection tools.

Lessons Learned: Incorporating a systemic analysis of oppression into health department programs and programmatic activities is a challenging, yet much needed, approach to achieving health equity. Internal organizing is critical for the sustained commitment to providing these types of technical assistance projects, which are often outside of the norm for state health departments. Unified leadership and a true commitment to reducing barriers for clients help make this process smoother. Utilizing non-

traditional capacity building approaches will be critical to ensuring that race, sexual orientation, and gender identity do not become predictors of health outcomes.

BP100

Abstract 5971 - Integration of screening, brief intervention, and referral to treatment (SBIRT) for MSM of color in public health settings

Author(s): *J. Maurice McCants-Pearsall, Dana Cropper-William*

Issue: Men who have Sex with Men (MSM) of Color have the highest HIV prevalence and the lowest awareness among racial/ethnic groups. Attributes that correlate to new HIV infections are depression, anxiety, substance use disorders, and suicide ideology. Thus, placing MSM of Color at risk for HIV and HCV acquisition. Studies indicate that MSM of Color often have unique physical and behavioral health needs which require special considerations when engaging in primary care settings.

Setting: Health departments, AIDS service organizations (ASO) and community-based organizations (CBO); providing comprehensive prevention, care, behavioral health, and social services for men who have sex with men (MSM) of color at risk for and living with HIV and HCV infection.

Project: The Screening, Brief Intervention, Referral to Treatment (SBIRT) model utilizes a Brief Negotiated Interview (BNI); a 4-part approach designed to recognize and respond to substance use issues. The first step is to raise the subject. During this stage, the primary care treatment team (Primary Care Physician and or Social Worker) will explain their role and respectfully ask permission to have a discussion about alcohol/drug use. The treatment team will review the client's screening scores, risk level, and alcohol/drug use patterns. When providing feedback, the treatment team will show the client his risk level in comparison to normative substance use guidelines, and then explore possible connection to health, social, and work issues, expressing concern. When enhancing motivation, the treatment team will assess the client's readiness for change, use motivational interviewing techniques, and ask the client to discuss pro's and con's of use. Finally, the treatment team will negotiate, advise, and create a plan, providing a summary of readiness, negotiating a goal, offering a menu of options for change, and securing agreement.

Results: HealthHIV conceptualized and implemented SBIRT – BNI training across seven jurisdictions (New York, Pennsylvania, Maryland, District of Columbia, Virginia, Alabama, Louisiana). The BNI training identified baseline findings about substance use and provided a tool to assess the level of drug or alcohol use in the client's life that may affect their risk of HIV and HCV acquisition.

Lessons Learned: During the implementation of SBIRT, treatment teams learned that despite the treatment options available for at-risk drug or alcohol users, a major challenge to self-referral is the stigma that exists about being labeled as an alcoholic or drug abuser. Stigma forces many clients to resist change and live in a perpetual state of denial of their substance use issues. A considerable number of MSM of color are unaware of or resistant to treatment, recovery, and retention.

BP101

Abstract 6012 - Engaging gay men of color through education, entertainment and social empowerment

Author(s): *Victor Hogue, Courtney Johnson*

Issue: Gay men of color have been disproportionately affected by the HIV epidemic in comparison to other ethnic groups. Social determinants of health continue to play a major role in the rising infection rates among this population. The presentation will review ways to educate, engage and entertain gay men of color while providing the tools needed to minimize healthcare barriers. It will also address strategies used to reduce stigma and increase HIV prevention awareness in the community.

Setting: Interventions take place in various locations throughout New York City, NY. The Brown Boys Network is primarily funded by the federally qualified community health center, Ryan Health. Ryan Health's HIV services department receives funding from Public Health Solutions, CDC and AIDS Institute to provide HIV prevention, education and outreach focusing on gay men of color.

Project: The Brown Boys Network is a professional network with a mission to cultivate community through enriching, enlightening and empowering events for gay men of color. The project focuses on three delivery models: 1) Brown Boys Brunch 2) Brown Boys Podcast 3) Brown Boy mini events. The Brown Boys Brunch is an empowerment series focusing on HIV prevention within the African American and Latino community. The goal is to provide a safe space to learn about healthcare services and also engage in conversation with individuals from the community. Past brunches have focused on sexual health with panel discussions featuring well-respected stakeholders in the community. The Brown Boys Podcast provides a stigma-free and nonjudgemental space that allows freedom of self-expression, increased love and holistic healing. Mini events consist of bringing together gay men of color once a month for various activities. These activities include game and trivia nights along with annual events such as the AIDS Walk. Each delivery model aims to remove stigma and amplify the message around prevention and understanding one's own risk.

Results: Since its founding in January 2017, the Brown Boys Network has seen an increase in referrals to Ryan Health for HIV treatment, primary care, prevention and supportive services as needed. The comfortability of participants to share personal events and the ability to educate their peers is a direct reflection of stigma reduction among gay men of color as it relates to HIV and biomedical interventions.

Lessons Learned: Safer sex practices are habits that are learned after repetition. Providing information to a population does not guarantee instant results. It takes practice, patience and a relationship built on trust before gay men of color fully understand their sexual health risks. We must normalize the topic of sex and its many facets before we can begin removing the power given to stigma.

BP102

Abstract 5440 - Cost-effectiveness of delivering pre-exposure prophylaxis for different HIV care-continuum levels in the United States

Author(s): *Nidhi Khurana, Paul Farnham, Katherine Hicks, Justin Carrico, Stephanie Sansom*

Background: Two key strategies for reducing HIV incidence in the United States are 1) delivering pre-exposure prophylaxis (PrEP) to persons at high risk of acquiring HIV, and 2) preventing HIV transmission through enhanced diagnosis, care, and treatment of persons with HIV (PWH). The efficacy of PrEP for

reducing HIV transmission among men who have sex with men (MSM), persons who inject drugs (PWID), and high-risk heterosexuals (HRH) has been well established. The targets for the second strategy, derived from US national goals, include increasing from current care-continuum levels the proportion of PWH who are diagnosed to 90%, the proportion of newly diagnosed PWH who are linked to care to 85%, and the proportion of diagnosed PWH with viral suppression to 80%. We investigate the marginal cost-effectiveness of PrEP compared with improving progression along the HIV care continuum.

Methods: We used the HIV Optimization and Prevention Economics (HOPE) compartmental model that includes the cost of care and treatment, PrEP costs, and the transition cost of moving along the HIV care continuum. We set PrEP coverage for 2016 (40% for MSM, 10% for PWID and HRH), allowed it to change until 2020 according to aging, death, and HIV infection, but with no other dropout, and we then assumed it was zero from 2021 onward. We assessed cumulative costs, incidence, and quality-adjusted-life-years (QALYs) from 2016 through 2060. We estimated the cost-effectiveness of delivering PrEP under current care-continuum levels and when national goals were achieved. We also estimated the cost-effectiveness of achieving national goals compared with maintaining current care-continuum levels. We investigated the marginal cost-effectiveness for the entire population and for individual transmission categories.

Results: The overall incremental cost-effectiveness ratio (ICER) of delivering PrEP under current care continuum levels was \$1.2 million per QALY gained. The lowest ICER (\$636,868 per QALY gained) was for MSM. These ICERs were higher when national goals were achieved (\$2.5 million per QALY gained for the total population, and \$1.4 million per QALY gained for MSM). Our analysis showed that achieving national goals was cost saving compared to maintaining the current care-continuum levels.

Conclusions/Implications: Improving progression along the HIV care continuum leads to a large reduction in HIV incidence and is cost-saving because the additional cost of becoming virally suppressed and maintaining viral suppression is outweighed by the costs saved on care, treatment, and other programs. Our previous work showed that delivering PrEP in 2016 to persons at high risk of acquiring HIV resulted in an 18.1% reduction in new HIV infections from 2016 to 2020 under current care-continuum levels and an 11.1% reduction in new HIV infections when national goals were achieved. However, the cost-effectiveness framework in this study shows that administering PrEP is not cost-effective by most cost-effectiveness thresholds, and the associated ICERs increase as progression along the HIV care-continuum is enhanced. The ICER for delivering PrEP to MSM under the current care continuum is the lowest among all transmission categories and is comparable in magnitude to results reported by other studies of MSM.

BP103

Abstract 5906 - National HIV Prevention Inventory (NHPI): assessing the U.S. HIV prevention landscape across health departments

Author(s): *Angela Johnson, Erin Bascom, Milanés Morejon, Natalie Cramer*

Background: NASTAD instituted the National HIV Prevention Inventory (NHPI) in 2009 to better understand HIV prevention programs/services delivered through CDC-funded health departments, and present a comprehensive depiction of the state of HIV prevention throughout the United States. The

NHPI provides longitudinal HIV prevention trends as the assessment was also conducted in 2013 and 2017. The 2017 NHPI was collected during a key point in time – the final year of funding for CDC's Comprehensive HIV Prevention Programs for Health Departments funding opportunity (PS12-1201), and immediately before health departments began implementing programming under the new Integrated HIV Surveillance and Prevention Programs for Health Departments funding opportunity (PS18-1802). The 2017 report provides a unique opportunity to 1) explore continued development of health department HIV programs, 2) showcase progress achieved nationally by health departments through PS12-1201, and 3) project implications of PS18-1802, including new initiatives, innovations, and challenges to shape the next five years of health department HIV prevention programming.

Methods: The survey instrument was developed by NASTAD staff with significant input by the NASTAD Prevention Advisory Committee (PAC). Survey data was collected from November 2017 – March 2018. The survey was organized into two main modules: Funding and Programming. The Programming Module included 13 distinct sections addressing: Testing, HIV Prevention and Health Systems Integration, Linkage to care, HIV Planning, Policy and Structural Initiatives, Community Engagement, Condom Distribution Programs, Behavioral Interventions, Syringe Services Programs, Biomedical Prevention, Program Integration, Data to Care and Surveillance, and Workforce Development.

Results: Sixty-six health departments were notified via email of the release of NASTAD's 2017 NHPI Survey; 55 completed the survey. Respondents described how their funding was stratified, which populations they prioritized, which technology they utilized, and how their workforces were engaged. The 2017 NHPI also identifies key themes and strategies used to leverage HIV prevention resources through CDC's PS12-1201 FOA, including a 13% decrease in overall volume of HIV testing when compared to pre-implementation of CDC PS12-1201 (2011), but a 1.5% increase in overall volume of testing from 2013-2016; a 17% increase in jurisdictions with at least one Syringe Service Program (SSP) since 2013; and most notably, a 74% increase in health departments supporting Pre-Exposure Prophylaxis (PrEP) programs since 2013.

Conclusions/Implications: For the first time in the history of HIV within the United States, health departments and partners have the tools within reach to effectively end the national HIV epidemic. The NHPI serves as a tool for health departments to evaluate their current programming, guide stakeholder education, influence advocacy efforts, and highlight opportunities to build health department capacity. Though the report was originally constructed during PS12-1201, it provides insight and strategies health departments can utilize through PS18-1802 to meet challenges head on as they work towards ending the HIV epidemic.

BP104

Abstract 6026 - Efforts to overcome barriers to HIV prevention in Miami: an in-depth look at targeted efforts in HIV prevention

Author(s): *Alisu Schoua-Glusberg, Jessie Engel, Casey Tesfaye, Valerie Betley, Liz Gall, Laura Randall, Paula Frew*

Background: In 2015 the Miami Metropolitan Statistical Area (MSA) ranked first in the nation in new diagnoses of HIV infections. Miami is a diverse city in which racial/ethnic minorities constitute nearly 84

percent of the population, and 53 percent of the population is foreign-born. HIV disproportionately affects black and Latino men, and male-to-male sexual contact was the dominant risk factor for infection. Since 2013, a shift in federal HIV prevention funding has allowed for service providers to target efforts toward these high-risk populations by both enhancing existing programs and initiating new programs. However, challenges such as a lack of sexual education in schools and limited engagement among immigrants with the health system remain formidable obstacles to engaging the county's most at-risk populations with HIV prevention messaging and services.

Methods: Between September 2016 and February 2017, we conducted 30 semi-structured interviews in Miami-Dade. Our data included: (1) semi-structured interviews with health department staff, community based organizations' staff, and community members involved in HIV service delivery; (2) observations of activities relevant to MSM and HIV prevention or treatment; and (3) in-depth assessment of documents that concern MSM (e.g., policy and planning documents). For this session, we analyzed portions of interview transcripts that discuss Miami's approach to HIV prevention.

Results: HIV service providers in Miami face challenges with effectively addressing the needs of a large and diverse immigrant population, persistent stigma toward HIV, and a party culture with a continuous influx of tourists. The constant flow of immigrants and tourists are difficult to engage with the health system and inadequate HIV education and misinformation about transmission are persistent problems. Service providers understand the need to tailor more prevention. Current efforts aim to increase culturally competent services and improve cross-organizational collaborations, which are key to improved prevention outcomes. Despite complex barriers, strong health department leadership, collaborative task forces and specialization by CBOs to serve targeted at-risk populations all contribute towards improvement in prevention messaging and activities.

Conclusions/Implications: HIV service providers in Miami face a unique combination of barriers to effective HIV prevention. There are distinct gaps in prevention service delivery, and providers recognize the need to tailor services geographically and culturally in order to better address the specific needs of the populations they serve. Targeted efforts to reach a diverse immigrant population and constant influx of tourists are essential for improved prevention outcomes in Miami, and targeted programs and collaborations have been a strong focus among service providers. With a shift to direct funding in recent years, service providers have had new opportunities to tailor programs and services to preventing HIV among unique sub-populations. Continued focus on targeting specific groups, including holistic health services for MSM, support groups, education, and cultural sensitivity are essential to future efforts and could make a big difference in impacting prevention among those most at-risk.

CP47

Abstract 5221 - Generalized anxiety disorder symptoms among persons with diagnosed HIV in the United States—2015, Medical Monitoring Project

Author(s): *Linda Beer, Yunfeng Tie, Mabel Padilla, Roy Shouse*

Background: Generalized Anxiety Disorder (GAD) is a common psychiatric disorder that is associated with negative effects on life functioning, and some evidence suggests that GAD may be more common among persons living with HIV compared to others. However, we lack national prevalence estimates of

symptoms consistent with a diagnosis of GAD among persons living with HIV in the United States and little is known about the associations between these symptoms and sociodemographic, clinical, and behavioral characteristics among this population.

Methods: The Medical Monitoring Project (MMP) is a surveillance system that produces representative estimates of adults with diagnosed HIV in the United States. Using weighted interview and medical record data collected between 6/2015-5/2016, we calculated the weighted prevalence and associated 95% confidence interval of symptoms consistent with GAD in this population, overall and by selected sociodemographic characteristics. The Generalized Anxiety Disorder Scale, a 7-item scale used to screen for and measure the severity of GAD symptoms over the past 2 weeks, was administered to participants by a trained interviewer. We scored responses according to criteria from the Diagnostic and Statistical Manual of Mental Health Disorders 4th edition to estimate the proportion of persons with symptoms consistent with a GAD diagnosis. We compared the prevalence of selected clinical and behavioral characteristics among those with and without GAD symptoms using prevalence ratios with predicted marginal means to evaluate significant differences between groups.

Results: The estimated prevalence of GAD symptoms among persons with diagnosed HIV was 19% (95% confidence interval 17-21). Symptom prevalence was significantly ($p<0.01$) higher among women compared to men and among those with less than high school education, living in poverty, recently homeless, and with any disability. Persons who had experienced recent intimate partner violence and those who experienced recent sexual violence were each over twice as likely to have GAD symptoms as those who did not recently experience that form of violence. Symptoms were associated with significantly lower antiretroviral therapy prescription and adherence, medical care engagement, and viral suppression. Persons with GAD symptoms were significantly more likely to be depressed, have an unmet need for mental health services, and have higher numbers of emergency room visits than those without these symptoms. Persons with GAD symptoms reported significantly higher levels of drug use and HIV stigma compared to those without. GAD symptoms were associated with higher prevalence of condomless sex while not sustainably virally suppressed with an HIV-negative person who was not taking preexposure prophylaxis.

Conclusions/Implications: Almost 1 in 5 adults with diagnosed HIV experienced recent symptoms indicative of GAD. GAD symptoms were associated with greater socioeconomic, physical, and mental health challenges and experiences of violence. Outcomes along the HIV care continuum were poorer among those with symptoms, and these persons were more likely to engage in sexual behaviors that carry a risk of HIV transmission. Our findings suggest a need to improve access to mental health counseling and treatment for this population to improve their health outcomes and decrease the likelihood of HIV transmission.

CP48

Abstract 5225 - Clinical characteristics of adults with diagnosed HIV who experienced physical violence by an intimate partner

Author(s): *Ansley Lemons, Amy Baugher, Jennifer Fagan, Sharoda Dasgupta, Sharon Smith, R. Luke Shouse*

Background: Researchers hypothesize that intimate partner violence (IPV) is associated with poor adherence to HIV treatment. However, studies have shown contradictory findings regarding associations between IPV and clinical characteristics, like ART adherence, among people living with HIV (PLWH). National estimates are needed to understand the potential associations between IPV and HIV clinical characteristics to improve adherence, and thus prevent HIV transmission and improve the health outcomes of PLWH who experience IPV.

Methods: The Medical Monitoring Project (MMP) is a surveillance system that collects annual nationally representative estimates of the sociodemographic, behavioral and clinical characteristics of adults with diagnosed HIV in the US. MMP used a two-stage sampling design where 23 project areas were sampled from all states and territories, followed by randomly sampling adults with diagnosed HIV from the National HIV Surveillance System (NHSS). Data were collected through telephone or face-to-face interviews and medical record abstractions from June 2015 – May 2016. We used weighted estimates and Rao-Scott chi-square tests ($p < 0.05$) to assess differences in clinical characteristics among adults with diagnosed HIV based on reported experiences of physical violence by an intimate partner — one type of IPV — within the 12 months preceding the interview.

Results: Among adults with diagnosed HIV, 27% experienced physical violence by an intimate partner in their lifetime; in all, 5% experienced physical violence in the past 12 months. Compared with adults who did not experience physical violence in the past 12 months, those who did were statistically less likely to be currently taking ART (81% vs. 96%) and adherent to ART (84% vs. 90%), to have sustained viral suppression during the past 12 months (49% vs. 64%), and to be retained in HIV medical care (65% vs. 81%). Adults with diagnosed HIV who experienced physical violence by an intimate partner in the past 12 months were also more likely to report missing medical appointments (48% vs. 22%), have more emergency room visits (63% vs. 35%), experience overnight hospital stays (28% vs. 15%), and be admitted to the hospital (27% vs. 15%) than those who did not experience physical violence in the past 12 months.

Conclusions/Implications: More than one in four adults with diagnosed HIV experienced physical violence by an intimate partner in their lifetimes. In addition, we found that recent physical violence by an intimate partner was associated with poor clinical characteristics and higher use of emergency medical services. Among persons with diagnosed HIV, increased screening for IPV by healthcare providers may improve physical safety and identify persons who may be more likely to have poor health outcomes. Directing resources towards those experiencing IPV may be instrumental in supporting retention in care, ART adherence, and viral suppression, thereby improving health outcomes.

CP49

Abstract 5238 - Dissemination of local population-based Medical Monitoring Project data

Author(s): *Margaret Nyaku, Kathleen Wu, Jason Craw, Sharoda Dasgupta, Roy Shouse*

Background: The Medical Monitoring Project (MMP) is a national population-based surveillance system designed to produce nationally and locally representative estimates of behaviors and clinical characteristics among persons with diagnosed HIV. Leaders in HIV surveillance have recognized the value and impact of using local MMP data to evaluate burden of disease for prevention planning and to

share key findings that may affect local or national policy. However, the extent of the use of local MMP data has yet to be described. This abstract describes how and the extent to which local project areas disseminated key MMP findings and identifies facilitators of and barriers to disseminating MMP data.

Methods: We examined uses of local MMP data by reviewing locally maintained bibliographies from 23 MMP-funded project areas. We instructed project areas to include in their bibliographies any MMP data products the project area produced since the start of MMP in 2005 until April 2018. Data products were classified into 6 categories: conference papers, local presentations, fact sheets, reports, manuscripts, and other items (including newsletters and health department requests for information). As part of regular project monitoring, project areas were queried about local dissemination of MMP data and facilitators and barriers to dissemination, which we used to further understand how MMP data are disseminated locally and what supports or impedes data dissemination.

Results: Project areas reported using local MMP data in 169 conference papers, 140 local presentations, 61 fact sheets, 50 reports, 46 manuscripts, and 41 other products from 2005–2018. The majority of project areas reported sharing MMP data on their health department website (78%) or presenting MMP data at local conferences (74%). A quarter of project areas reported using MMP data during HIV awareness days (26%) and none reported using MMP data in social media campaigns. Facilitators of disseminating MMP data included using prewritten SAS code (83%), collaborating with internal partners (83%), data analysis webinars (65%), collaborating with external partners (61%), and taking analytic trainings (61%). The main barrier to disseminating MMP data was time (71%). Other barriers included few analytic resources (30%) and delays in receiving MMP data from CDC (26%).

Conclusions/Implications: MMP project areas reported using local MMP data in over 500 different analytic products. While many project areas found prewritten SAS code and collaborations with internal partners helpful in disseminating MMP data, they found data dissemination to be time consuming. To help overcome this barrier, project areas could consider expanding external collaborations with entities, such as educational institutes, that may have more resources available to analyze and disseminate data. By increasing local data dissemination efforts, key MMP data findings could have a much greater impact on local and national policy, better inform local funding allocation based on burden of disease, and help advance HIV science.

CP50

Abstract 5263 - Characteristics of tuberculosis and HIV co-infection In Texas

Author(s): *Lauren Rosenbluth, Emily Rowlinson*

Background: HIV and Tuberculosis (TB) co-infection causes complications for both infectious diseases. HIV infection is a known risk factor for TB infection and progression to active TB disease. Persons living with HIV (PLWH) are 34 times more likely to progress from TB infection to TB disease. Globally, TB is also the most common cause of AIDS-related death, accounting for one in four HIV related deaths. The purpose of this study is to explore the characteristics of HIV/TB coinfection among Texans.

Methods: The study population consisted of PLWH who were reported to Texas' enhanced HIV/AIDS surveillance system (eHARS) from 2009-2016. TB status was determined through a match to Texas'

surveillance database, Tuberculosis HIV Integrated STD System (THISIS). Persons living with HIV were considered to be virally suppressed if their viral load at the end of the year was below 200 copies/ml.

Results: 205 cases were identified for analysis with an HIV/TB co-infection. In Texas, approximately 1% of all HIV diagnosis between 2009-2016 had a reported diagnosis of TB. During the same time period, 7% of persons with a TB diagnosis were co-infected with HIV.

For patients who started TB treatment, 20% of PLWH did not complete treatment versus 12% of HIV negative patients. Of PLWH who did not complete treatment, 51% died vs 38% of HIV negative people ($p < 0.01$).

On average, 70% of HIV/TB patients were virally suppressed from 2012-2016. The proportion of virally suppressed PLWH increased each year, 57% in 2012, to 76% in 2016.

Only 7% of HIV positive cases had any TB drug resistance reported. 2% reported multi drug resistant. Conversely, 10% of HIV negative cases reported drug resistance and 1% were reported as multi drug resistant.

For TB cases that were dead at diagnosis, 23% were HIV positive, versus 7% of TB cases were alive at diagnosis and HIV positive ($p < 0.01$).

Conclusions/Implications: TB patients interact with a health care worker daily for an average of 6-9 months to receive their medication and discuss symptoms. Additionally, TB patients have multiple visits with their physician as follow up to ensure they are no longer infectious. HIV/TB patients were more likely to be virally suppressed based on their end of the year viral load, therefore it could be implicated that intensive care with their physician for TB disease could lead to better management of HIV, assisting patients to reach viral suppression.

However, a higher number of PLWH died during TB treatment, contributing to a higher amount of incomplete TB treatment cases. Further investigation is needed to understand the cause of death. The amount of TB/HIV co-infection may represent a small percentage of cases, but the quality of life is impacted by the burden of managing two infections. PLWH with TB risk factors, including born in a high incidence country, been in close contact with an infectious TB person, or traveled to a high incidence country should be tested for latent tuberculosis infection. Testing and treating for latent tuberculosis infection among PLWH could prevent a patient from progressing in active TB disease.

CP51

Abstract 5270 - Antiretroviral therapy (ART) adherence among HIV-infected opioid-dependent patients: the role of HIV-related stigma and motivation to adhere to ART

Author(s): *Roman Shrestha, Frederick Altice, Michael Copenhaver*

Background: Recent trials have contributed to an increasing global consensus regarding the use of antiretroviral therapy (ART) for HIV prevention, as HIV treatment-as-prevention (TasP) initiatives, for people living with HIV (PLWH). Opioid agonist therapies with methadone are associated with being prescribed ART and achieving optimal adherence. PLWH on methadone maintenance treatment (MMT), however, are highly diverse and beyond the benefit of HIV TasP efforts. Furthermore, little is known about factors correlated with ART adherence in patients stable on MMT, including explanatory pathways using mediation analysis. Such findings would provide new insight to guide tailored and more effective HIV TasP strategies in this population.

Methods: Participants included 133 HIV-infected, methadone-maintained patients who reported HIV-risk behaviors. Participants were recruited from community-based addiction treatment programs and HIV clinical care settings within the greater New Haven, Connecticut, using clinic-based advertisements and flyers, word-of-mouth, and direct referral from counselors. Participants were assessed using an audio-computer assisted self-interview (ACASI). Multivariable logistic regression was used to identify significant correlates and an ordinary least squares regression-based path analytic framework to test the explanatory pathway (i.e., mediational effect) for optimal ART adherence.

Results: Among 133 participants, over 40% reported sub-optimal adherence to ART and 80.4% were virally suppressed. Self-reported HIV risk behaviors were highly prevalent among participants. Optimal ART adherence was significantly associated with being virally suppressed (aOR=6.470, p=0.038), higher motivation to adhere to ART (aOR=1.171, p=0.011), and lower anticipated HIV-related stigma (aOR=0.384, p=0.015). We also found a significant interaction effect that involved motivation to adherence to ART combined with drug injection to be correlated with optimal ART adherence (aOR=1.086, p=0.049). Further analysis revealed an indirect effect of motivation on the relationship between HIV stigma and ART adherence (B=-0.121, p=0.043), thus supporting the mediation effect.

Conclusions/Implications: Findings from this study underscore the complexities surrounding ART adherence among high-risk HIV-infected opioid-dependent patients. Our findings are unique given the relative dearth of research on ART adherence practices relative to the factors we were able to examine in our analyses. Further, the results make a significant contribution to our understanding of the explanatory pathways through which various factors influence ART adherence. As HIV prevention efforts rely upon the TasP approaches future interventions approaches will need to carefully address population-specific needs that may not be evident, but may strongly influence HIV prevention outcomes.

CP52

Abstract 5293 - Opioid-related deaths among people diagnosed with human immunodeficiency virus infection in Pennsylvania, 1980-2016

Author(s): *Leena Anil, Ikechukwu Onukogu, Godwin Obiri, Sharon Watkins*

Background: Deaths among individuals infected with Human Immunodeficiency Virus (HIV) may be due to HIV or to other causes such as opioid overdose. Opioids (opiates and synthetic and semisynthetic opioids drugs) are used for the treatment of pain and end-stage diseases; use can lead to physical dependence, abuse, and addiction. Opioids are the main cause of drug overdose deaths in the US. In 2016, Pennsylvania (PA) had the fourth highest rate of death due to drug overdose (37.9 deaths/100,000 population) in the US (CDC, 2017). This study analyzes deaths due to opioid overdose (accidental and intentional) among people diagnosed with HIV in PA from 1980-2016.

Methods: HIV surveillance data from 1980-2016 were linked to PA death data. ICD-10 and ICD-9 codes for underlying cause of death due to opioids were classified based on guide published by the Prescription Overdose Team of CDC (CDC, 2013). The proportion of death from opioids during different periods (period-1, 1987-1991; period-2, 1992-1996; period-3, 1997-2001; period-4, 2002-2006; period-5,

2007-2011 and period-6 2012-2016) were examined. Individuals deceased during 2017 were excluded from the comparison of death due to opioids during different periods.

Results: 60,607 individuals were diagnosed with HIV disease in PA from 1980-2016 and 25,214 (41.6%) of them are known to be dead. Among deceased individuals, 861 (3.4%) deaths were due to a general category of drug poisoning (opioids and non-opioids). Among these, 79.6% (n=685) of deaths were specifically reported as opioids poisoning. Among the 685 opioid-related deaths, the average age of death was 46 years and the majority (68.5%) were males. Also, 44.8% were Black/African American, 37.1% were White, 14.9% were Hispanic and 3.2% were other races. Opioid-related death was highest among the 40-49 year age group (39.3%), and this ranking was true across all races. Risk factor information for acquiring HIV was complete for 569 (83.1%) cases. For individuals with known risk, 82.6% had injection drug use (IDU). 37.4% of Blacks/African Americans, 27.4% of White, 14.8% of Hispanic and 3.0% of other races had IDU as risk. Within the general category of drug poisoning, the percentage of opioid-related deaths in different time periods (4.8%, 8.0%, 71.1%, 97.7%, 97.1% and 96.1%, respectively for periods 1-6) varied significantly ($P < 0.0001$). Period wise comparison indicated no significant difference in death due to opioids poisoning in periods 4, 5 and 6. Death due to opioids poisoning was significantly different between period 3 and all other periods. Period 2 was significantly different from all other periods except period-1.

Conclusions/Implications: This study showed significant increase in the proportion of opioid-related deaths beginning in the 1997-2001 period. Beginning in 2002, opioid-related deaths represented over 97% of all drug poisoning deaths among HIV infected individuals who died, highlighting the ongoing issue of opioid abuse in the period 2002-2016. Most of the deaths were among males, Blacks/African Americans and individuals ages 40-49 years.

CP53

Abstract 5377 - Aging with HIV- do gender differences exist in cardiovascular comorbidities?

Author(s): *Robyn Fanfair, Emma Frazier1, Yunfeng Tie, Jennifer F Fagan, Madeline Sutton*

Background: BACKGROUND: The number of HIV-infected persons aged ≥ 50 years is increasing globally, and cardiovascular disease is a leading cause of death for persons living with HIV infection. Few studies have examined gender differences in cardiovascular (CVD) co-morbidities among older adults living with HIV. To inform the literature and contribute to the development of tailored interventions, we examined social, behavioral, and clinical care characteristics of HIV-infected adults ≥ 50 years from a nationally representative sample of HIV-infected men and women receiving HIV care.

Methods: METHODS: We used matched interview and medical record abstraction data from the 2009 through 2012 cycles of the Medical Monitoring Project (MMP) surveillance system. MMP data are nationally representative of HIV-infected adults in care. We limited our analyses to men and women aged ≥ 50 years of age at time of interview. We calculated weighted prevalence estimates and used logistic regression to calculate unadjusted and adjusted prevalence ratios (aPR) assessing gender differences in demographic, social and clinical characteristics, and CVD co-morbidities. The number and percentage of participants meeting current poverty guidelines were determined using the U.S. Department of Health and Human Services poverty guidelines. Co-morbidities included obesity (defined

as BMI ≥ 30 kg/m²), abnormal cholesterol (defined as ≥ 200 mg/dL), and diagnosed diabetes mellitus (DM) or diagnosed hypertension (HTN).

Results: RESULTS: Of adults aged ≥ 50 years, 40.4% were non-Hispanic black; 72.0% were diagnosed with HIV ≥ 10 years before interview; clinically, 93.6% were prescribed ART, but only 69.1% had durable viral suppression. Compared with women, men were more likely to have been diagnosed with HIV ≥ 10 years (PR 1.2; 74.4% vs. 64.7%), live above the poverty level (PR 1.6; 65.9% vs. 41.2%), and have more than a high school education (PR 1.6; 58.0% vs. 36.9%). Men were also more likely to be prescribed ART (PR 1.02; 94.1% vs. 92.1%) and have durable viral suppression (PR 1.1; 70.9% vs. 63.9%). In multivariate analyses, among those in the 50–64 year group, women had higher rates of HTN, total cholesterol, and BMI after adjusting for all factors. Among those in the ≥ 65 year group, women had higher rates of diagnosed DM, total cholesterol, and obesity after adjusting for all factors.

Conclusions/Implications: CONCLUSIONS: CVD co-morbidities were prevalent among older HIV-infected persons in care; disparities existed by gender. With an expanding population of older adults living with HIV, we need to maximize treatment of HIV infection, CVD risk factors, and co-morbidities with a particular focus on HIV-positive older women, to reduce early mortality and eliminate gender-specific CVD differences.

CP54

Abstract 5384 - Sensitivity of viral load testing information from Medicaid data, New York State, 2011-2014

Author(s): Sarah Macinski, Shannon Healy, Carol-Ann Swain, Rajeev Yerneni, Jayleen Gunn, Liudmila Shapoval, Charles Neighbors, Bridget Anderson

Background: Routine viral load (VL) monitoring is a key component of the Human Immunodeficiency Virus (HIV) continuum of care. Large population-level data systems such as Medicaid administrative billing data are routinely used to evaluate outcomes along the care continuum. However, the literature indicates that Medicaid claims data may overestimate the number of persons living with a diagnosis of HIV (PLWDH) and underestimate the proportion engaged in care. The objective of this study was to compare evidence of HIV VL laboratory testing reported in New York State (NYS) Medicaid administrative billing data to HIV VL tests routinely reported to the NYS HIV surveillance registry, which, by Public Health Law, is to receive results of all HIV-related laboratory testing for individuals residing or receiving care in NYS.

Methods: Evidence of HIV VL laboratory testing (2011-2014) reported in NYS Medicaid administrative data was compared to that reported to the NYS HIV surveillance registry (the gold standard) for NYS residents ages 18-64 years. Medicaid data were probabilistically matched to the NYS HIV surveillance registry; only individuals matching to the HIV surveillance registry were considered to be a PLWDH. HIV VL laboratory testing was identified from billing codes in Medicaid. The dates of Medicaid-billed, de-duplicated VL tests were compared to HIV VL tests received by the NYS HIV Surveillance registry to determine the overall sensitivity of VL testing in Medicaid data.

Results: Evidence of 1,051,566 HIV VL laboratory tests was identified for 50,080 PLWDH who were enrolled in Medicaid and reported to the surveillance registry. Individuals were primarily male (62%), non-Hispanic black (45%) or Hispanic (32%), with a median age of 50 years. Slightly more than half (53%, n=555,851) of the HIV VL laboratory tests were identified in both the NYS HIV surveillance registry as reported VL test results and Medicaid as billed claims; 45% (n=471,317) were identified only in the NYS HIV surveillance registry, and 2% (n=24,398) were identified only in the Medicaid billing data. The latter 2% represent a potential gap in mandated public health laboratory reporting and are under investigation. It is likely that similar gaps exist in Medicaid billing data. The sensitivity of Medicaid billing data when compared with the HIV surveillance registry was 54%.

Conclusions/Implications: Medicaid billing data substantially underestimated the frequency of HIV VL testing among PLWDH; to a lesser extent, the HIV surveillance system underestimated the frequency of HIV VL testing among PLWDH. By working together with Medicaid, HIV surveillance programs could identify HIV VL tests not reported via routine reporting and provide a more accurate representation of the HIV care continuum. Resolving gaps in laboratory reporting improves the accuracy of the HIV care cascades, potentially positively impacting Ending the Epidemic measurable goals.

CP55

Abstract 5408 - Assessing the use of electronic health record data for re-engagement in care of persons living with diagnosed HIV not receiving medical care

Author(s): *Jennifer Cukrovany, Brenda Moncur, Bridget Anderson*

Background: The National HIV/AIDS Strategy encourages jurisdictions to leverage health information technology, including electronic health records (EHR), to enhance public health data systems. The New York State Department of Health (NYSDOH) partnered with Healthix, the largest Regional Health Information Organization (RHIO) in New York State, to receive member level data to augment the NYSDOH HIV Surveillance registry for case ascertainment, to better describe the population of persons diagnosed with HIV infection, track health outcomes, and to address retention in care and other needs of diagnosed persons.

Methods: NYSDOH and Healthix developed an algorithm based on ICD-9-CM/ICD-10-CM codes and text-based information to identify HIV-diagnosed patients. Healthix sends NYSDOH an initial Continuity of Care Document (CCD) for all identified HIV diagnosed patients. NYSDOH receives updated EHR information from Healthix via HL7 version 2.5 messaging. Additionally, Healthix transmits a monthly patient expiration file for previously identified patients now known deceased by a facility reporting to Healthix. The Healthix data is parsed and matched against the NYSDOH HIV Surveillance registry. Electronic laboratory data routinely reported to the HIV Surveillance registry was used as a proxy measure for care engagement of persons diagnosed with HIV.

Results: NYSDOH has received data on 67,192 Healthix patients, including 74,527 CCDs, over 10 million HL7 updates, and 828 patient expiration records. 53,867 Healthix patients match to a person meeting CDC HIV case reporting requirements in the NYSDOH HIV Surveillance registry. Of the persons with confirmed HIV case status reported by Healthix, 3,728 appear to be living and out of care (OOC) for 13 months or more based on evidence of HIV laboratory test results reported to NYSDOH via mandated

laboratory reporting. 548 OOC cases have a patient encounter captured in Healthix at least 12 months after their last known lab in the HIV surveillance registry; this recent non-HIV related patient information represents an opportunity for NYSDOH to leverage for care reengagement. 574 OOC cases have an out of state residential address reported in the CCD or HL7 update message. 83% of patient expiration records identified fact of death information from Healthix that was previously unknown to the surveillance registry. The Healthix provided information regarding persons determined to be out of state or deceased enables NYSDOH to deprioritize Health Department efforts to reengage patients to HIV-related care in NYS.

Conclusions/Implications: Automated use of EHR data has exciting potential to augment HIV surveillance data and enhance data to care activities. In addition to case ascertainment and near real-time death ascertainment, obtaining up to date locating information for persons with diagnosed infection receiving non-HIV related care facilitates more focused efforts for linkage to and reengagement in care. More accurate representation of the population of persons living with diagnosed HIV infection in NYS, both improves the accuracy of outcomes across the HIV care continuum as well as potentially positively impacting achievement of Ending the Epidemic targets.

CP56

Abstract 5431 - Demographic disparities in the HIV continuum of care, Alameda County, California

Author(s): *Daniel Allgeier, Neena Murgai*

Background: The HIV care continuum is an established framework within the National HIV/AIDS Strategy to measure engagement of people living with HIV (PLHIV) in stages of HIV care. Linkage to care at diagnosis, retention in care, and viral suppression are important measures along the continuum to monitor care outcomes. However, analyses of continuum measures not stratified by key characteristics such as race/ethnicity, age, sex, and transmission risk groups may obscure disparities in HIV care engagement in a community. In order to better focus efforts to improve care continuum outcomes, populations experiencing large disparities in these outcomes need to be identified.

Methods: We established categories of PLHIV based on demographics (race/ethnicity, age, sex) and transmission risk—such as people of color (POC) and “young” patients (13-29 years of age)—consistent with groups most impacted by HIV in Alameda County. We stratified care continuum measures by these categories to observe disparities in outcomes. We also examined the relationship between number of visits to a care provider and viral suppression rates.

Results: Of the 732 newly-diagnosed cases in Alameda County 2014-2016, 79.4% of injection drug users (IDU) were linked to care within 90 days compared to 88.0% men who have sex with men (MSM) and 87.1% in the county overall. Of the 5,441 PLHIV in Alameda County at year-end 2016, 49.8% of young, female POC; 49.5% of young, male POC; and 50.6% of MSM POC were retained in care—i.e., had two or more visits at least 90 days apart—compared to 57.5% in the county overall. Further, 56.9% of young, female POC; 61.2% of young, male POC; 62.7% of all young PLHIV; and 59.5% of IDU compared to 68.0% of all PLHIV in Alameda County in 2016 were virally suppressed. Among PLHIV with only one visit during 2016, 84.4% were virally suppressed whereas 92.3% of PLHIV with two or more visits were virally suppressed. Further, when stratified by number of visits

in 2016, viral suppression was the highest among those with three visits, at 93.6% and lowest among those with six or more visits, at 79.6%.

Conclusions/Implications: Young POC experience disparately lower levels of retention in care and viral suppression than PLHIV overall. Linkage to care and viral suppression was also lower among IDU. If significant improvements in HIV outcomes are to be achieved, efforts to engage young POC and IDU at all stages along the care continuum need to be strengthened. While we had hypothesized that only one visit to care providers may be indicative of patients effectively managing their HIV care, the results do not support this conclusion. Viral suppression generally improved incrementally with number of visits; the highest viral suppression rates were seen among those with 2-4 visits per year, which suggests that a higher level of active engagement may improve outcomes.

CP57

Abstract 5472 - Differences in sustained viral suppression and transmission risk potential among subgroups of persons aged 13-29 years living with diagnosed HIV infection, United States, 2015

Author(s): *Nicole Crepaz, Xueyuan Dong, Kristen Hess*

Background: In 2016, persons aged 13–29 years represented 23% of the U.S. population, yet accounted for 41% of diagnoses of human immunodeficiency virus (HIV) infection during the same year. Having and sustaining a suppressed viral load helps a person stay healthy and reduces the risk of transmitting HIV to others. We examine the extent of sustained viral suppression and transmission risk potential among subgroups of persons aged 13–29 years.

Methods: We analyzed data from the National HIV Surveillance System (NHSS) reported through December 2017 from 40 jurisdictions with complete laboratory reporting. This analysis includes persons aged 13–29 years who received diagnosis of HIV infection by December 31, 2014, most recently resided in one of the 40 jurisdictions, and were alive at the end of 2015. Sustained viral suppression was defined as viral load test results of < 200 copies of HIV RNA/mL for all tests in 2015. HIV transmission potential was estimated among persons in care (i.e., had at least one viral load test in 2015) who did not achieve sustained viral suppression and was defined as the number of days that a person’s viral load was > 1,500 copies/mL, a level that increases the risk for transmitting HIV. Sustained viral suppression and transmission risk potential were assessed by sex and transmission category, stratified by race/ethnicity.

Results: The analysis cohort consisted of 84,962 persons, including 47,535 (55.9%) blacks/African Americans, 18,670 (22.0%) Hispanics/Latinos, 13,230 (15.6%) whites, and 5,527 (6.5%) other racial/ethnic groups. Of these 84,962 persons, 38.5% achieved sustained viral suppression in 2015. There was a lower percentage of blacks with sustained viral suppression (33.0%) compared to Hispanics (44.4%) and whites (47.7%). Men who have sex with men (MSM) had the highest percentage of persons with sustained viral suppression (41.4%), while people who inject drugs (PWID) had the lowest percentage with sustained viral suppression (28.5% for males and 29.2% for females). Across all transmission categories, blacks/African Americans had the lowest percentages of persons with sustained viral suppression, compared to Hispanics/Latinos and whites. Among 27,736 persons (32.6% of 84,962) who were in care but without sustained viral suppression in 2015, the average number of days with viral loads > 1,500 copies/mL was 211 days (57.8% of the 12-month period). Blacks experienced longer

periods (218 days, 59.7% of the 12-month period) with viral loads > 1,500 copies/mL, than did Hispanics (204 days, 55.9%) and whites (189 days, 51.8%).

Conclusions/Implications: Among persons aged 13–29 years living with diagnosed HIV infection at year-end 2015, less than four in 10 persons sustained viral suppression. Approximately one in three persons were in care but without sustained viral suppression. This group had viral loads > 1,500 copies/mL during 58% of the 12-month period, a circumstance that may increase transmission risk potential. Subgroup differences in sustained viral suppression and transmission risk potentials call for strengthening interventions that improve access to antiretroviral therapy, promote medication adherence, and address barriers to clinical care and supportive services for all persons with diagnosed HIV infection, especially for blacks/African Americans and PWID.

CP58

Abstract 5481 - Exploring antiretroviral therapy (ART) adherence among HIV-positive black and Hispanic/Latina women in HIV care

Author(s): *Erin Bradley, Emma Frazier, Madeline Sutton*

Background: Racial/ethnic disparities in HIV care for women are well documented, with women of color persistently having poorer antiretroviral therapy (ART) adherence and viral suppression compared with white women. ART adherence is vital for achieving viral suppression, but is understudied among HIV-positive women of color. Our primary aim was to identify factors associated with ART adherence among black women and Hispanic/Latinas to inform intervention development.

Methods: We analyzed 2013-2014 data from black women and Hispanic/Latinas participating in CDC's Medical Monitoring Project (nationally representative surveillance data from HIV-positive adults receiving care). We calculated weighted frequency estimates and used multivariable logistic regression to compute adjusted prevalence ratios (aPR) and 95% confidence intervals (CI) to examine associations between ART adherence and sociodemographic and clinical factors.

Results: Overall, data were available for 2,197 women (76% black women and 24% Hispanic/Latinas). Self-reported ART adherence (no missed doses in past 3 days) was not significantly different, with 82% of black women and 87% of Hispanic/Latinas being adherent ($p>0.05$). Modest associations were observed between ART adherence and older age (aPR=1.23; CI: 1.05-1.44), being born outside of the United States (aPR=1.08; CI: 1.02-1.14), later HIV disease stage (aPR=1.15; CI: 1.07-1.24), no depression in past 2 weeks (aPR=1.07; CI: 1.01-1.12), no incarceration in the past 12 months (aPR=1.20; CI: 1.03-1.40), and no healthcare-related discrimination since HIV diagnosis (aPR=1.06; CI: 1.01-1.11).

Conclusions/Implications: Our findings suggest that these factors are important for ART adherence among women of color and warrant consideration during development of interventions for improved HIV care.

CP59

Abstract 5523 - Predictors of parenting practices in matched-pairs of mothers living with HIV and mothers experiencing intimate partner violence

Author(s): *Idia Thurston, Kathryn Howell, Caroline Kaufman, Jessica Mandell, Kristina Decker*

Background: Women account for over a quarter of all new HIV diagnoses, with rates of intimate partner violence (IPV) among HIV+ women estimated around 60% (Gielen et al., 2007). Despite the high co-occurrence of HIV and IPV, limited attention is directed at addressing IPV in HIV care. Mothers living with HIV and IPV may experience the added burden of coping with multiple adversities, which could lead to higher stress, greater psychopathology, and diminished parenting (Catz, Gore-Felton, & McClure, 2002). The current study utilized case-control matching to explore parenting among mothers living with HIV and IPV. We hypothesized that women living with two adversities (HIV and IPV) would utilize more negative parenting strategies relative to mothers experiencing one adversity (IPV).

Methods: Participants were 66 women (Mage = 36.5, SD = 7.2) in the U.S. MidSouth. Over half (51.5%) of whom had not completed high school, and two-thirds (68.2%) had a yearly income \leq \$15,000. Approximately 85% self-identified as Black, 12% as Multiracial, and 3% as Latina. Mothers with a child aged 8-14 were recruited from four community organizations (two serving people living with HIV, two serving people experiencing IPV) to complete hour-long interviews. Women reported on their demographics, HIV testing history, depressive symptoms (Center for Epidemiologic Studies Depression Scale), life stressors (Life Events Checklist), partner violence (Revised Conflict Tactics Scale), parenting practices (Alabama Parenting Questionnaire), and child behavior difficulties (Strengths and Difficulties Questionnaire). Participants living with HIV and experiencing recent IPV (i.e., cases) were matched (based on age, race/ethnicity, and education) with women experiencing recent IPV (i.e., control) for a matched-sample of 33 pairs. Moderation analyses were conducted in SPSS PROCESS to examine associations between depressive symptoms and negative parenting as moderated by HIV status.

Results: Matched samples did not significantly differ by age, race/ethnicity, or education. There was a significant correlation between depressive symptoms and negative parenting ($r = .42$, $p < .01$). IPV experiences were more severe in the IPV only group ($M = 176.85$) relative to the IPV and HIV group ($M = 48.12$; $p < .001$). Mothers had experienced between 2-15 stressful life events ($M = 5.44$, $SD = 3.15$). The moderation model (controlling for IPV severity, life stressors, and child behavior) was significant, $F(6, 57) = 5.08$, $p < .001$, $R^2 = .36$. Moderation was supported as the interaction between depressive symptoms and HIV status was associated with negative parenting practices ($\beta = .37$; $p < .05$). Specifically, the conditional effect of depression on parenting was significant for mothers who were living with HIV and IPV ($\beta = .44$, $p < .001$), but not for mothers solely experiencing IPV ($p > .05$).

Conclusions/Implications: Findings highlight the added burden of an HIV+ diagnosis in the context of experiencing partner violence, even after other stressful life experiences, violence severity, and child behavior are taken into consideration. Given the high prevalence of HIV and IPV, coupled with the role negative parenting serves in exacerbating poor health outcomes among children exposed to adversity, it is imperative that clinicians and researchers explore strategies to promote positive parenting.

CP60

Abstract 5566 - HIV-related knowledge, beliefs, attitudes and practices of primary care providers in the southeastern United States, 2017: rationale and methods

Author(s): *Malendie Gaines, Kirk Henny, Madeline Sutton*

Background: African Americans (hereafter referred to as blacks) represented 54% of persons diagnosed with HIV in the southern United States (U.S.) in 2016, however blacks in the south have later initiation of antiretroviral therapy (ART) and greater HIV-related morbidity and mortality compared with non-Hispanic whites. Primary care providers (PCPs) are uniquely positioned to promote HIV prevention methods, early detection, and treatment among clients who live in the southern U.S.; but data are limited regarding overall HIV readiness among PCPs practicing in these areas. We surveyed PCPs in the southern U.S. regarding their HIV-related knowledge, beliefs, attitudes, and practices to understand possible gaps and opportunities for targeted HIV educational and prevention strategies.

Methods: Between April and August 2017, we conducted an on-line survey of PCPs in six southeastern metropolitan statistical areas (MSAs) with high prevalence of HIV infection (Atlanta; Baltimore; Baton Rouge; District of Columbia; Miami; New Orleans). The 56-item baseline survey queried participants regarding demographics (age, gender, race/ethnicity, sexual orientation, provider type, MSA), previous HIV-related training, knowledge, attitudes and practices regarding: sexual health and risk reduction; screening for substance use, mental health, and depression; screening for HIV/STIs; recognizing HIV and prescribing ART; familiarity with post-exposure prophylaxis (PEP) and pre-exposure prophylaxis (PrEP); and prescribing PEP and PrEP. We assessed treatment as prevention (TasP: ART initiation at any CD4 count), PrEP and PEP knowledge, and prescription practices. We computed weighted prevalences and 95% confidence intervals (CI) using SUDAAN.

Results: There were 820 participants after fielding 4,595 surveys (20% adjusted response rate). In the weighted analyses most PCPs self-identified as female (59.4%; CI=48.54, 70.26), white (60.2%; CI=51.18, 69.28), and a physician (75.6%; CI=62.12, 89.11). Among PCPs, 36.3% reported previous HIV-related training. PCP respondents reported routinely obtaining sex history and risk (41.9%) and routinely screening for substance use (72.4%), mental health (54.7%), and depression (40.7%). We also found 45.5% of PCPs offered repeated or routine HIV testing, and 79.4% of PCPs did not provide or were unsure if condoms were provided at their practice facility. Among PCP respondents, over half had not heard or knew little of the concept about PrEP (57.6%) or PEP for sexual exposure (47.9%). Among PCPs in the sample, 29.5% ever prescribed PEP for sexual exposure, 17.7% ever prescribed PrEP, and 77.3% ever prescribed ART.

Conclusions/Implications: Overall, HIV-related knowledge, beliefs, attitudes, and practices was suboptimal among our sample of clinical providers in southern MSAs with high prevalence of HIV infection. These baseline data can be used to target HIV-related training resources to improve PCPs' HIV-related knowledge and practices for optimal HIV prevention and care for persons living in the southern states.

CP61

Abstract 5586 - Prevalence of alcohol and substance use in a sample of HIV/HCV co-infected patients who are in routine clinical care receiving antiretroviral therapy

Author(s): *Omar Sims, Chia-Ying Chiu, Rasheeta Chandler, Kaiying Wang, Pamela Melton*

Background: Biological and behavioral synergistic affects associated with substance and alcohol use in HIV/HCV co-infected patients markedly increases morbidity and mortality, including patients receiving antiretroviral therapy. Following clinical guidelines, clinicians routinely recommend HIV/HCV co-infected patients to cease substance use and any level of alcohol use. Using a sample of HIV/HCV co-infected patients who were in routine clinical care receiving antiretroviral therapy, the objectives of this study were to estimate the prevalence of alcohol use and substance use, to compare clinical characteristics of those with and without alcohol and substance use, and to compare clinical characteristics of African American and non-African American patients.

Methods: This study recruited a sample of HIV/HCV co-infected patients receiving antiretroviral therapy (n=137) at a university affiliated HIV Clinic between January 2013 and July 2017. Measures of central tendency and frequency distributions were used to characterize the sample. Chi-square and the independent samples t-test were used to compare patients with and without alcohol and substance use, and African American and non-African American patients.

Results: The majority of HIV/HCV co-infected patients on antiretroviral therapy were ≥ 55 years of age (64%), male (75%), African American (61%), insured (80%), and genotype 1 (91%). Nearly one-fourth were cirrhotic (23%). The prevalence of substance use disorders, psychiatric disorders, and alcohol use disorders were 75%, 63%, and 32%, respectively.

The prevalence of alcohol use during antiretroviral therapy was 68%. Compared to those without alcohol use, those with alcohol use were more likely to be non-adherent to antiretroviral therapy (61% vs. 93%, $p = 0.000$). The prevalence of substance use during antiretroviral therapy was 31%. The most frequently used substances were cannabis (27%), street opiates (10%), prescription opiates (9%), cocaine (8%), and prescription stimulants (7%). Compared to those without substance use, those with substance use had lower levels of quality of life (0.78 ± 0.18 vs. 0.72 ± 0.17 , $p=0.031$). Those with and without substance and alcohol use did not differ in any other clinical characteristics.

Compared to African Americans, a higher proportion of non-African Americans were more cirrhotic (17% vs. 32%, $p=0.046$) and had higher levels of quality of life (0.76 ± 0.20 vs. 0.77 ± 0.14 , $p=0.016$). Compared to non-African Americans, a higher proportion of African Americans were non-adherent to antiretroviral therapy (20% vs. 37%, $p=0.035$). The two patient groups did not differ in any other clinical characteristics.

Conclusions/Implications: The prevalence of alcohol and substance use in this clinic sample of HIV/HCV co-infected patients receiving antiretroviral therapy was alarmingly high. Unexpectedly, a significant number of patients who used alcohol did not have alcohol dependency. The findings highlight a need for clinicians to not overlook HIV/HCV co-infected patients who are without alcohol use disorders. The findings also suggest an urgent need for behavioral and pharmacologic interventions in HIV clinical settings to help HIV/HCV co-infected patients achieve reduction and abstinence from alcohol and

substance use. Additionally, research is needed to explore why African American HIV/HCV co-infected patients are more likely to be non-adherent and have lower quality of life.

CP62

Abstract 5661 - Interpersonal violence among people living with HIV: findings from the Texas Medical Monitoring Project

Author(s): *Daniele Fedonni, Melissa Carr, Sabeena Sears, Nallely Trejo, Osaro Mgbere, Margaret Vaaler*

Background: Decreasing interpersonal violence (IPV) among people living with HIV (PLWH) is a priority outlined in the national HIV prevention goals, and it may have an impact on key HIV outcomes. The majority of research on IPV among PLWH has mainly focused on women, and it shows that women who have experienced IPV are three times more likely to have an HIV/AIDS diagnosis. Recent studies also suggest that men who have sex with men (MSM) are disproportionately affected by IPV compared to men who have sex with women (MSW). IPV data among PLWH in Texas are scarce. Therefore, we aim to assess the overall proportion and demographics of participants who experienced IPV, and to help determine the use of and need for domestic violence services among PLWH in Texas.

Methods: We used unweighted data from the 2015 and 2016 data collection cycles of the Texas and Houston Medical Monitoring Projects (MMP), a cross-sectional survey that produces nationally and locally representative estimates of persons with diagnosed HIV. Sixteen states, six cities/counties, and one US territory participated in MMP during these cycles, which were conducted from June 2015-June 2017. During this time, interviews and medical record abstractions were conducted among 638 PLWH in Texas. IPV was defined as either physical violence by an intimate partner or any sexual violence. Participants were asked about experiencing IPV ever in their lifetime and experiencing IPV in the past 12 months prior to interview. Demographic differences within lifetime experience of IPV were assessed using chi-square tests, and significance level was determined at $p < 0.05$.

Results: Thirty-three percent of survey participants reported experiencing IPV ever during their lifetime, with 6% having experienced IPV in the last 12 months. A higher proportion of women (43%) reported IPV in their lifetime than men (29%) ($p < 0.01$). More white participants (42%) reported IPV in their lifetime than black (31%) and Hispanic participants (26%) ($p < 0.01$). Fifty-four percent of participants who experienced IPV reported missing at least one dose of antiretroviral therapy (ART) in the last 30 days with 8% reported missing at least 7 doses in the last 30 days. Thirty-four percent of MSM experienced IPV in their lifetime compared to 20% of MSW ($p < 0.01$). Seven percent of MSM experienced IPV in the last 12 months compared to 4.5% of MSW. Eleven percent of survey participants who experienced IPV in the last 12 months reported that they needed domestic violence services, but these participants almost unanimously reported not receiving domestic violence services in the last 12 months.

Conclusions/Implications: Decreasing IPV could improve health outcomes and reduce barriers to routine medical care, including ART prescription. A substantial proportion of participants, particularly women and MSM, reported IPV both within their lifetime and the past 12 months. However, almost none of the participants said they received domestic violence services. In order to decrease IPV, HIV care and case management should be oriented to identify and address the barriers to domestic violence services at individual and organizational levels.

CP63

Abstract 5695 - Belief vs. reality: HIV prevention beliefs and behaviors among people living with HIV in Georgia

Author(s): *Fay Stephens, Pascale Wortley, Natalie Lucas, Kiswana Branch, LaShanna Daniels, Melissa Gousse, Timothy Lockhart, Shaunta Rutherford, Cherie Drenzek*

Background: HIV prevention messaging states that persons living with HIV (PLWH) who maintain durable viral suppression (DVS) have “effectively no risk” of transmitting HIV to their negative sexual partners. We used data from the Georgia Medical Monitoring Project (GA MMP) to assess the prevalence and characteristics of PLWH who agree with the practice of deciding to engage in unprotected sex based on viral suppression status.

Methods: The GA MMP is a surveillance system which produces representative data for HIV-infected adults receiving HIV care in Georgia. For MMP participants sampled from 2012-2014, belief in viral suppression informing sexual risk behavior was defined as agreement with either statement: “An undetectable viral load means I (1) am more likely to have unprotected sex, or (2) can worry less about having to use condoms”. Risk behaviors, antiretroviral therapy (ART) use, and diagnosis of other sexually transmitted infections (STIs) were determined by self-report during the past 12 months. Based on medical record abstraction, DVS was defined as all viral loads \leq 200 copies/mL in the 12 months prior.

Results: Of 558 MMP participants, 100 (17.9%) reported agreement with the practice of determining sexual risk behavior based on viral suppression status. Agreement was more prevalent among participants who were White or Hispanic compared to African American (24% vs. 15% agree, respectively, $p=0.05$) and who were more recently diagnosed with HIV (22% vs. 13%, diagnosed <10 vs. 10 or more years ago, $p=0.03$). Participants who agreed with this strategy were more likely than those who disagreed to report binge drinking (20% vs. 12%, respectively, $p=0.04$) and any drug use (34% vs. 19%, respectively, $p<0.01$) in the past 12 months and less likely to report currently taking ART (91% vs. 97% reported among those who agree vs. disagree, $p<0.01$). Any sexual activity in the past 12 months was significantly more commonly reported by participants who agreed than those who disagreed (80% vs. 61% reported, respectively, $p<0.01$), as was unprotected sex with any partner (75% vs. 24% reported, agree vs. disagree, $p<0.001$) and with an HIV-negative or unknown-status partner (36% vs. 9% reported, respectively, $p<0.001$) among those with any sexual activity in the past 12 months. There was no significant difference in DVS by agreement with this practice (72% vs. 66% with DVS among those who agreed vs. disagreed, $p=0.30$). Other STIs were diagnosed in 28% of participants who reported any unprotected sex in the past year and 8.5% of those who reported no unprotected sex.

Conclusions/Implications: Participants who agreed with determining sexual risk behaviors by viral suppression reported more unprotected sex, including with partners with negative or unknown HIV status. However, they were no more likely to be durably virally suppressed than those who disagreed and reported less unprotected sex. Fewer who agreed reported taking ART and more reported other risk behaviors. Clear messaging is critical to convey the necessity of sustained viral suppression to effectively prevent HIV transmission with this strategy, and the risk of transmission of other STIs remains with unprotected sex regardless of viral load.

CP64

Abstract 5864 - Missing the goals of treatment as prevention: young black MSM living with HIV in large Southern cities and the continuum of care

Author(s): *Susan Kegeles, Gregory Rebchook, Lance Pollack, Judy Tan, David Huebner, Scott Tebbetts, Ben Zovod, John Peterson*

Background: Young black MSM (YBMSM) are disproportionately represented among people living with HIV (PLWH) in the US and are at considerably more risk for acquiring HIV than other groups in the U.S. Treatment as Prevention is a promising approach for helping PLWH eliminate their infectiousness to others and maximally help their own health, but it requires transacting the HIV Continuum of Care (CC) to reach viral suppression. This study examines the CC in two large cities in the South among HIV+YBMSM as of late 2015-2016. Most studies of HIV+YBMSM use clinic-based samples, but to accurately assess progress in the CC across the YBMSM community, we recruited a community-based sample.

Methods: Long-chain peer recruitment was used to enroll YBMSM aged 18-29 years in two large Texas cities. All men were tested for HIV, and HIV+ men were recruited into the cohort (N=331). Surveys were self-administered on I-pads at project sites.

Results: A total of 331 HIV+YBMSM were included in analyses; mean age was 24.5; 45% had high school degrees or less education and few had graduated from college (6%). Fewer than half the YBMSM (43.5%) had linked to care (144/331 total sample). Slightly more than a quarter of the men were maintained in care, that is they saw their physicians/provider at least twice in the past months: 26.6% (88/331). Nearly as many men reported taking antiretroviral therapy (ART), 23.6% (78/331). Substantially fewer men, however, reported that they missed medications less than once/week: 15.1% (50/331), a necessity for being virally suppressed. Only 11.5% (38/331) of the total sample was retained in care, were adherent to their ART regimen, and reported being Undetectable. Among YBMSM who ever linked to care (N=144), we found that only 61.1% (88/144) were retained in care subsequently. Most men who were retained in care (88.6%) were taking ART (78/88); unfortunately, a few reported that their physician was holding off on prescribing medications. There was a substantial drop-off however at this point in the CC, as only 64.1% of men retained in care were very consistent in taking their medications (50/78). Seventy-six percent (38/50) of those retained in care and adherent to their ART regimen reported being Undetectable. Thus, only a quarter (26.4) of the men who linked to care reported being Undetectable (38/144).

Conclusions/Implications: These results indicate slower progress in helping HIV+YBMSM become virally suppressed than has been shown in other studies. The majority of YBMSM who were diagnosed with HIV never linked to care. While most men in care are taking ART, many were inconsistent in taking their medications. Only about one-in-ten YBMSM living with HIV achieved viral suppression. Far more work, using culturally informed approaches, is needed to address how to get HIV+YBMSM into care and virally suppressed in the US South if we are to slow HIV incidence in that region.

CP65

Abstract 5887 - Factors associated with suboptimal ART adherence among people living with HIV reporting pain

Author(s): *Verlin Joseph, Abenaa Jones, Zachary L Mannes, Huiyin Lu, Nicole Ennis, Charurut Somboonwit, Robert Cook*

Background: Adherence to antiretroviral therapy (ART) is an effective method of slowing disease progression and reducing HIV transmission from HIV positive individuals to uninfected partners. Complicating adherence to ART ($\geq 95\%$) are factors such as pain, substance use) and mental illness (ex: anxiety). Additional research is needed to understand the extent to which these substance use and mental illness hinder ART adherence among PLWH and pain simultaneously. As such, the aim of this analysis was to identify mental health (anxiety) and substance use (hazardous drinking and marijuana use) factors associated with sub-optimal ART adherence among PLWH reporting pain.

Methods: Data were derived from HIV+ adults (N=932) recruited from community health centers in Florida. Participants completed questionnaires regarding demographic characteristics, pain, ART adherence, substance use, and mental health information. Pain was assessed as Mild/moderate (1-6) and severe pain (≥ 7) using the Brief Pain Inventory Short Form. ART adherence was defined as the proportion of days during the last 30 days participants did not miss any medication. ART adherence was then dichotomized as sub-optimal ($<95\%$) and optimal ($\geq 95\%$). Our final sample consisted of 370 participants endorsing mild/moderate and severe pain. A logistic regression was conducted to assess the relationships between mental health and substance use covariates and sub-optimal ART adherence, controlling for pain severity, race/ethnicity, anxiety, hazardous drinking, and marijuana use.

Results: Overall, 80% (N=296) of participants reported mild/moderate pain while 20% (N=74) of participants reported severe pain. Furthermore, 67% (N=213) of participants reported optimal ART adherence while 33% (N=105) of participants reported sub-optimal ART adherence. After controlling for selected covariates, the strongest correlate of sub-optimal ART adherence was hazardous drinking. Sub-optimal adherence was AOR 2.06 (CI:1.18, 3.60) times higher among hazardous drinkers compared to non-hazardous drinkers. Additionally, the odds of sub-optimal ART adherence were AOR 1.87 (CI:1.08, 3.25) times higher among marijuana users compared to non-marijuana users. Pain intensity (moderate or severe) and anxiety, along with other factors including race, gender, and were not significant in the adjusted multivariate model.

Conclusions/Implications: Our study identified marijuana use and hazardous drinking as significant predictors of sub-optimal ART adherence among PLWH reporting pain. Therefore, strategies seeking to reduce HIV transmission by improving ART adherence should specifically target alcohol and marijuana users with pain.

CP66

Abstract 5915 - Creating a platform for self-directed antiretroviral medication and appointment adherence via text, phone and email messages for HPTN 078

Author(s): *Theresa Gamble, Jill Stanton, Anna LeViere, Amos Adler, Chris Foster, John Glorioso, William Graves, Kiko King, Robert Remien, Chris Beyrer*

Background: Texting, phone calls and email are used in both clinical and research settings for various types of medically-related behavior change, with literature showing a steady increase in the evidence of success. However, the ability to provide automated, customizable, bi-directional communication in all three modes, as well as the capacity to quantitate and capture the content of customized messages, does not exist. We describe a web-based platform, created to provide a participant driven intervention, that is being tested as a way to increase appointment and medication adherence in HIV patients.

Methods: The HPTN 078 protocol team partnered with a technology company with experience in medication adherence and the capacity to build a web-based system to send and receive messages via text message, email and phone. A collaborative process with potential end-users was used to develop the platform. The system was built with the ability to control the content and timing of each message in all three modes of communication, to send messages from participants to their case managers when they needed assistance, and to capture all communication to and from participants. Regarding message content, the study intervention is designed to be participant driven - patients may choose from stock messaging or create their own. These features with various options (communication mode, content, frequency) enhance the capacity to personalize messaging. In addition, the system is able to capture data on message content and quantity for analysis.

Results: Preliminary data show that 10,629 messages have been sent through the communication platform system between June 2016 and June 2018. Of the 65 participants using the system, slightly more than half (55%, $n = 36/65$) have opted to receive messages other than required study appointment reminders. Among the other types of messages selected, the most commonly selected was non-study appointment reminders ($n=23$), followed by motivational messages ($n=19$) and medication reminders ($n=16$), with participants being able to select more than one type of message to receive. Of the participants who selected motivational messages and medication reminders, the majority opted to receive daily, or near daily, text messages, which make up the majority of all messages sent (4,437 and 4,334, respectively). The most commonly selected mode of delivery across all message types was via text, though both phone calls and email have also been utilized. Additionally, although all messages were able to be customized, nearly all participants selected to receive the stock message option. In response to these messages, about a third of participants ($23/65 = 35\%$) requested help via the system.

Conclusions/Implications: It is feasible to collaboratively develop a system to create, deliver and capture participant-driven messages to support and encourage ART and appointment adherence, as well as provide a mechanism for participants to request assistance. The preliminary data indicates that while some modes and types of messages are much more commonly selected, participants do have a variety of individual preferences for communication and will utilize a variety of features and reminders when given the option. If the intervention proves successful, this technology is easily adaptable to real world implementation.

CP67

Abstract 5951 - Exploring HIV-related stigma in persons living with HIV in Florida, Medical Monitoring Project, 2015

Author(s): *Renessa Williams, Jontae Sanders, Robert Feio, Zhi Zhou, Christa Cook, Robert Lucero, Robert Cook, Emma Spencer*

Background: Florida is a high morbidity state with approximately 115,000 people living with HIV. Stigma or feelings of shame and disgrace is common in persons living with HIV, can be manifested in multiple domains, and has negative effects on treatment, engagement in care, and mental health outcomes. Previous findings suggest that individuals who are marginalized by society experience stigma in different ways. Little research has been done to compare the differences of HIV-related stigma among individuals based on demographic characteristics. To this end, we used cross sectional survey data to explore the relationships between HIV-related stigma and demographic characteristics.

Methods: We analyzed data from the 2015 Medical Monitoring Project (MMP) in Florida. Stigma among 299 adults who were living with HIV was assessed using the 10-item modified Berger Scale that measures four dimensions of HIV stigma including personalized stigma, disclosure concerns, perceived public attitudes about persons living with HIV, and negative self-image. Weighted bivariate analyses was performed to explore the association between each of the 10-stigma items and demographic factors including gender, race/ethnicity, and sexuality (lesbian/gay, straight, bisexual, and other). The Rao-Scott Chi-Square test was used to test statistical significance at $p < 0.05$.

Results: There is variation in stigma items that were significantly associated with race/ethnicity, sexuality, and gender. Blacks tended to experience more fear related to stigmatizing attitudes towards disclosure than any other race ($p < 0.006$). Whites on the other hand, were significantly concerned with public attitudes surrounding HIV ($p < 0.05$). Hispanics were significantly less likely to agree to items related to personalized stigma than other race/ethnicities ($p < 0.04$). Additionally, females tended to have more experiences related to disclosure concerns, public attitudes, and personalized stigma compared to males ($p < 0.05$). Lastly, people who identified as lesbian/gay were significantly less likely than others to have a negative self-image ($p < 0.01$).

Conclusions/Implications: Our findings indicate that stigma is experienced differently by racial demographic groups, sexuality, and gender in a Florida sample of adults living with HIV. We will continue to explore the data to define other factors associated with stigma including socioeconomic status, education-level, and its impact on retention in HIV care, medication adherence, and viral suppression. As HIV-related stigma impacts subgroups differently, future considerations should explore how to effectively tailor interventions to subgroups to address these concerns.

CP68

Abstract 5960 - Assessing differences in barriers to care and viral suppression among patients receiving health department re-linkage assistance

Author(s): *Crystal Lucas, Tanner Nassau, Shedane Shaw, Cherie Walker-Baban, Kathleen Brady*

Background: Retention in HIV care is a point of steep drop-off in the care continuum. Philadelphia data indicates that 46.4% of people living with HIV (PLWH) were retained in HIV care and 50.9% were virally suppressed (VS) in 2016. There is an urgent need to identify barriers to care (B2C) and to develop interventions to address barriers to improve re-engagement in care.

Methods: The Cooperative Re-Engagement Controlled Trial is a CDC funded study to assess the feasibility of a joint Health Department (HD)/clinic intervention to identify HIV+ out-of-care (OOC)

individuals and measure the effectiveness of an active HD intervention to re-engage these individuals in care. Criteria for OOC were: Philadelphia resident; age >18; in care at the participating facility during a 12-month eligibility period; no evidence of care in > 6 months validated through surveillance; and not ineligible by the facility (i.e. well patient, upcoming visit). B2C data were collected on OOC individuals randomized to the HD intervention by disease intervention specialists using qualitative interview methods between August 2016 and January 2018. We found that 65.9% of persons who were identified as OOC and randomized to the intervention had a suppressed viral load (<200 copies/ml) at their last care visit. Outcomes of interest were: 1) VS at the time of last care; and 2) durable virally VS (all viral loads (min >2)) in the 24 months prior to randomization. We used univariate and multivariable stepwise logistic regression models to determine predictors for each outcome including demographics, length of time with HIV, AIDS status, and number of and specific B2C.

Results: 448 OOC individuals were randomized to the intervention arm of which 273 (60.9%) were located (13.2% ineligible, 2.5% refused, 23.4% unable to locate). Demographics of the 273 individuals were: 71.1% black, 9.9% Hispanic; 75.8% male; 61.5% age 30-54; 45.1% MSM, 24.5% heterosexual, 22.3% injection drug user; 27.5% LWH for 6-10 years, 43.2% >11 years. B2C were common: 8.8% reporting no BTC, 27.8%=1, 41.4%=2, and 22.0% >3 barriers. B2C groups included: attitudes/perception about HIV health (13.9%), challenges with the medical facility (16.2%), mental health (10.3%), SES factors (15.9%), insurance/access to care (9.8%), time management (20.5%) and other (13.4%). In multivariable logistic regression models, we found OOC persons age >55 were 4.11 times as likely (95%CI:1.55-10.85) to be VS and 3.59 times as likely (95%CI:1.60-8.06) to be durably VS prior to randomization. Women were half as likely to be durably VS (AOR 0.53, 95%CI:0.29-0.96) compared to men. No other predictors including the number of or specific B2C were associated with either outcome.

Conclusions/Implications: We anticipated that persons who were either VS or durably VS prior to being lost to care would have fewer BTC but we found no associations between either the number of or specific B2C with either outcome. However, the majority of OOC PLWH experience multiple BTC and the BTC reported varied significantly. Actions to address BTC identified can be made at the patient-, clinic- and system-levels and are necessary regardless of VS status to re-engage OOC patients back to care.

CP69

Abstract 6014 - Comparing clinical outcomes of persons living with HIV who have and have not been enrolled in a large longitudinal HIV cohort study in Washington, D.C.

Author(s): *Jenevieve Opoku, Rupali Doshi, Amanda Castel, Adam Allston, Alan Greenberg, Michael Kharfen*

Background: HIV cohort studies have been used to assess health outcomes and inform the care and treatment of people living with HIV disease (PLWH). However, there may be similarities and differences between cohort participants and the general population from which they are drawn. The DC Cohort, an observational longitudinal cohort study, enrolls consenting PLWH receiving HIV care in Washington, DC (DC) at clinical sites that provide care to the majority of PLWH in the DC area. This analysis sought to compare demographic and clinical characteristics in PLWH who have and have not been enrolled in the DC Cohort and assess whether participants are a representative city-wide sample of PLWH living in DC.

Methods: Data from the DC Health (DCDOH) HIV surveillance system and the DC Cohort were matched to identify PLWH who were DC residents and had consented for the study by the end of 2016. Univariate analysis was performed to identify differences between cohort and non-cohort participants by demographics including gender identity, race/ethnicity, age at first lab reported to DCDOH, STIs (Chlamydia, gonorrhea, and syphilis diagnoses between 2011-20116) and chronic hepatitis B and C diagnoses between 2011-2016 using DCDOH surveillance data. CDC disease stage (Stage 3/AIDS), retention in any care (1 viral load or CD4 lab in a 12 month period), viral suppression (VS) (viral load <200 copies/ml), median and lowest reported CD4 count were evaluated at first DC lab report and in 2017. Adjusted logistic regression was performed to assess correlates of health outcomes between the two groups.

Results: Of the 12,964 PLWH living in DC at the end of 2016, 5,193 (40.1%) were Cohort participants. Compared to non-participants, participants were less likely to be male (68.0% vs 74.9%, $p<0.0001$), but more likely to be black (82.3% vs 69.5%, $p<0.0001$), have a heterosexual contact HIV transmission risk (30.3% vs 25.9%, $p<0.0001$). Cohort participants were more likely to have a hepatitis C diagnosis (5.4% vs 4.4%, $p=0.0099$) but less likely to be diagnosed with an STI (17.4% vs 18.9%, $p=0.0328$). Cohort participants were more likely to ever be diagnosed with Stage 3 HIV disease (59.6% vs. 47.0%, $p<0.0001$), have a CD4 <200 cells/microliter in 2017 (6.2% vs 4.6%, $p<0.0001$), be retained in any HIV care in 2017 (72.9% vs 59.4%, $p<0.0001$) and ever be VS (83.9% vs 77.7%, $p<0.0001$). Cohort participants were also more likely to be VS in 2017 (60.9% vs 49.9%, $p<0.0001$). After adjusting for demographics and HIV transmission risk, Cohort participants were significantly more likely to be retained in any care in 2017 (aOR: 1.83, 95% CI: 1.70-1.98), and to ever be VS (aOR: 1.29, 95% CI: 1.17-1.41).

Conclusions/Implications: Overall demographic characteristics of PLWH enrolled and not enrolled in the DC Cohort were largely similar and comparable to city-wide demographics. However, cohort participants were more likely to be retained in care and virally suppressed. These data have important implications when assessing the representativeness of patients enrolled in clinic-based cohorts compared with the DC-area general HIV population. As participants continue to enroll in the cohort, ongoing assessment of representativeness will be performed.

CP70

Abstract 6063 - Social determinants of health: undetectable equals untransmittable (U=U)

Author(s): *Mia Brown*

Background: U=U is transforming the social, sexual and reproductive lives of people with HIV, but still not reaching as many minorities. Stigma, fear, discrimination, and homophobia may place many African Americans at higher risk for HIV. Many living with HIV on effective treatment still do not know they cannot transmit HIV, and many do not have adequate access to the treatment and services they need to benefit from U=U.

Methods: The Medical Monitoring Project (MMP) is a surveillance system designed to learn more about the experiences and needs of PLWH. From 2005-2014, MMP sampled persons from HIV care facilities, so only people receiving HIV medical care were included in the project. Starting in 2015, MMP introduced a new sampling method to include all adults diagnosed with HIV residing in the 23 project areas in the

United States. This is accomplished using a two-stage sampling strategy. The presentation will share preliminary baseline findings and discuss strategies to address stigma at the individual and state level to promote U=U.

Results: The effectiveness of ART in lowering the viral load benefits not only the PLWH undergoing treatment, but also other people who are at risk of HIV infection through sexual contact and mother to child transmission. Support from health departments, religious and community-based organizations to deliver effective prevention interventions for African Americans and other populations will help promote U=U.

Conclusions/Implications: Racism and discrimination directly impact on equal access to health services by excluding or limiting racial and ethnic groups' access to health care. The majority of millions of people with HIV on effective treatment still do not know they cannot transmit HIV, and many do not have adequate access to the treatment and services they need to benefit from U=U.

CP71

Abstract 5322 - "We in this fight together...." HIV treatment and prevention among HIV-discordant couples of black and Latino men who have sex with men

Author(s): *Damian Denson, Deborah Gelaude, Alisu Schoua-Glusberg, James Carey, Paula Frew*

Background: HIV-positive black/African American and Hispanic/Latino men who have sex with men (MSM) have substantial challenges receiving and maintaining HIV care. Prior studies suggest that the social and personal circumstances of MSM of color infected with HIV affect their ability to begin and stay in HIV treatment. In addition, intimate partner relationships can play a fundamental role in health maintenance. However, little is known about its role in HIV treatment among MSM of color, particular in partnerships that are HIV-discordant.

Methods: Between June and September 2014 we conducted a cross-sectional, qualitative study with 84 black and Latino MSM living with HIV and 14 of their HIV-negative or unknown status male sex partners in 5 U.S. cities: Chicago, IL., Atlanta, GA., Washington D.C., Baltimore, MD., and Los Angeles, CA. The findings presented here are an analysis of the subsample of 14 HIV-positive MSM and their HIV-uninfected or unknown status sex partners. We conducted separate, semi-structured interviews to understand the dyads' barriers and facilitators to HIV care and treatment as HIV-discordant couples. We analyzed quantitative descriptive statistics in SPSS (v. 21) and coded and analyzed transcripts in NVivo 10.0 using a qualitative content analysis approach.

Results: Of the 28 MSM within the 14 dyads, 16 (57%) were black and 10 (36%) were Latino, median age was 46 years old, 11 (39%) attended some college, 11 (39%) were unemployed, and 20 (71%) reported annual income at \$25k or less. We identified frequently occurring themes for HIV-discordant couples in two groups: 1) the partner infected with HIV was receiving HIV treatment at the time of interview and 2) the partner infected with HIV was not receiving HIV treatment at the time of interview. In the in-treatment group (n=24), themes included selective disclosure of couples' HIV-discordance to family and friends due to perceived stigma, misunderstanding of viral load and CD4 count lab results by partners uninfected by HIV; lack of regular HIV testing by partners uninfected by HIV, and couples' increased

awareness of PrEP. For the out-of-treatment group (n=4), themes included HIV avoidance in individual and couples' communications, feeling healthy and not perceiving a need for treatment, and couples' lack of knowledge of PrEP.

Conclusions/Implications: It is important for Healthcare providers, community-based organizations, and researchers to understand the role of intimate partnerships on HIV prevention, care, and treatment. These findings present an opportunity to educate MSM of color in HIV-discordant relationships on the importance of HIV care and treatment in ways that are specific to transmission risks and that highlights opportunities for prevention based on each partner's HIV status. For instance, providers could offer treatment visits that include their patient's HIV-discordant partners to discuss care and prevention options. This study also demonstrates the need for further research to understand how additional intersecting factors (e.g., age, socioeconomic status, and HIV stigma) affect health outcomes for MSM of color in HIV-discordant relationships.

CP72

Abstract 5274 - Achievements from CDC's human immunodeficiency virus (HIV) prevention projects focusing on young men of color who have sex with men and young transgenders of color

Author(s): *Antonya Rakestraw, Erica Dunbar, Chandra Felton*

Issue: Improving the health of men who have sex with men (MSM) in the United States by promoting health equity and reducing HIV, STD, and viral hepatitis transmission is an important public health priority. This program focuses on addressing the national HIV disease burden by reducing new infections, increasing access to care, and promoting health equity among young gay and bisexual men and young transgender persons of color. In 2011, CDC awarded thirty-four (34) community-based organizations to provide HIV prevention services to young gay and bisexual men and young transgender persons of color with the goals of identifying previously undiagnosed HIV infections and linking those individuals with HIV to care and prevention services.

Setting: The 34 community-based organizations (CBOs) funded by CDC for HIV prevention under PS11-1113: Human Immunodeficiency Virus (HIV) Prevention Projects for Young Men of Color Who Have Sex with Men (YMSM) and Young Transgender (YTG) Persons of Color located in US cities with highest prevalence of AIDS diagnoses among MSM of color living in 2008.

Project: The purpose of the program is to: 1) support the development and implementation of effective community-based HIV Prevention Programs that serve the target population and their partners; 2) increase the number of persons from the target population who are aware of their HIV status and linked to care, treatment, and prevention services; 3) build the capacity of CDC-funded CBOs delivering selected structural interventions, behavioral interventions, outreach or enhanced HIV testing to the target population; 4) ensure provision of HIV prevention and care services; and 5) promote collaboration and coordination of HIV prevention efforts among CBOs, health departments, and private agencies. Annual Progress Reports submitted by the 34 CBOs funded under PS11-1113 throughout the 5-year funding period, were assessed to evaluate program performance and achievement of program-level performance requirements. This presentation will describe the achievements and lessons learned through this 5-year program.

Results: CBOs were monitored throughout the project period for meeting program-level and individual performance standards for program promotion, targeted HIV testing, delivery of interventions, and condom distribution services. Overall, the CBOs were required to reach and maintain a previously undiagnosed positivity rate of 4.0% on an annual basis. Throughout the 5+ year funding period, the 33 (one [1] organization was defunded at the end of year 3) funded organizations reported testing 89,055 clients, identified 2,520 new-identified HIV-positive persons (2.8% positivity rate), and linked 2,084 newly identified HIV-positive individuals to HIV medical care (82.6%).

Lessons Learned: While the PS11-1113 overall program objective for positivity rate was not achieved, there were some funded organizations that were able to accomplish the 4.0% positivity rate. Based on the number of clients tested and linked to services including HIV medical care, overall the PS11-1113 program was successful in reaching this targeted, difficult-to-reach population. Quantitative and qualitative data from this program are important measures to determine the capability to implement CDC-funded programs, understanding CDC's contributions towards reducing new infections and the direction of future programs for the target population.

CP73

Abstract 5407 - The association between HIV knowledge, attitudes, beliefs and social support with HIV risk behaviors among women living with HIV/AIDS enrolling in WILLOW at community-based organizations

Author(s): *Weston Williams, Tanesha Griffin, Andrea Moore, Gary Uhl*

Background: HIV knowledge, attitudes, beliefs (KAB) are associated with lower HIV sexual risk behaviors, such as condomless sex. The WILLOW intervention for HIV-positive women promotes HIV education and supportive social networks to reduce HIV transmission risk, including condomless sex. From 2011-2015, the Centers for Disease Control and Prevention funded four Community-Based Organizations (CBOs) to evaluate WILLOW. Cross-sectional associations between HIV KAB and social support with condomless sex prior to the intervention were assessed.

Methods: Women who reported one or more sexual partner (n=457) during the prior three months were included in the analysis. High KAB was defined as a high score for at least 4/5 KAB variables including HIV knowledge and four attitudes/beliefs scales relating to condom use. High knowledge was defined as answering 8/10 questions correctly. High attitudes/beliefs were categorized using the 25th percentile. High social support was defined as having >1 friends/family to talk to, and speaking with them at least once/week. Social support assessed in separate analyses included friends/family members who: 1) can help in an emergency; 2) participants talk to/rely on; 3) provide information/advice; and 4) participants talk to about what it is like to have HIV. The association between KAB/social support with condomless sex was analyzed with log-binomial models, resulting in adjusted prevalence ratios (aPR).

Results: High KAB was reported by 63% of women. High social support was reported by 49-64%, depending on the type of support. Reporting both high KAB and high social support for both friends/family who would help in an emergency (interaction aPR=0.59, p<.05) and who participants talk to/rely on (interaction aPR=0.58, p<.05) was more strongly associated with lower condomless sex than high KAB or social support alone. High KAB alone was associated with lower prevalence of condomless

sex overall, while high/intoxicated, and with a HIV-negative partner in multiple models. High social support alone was not associated with condomless sex.

Conclusions/Implications: High social support was associated with lower prevalence of condomless sex when combined with high KAB. The results of this analysis support the need for interventions like WILLOW, which promotes both improved KAB and social support networks among women living with HIV/AIDS.

CP74

Abstract 5446 - Implementing an efficacy trial to facilitate maternal disclosure to children: lessons learned from the TRACK HIV disclosure intervention

Author(s): *Lisa Armistead, Marya Schulte, Nada Goodrum, William Marelich, Rebecca LaCroix, Sae-Jin Kim, Jennifer Williams, Debra Murphy*

Issue: About half of the 33.3 million adults living with HIV are women, and many are mothers (MLH). MLH face the challenge of whether to disclose serostatus to their children. Stigma, concern about child welfare, and inadequate preparation for disclosing results in most mothers concealing their diagnosis. Concealment's emotional toll is significant, and nondisclosure is a barrier to engagement in care. For children, disclosure appears to be a protective factor that mitigates risk for psychological disturbance. This presentation describes the implementation of Teaching Raising and Communicating with Kids (TRACK), a disclosure intervention for MLH. Lessons learned include the challenges of navigating contextual and sample differences across sites.

Setting: NIH's collaborative R01 mechanism funded the randomized controlled trial, and 175 mother-child dyads completed the project at sites in Georgia and California.

Project: TRACK content was based on disclosure studies, Derlaga's Model of Disclosure, and feedback from MLH. The three-session, individual intervention includes discussing pros, cons, and barriers of disclosure; enhancing parenting practices; preparation for disclosure, including modeling and behavioral practice; and planning for post-disclosure. Assessments occurred at baseline and 3, 9, and 15-month follow-ups. Approach to project management included: (1) joint training for interviewers and interventionists; (2) joint staff supervision and monthly research meetings; (3) quality assurance of the interviews and intervention fidelity; and (4) dissemination planning.

Results: Intervention group mothers were significantly more likely than controls to disclose at both sites, with slightly lower disclosure at the Georgia site. Quality assurance, differential retention, and cross-site supervision made clear that community-based services available to families differed by site, as did family context. Independent sample t-tests demonstrated demographic differences. MLH in Georgia had higher levels of education and were more likely to have another adult in the household, as well as a secondary caregiver for the child, but adults in the households of Georgia families were less likely to contribute income to the family than those in California. Qualitative data offer insight into these contextual and sample differences. Families in California described several sources of support and stability that were less available among Georgia families (e.g., involvement in family-based HIV and mental health services; other adults providing financial and childrearing support). Consequently perhaps, California families

reported less suicidal ideation and depression symptoms than Georgians, suggesting that perhaps these families were better able to draw upon their resources to more readily uptake the intervention.

Lessons Learned: Lessons learned centered around the need for creative recruitment and retention strategies, managing staff transitions, responding to high levels of depression and suicidal ideation, particularly among Georgia children, and maximizing dissemination to service providers. TRACK's efficacy is now supported by two randomized studies, and the intervention is ready for dissemination. Preliminary training with providers is underway, and they express enthusiasm for the intervention's format and content. Adaptation to a group-based format also appears feasible, based on the experience of the wait-list control groups. However, when providers adapt the intervention to different settings, they should consider how household structure and accessibility of mental health and AIDS-related services may relate to intervention uptake.

CP75

Abstract 5547 - Improving perinatal systems of care for women living with HIV using the Fetal and Infant Mortality Review/HIV methodology

Author(s): *Lauren FitzHarris, Margaret Lampe, Jessica Chavez Thompson, Kathleen Brady, Anne Statton, Jessica Fridge, Regan Johnson, Christi Jackson, Mary Jo Hoyt, Ruth Trino, Isisah Duckworth, Ashley Hoover, Sarah J. Shaefer*

Background: Perinatal HIV transmission has dramatically declined in the United States, with 53 perinatal HIV transmissions in 2015. However, cases of transmission often signal a critical gap in care or services prior to, during, and/or after pregnancy. Furthermore, cases of perinatal HIV exposure may show missed opportunities to meet the medical and psychosocial care needs of women living with HIV. We aimed to identify systemic factors that contribute to perinatal HIV transmission and exposure and facilitate system level change to sustain positive health outcomes for women and their families.

Methods: The Fetal and Infant Mortality Review (FIMR)/HIV methodology is a community-driven, continuous-quality improvement project that reviews cases of perinatal HIV transmission and exposure. Clinical information and a maternal interview are de-identified and reviewed by a multi-disciplinary group called the Case Review Team (CRT). The CRT identifies system gaps and makes recommendations for system-level change for a Community Action Team (CAT). The CAT, comprised of community leaders and stakeholders, develops action plans based on the recommendations to facilitate system change in the community. In 2009, Illinois, Louisiana, Newark and Philadelphia implemented the FIMR/HIV methodology to review their local systems. Each site completed a survey to report aggregate client information, report system issues identified, and describe lessons learned between January 2009 and December 2016.

Results: From 2009-2016, the four FIMR/HIV sites reviewed 325 cases of perinatal HIV transmission or exposure and 30% (n=96) had maternal interviews. Overall, 11% (n=36) of the infants had HIV infection, 80% (n=261) did not have HIV, 8% (n=27) had an indeterminate status, and one status was missing. Eighty-four percent (n=272) of women's race were black/African American, 11% (n=35) white, and 5% (n=16) other races or missing. Seven percent (n=22) were of Hispanic/Latina ethnicity. Thirty percent (n=98) of the women were less than 25 years of age; however, 56% (n=181) were less than 30 years of

age. There were 2578 gaps or challenges identified, with clinical/medical care gaps identified the most (38%), followed by stressors (e.g., unemployment, housing instability) (26%) and unaddressed mental health and substance use/addiction issues (13%). Action taken by the four communities to address challenges identified by CRT included: in 2016, Illinois developed an urgent medication-assistance protocol for hospitals statewide with outpatient pharmacy prescriptions for HIV-exposed infants; in 2015, Louisiana program eligibility requirements were expanded to include pregnant women in linkage to care coordinators' caseload to address lack of supportive services during pregnancy; in 2015, Philadelphia trained perinatal case managers on motivational interviewing to engage women in HIV care; in 2014, Newark compiled a resource guide that includes local and state HIV, mental health, substance-abuse treatment, and maternal child health resources. All sites reported that the FIMR/HIV methodology helped: 1) to engage key stakeholders, 2) to develop new partnerships, and 3) enhance understanding of both HIV and maternal-child health systems.

Conclusions/Implications: The FIMR/HIV methodology improves local systems of HIV prevention and care for women and infants and can be adapted as a quality improvement tool with other populations.

CP76

Abstract 5600 - Mapping of orders of HIV care provider materials relative to HIV prevalence in the United States

Author(s): *Peyton Williams, Dayle Kern, Dayna Alexander, Mina Rasheed, Christopher Nohonha*

Background: CDC's Prevention IS Care campaign, which is part of the Act Against AIDS portfolio, supports HIV care providers in following recommendations for HIV treatment, care, and transmission prevention. The campaign disseminates materials for providers to use in their practices by marketing the materials and fulfilling mail order requests through CDC-INFO, CDC's publication fulfillment system. As the HIV epidemic continues to grow in suburban and rural parts of the United States, it is valuable to determine if the number of campaign materials disseminated to these geographic areas is proportional to local HIV prevalence rates (i.e., number of materials ordered per person with HIV [PWH]). This information will help inform the campaign's future marketing and dissemination practices.

Methods: First, we conducted a preliminary, retrospective review of the most common types of campaign materials (kits, posters, and brochures/pamphlets/booklets) ordered through CDC-INFO between January 2016 and December 2017 to descriptively analyze the data by state and county. Second, we used AIDSvu data to identify (1) the number of PWH by county and (2) the urbanicity of each county (a range from 1 [most urban counties] to 6 [most rural counties] for all counties that reported HIV prevalence data). We collapsed the urbanicity data into "metropolitan" (urbanicity codes 1-4) and "nonmetropolitan" (urbanicity codes 5-6) to facilitate comparisons. Third, we divided the number of campaign materials sent to each county by the number of PWH in that county to produce a ratio of the number of materials per PWH in each county. Finally, we used NCHHSTP's AtlasPlus map to identify 5 states with the highest HIV prevalence and conducted similar analyses within each state.

Results: Nationally, the ratio of materials ordered to the number of PWH in each county was highest (0.18) in Small Metro Areas (urbanicity code 4, defined as having a metropolitan statistical area with fewer than 250,000 residents) and lowest (.04) in Large Central Metro area (urbanicity code 1, defined

as having >1,000,000 residents). Overall, we found that nonmetropolitan areas ordered twice as many materials per PWH (0.12) than metropolitan areas (0.06). The 5 states identified with the highest HIV rates were Florida, Georgia, Louisiana, Maryland, and New York. A preliminary analysis of these states shows over 18,000 materials were disseminated to more than 350 ZIP codes. Louisiana ordered the highest ratio of materials per PWH in metropolitan areas (0.15), while New York and Florida tied for the lowest (0.04). In nonmetropolitan areas, Maryland had the highest ratio of orders per PWH (0.18) while Louisiana had the lowest (0.01).

Conclusions/Implications: These data indicate that small metro, micropolitan, and noncore areas are proactively seeking HIV treatment and prevention materials from CDC-INFO more than more densely populated metropolitan areas. This could be associated with a greater abundance of similar resources available in more urban settings or that those in more urban settings prefer to download materials online rather than request them via mail. The need for HIV care materials may be greater in small metro and nonmetropolitan areas, so dissemination efforts may be more effective in those areas.

CP77

Abstract 5633 - Implementation of a pre-check system to improve out of care case assignment flow

Author(s): *Anthony Romano, Jamie Huang, Kavita Misra, Chi-Chi Udeagu*

Issue: Disease Intervention Specialists (DIS) at the New York City (NYC) Department of Health's (DOH) Field Services Unit (FSU) work to re-engage persons living with HIV who are out of care (OOC) (i.e., > 13 months without CD4, viral load or genotype in the registry) into HIV care. The New York State (NYS) DOH receives all HIV-related labs ordered for NYS residents and sends labs ordered by NYC providers to the NYCDOH. FSU does not routinely receive labs for patients receiving care in the rest of the state or outside of NYS. Investigation of cases who reside or are current with care (CwC) out of NYC's jurisdiction (OOJ) is time-consuming and can take significantly longer than the 30-day target for re-engagement in care after case initiation.

Setting: Patients presumed OOC who appear to be living in NYC and have an NYC HIV provider are flagged for investigation. Once a case is assigned, DIS first check Regional Health Information Organizations as well as name search social services databases for current medical and locating information. Then, DIS conduct medical chart reviews, telephone calls and field visits. In 2016 FSU received access to the New York State Electronic HIV Monitoring System (NYEHMS), a NYS-maintained HIV surveillance database that helps DIS identify patients living or receiving care OOJ.

Project: Before case assignment, staff 'pre-check' the NYC surveillance registry for recent laboratory and locating information. Since 2016, prior to case assignment, DIS also pre-check patients in NYEHMS. If a person is found to be receiving care from a NYS or non-NYC provider, this information is recorded in a database, and the case is not assigned for further investigation. These pre-checks were meant to reduce the number of OOJ and CwC cases that are investigated, as well as reduce the overall time DIS spend on each case investigation (measured in days).

Results: From June 2016 through December 2017, DIS pre-checked 5,412 patients in the NYC HIV registry and NYEHMS. Information available at that time identified 2,095 (38.7%) to be OOJ (7.4%) or

CwC (92.6%). Of the 3,318 cases assigned, 425 (13%) cases were identified as OOJ (341; 80.2%) or CwC (84; 19.8%) in subsequent checks. A total of 2,892 patients were field-investigated, with 1,700 (58.8%) patients located. Of those located, 1,652 (97.2%) were interviewed by DIS. Median case investigation time in 2016-2017 dropped significantly to 29 days (IQR: 41) from 61 days (IQR: 123) in 2014-2015 ($p < 0.001$).

Lessons Learned: Capturing pre-check outcomes eliminates duplication of efforts to locate OOJ or CwC patients. Pre-checks in NYEHMS helped to identify a large portion of in-care patients who had labs not yet entered in the NYC surveillance registry and patients who moved OOJ. Upon implementation of the pre-check workflow, we observed a 50% decrease in median case investigation time, indicating an improvement in efficiency and resulting in a greater number of viable cases investigated. Continued monitoring and analysis of pre-check data may result in additional ways to streamline OOC investigations.

CP78

Abstract 5721 - Improving linkage-to-care outcomes among newly diagnosed HIV testing clients

Author(s): Shannon Ball, Hope Cassidy-Stewart, Dana Wachter

Issue: Following HIV testing and diagnosis, linkage to HIV medical care is the next step on the HIV Care Continuum towards achieving viral suppression. Timely linkage-to-care is associated with improved health outcomes for persons living with HIV and a reduced risk of HIV transmission. HIV testing programs supported by the Center for HIV Prevention and Health Services are evaluated based on the percent of newly diagnosed persons living with HIV linked to HIV medical care within 90 days of their HIV diagnosis. This presentation will examine a decline in linkage-to-care outcomes among newly diagnosed HIV testing clients, from 83% within 90 days in the first half of 2017 to only 69% in the second half of 2017. It will also discuss strategies for improving outcomes moving forward.

Setting: In 2017, the Prevention and Health Promotion Administration's Center for HIV Prevention and Health Services funded HIV testing programs in 32 agencies throughout the state of Maryland, including local health departments, community-based organizations, and correctional facilities.

Project: A combination of program and surveillance data was used to conduct an in-depth review of all 26 newly diagnosed HIV testing clients not successfully linked to care in 2017, identifying missed opportunities and areas for program improvement. HIV program coordinators and evaluators also worked with agencies to create detailed linkage-to-care flowcharts, mapping the number of clients lost to follow-up at each stage in the testing and referrals process.

Results: This project identified several reasons clients were not linked to care that represented opportunities for programmatic improvement, including incomplete referrals with insufficient follow-up, multiple clinic visits for blood draws before scheduling an intake appointment, and a failure to initiate linkage based on rapid reactive test results. One short-term correctional facility conducting a high volume of rapid HIV testing accounted for 16% of total new diagnoses but a disproportionate 33% of newly diagnosed clients not linked to care. Clients at this facility were often released back into the

community before they could receive supplemental testing or referrals to care, and delayed reporting to the local health department impeded field services follow-up.

Lessons Learned: In response, HIV program coordinators and evaluators from the Center for HIV Prevention and Health Services have collaborated to provide targeted technical assistance to agencies with poor linkage-to-care outcomes. An intensive linkage-to-care section has been included in the mandatory HIV testing training, with a continued emphasis on the importance of linkage based on rapid reactive results. Further integration of HIV prevention and care within partner agencies could facilitate combining post-test counseling sessions with intake appointments for HIV care, minimizing loss to follow-up. Across all agencies, timely reporting and referrals were key to achieving positive linkage-to-care outcomes. To help streamline the reporting process, agencies are being transitioned from paper to electronic reporting of positive test results and linkages. Within correctional facilities, electronic reporting will enable real time notification of field services and hopefully improve outcomes for clients released into the community.

CP79

Abstract 5843 - Maduros y Sabrosos: empowering and engaging older gay/bi Latino men in HIV prevention and care services

Author(s): *Luis Scaccabarozzi, Carlos Maldonado, Gabriela Betancourt*

Issue: A recent study of older Latinos living with HIV highlights the obstacles faced in achieving optimal health and well-being, including fear and mistrust of medical institutions, management of competing comorbidities, social isolation, increased depressive symptoms, stigma, ageism, discrimination, and health care maintenance and challenges related to accessing services. Many of these same challenges accessing services are observed for Latino gay/bi men at risk for HIV. Peer-led empowerment and education models have been found to effectively bridge these gaps for vulnerable populations. In response to the unmet needs described, the Maduros y Sabrosos (MyS) program was developed to provide participants with the knowledge, skills, and self-efficacy to engage health seeking behavior.

Setting: An intervention designed to socially engage predominantly immigrant older Latino gay/bi men and transgender Latina women who are living with or at risk for HIV and provide health-related and mental health related education and information.

Project: The health education for MyS is guided by Freire's tenets of balancing the relationship "learner" and "sharer" of knowledge. Learners are empowered to become active creators of the program, outlining themes, topics, and activities at the beginning of each cycle and leaders of their health-seeking behavior. Additionally, elements of M-Powerment, such as developing a core group of participants and engaging participants in activities that allow them to socialize and interact among peers allows for decreasing social isolation and improve self-esteem.

Results: The evaluation tools used for this intervention include a mixed-methods approach, whereby surveys are administered to capture qualitative and quantitative information on attitudes/perceptions, reported behaviors, and knowledge. Focus group and key informant interviews are also employed to further contextualize and explore participants' experiences and outcomes.

Preliminary results indicate that the MyS program is cost-effective and a feasible program for engaging vulnerable groups in health education messaging, empowerment strategies, and socialization activities that reduce isolation. Results indicate that participants feel less isolated, more willing to discuss health concerns and behaviors, and more knowledgeable of sexual health topics as members of the program based on self report.

Lessons Learned: (1) Funding and programs for Gay/Bi men mostly has targeted Younger Latino gay/bi men. However, specific needs of an aging population has not been integrated into ending the AIDS epidemic messaging. (2) Integrating HIV prevention and care into a holistic and comprehensive health care approach integrated into aging and GBT health is important to create client/patient activation. (3) Social isolation due to aging, ageism within and outside of the LGBT community has an impact on health seeking behavior. Mental health on aging LGBT populations has an impact on HIV risk behavior. (4) Impact of language barriers and immigration fears have on older adults living with and at risk for HIV have on older Latino gay/bi men and transgender Latina women,

CP80

Abstract 5844 - HIV prevention, care, and treatment through the eyes of community health workers (CHW)

Author(s): *Martha Chavis, Charline Ganthier, Stephanie Berroa*

Issue: There is ample evidence associated with social factors such as ethnicity, income level and employment status influences a person's health. Achieving health equity can be achieved by building healthier communities while improving health outcomes for persons living with HIV through advocacy, education and partnerships with the aid of Community Health Workers (CHW). HIV care is dependent on community health workers especially among the medically underserved – the ethnic and culturally diverse, the aged, the poor, unemployed, homeless and uninsured.

Setting: Camden AHEC is a community based organization (CBO) located in the city of Camden, New Jersey servicing Camden, Burlington County residents and neighboring communities. As part of the solution, Camden AHEC provides community-based interdisciplinary training programs such as the Community Health Worker Institute to demonstrate programs that illustrate the benefits of involving CHWs on interdisciplinary teams in health and social services. Staff members are cross-trained as CHWs and HIV counselors and testers.

Project: The purpose of this program is to provide psychosocial support to persons living with HIV/AIDS in both group settings and one-on-one to improve health outcomes and reduce health disparities. Link newly diagnosed individuals to care and provide support services to help those already in care maintain adherence in regard to appointments and medications with the ultimate goal of increasing quality of life. Assist in reducing barriers to care and provide referrals to other programs and or local organizations when needed. Engage persons living with HIV/AIDS in social activities that increase their confidence and willingness to stay in care, which in turn enables them to become self-sufficient, confident and reliant in use of available resources. PLWH will then become advocates and promoters of their healthcare needs with the hope of partaking as stakeholders in policy, planning and program services. Encourage persons living with HIV to not self-stigmatize their status by belittling their quality of life. Prevention and

intervention strategies such as health coaching and support of the CHWs enables clients to become a partner with their health care providers and resources in the maintenance of their quality of life.

Results: By conducting psychosocial services with the aid of CHWs the results demonstrated 40% of clients had viral loads that were nearly undetectable and 100% of the clients served showed a significantly lower viral load than reported at initial intake.

Lessons Learned: The engagement of CHWs and their role as the liaison between clients, healthcare providers and community resources assist in the positive transformation of HIV/AIDS clientele. Because clients are able to reduce their self-stigmatization, unfamiliarity with resources and inconsistent follow up with primary care providers, clients are now actively engaged in their care and treatment and feel comfortable carrying on with their lives with minimal daily burden even including returning back to work.

CP81

Abstract 5869 - Legalizing and operating syringe services programs in Tennessee

Author(s): Allison Sanders, Meredith Brantley, Carolyn Wester, Kimberly Truss, Sarah Cooper

Issue: In response to a 2015 rapid HIV outbreak among people who inject drugs (PWID) in Scott County, Indiana, the Centers for Disease Control and Prevention (CDC) identified 220 U.S. counties most vulnerable to rapid spread of HIV or hepatitis C (HCV) among PWID, 41 of which are located in Tennessee (TN). Recognizing syringe services programs (SSPs) to be an important HIV and HCV prevention strategy among PWID, TN's State Legislature passed legislation in May 2017 permitting non-governmental organizations approved by TDH to operate SSPs in all 95 of TN's counties. The TN Department of Health (TDH) subsequently received CDC approval to utilize Federal funds to support SSP operations statewide. In 2018, TN legislation was amended to permit centrally and locally approved health departments (HDs) to operate SSPs.

Setting: Community-based organizations (CBOs) in TN are funded by TDH to operate SSPs in efforts of reducing transmission of HIV, HCV, and other blood borne pathogens among PWID.

Project: Tennessee's legislation requires that SSP applicants submit an application to TDH for consideration. Before providing approval, TDH meets with the applicant organization, the local HD, and local law enforcement to review the application. Approved programs are required to report to annually to TDH the services provided (education, testing, overdose prevention, referrals). In late 2017, TDH released its initial Request for Grant Proposals (RFGP) to provide funding for up to 3 SSPs. TDH facilitated collaboration between funded SSPs and TN's Department of Mental Health and Substance Abuse Services' Regional Overdose Prevention Specialists (ROPS) to access free naloxone and to build SSP awareness across TN.

Results: In response to the RFGP, TDH received proposals from 3 CBOs. Each CBO was awarded funding and was subsequently approved (between February and March 2018) to conduct SSP activities. From February to June 2018, these 3 SSPs distributed over 125,000 needles and syringes; collected over

36,000 needles and syringes; provided more than 1,600 referrals for substance abuse disorder and mental health treatment; and supplied 672 naloxone kits to SSP clients.

Lessons Learned: Challenges identified the first year of implementation included limited client-level data collection and low HIV/HCV testing rates. TDH will be standardizing SSP reporting requirements to capture client-level information, so that each program can better c

CP82

Abstract 5876 - Provider and patient characteristics associated with high HIV viral suppression among HRSA Ryan White HIV/AIDS Program outpatient ambulatory health services patients

Author(s): Stacy Cohen, Pamela Klein, Allison Marier, Miranda Fanning, Laura Cheever

Background: Low-income people living with HIV (PLWH) who access outpatient ambulatory health services (OAHS) through the Health Resources and Services Administration's (HRSA) Ryan White HIV/AIDS Program (RWHAP) achieve high HIV viral suppression, which has increased over time, from 69.5% in 2010 to 84.9% in 2016. However, disparities in viral suppression persist across demographic subgroups. In addition to client characteristics, previously unexamined provider site characteristics may have an impact on HIV clinical outcomes. The purpose of this analysis was to determine the distribution of RWHAP provider site aggregated viral suppression 2010–2016, and identify client and provider site characteristics associated with viral suppression in 2016.

Methods: RWHAP provider site characteristics (region, provider type, rural location, number of patients), client demographics (age, race/ethnicity, gender, transmission risk category, health care coverage, housing status), and viral suppression were examined using client and provider site data from the RWHAP Services Report 2010–2016. Viral suppression was defined as the most recent HIV viral load (VL) test result <200 copies/mL among patients with ≥ 1 OAHS visit during the calendar year and ≥ 1 VL test. Mean viral suppression by provider site was calculated and categorized as <70.0%, 70.0–79.9%, 80.0–89.9%, or $\geq 90.0\%$ of clients virally suppressed. Multivariate, ordered logistic regression was used to identify client and provider site characteristics associated with increasing provider site viral suppression categories, as adjusted odds ratios (aORs) and associated 95% confidence intervals (CIs). Models were weighted for the number of clients per provider site and clustered at the provider site level.

Results: In 2016, 767 provider sites delivered OAHS services to 375,331 RWHAP clients. The proportion of RWHAP provider sites with at least 90% of their clients virally suppressed increased from 4.0% in 2010 to 23.6% in 2016. Concurrently, the proportion of RWHAP provider sites with less than 70% of clients virally suppressed decreased from 49.3% in 2010 to 5.7% in 2016. Provider sites with high levels of viral suppression were less likely to serve younger clients; black/African American clients (aOR=0.46, 95% CI: 0.39, 0.54); Hispanic/Latino clients (aOR=0.70, 95% CI: 0.56, 0.87); clients with public health care coverage (aOR=0.73, 95% CI: 0.64, 0.83); uninsured clients (aOR=0.65, 95% CI: 0.53, 0.79); temporarily housed clients (aOR=0.68, 95% CI: 0.57, 0.80); unstably housed clients (aOR=0.81, 95% CI: 0.68, 0.95). Provider sites in the South were less likely to have high levels of viral suppression (aOR: 0.25, 95% CI: 0.16, 0.39) than those in other regions. In 2016, there were seven states in which the majority of provider sites had less than 80% viral suppression among their patients (three in the South).

Conclusions/Implications: Based on available provider site-level data, provider location in the South was the only provider site characteristic associated with viral suppression after adjustment for client characteristics. Focused interventions for providers in Southern states and significant barriers to accessing care and treatment may be beneficial. Further study is warranted to understand other provider-level structural factors that may influence viral suppression, such as quality of care initiatives and systems-level interventions to improve retention and engagement in care.

CP83

Abstract 5919 - Let's stop HIV together: updating an anti-stigma campaign

Author(s): *Tiffiany Aholou, Darlene Foote, Nattayla Avila, Gillian Danze, Alberto Santana, Euna August*

Issue: More than three decades since the first HIV diagnoses were made, HIV stigma continues to impede efforts to prevent, diagnose, and treat HIV. Moreover, racial/ethnic disparities across the HIV continuum of prevention and care are exacerbated by the harmful effects of negative attitudes and beliefs about people with HIV (PWH; external stigma) and negative ideas and stereotypes that PWH apply to themselves (internalized stigma). It is estimated that almost 8 in 10 PWH who are receiving HIV care in the US report feeling internalized HIV-related stigma. In 2012, CDC launched its flagship anti-stigma campaign, Let's Stop HIV Together (LSHT)/ Detengamos Juntos el VIH campaign, under the Act Against AIDS initiative.

Setting: LSHT is a national HIV anti-stigma campaign designed to reach the general public, with an emphasis on communities disproportionately impacted by HIV, including African Americans, Hispanic/Latinos, and MSM in the South. The campaign features people with HIV, alongside friends, family, and community members, sharing their personal stories to raise awareness, fight stigma about HIV, champion the power of supportive relationships in the personal and public fight to stop HIV, and increase information-seeking behaviors. The campaign disseminates messages and materials through traditional media tactics (TV, radio, print), digital advertising, social media, and culturally-appropriate events that maximize reach of the campaign to its target audiences.

Project: To inform an update of LSHT's design and messaging, CDC conducted extensive formative research in 2017. Research activities included an environmental scan, literature review, stakeholder consultation, and audience testing using focus groups (N=116) and intercept interviews (N=72). Qualitative data were analyzed using thematic analysis to identify the most compelling campaign concepts, including headlines, messaging, and imagery that resonated with the audience.

Results: Formative research underscored the need to strengthen LSHT's anti-stigma messaging and to refresh the look and feel of the imagery within the campaign. Findings from the environmental scan and literature review determined that campaign content should focus on general HIV information, correcting HIV misconceptions, encouraging understanding and acceptance of PWH, messaging that is positive in nature, and modeling support for PWH through family, friends, and the community to combat stigma. Stakeholders, as well as participants in audience testing, revealed a preference for messages that defined or depicted stigma in a clear and simple manner. Additionally, participants recommended imagery that is racially diverse and warm, depicting PWH in natural, everyday settings, while not downplaying the gravity of HIV.

Lessons Learned: Formative research revealed core elements for the LSHT rebrand around imagery and messaging. Based on these findings, CDC created a new conceptual framework that addresses externalized and internalized stigma to guide the development of campaign content to address drivers of stigma while highlighting individual and community-level factors that reduce stigma. Moreover, CDC produced new LSHT creative assets, including print advertisements and video and radio PSAs, and digital resources. The refreshed campaign website features facts about HIV stigma, personal stories from people with HIV, a language guide on how to talk about HIV, and materials that can be used to educate others about HIV stigma.

CP84

Abstract 5999 - Federal guideline for prevention with persons with HIV – applying lessons learned from a preliminary implementation assessment

Author(s): *Priya Jakhmola, Gema Dumitru, Amrita Tailor, Melanie Gwynn*

Background: In 2014, the U.S. Centers for Disease Control and Prevention (CDC) in collaboration with federal and nonfederal partners issued a comprehensive guideline on HIV prevention services and evidence-based interventions for persons with HIV in the United States. The guideline is accompanied by three companion summaries, one for each of the guideline's three primary audiences: clinical providers, non-clinical providers, and staff of health departments in the United States. However, since its publication four years ago, the guideline's uptake and use in the field has not been extensively explored.

Methods: The Guideline Team at the Division of HIV/AIDS Prevention at CDC evaluated the use and uptake of this guideline among its primary audiences using unpublished programmatic data, published literature, web-site analytics data, and qualitative findings from stakeholder input and interviews. Areas that were explored included:

- Website analytics and geo mapping: The web-site analytics data gathered by CDC stacks was used to analyze information on when and how the end-users accessed or downloaded the main guideline or the three companion summaries
- Stakeholder Input: Stakeholder input was collected from qualitative interviews and conferences and provided information on:
 - o Prioritizing guideline topic areas in terms of their usefulness and relevance to providers
 - o Gaps, redundancies, and limitations in the guidelines
 - o Provider preferences and barriers regarding accessibility
 - o Barriers, challenges, and lessons learned in implementation
 - o Format, layout design, and language of the document that impede or improve usability
 - o New implementation, training, and technical assistance tools and resources

Results: Website analytics and geo mapping data analysis findings provide valuable insights on the use of this guideline over the years and end-user behavior and location in the United States. Document download data indicate a steady decline in the guidelines use over the last four years, from 4000-5000 downloads at its launch to approximately 1000 downloads per month at present. The downloads for the summary guides remains much lower at <50 downloads per month. Geo-mapping analysis shows that the guideline users are spread out throughout the US with heavier concentrations around north-east, south-east and west coast. Stakeholder input provided insights about the major content areas that

provider see as more important and content areas that are seen as redundant or unnecessary. Stakeholders saw the guidelines' comprehensiveness and text heavy content as a barrier to use. Literature and programmatic reviews also provided information on new implementation, training, and technical assistance resources. These findings will be implemented to update the guideline into a more user-friendly and practical format.

Conclusions/Implications: The input gathered provided valuable insights about end-user needs and expectations to guideline developers at CDC and HRSA for informing future update decisions. Web analytic data indicated the need for the guideline to remain up-to-date. Stakeholder input identified important areas and factors to maximize the uptake of the guidelines and ultimately improve patient outcomes.

CP85

Abstract 6016 - Integrating HIV prevention and care and treatment

Author(s): *Timothy (Ying Fai) Au, Melanie Dulfo*

Issue: With the Ending the Epidemic (EtE) 2020 initiative, the importance of Treatment as Prevention and the move to biomedical interventions has been underscored. The three pillars of the EtE initiative includes i) Identifies persons with HIV who remain undiagnosed and link them to health care. ii) Links and retains persons diagnosed with HIV in health care to maximize virus suppression so they remain healthily and prevent future transmission, and iii) vacillates access to Pre Exposure Prophylaxis (PrEP) for persons who engage in high-risk behaviors to keep them HIV negative. This three-point plan set the stage for organizations provide HIV services to examine services delivery, quality improvement, and the integration of HIV prevention and care and treatment.

Setting: Apicha Community Health Center (Apicha CHC) is a Federally Qualified Health Center (FQHC) that obtained its status as an FQHC in 2015. Apicha CHC was originally an AIDS Service Organization focusing on HIV advocacy for Asian and Pacific Islander living with HIV/AIDS. Through our evolution, services have been expanded to include primary care; supportive services including, PrEP and PEP navigation, Transgender health care navigation, health insurance enrollment, and SNAP enrollment assistance.

Project: Apicha CHC started to integrate clinical care treatment and prevention prior to the launch of the Ending the Epidemic initiative. Our effort to become an FQHC has become a model nationally for AIDS Service Organizations in integrating clinical care and treatment with HIV Prevention. The main outcomes achieved were high viral suppression among our primary care clinic patients, and retention in care of those who were newly-diagnosed in care and treatment. A key service delivery strategy is identifying community needs through consumer involvement activities, and building services based on the feedback. This presentation will describe our early one-stop shop model and highlight best practices that can be used to help organizations in integrating HIV prevention into clinical care and treatment.

Results: The presentation will share preliminary data of linkage to care, and viral suppression of HIV+ patients identified through HIV prevention services (Targeted Testing). Based on data, the presentation

will discuss best practices that can be used to help organizations in integrating HIV prevention into clinical care and treatment.

Lessons Learned: Client feedback about the need for culturally-competent medical care started our transformation to becoming an FQHC. Because of this history, staff are familiar with social determinants of health issues and understand the importance of supportive services complimenting medical care and treatment. Some of the best practices include understanding the stages of change and implementing evidence based practices, such as Motivational Interviewing, to engage clients into care and treatment. Other strategies such as patient navigation (e.g., helping with appointment reminder, referral to other services, assist with transportation) and strengths-based case management services help reduce the barrier to care and treatment.

Because our model of care surrounds medical services, agency staff are well trained to facilitate warm hands-off for linkage to care. We found that the importance of case conferencing between support staff and medical provider helps integration of services and facilitating early access to care and treatment.

CP86

Abstract 6034 - Identifying acute infection in the emergency department and providing fast track linkage to care

Author(s): *Kelly Ross-Davis, Sonya Heath, James Galbraith, Joel Rodgers, Shyla Campbell, Dominique Hector, Lynn Prichard*

Issue: With the advent of 4th generation HIV tests, identification of acute infection has become more feasible. Coupled with the increased likelihood that an individual is more likely to seek healthcare during the short window when acute symptoms are present, the Emergency Department (ED) serves an excellent location to provide such testing. The ED must not only be equipped to confirm acute infection, but effectively deliver results and efficiently initiate linkage to care.

Setting: With the support of CDC Expanded Testing Funding to Health Departments, the University of Alabama at Birmingham Emergency Department (UED) and 1917 (HIV Outpatient) Clinic partnered to design and implement opt out, routine HIV testing and linkage to care in 2011. In Alabama, in the heart of the Deep South, the burden of HIV exceedingly disproportionately impacts MSM of color, women of color, and those who do not have access to routine healthcare. In our ED, nearly 65% of all patients are uninsured/underinsured or Medicaid/Medicare recipients.

Project: Using an opt-out model, we implemented point of care Universal HIV screening using the Abbott Architect 4th generation combination antigen/antibody HIV test, with reflexive confirmatory testing. In the event of discordant results and in conjunction with patient history and current symptoms, the patient is counselled by the provider on the potential of acute infection and a viral load (VL) is ordered. Linkage Coordinators are electronically notified of all 4th gen reactive results and contact with the patient with the goal of setting up same day linkage at the 1917 Clinic.

Results: Since August 2013, the UED has performed over 67,000 HIV tests. Nearly 15% of all newly diagnosed patients had acute HIV. 93% were successfully linked to care. Of those successfully linked and started on ART, 94% achieved VL suppression (VLS) to < 1000 copies/mL at one month (50% < 100 copies

/ml). By three months, 100% achieved VLS to < 1000 copies/ml (80% < 100 copies/ml and 63% undetectable).

Lessons Learned: Diagnosis of Acute HIV as part of Universal Screening in the ED presents unique challenges including understanding discordant resultants, ordering VL, additional counseling required, and the need for expedited care due to personal and public health impact. Solutions include 1) training for ED residents and real time consultation with the ED HIV director, 2) Linkage Coordinators well trained in motivational interviewing skills and experience connecting patients between healthcare systems, and 3) communication between the ED HIV director, linkage team, and HIV provider accessible to see patients in clinic. Most importantly, fast track linkage resulted in significantly higher linkage rates compared to the standard of care, and shorter time to VLS, which has now led to implementation of fast track linkage for all newly diagnosed individuals. Ultimately, the goal of expedited care and VLS to levels, which are associated with minimal transmission will drive down incident cases of HIV in the South.

CP87

Abstract 5339 - Coabase: improving prevention services through data-driven decision making

Author(s): *Miguel Taveras, Gisele Pemberton, Peter Shepard, Cesar Concepcion, Jose Mulinelli*

Issue: While strategic use of data is transforming how many companies make decisions and improve performance, many community-based organizations (CBOs) lag behind in this area (MacLaughlin, 2016). In HIV prevention, real-time, reliable data is essential for strategy deployment or modification; however, many CBOs are challenged and face four main data related issues: 1) reliance on paper and spreadsheets, 2) laborious data collection and reporting, 3) Lack of real-time data, and 4) data silos within the agency. An HIV prevention agency in Puerto Rico, Coai, Inc. decided to proactively address these issues by seeking capacity building assistance to develop effective program monitoring, quality assurance, and evaluation systems.

Setting: Coai's "Aché Taking on Prevention" (A-TOP) is a CDC-funded program which provides testing, prevention for HIV positive persons and high-risk HIV-negative persons, and linkage to care services for Latino men who have sex with men (MSM) in San Juan and Western Puerto Rico.

Project: A strategic goal of Coai, Inc., was to turn its data challenges into a competitive advantage by using real-time data for programmatic decision-making. Coai, requested technical assistance from the CDC and requested to work with a national bilingual, bicultural, capacity building assistance provider, PROCEED, Inc., to identify the needs and create a plan for the project. A customized database, known as Coabase, was developed to assist with tracking its HIV testing prevention and linkage to care efforts. This was accompanied by staff training to support the deployment of the new system. Two months post deployment, follow-up technical assistance was conducted with agency staff to address any issues and incorporate lessons learned.

Results: Since the adoption of Coabase, Coai has been able to seamlessly submit, retrieve and review data in real-time. Recruitment and outreach efforts are informed by the data the agency collects. Coai has seen a 95% improvement in data collection quality, in addition to a 100% improvement in the

agency's monitoring processes. Management has access to data in real time as it is collected at outreach events. Time saved in data collection, sharing and reporting has been dramatic, and has gone from days to minutes. Coai's staff has taken ownership of the system and has continued to expand Coaibase to meet new needs.

Lessons Learned: Significant process changes are likely to face some resistance. Coai and the CBA Provider worked to ensure input from all staff in developing the database and outlining data collection processes. Staff feedback was immediately incorporated, and because they participated in the design and customization processes, staff readily adopted to using the database and recognized its benefits in helping them fulfil their duties, while making the agency as a whole more efficient. Coaibase has improved program recruitment, retention and overall service delivery.

CP88

Abstract 5307 - New York State Department of Health Partnerships for Care: understanding the need for cross-jurisdictional data-to-care and assessing care status for persons without current HIV labs

Author(s): *Rachel Hart-Malloy, Megan Johnson, James Tesoriero*

Issue: Data to Care(D2C) programming requires ongoing evaluation to ensure persons living with HIV are receiving HIV care and that the most efficient and effective strategies to achieve linkage to care are employed. The New York State Department of Health(NYSDOH) has focused efforts on two such evaluations: 1) evaluating broader cross-jurisdictional data sharing reciprocity and field investigation; and 2) exploring viral load and CD4 testing patterns and results of Not in Care(NIC) cases determined to be "current to care."

Setting: Partnerships for Care (P4C) was a demonstration project that was funded (FY2014-2018) by the federal Secretary's Monitory AIDS Initiative Fund to build sustainable partnerships among CDC-funded state health departments and HRSA-funded federally qualified health centers(FQHCs) to support expanded HIV service delivery in communities highly affected by HIV. Participating in the P4C project were 4 state health departments (FL, MA, MD, NY), and 22 health centers within the funded state jurisdictions. The evaluations conducted were focused on D2C in NYS excluding New York City.

Project: For the first evaluation, NYSDOH identified that a high proportion of individuals appearing to be NIC in NYS based on HIV surveillance data alone were found, through D2C investigation, to be potentially living in Florida(FL). Under P4C, the NYSDOH partnered with the FLDOH to determine the feasibility of cross-jurisdictional D2C. Though both health departments were committed to the process, implementation was not possible due to: lack of and/or unclear statute or national recommendations; multiple data systems and electronic infrastructures that do not communicate; and multiple administrative barriers. The second evaluation focused on individuals who appeared NIC based on HIV surveillance data alone but were subsequently identified as being current to care as reported by the individual or their provider. It is unclear if this important population needs alternative programmatic follow up, or are truly in care. The evaluation focused on if such individuals have subsequent evidence of HIV labs and, if so, what their health status was upon receipt of those labs.

Results: Although implementation of cross-jurisdictional D2C with FL was not feasible, lessons learned and recommendations for implementing more broadly were collected. These include: 1) no national position statement or recommendation currently exists covering cross-jurisdictional data sharing for D2C public health follow up; 2) it is not easy to systematically ascertain an individual's verifiable current residence; 3) delineation of roles, responsibilities, and case prioritization within each state, and across jurisdictions, is needed; and 4) no electronic infrastructure currently exists to facilitate this type of public health follow up across jurisdictions.

For persons appearing to be NIC who state they are in care, a high proportion received HIV labs after their D2C investigation. Furthermore, of those with subsequent labs, the health status of those individuals is comparable to persons who are in consistent HIV care.

Lessons Learned: Great value comes from ongoing evaluation of D2C programming. For the two evaluations summarized, NYSDOH remains committed to pursuing cross-jurisdictional D2C, and will continue to ensure HIV care status is monitored for all persons living with HIV in NYS.

CP89

Abstract 5425 - Blowing the national viral suppression rate out of the water and how your agency can too: a wraparound services approach

Author(s): Casey Bakhsh, Katie Sawicki, Kate Neary

Issue: Viral suppression is key to those living with HIV as, those living with HIV, who are virally suppressed, and experience undetectable status through medication adherence are not at risk of transmitting the illness to others and can expect to live up to a normal life span of an individual not living with HIV. Tulsa CARES utilizes wrap around care and services in the areas of nutrition, housing, mental health and care coordination in an effort to treat the whole individual, with the ultimate result being to suppress client viral load, improve client health, and reduce rate of new infection.

Setting: Tulsa CARES is the largest and most comprehensive provider of care and social services for uninsured, low income people living with HIV/AIDS in Oklahoma. For almost three decades, Tulsa CARES has committed to achieving quality health outcomes for those living with HIV/AIDS resulting in HIV treatment adherence, improved quality of life for people living with HIV/AIDS, and a reduction of HIV transmission. In 2016, 5,954 individuals were living with HIV/AIDS in Oklahoma. In 2017, Tulsa CARES provided services to 847 of those individuals, and their families.

Project: Tulsa CARES provides wrap around services in the areas of nutrition, housing, mental health and care coordination Tulsa CARES and has dramatically improved the health and wellbeing of clients while achieving viral suppression for the majority of clients in the process. Agency care coordinators have frequent contact with clients throughout the year through phone calls, in office visits, agency congregate meals, farmer's market visits, and social programming. Every touch point and interaction ensures clients feel comfortable with care coordinators and continue to receive care, while care coordinators address treatment adherence and assess client barriers to care.

Results: Tulsa CARES was recently recognized by The National Alliance of State and Territorial AIDS Directors (NASTAD) in 2017 as being among the top 10 ADAPS (AIDS Drug Assistance Programs) with the

highest rates of viral suppression. Tulsa CARES' clients, with active medical records on file, indicate nearly 88 percent have achieved viral suppression in 2017, the national rate in 2014, the year of most recent data collection, rests the national rate at just 50 percent. This incredible achievement in client viral suppression is due to the unique wrap around care program model at Tulsa CARES, client' diligence, and strong community support.

Lessons Learned: Providing wrap around care and services for those living with HIV is working. Tulsa CARES' model helps reduce the barriers to treatment and care and ensures that all who want to achieve viral suppression achieve viral suppression. Client and staff interactions make care feel more like a social interaction with family or friends and make clients feel empowered in their treatment. Clients who receive wrap around care and services through Tulsa CARES have dramatically improved their health and wellbeing.

CP90

Abstract 5561 - Using implementation science to support systems-level trauma informed care integration into HIV care and treatment sites across New Jersey

Author(s): *Tony Jimenez, Barbara Cicatelli, Mary Dino, Loretta Dutton, Beth Hurley, Meredith Jones, Lindsay Senter, Nahid Sulieman*

Issue: A significant proportion of people living with HIV (PLWH) have disproportionately high rates of trauma exposure. Despite state-of-art HIV testing technology, rapid linkage to care, and access to antiretroviral therapy, PLWH can experience a pernicious cycle of high-risk and self-destructive behaviors and poor health outcomes if experienced trauma goes unaddressed. Yet, trauma sensitive or trauma informed approaches may not be routinely integrated into clinical care or established within an agency's culture or environment for a variety of reasons (e.g., lack of formalized policies and protocols, untrained workforce, etc.).

Setting: The New Jersey Department of Health, Division of HIV, STD, and TB Services (NJDOH DHSTS) made a multiyear commitment to develop and integrate a statewide comprehensive Trauma-Informed Care (TIC) approach to address challenges facing the most vulnerable PLWH. The NJ TIC Project, a five-year initiative led by CAI (Cicatelli Associates, Inc.), is building the capacity of 31 DHSTS HIV Care and Treatment funded agencies to integrate TIC into their culture, environment, and delivery of services.

Project: CAI's model of TIC integration is grounded in implementation science and takes a systems-level approach to on-site and remote training and technical assistance (TTA) in the following ways: 1) leadership is intensively and authentically engaged to support integration of trauma screening, client educational sessions, and referrals; 2) every member of the staff (e.g., leadership, clinical and non-clinical direct service staff, and support staff including receptionists and security guards) receives training, to ensure each staff member recognizes the important role they play in in building and maintaining a trauma informed culture and environment; and 3) the project's rollout is designed to ensure that TIC is integrated into the organization's culture and service delivery, including policies, protocols, and data management systems to support sustainability.

Results: This presentation will cover phase one of the NJ TIC Project (launched in January 2018) and describe the TTA approaches and evaluation tools used to prepare organizations for TIC integration: 1) organizational assessments of two key areas related to TIC: physical environment and agency culture; 2) training curricula and evaluation results from over 500 staff members regarding knowledge, attitudes, and self-efficacy to integrate TIC; and 3) preliminary implementation data from systems used to conduct, track, and document provision of integrated trauma services. Lastly, CAI will share plans to evaluate overall impact on clinical outcomes, measuring the relationship between TIC screening and services on viral suppression, retention in care, and treatment adherence.

Lessons Learned: This session will describe CAI's model of TIC integration in NJ, and how integration into an agency's culture, environment, and service delivery may improve health outcomes for PLWH. This work has important implications for healthcare agencies working to support HIV retention in care and treatment adherence.

CP91

Abstract 5746 - Partnering with dating app owners to reduce HIV & STD transmission: lessons learned and resources developed by building healthy online communities

Author(s): *Dan Wohlfeiler, Jen Hecht*

Issue: MSM seek out new partners on dating apps and websites. Although apps are often accused of facilitating HIV and STD transmission, they have considerable potential to use their vast reach and technological features to support prevention efforts. Ongoing collaboration amongst public health organizations, and between public health and app owners, is needed to identify and implement prevention strategies that have the greatest possibility of having a population-level impact at the lowest cost.

Setting: Dating apps serving MSM in the United States and globally.

Project: Building Healthy Online Communities, a national consortium of HIV and STD prevention organizations, has developed partnerships with many sites and apps to support self-sustaining structural interventions, such as modifying profile options to allow users to state their own prevention strategies and implementing message reminders. Additionally, BHOC has been supporting the coordination of message development and placement, and developing new resources to support partner services

Results: Many sites have revised their profile options to allow greater specificity in sexual health communication. Several have also implemented automatic testing reminders to be delivered at the interval of the user's choice. Apps have also added sexual health FAQs that have been viewed millions of times. BHOC has developed several new resources for governmental and non-governmental organizations, including: a) a website, bhocpartners.org; this houses a clearinghouse of advertisements suitable for placement on apps, information on best practices, a literature review, and more; b) an online training for disease investigators to provide partner services online; c) a new anonymous partner notification platform for users to text or email their partners that they may have been exposed to HIV and/or other STDs; d) a web-series and public service announcements, co-produced with an app, on

U=U, PrEP, condom use, three-site testing, stigma, and partner notification. These have been viewed more than 5.7 million times.

Lessons Learned: Through this process, we continue to identify new challenges, such as the lack of coordination in message development and placement across jurisdictions; multiple and often overlapping resource databases, lack of knowledge about how to properly leverage these technologies for information and promotion of services, the lack of metrics to determine outcome measures of messaging, and the effect on sexual networks and disease transmission by increasing specificity of profile options.

The success of these partnerships with app owners has been enabled by multiple factors. First, many of the owners and their staff are from the community they serve, have a commitment to their health, and are willing to bring their technological expertise and assets to support sexual health. Second, collaboration with researchers to seek users' and public health experts' qualitative and quantitative input on which interventions they would support has helped us focus on interventions with the greatest likelihood of adoption. Third, partnerships with public health partners have demonstrated the potential to reduce duplication of effort and increase efficiency. Finally, new opportunities continue to emerge, such as cross-app participation in a campaign to reduce stigma, and the promotion of in-home testing through apps.

CP92

Abstract 5931 - Understanding the true cost of service delivery to generate and sustain revenue: an assessment of community-based providers in jurisdictions transitioning to performance-based business models

Author(s): *Shayna Linov, Michael Shankle, Anna Clayton*

Issue: Traditional methods for funding HIV prevention and care services are transitioning to more accountable reimbursement models. As funders prioritize outcomes-driven, performance-based financing, HIV prevention providers must understand the true cost of service delivery to maximize funding opportunities and diversify revenue streams. HIV service providers in the U.S. are increasingly using unit cost assessments to understand the costs of services and drive outcomes-based programming.

Setting: Fiscal, clinical, administrative, and data managers from community-based organizations that provide HIV prevention and care services in the U.S. participated in HealthHIV's collaborative assessments to develop unit costs of healthcare services. Participating organizations' capacity of billing infrastructure and data management systems varied.

Project: Jurisdictions that administer HIV prevention and care programs are transitioning from traditional models of grant funding to fee-for-service reimbursement models. HealthHIV identified jurisdictions adopting new payment systems to assess the 1) feasibility of calculating the true cost of a unit of service, 2) impact of using unit costs on communication and accountability between funder and service provider, and 3) implications for program sustainability and fiscal diversification. HealthHIV designed a methodology to define the unit of service, determine the number of units of service in a fiscal year, compute the direct and indirect costs, calculate the full cost of the service, and project the

average cost of service based on the number of units provided. The design allowed jurisdictions to customize inputs based on available data to strengthen fiscal and data collection systems.

Results: Service providers are often unable to quantify the true cost of providing a service. Developing an accurate cost estimate requires a strong data management infrastructure and sufficient staff capacity to determine the elements of the cost, gather financial data, and integrate the cost components. With a customizable tool to assess unit costs of services, organizations can strengthen fiscal systems and analyze data accurately for program sustainability. Three-quarters of service providers trained on unit cost calculation gained practical skills that they plan to implement. HealthHIV's resource generated peer-to-peer collaboration across jurisdictions to compare unit costs. It is a benchmark that will increase efficiency of service provision and ultimately improve outcomes-based programming.

Lessons Learned: The use of unit cost rates for healthcare services facilitates better communication between funders and recipients; makes service providers more strategic in pursuing new funding opportunities; prepares them to market services to funders effectively; and builds capacity to improve fiscal accountability and prioritize outcomes-based services and programs. To prepare for healthcare system financing transitions, service providers should know more about unit costs. Providers must consider benchmarking costs to increase efficiency and improve quality of services. More attention should be paid to developing unit cost rates, which can improve provider/payer communication, increase capacity for expanded funding streams, and streamline assessment of data management practices.

DP05

Abstract 5654 - Transmitted resistance to integrase inhibitors in King County, Washington, 2012-2017

Author(s): *Richard Lechtenberg, Susan Buskin, Matthew Golden*

Background: Since March 2018, all of the U.S. Department of Health and Human Services' "Recommended Initial Regimens for Most People with HIV" include an integrase strand transfer inhibitor (INSTI). Prior reports suggest that transmitted INSTI resistance is very rare, though transmitted Dolutegravir resistance was recently reported. We estimated the prevalence of transmitted INSTI resistance in King County, Washington.

Methods: We characterized genotypic INSTI resistance using the earliest reported integrase sequence collected within 180 days of HIV diagnosis for each King County resident newly diagnosed with HIV between 2012—the earliest year of reported INSTI resistance testing in King County—to 2017. We defined major and minor INSTI mutations using the 2017 International Antiviral Society Update of the Drug Resistance Mutations for HIV-1 and including all mutations listed in Stanford's HIV Drug Resistance Database. We compared the characteristics of individuals with INSTI resistance test results versus those without using chi-square tests or Fisher's Exact Test, as appropriate, and assessed the significance of trends in the presence of any resistance mutations associated with potential low-level or higher resistance among those tested using the Cochran-Armitage test for trend. Clustering of sequences was examined using Secure HIV-TRACE.

Results: A total of 191 (15%) of 1247 newly diagnosed persons were tested for INSTI mutations over the 6 year period. The proportion of new diagnoses tested for INSTI resistance increased steadily from <1% in 2012 to 35% (n=56 of 162 new diagnoses) in 2017. Specimens for genotypes were collected a median of 14 days after diagnosis (range 0 - 172) and 93% (n=179) had resistance testing done within 90 days of HIV diagnosis. Those tested did not differ from those not tested by sex at birth, race/ethnicity, age at HIV diagnosis, baseline CD4 count, or HIV transmission category (all p-values ≥ 0.2). We identified no instances of transmitted HIV with major INSTI mutations. Nine persons had minor resistance mutations. The proportion of tested specimens with any INSTI resistance mutation increased from 2-3% in 2014 and 2015 (n=1 each year) to 6% (n=3) in 2016 and 9% (n=5) in 2017 (p = 0.099). Six of 9 persons with resistance mutations had isolated E157Q mutations, while two had T97A or T97TA and one had Q95QHKN. Only two persons clustered and they linked only with each other, sharing the E157Q mutation.

Conclusions/Implications: We observed no instances of transmitted major INSTI mutations over a 6 year period. There may be an increase in potentially transmitted minor mutations, such as E157Q and T97T/A, which can occur in wild type infections, but which are also selected for by INSTI therapy. In isolation, these mutations do not affect clinical response to therapy, though they may contribute to clinical resistance to Raltegravir and Elvitegravir in the presence of other mutations. Our findings suggest the need for ongoing surveillance, and might prompt consideration of whether INSTIs with relatively low genetic barriers to resistance are ideal first-line regimens, particularly if the tentative trend we observed continues.

DP06

Abstract 6058 - Comparing the impact of genetic distance thresholds on HIV molecular transmission networks in the District of Columbia

Author(s): *Brittani Saafir-Callaway, Adam Allston*

Background: With the increased availability of genetic sequence testing, molecular transmission networks have become an important complement to traditional partner contact tracing. Genetic distance thresholds attempt to maximize the likelihood of meaningful linkages while minimizing spurious ones. In order to create actionable genetic clusters, the health department must establish an effective genetic distance. This analysis compares the HIV molecular transmission networks in the District of Columbia at three different genetic thresholds.

Methods: HIV cases diagnosed and reported to the DC HIV Surveillance System through 2017, with at least one eligible genetic sequence were included in this analysis. Sequences were processed through Secure HIV-TRACE to build networks at 0.5%, 1%, and 1.5% genetic distance threshold. Viral suppression status was defined as virally suppressed (<200 c/ml), not virally suppressed (≥ 200 c/ml) or unknown suppression (no viral load test available). Differences in number of identified clusters, cluster size, diagnosis year, and viral suppression status in 2017 were described.

Results: Of the 7731 sequences processed for this analysis, 6255 singletons, 277 dyads, 111 clusters of 3-4 members, and 66 clusters with 5 or more members were identified at the 1.5% threshold. There were 6796 singletons, 198 dyads, 70 clusters of 3-4 members, and 38 clusters with 5 or more identified

at the 1% genetic distance compared with 7172 singletons, 157 dyads, and 48 clusters of 3-4 members, and 12 clusters with 5 or more members at the 0.5% genetic distance. The maximum cluster size was 36 at 1.5%, 25 at 1%, and 17 at 0.5%. Diagnosis year ranged from 1990-2017 among clusters of 5 or more at 1.5%, 1992-2017 among clusters of 5 or more at 1%, and 2002-2017 among clusters of 5 or more at 0.5%. Among those in clusters of 5 or more identified at 1%, 68 people (22.4%) were not virally suppressed at last lab in 2017. By comparison, the proportion of people in clusters of 5 or more and not virally suppressed at each of the other genetic distance thresholds was slightly greater. (N=21; 24.7% at 0.5% and N=137; 24.6% at 1.5%) Additionally, among those in clusters of 5 or more identified at 0.5%, 18 people (21.2%) had unknown viral status in 2017. By comparison, the proportion of people in clusters of 5 or more with unknown viral status at each of the higher genetic distance thresholds was slightly greater. (N=75; 24.7% at 1.0% and N=135; 24.2% at 1.5%)

Conclusions/Implications: The greatest number of clusters and largest clusters were identified at the 1.5% genetic threshold. The narrowest range of diagnosis years was found at the 0.5% threshold. The largest proportions of people not virally suppressed and unknown viral status were found at the 1% and 0.5% genetic thresholds. Viral status can serve as a proxy for care engagement; therefore clusters with higher proportions of not virally suppressed or unknown viral status are of higher priority for data to care and re-engagement activities. Health departments should choose a genetic distance to best complement to their data to care and re-engagement programs.

DP07

Abstract 5326 - Demographics of females with syphilis or HIV in Florida counties experiencing an outbreak of syphilis in females and the implications for prevention activities

Author(s): *Victoria Pearson, Yang Wang, Lorene Maddox, Emma Spencer, James Matthias*

Background: Nationwide, and in Florida, rates of syphilis have been increasing in women. Syphilis infection can facilitate the transmission of HIV. Therefore, increases in syphilis may result in increases in HIV incidence. We sought to elucidate if a subset of Florida's counties experiencing a syphilis outbreak in females were also experiencing an increase in female HIV cases in 2016, and what implications that may have on prevention activities and messaging.

Methods: We analyzed all reported cases of syphilis in females from 2011 to 2016 in Florida. Outbreak counties were defined as those with a 25% increase in cases for 2016 above the previous five-year (2011–2015) average. We analyzed all reported cases of HIV in females from 2011 to 2016 in these 12 counties to determine if they were experiencing an increase in transmissions. Prevalence of HIV and percent viral suppression (<200 copies/mL) were assessed in the outbreak counties to understand the burden of HIV within these counties. Differences between the demographics of females with syphilis versus HIV were compared using t-tests.

Results: From 2011 through 2016, reported cases of female syphilis increased 52% (n=893 in 2011, n=1357 in 2016), whereas female HIV decreased 6.5% (n=1,156 in 2011, n=1,081 in 2016). Twelve counties were experiencing female syphilis outbreak conditions in 2016. These counties were dispersed statewide, and did not include any rural (<100,000 people) counties. Outbreak counties contained 46% of Florida's females, but 63% (n=852) of the female syphilis cases, these same counties accounted for

51% (n=538) of new female HIV cases in 2016, but there were no significant increases in HIV transmissions in these counties. Of the syphilis cases, 43% (n=369) were white, compared to 18% (n=97) of diagnosed HIV infections (p=0.006). There were significantly more syphilis cases (p=0.015) among females aged 20-29 compared to those with diagnosed HIV (36%; [n=305] vs 22%; [n=119]). Conversely, in outbreak counties, females diagnosed with HIV were significantly (p<0.001) more likely to be over the age of 40 (49%; [n=266] vs 26% vs [n=223]). The reporting of heterosexual contact was similar between the two groups; 92% (n=494) of HIV transmissions, and 97% (n=824) of female syphilis cases in 2016 reported male partners. In 2016 there were 57,038 people living with HIV in these counties; 15,581 were females. Of the 41,457 males living with HIV in the outbreak counties, 6,678 reported sex with females; 40% (n=2,691) of heterosexual males were not in care and 47% (n=3,160) were not virally suppressed.

Conclusions/Implications: The female syphilis outbreak counties were not also experiencing an increase in HIV. Furthermore, females with syphilis or HIV have different demographics. The prevalence of syphilis coupled with men living with HIV who are not virally suppressed could lead to an increase in HIV transmission among women. Developing tools for timely identification and responses to outbreaks are needed to prevent syphilis transmission among females. Additionally, targeting heterosexual men living with HIV with treatment as prevention messages could assist in reducing the risk of these counties experiencing an HIV outbreak in the future.

DP08

Abstract 5660 - Summary of HIV-1 integrase genotyping test results at NYC DOHMH Public Health Laboratory

Author(s): *Jie Fu, Rui Gu, Madina Shakirzyanova, Colleen Courtney, Christine Mahle, Demetre Daskalakis, Jennifer Rakeman-Cagno*

Background: Early detection and initiation of antiviral treatment are critical to HIV infected patients. Treatment failures may occur as a result of non-compliance with treatment regimens and/or the emergence of virus resistant to drugs. Integrase inhibitors are the most recent addition to the front line of HIV antiviral medication, occurrence of drug resistance to these inhibitors is still under investigation. In response to New York State's Ending the AIDS Epidemic (ETE) campaign, the Public Health Laboratory (PHL) of the New York City Department of Health and Mental Hygiene implemented the HIV-1 genotyping assay for the protease and reverse transcriptase regions in June 2016; the assay for the integrase region was added in October 2017. This study summarizes the genotyping results from the ViroSeq HIV-1 Integrase Genotyping assay.

Methods: Using ViroSeq Integrase Genotyping kit, 311 confirmed HIV positive specimens were genotyped between June 2016 and June 30, 2018. For all specimens, RNA was extracted manually from patient plasma and amplified by RT-PCR. The PCR product was quantified, purified, and sequenced on ABI3500 or ABI3500XL Genetic Analyzer.

Results: Among the 311 specimens tested, only one specimen was found to have resistance to both raltegravir (RAL) & elvitegravir (EVG) in 2017, with mutations V151I, N155H and G163R in the integrase region. Drug resistance mutations with low drug penalty score (minor mutation) that do not confer drug resistance were found in 30 specimens. These mutations, including A128T, E157Q, V151I, L74M, T97A,

and G163K/R, occurred as single mutation in most cases (one case had two mutations). Among these minor mutations, resistance to RAL and EVG were observed since 2016, in contrast, resistance to DTG only appeared in 2018.

Conclusions/Implications: While drug resistance to RAL & EVG, the earlier integrase inhibitors, was found in only one out of 311 specimens (0.3 %), minor drug resistance mutations to these two drugs were found in 30 specimens (9.6%). No drug resistance to DTG, the latest integrase inhibitor of the three, was found; only two minor mutations (0.6%) to DTG were detected in 2018. Monitoring the trends of resistance to integrase inhibitors needs to be continued.

DP09

Abstract 5677 - Re-linkage outcomes of not-in-care people living with HIV identified through HIV-TRACE in San Francisco

Author(s): *Darpun Sachdev, Jon Brock, Miao-Jung Chen, Stephanie Cohen, Susan Scheer*

Issue: Molecular surveillance is a new approach to using HIV sequence data to identify and intervene in transmission networks. We utilized data from HIV-TRACE (HIV-TRANsmission Cluster Engine) and HIV partner services (PS) to prioritize not-in-care (NIC) people living with HIV (PLWH) for re-linkage services.

Setting: The San Francisco Department of Public Health LINCS team offers routine HIV partner services to newly diagnosed PLWH and collaborates with HIV surveillance to identify NIC PLWH for re-linkage services. NIC status is determined through eHARS, and verified by medical chart review and field investigation by LINCS staff. Eligible NIC patients who are located are offered short-term navigation.

Project: The clusters were identified using HIV-TRACE and were selected based on the following characteristics: 1) a genetic distance threshold of $\leq 1.5\%$ substitutions/site, 2) at least 5 cases in the cluster, 3) at least half of cases diagnosed in the past 36 months, and 4) at least 1 case who did not have evidence of viral suppression (< 200 copies/mL) in the past 12 months. We prioritized 4 clusters in which at least half of patients were from the following priority populations: trans women, age 20-29, people who inject drugs (PWID), or African American. LINCS staff received a line list of patients in each cluster and investigated each case. For patients diagnosed in the past 12 months, HIV PS data was reviewed. Viral loads of named partners who were not genetically linked to the cluster, or who did not have a genotype reported to HIV surveillance, were reviewed to identify additional NIC PLWH.

Results: A total of 25 PLWH were identified within the 4 prioritized clusters. Ten (40%) did not have evidence of viral suppression in the past 12 months, of whom: 6 were previously referred to LINCS navigation, 7 were homeless, and 6 were incarcerated in the past year. After reviewing HIV PS data from patients diagnosed in the prior 12 months (N=9), we identified 3 additional named NIC PLWH partners. A total of 13 NIC PLWH were referred for navigation: 7 were MSM, 2 were PWID, 6 were African American, and 3 were Hispanic. Based on LINCS investigations, 4 patients were found to be in case management, 3 were unable to be located, 2 were successfully contacted but were lost to follow up, 1 had major psychiatric barriers, and 1 was out-of-jurisdiction. Only 2 PLWH (both referred because they were NIC named partners identified through HIV PS) were successfully re-linked to care after > 90 days of navigation. Of these 2 re-linked partners, HIV-TRACE determined 1 partner was not genetically linked to

the index case but was identified in a non-prioritized molecular cluster and 1 partner has a pending genotype.

Lessons Learned: We utilized HIV-TRACE and HIV PS data to identify NIC PLWH for re-linkage. We found that over half of the NIC patients in prioritized clusters had been previously referred for HIV navigation. Two PLWH, identified through prior HIV PS investigations, were re-linked. More work is needed to determine how to efficiently utilize molecular surveillance data to intervene in transmission networks.

WEDNESDAY, MARCH 20 | CONCURRENT SESSIONS | 2:00 PM – 3:30 PM

Track A

Session A09 - Media in the Mirror: Planning Campaigns, Measuring Success

Room: Imperial A (Atlanta Marriott Marquis)

Abstract 5445 - CDC Act Against AIDS HIV Screening. Standard Care.: formative research results to guide the campaign rebranding and messaging

Author(s): *Judith Griffith, Tiffiany Aholou, Brittani Carter, Euna August*

Issue: More than 1.1 million people in the United States have HIV. About 15% of those with HIV are unaware. Furthermore, 1 in 2 people with HIV have had the virus 3 years before diagnosis. Primary care providers (PCPs) who implement HIV testing in their clinical practice can diagnose HIV and initiate treatment through direct care or referral. In 2010, CDC launched HIV Screening. Standard Care.TM (HSSC) campaign under the Act Against AIDS initiative to encourage PCPs to make HIV screening a routine part of care, and released a campaign refresh in 2018.

Setting: HSSC is a national social marketing campaign to reach internal medicine and family practice clinicians through a multi-pronged approach, including medical and nursing education, partner engagement, and trade media placements for print and digital advertising. Currently, the campaign targets approximately 500,000 primary care physicians, nurse practitioners, and physician assistants nationwide.

Project: To update HSSC's messaging and design, CDC conducted formative research. Between 2015 and 2017, CDC conducted 3 rounds of audience testing via individual interviews (N=111), two stakeholder engagement sessions, and consultations with subject matter experts. Thematic analyses of qualitative data identified the most salient and appropriate campaign concepts, including headlines, messaging, and imagery. Survey items addressed audience segmentation and channel selection for the campaign. Descriptive statistics were calculated for survey data.

Results: Formative research supported the retention of the original campaign name and concept, HIV Screening. Standard Care.TM. Providers noted that the name clearly described the linkage to the clinical protocol of "standard of care" as an important motivator for PCPs. However, findings identified the need for new imagery that depicts the diverse patient populations reflected within practice settings, as well as the wide range of individuals impacted by HIV. Additionally, participants preferred the sub-heading, Routine HIV Screening. Every Patient., which underscores the importance of testing all patients for HIV. Findings emphasized the importance of evidence-based messaging from credible sources, such as the CDC, and the dissemination of information through trusted resources, such as national membership organizations. The provision of continuing education as a means of engaging clinicians and sharing the latest information and updates regarding guidelines and research was also recommended.

Lessons Learned: PCPs and other subject matter experts provided thought-provoking suggestions and identified the most compelling conceptual designs and clinical messages to encourage HIV testing in healthcare settings. CDC used this input to inform the final creative advertisement design and key scientific messages for provider and patient resources for the HSSC campaign. Rebranded campaign ads are being placed in outlets such as Medscape, Annals of Internal Medicine and key association journal sites for PCPs. Process outcomes for campaign activities will examine reach and engagement with PCPs through social, trade and earned media, medical and nursing education, targeted events participation and materials distribution, and traffic to the campaign website.

Abstract 5418 - HIV awareness days: a strategy for partnership engagement

Author(s): *Lisa Williams, Euna August, Revae Downey, Francisco Ruiz*

Issue: There are an estimated 1.1 million people with HIV in the US, and about 1 in 7 of those people do not know they are infected. Although recent surveillance data show that annual HIV infections are declining, HIV still disproportionately affects some segments of the US population, including gay and bisexual men, African Americans, and Latinos. Furthermore, HIV-related stigma and myths may affect a range of outcomes along the continuum of prevention and care. Communication and education interventions designed to increase awareness and reduce the stigma associated with HIV, while also reducing the likelihood of transmission, are a fundamental component of our nation's HIV strategy. This presentation will review CDC's HIV/AIDS awareness day activations and measures of success associated with these activities.

Setting: CDC's Division of HIV/AIDS Prevention (CDC-DHAP) supports national HIV/AIDS awareness days with a variety of social and digital media resources and partnership engagement efforts. Key awareness days supported include: National Black HIV/AIDS Awareness Day, National Women & Girls HIV/AIDS Awareness Day, National Transgender HIV Testing Day, National HIV Testing Day, National Gay Men's HIV/AIDS Awareness Day, and National Latinx AIDS Awareness Day. HIV awareness days are opportunities to share new and relevant data and increase awareness on the impact of HIV among a particular population and/or an HIV prevention issue. For each awareness day, new scientific information is often translated into various formats, including Morbidity and Mortality Weekly Report (MMWR) publications, Dear Colleague Letters, fact sheets, web features, and social and digital media toolkits.

Project: As a case study, this abstract provides descriptive information on efforts related to the 2017 National Gay Men's HIV/AIDS Awareness Day (NGMHAAD). NGMHAAD is held annually on September 27th and focuses on recognizing the disproportionate impact of the epidemic on gay men. CDC-DHAP collaborated with a diverse set of partners to disseminate HIV messages. The Human Rights Campaign, the largest LGBTQ civil rights organization, promoted NGMHAAD among their constituents via their blog page, Facebook, Instagram, and Twitter. George M. Johnson, a journalist and HIV activist, published an online article with EBONY Magazine. Several other NGMHAAD partners, including: National Medical Association, League of United Latin American Citizens, National Black Justice Coalition, Google, and General Electric, leveraged their social media platforms to share messaging on NGMHAAD.

Results: From September to October 2017, there were a total of 804 downloads of NGMHAAD social media materials via the CDC-DHAP website. Furthermore, there were 33,947 views of webpages featuring NGMHAAD 2017 resources. Email blasts to generate partner engagement were sent to 12,336 recipients, yielding a 15% open rate. There were a total of 668 tweets/retweets of social media posts using CDC messaging preceding NGMHAAD through October, many of which were promoted through national and local community partners.

Lessons Learned: Sharing content with diverse audiences across multiple platforms allows partners to tailor the messages in social and digital media toolkits for their own constituents. Messaging should be timely, relevant, and cater to a variety of communication platforms. Content should include visually appealing graphics, engaging content and multi-language assets, as appropriate.

Abstract 5609 - Community-based interventions focused on increasing HIV testing and reducing HIV infections among high-risk populations

Author(s): *Robert Avina, Carolyn Fuller, Bruce Weiss*

Issue: The Human Immunodeficiency Virus (HIV) incidence in 2015 was 38,500 people in the United States, and an 8% decrease in the estimated annual HIV infections from 2010 to 2015 was identified, attributed to prevention measures. While HIV continues to affect high-risk communities, such as men who have sex with men across the United States, the Desert AIDS Project strives towards sexual health promotion by implementing targeted outreach promoting the recommended HIV testing guidelines among high-risk populations since the Coachella Valley averaged 102.1 new cases a year from 2006-2015.

Setting: A community-based intervention, incorporating a campaign from 2014 to 2017 that focused on increasing HIV testing across Eastern Riverside County was implemented. We planned an increase in the number of HIV tests performed and HIV test site locations that targeted various at-risk communities living in the Coachella Valley.

Project: Used one-on-one HIV interventions, which consisted of a 20-minute verbal counseling, verbal self-reported risk assessment, in addition to a HIV test with a HIV counselor. The data that was collected in 2013 before the implementation of the campaign was used as a control to identify if an increase or decrease occurred in the number of tests conducted post-implementation. In addition, we wanted to identify if increased testing numbers was associated with identifying an increased number of HIV positive test results in the Coachella Valley.

Results: During the 3-year campaign, we conducted 13,714 HIV tests across the Coachella Valley. We identified an estimated 60% increase in HIV tests conducted in 2014, and an estimated 65% increase in HIV tests conducted in 2015 and 2016, when comparing each year to 2013. In addition, the HIV positive outcome increased from 0.5% in 2013 to 2.49% after the 3-year campaign ended.

Lessons Learned: The main findings of the intervention identified an increase in HIV testing and an increase in the number of people newly diagnosed with HIV in the Coachella Valley; demonstrating efficacy of the intervention. The Desert AIDS Project continues to conduct HIV testing at high-risk site

locations, provides assistance in linking individuals into health care, and uses education as an effective resource in linking individuals to biomedical prevention tools such as, Treatment as Prevention (TASP), Pre-Exposure Prophylaxis, Post-Exposure Prophylaxis and condoms.

Abstract 5606 - Sistas Organizing to Survive (SOS)

Author(s): *Ronald Henderson, Leisha McKinley-Beach, Mara Michniewicz*

Issue: In Florida, one in 61 (age 13 and older) black women are living with HIV, compared to 1 in 1,077 white women and 1 in 490 Hispanic women through 2016. Of the 1,074 women diagnosed with HIV in 2016, black women had 13 times more cases per 100,000 compared to white women and 7.4 times the rate of Hispanic women. Sixty-six (66%) percent of young women diagnosed with HIV in 2016 (ages 13–24) were black. Ninety-one (91%) percent of women diagnosed with HIV in 2016 acquired HIV through heterosexual contact, compared to 9% from injection drug use.

Setting: The Florida Department of Health (DOH), created a homegrown statewide community mobilization initiative to mobilize black women where they live, work, play and worship. Everyday black women, which we call community ambassadors, are charged with encouraging other black women to get tested for HIV and other STDs throughout the state.

Project: June 2008, the Florida DOH, HIV/AIDS Section conducted a SOS conference in Orlando, Florida. Approximately 600 participants were in attendance. The conference served as a statewide call to action to mobilize black women to respond to the ongoing crisis of HIV/AIDS in their communities. After the conference, the Florida DOH, HIV/AIDS Section goal was to test 100,000 black women for HIV each year until 2010.

Recently, the Department re-launched SOS for the 10-year anniversary and each area of the state will create local SOS chapters. The chapters will include a DOH and community co-chair. The members of the local SOS chapters will serve as community ambassadors. All community ambassadors are trained prior to any community outreach and education. They will be charged with planning activities for National Women and Girls HIV/AIDS Awareness Day, National Black HIV/AIDS Awareness Day and other activities throughout the year.

Results: The goal of SOS in 2008, was to test 100,000 black women each year for HIV by 2010. The state of Florida achieved that goal. During the re-launch of SOS for the 10-year anniversary, the Department assisted with community mobilization meetings in several communities in Florida-reaching more than 200 black women. The women created the hashtag (#FloridaSOS) to mobilize and heighten the awareness of HIV among black women on social media platforms (Facebook, Twitter and Instagram). The hashtag resulted in more than 300 posts, re-tweets and several hundred reactions in a 2-day social media campaign. The Department has established goals for this community mobilization initiative that we will be able to report on during the conference.

Lessons Learned: SOS served as a catalyst to compel women to talk about HIV/AIDS. Individuals began talking about HIV and AIDS openly and encouraging others to get tested and use condoms. By working together, we can have a significant impact on the community's health, improving where we live, work and play and realize shared benefits, to end new HIV infections in the state of Florida.

Track B

Session B14 - Removing the Walls: Addressing Structural Barriers to PrEP and PEP Access

Room: Regency VII (Hyatt Regency Atlanta)

Abstract 5776 - Strategies for increasing access to PrEP among a priority population in LA County

Author(s): David Pieribone, Shoshanna Nakelsky, Leo Moore

Issue: Despite a long history of HIV prevention programs in Los Angeles County (LAC), nearly 2,000 people are diagnosed with HIV annually. While PrEP offers an opportunity to protect high-risk individuals from acquiring HIV, uptake was slow among those at highest risk of HIV, with an estimated 3% of men who have sex with men (MSM) using PrEP in 2014. In addition, data from an online survey conducted in LAC in 2015 demonstrated disparities in PrEP use among MSM by race/ethnicity. Approximately 15% of white MSM reported history of PrEP use while 12% of black and 3% of Latino MSM reported ever taking PrEP. Furthermore 45% of white, but only 21% of black and 26% of Latino MSM reported knowing where to access PrEP.

Setting: HIV disproportionately affects black LAC residents. The rate of HIV infection for black MSM is the among the highest of any group in the County at 50/100,000.

Project: Between 2015 and 2018, LAC Department of Public Health Division of HIV and STD Programs (DHSP) initiated steps to increase PrEP awareness and uptake among priority populations who included MSM of color and transgender persons. Expanded access to PrEP services was implemented in partnership with 6 county health clinics and 10 community clinics. The clinics were selected based on their location in neighborhoods with a high prevalence of HIV, a history of serving MSM of color and transgender clients, and a demonstrated ability to support PrEP services. Based on HIV incidence and prevalence rates, DHSP set internal goals for services delivered to priority populations, including the goal that at least 14% of PrEP clients served should be black MSM. Throughout the project period, DHSP provided technical assistance and timely performance evaluation to support the service goals.

Results: In 2016, 2385 clients were evaluated in the DHSP-funded PrEP clinics and 1575 (66%) clients initiated PrEP. Of these, 115 (7%) were black MSM. As outreach and enrollment to black MSM did not reach the 14% service goal, DHSP worked with DHSP-funded clinics, county health clinics, and community groups to address this short fall. Activities included: hosting a meet-and-greet between community clinics and community based organizations (CBO) that work specifically with black MSM; working with the LA County PrEP and PEP Workgroup's (PPWG) Black Caucus to develop presentations focused on cultural humility, medical mistrust, and implicit bias for PrEP providers; stationing a PrEP navigator at county health clinics in areas with high HIV rates among black MSM; and providing DHSP-funded clinics with in-depth performance reports and requiring corrective action plans. Preliminary data indicate that the proportion of black MSM who initiated PrEP services increased to 12% in 2017.

Lessons Learned: Monitoring and evaluation of service delivery goals allows for identification of gaps in services for better optimization. Reaching priority populations may require additional strategies such as

facilitating meetings between key partners, providing culturally appropriate trainings, and ensuring that funded partners develop their own plans and strategies to reach those populations.

Abstract 5251 - Effective partnership building for the development of a culturally responsive HIV pre-exposure prophylaxis (PrEP) campaign for Latinos in New York City

Author(s): *David Garcia, Adriana Andaluz, Guillermo Chacon, Gustavo Morales, John Rojas, Michael Patano, Demetre Daskalakis*

Issue: Recent data highlight significant increases of HIV pre-exposure prophylaxis (PrEP) usage in the United States from 8,768 users in 2012 to 77,120 in 2016. Although Latinos are disproportionately impacted by HIV, they account for the smallest percentage of prescriptions to date. This trend is also seen in New York City (NYC): in 2016, only 16 percent of sexually active Latinos were aware of PrEP, and fewer were taking PrEP compared to Whites.

Setting: The New York City Health Department in partnership with the Latino Commission on AIDS and members from NYC's Latino communities collaboratively developed and implemented a PrEP marketing campaign. The campaign appeals to diverse Latino men, cisgender and transgender Latinas, all of whom are disproportionately impacted by HIV.

Project: The result of this collaboration was “¡Listos!”, a sex-positive marketing campaign that encourages Latinos to consider using PrEP as part of their sexual health plan. “¡Listos!”, which translates to “Ready!” in English, is the first NYC Health Department campaign to be conceived of and largely released in Spanish. The campaign also seeks to dispel common myths about PrEP's safety, effectiveness and availability so that all New Yorkers, regardless of ability to pay or immigration status, are aware of the HIV prevention options available to them.

Results: Through several partnership meetings the campaign was developed by conducting Spanish language focus groups with Latinos in NYC to capture nuances by country of origin, age, sexual orientation, and gender identity. In total, eleven focus groups were held during the formative stage; these focus groups included representatives from Latin American countries with the highest prevalence of HIV. Results from these focus groups helped inform campaign messaging and the need to address issues of stigma, cost, side effects and access. The findings highlighted the need to acknowledge the vast differences in terminology and colloquialisms that exist among Spanish-speaking individuals from diverse countries of origin. When the campaign was ready to be implemented, continuous partnership meetings including the community ensured the campaign was culturally responsive and met the diverse needs of the community.

Lessons Learned: To ensure a marketing campaign is culturally responsive to the Latino diaspora, community participation during both development and implementation is essential. Spanish language message framing must be developed with input from native Spanish speakers and not just translated (nor transliterated) from English language campaigns. To increase PrEP access, messaging must also address immigration concerns. Strong effective partnerships between community-based organizations and government agencies are needed to effectively address the health disparities experienced by Latino communities.

Abstract 5292 - Willingness to take and pay for PrEP among HIV-negative black/African-American and Hispanic/Latino men who have sex with men in three U.S. cities

Author(s): *Gordon Mansergh, Matthew Mimiaga, Jeremy Holman, Jeffrey Herbst*

Background: Black and Hispanic/Latino men who have sex with men (MSM) are at high risk for HIV infection in the United States, and many could benefit greatly from using PrEP. Few studies have focused on black and Latino MSM willing to take and pay for PrEP to prevent HIV acquisition.

Methods: Data are from the 2014 Messages4Men Study, an assessment of black and Latino MSM in Chicago, Fort Lauderdale, and Kansas City. Here we analyzed data from the HIV-negative subgroup (n=605) regarding willingness to take and pay for PrEP. Using a computer interview system offered in English or Spanish, we measured PrEP awareness prior to their assessment, and willingness to take and pay for PrEP in the future (\$0, \$1-50/month, \$51+/month, unwilling to take PrEP). We examined these factors in relation to race/ethnicity, age group (18-29, 30-39, 40+ years), level of educational attainment (<=high school diploma, some post-high school training, >=4-year college degree), sexual orientation identification (gay/homosexual, bisexual/heterosexual), and city recruited from. Bivariate and multivariable logistic regression analyses were used to examine associations of demographic variables and two dependent variables: willingness to pay for PrEP (vs not willing to take or pay for PrEP) (Model 1, n=605), and willingness to pay a higher cost for PrEP (\$51+/month vs \$1-50/month) among men who were willing to pay for PrEP (Model 2, n=449).

Results: The sample responded as follows: 8% were unwilling to take PrEP; 17% were willing to take PrEP but not pay for it; 48% were willing to pay \$1-50/month to take PrEP; and 27% were willing to pay \$51+/month for PrEP. In bivariate analysis, Latino (vs black) MSM were more unwilling to take PrEP (10% vs 5%, respectively) or pay for PrEP (23% vs 11%); black (vs Latino) MSM were more willing to pay a higher cost (\$51+/month) for PrEP (34% vs 19%, $p < .05$ overall). Bivariate differences by education level (men with more education were more willing to pay), city (men from Fort Lauderdale less willing to pay), and sexual orientation identification (men who identified as bisexual/heterosexual more willing to pay) were significant ($p < .05$). In multivariable regression analysis for Model 1, men from Kansas City (vs Chicago) reported greater odds of willingness to pay for PrEP (AOR=2.12, 95%CI=1.14-3.97), and men from Fort Lauderdale (vs Chicago) reported lower odds of willingness to pay for PrEP (AOR=0.37, 95% CI=0.21-0.66). Among men willing to pay for PrEP (Model 2), those who had more education reported greater odds of willingness to pay more for PrEP (AOR=1.79, 95% CI=1.07-2.99), while men who identified as gay/homosexual (vs bisexual/heterosexual) reported lower odds of willingness to pay more (AOR=0.53, 95% CI=0.33-0.87).

Conclusions/Implications: As information about PrEP continues to be dispersed, black and Latino MSM may present differing levels of willingness to take or pay for PrEP by education level, geographical location, and other demographic characteristics. Messaging about PrEP as an effective and accessible prevention method is warranted, including information about availability, insurance coverage, medication assistance programs, and other payment options.

Abstract 5750 - Enhancing a state run PrEP drug assistance program: systemic, programmatic, and community based enhancements to Washington State's PrEP DAP

Author(s): *Lori Delaney, Michael Barnes, Jessica Stevens*

Issue: The awareness of the biomedical intervention to prevent HIV, known as Pre-Exposure Prophylaxis or PrEP, has increased over the past six years. Available since 2012, people at high risk for HIV take a pill every day to prevent HIV infection. As a public health response to support the uptake of PrEP and reduce HIV infections in Washington State, the Department of Health Office of Infectious Disease (OID) established the state-funded PrEP Drug Assistance Program (PrEP DAP) to assist patients with costs for PrEP medication. The program is evolving and growing year after year.

Setting: PrEP DAP is implemented at the state health department level but its success has relied on prescribers, health care providers, pharmacies, and community-based partners from across the state in both rural and urban settings.

Project: In 2014, Washington State started the first state-run PrEP Drug Assistance Program. Since then, a lot has changed! From 2016 to present, OID has implemented systematic and programmatic enhancements to PrEP-related services, both internal to DOH and with external partners, by expanding coverage to include recommended medical, laboratory, and preventive services, contracting with healthcare providers, facilities, and laboratories to provide healthcare services to enrollees, increasing outreach with health systems and prescribers, expanding the role of community-based partners, reducing barriers and increasing access to services, and easing program enrollment to maximize resources.

Results: A) System Enhancements: 1) Engage with large health systems to increase provider capacity to improve access to PrEP for high risk populations. 2) Outreach to prescribers across the state to build a provider network within PrEP DAP to increase patient access to PrEP. B) PrEP DAP Program Enhancements: 1) Increased PrEP DAP benefits to include medical/lab & medications for treatment of limited health conditions for enrollees to help with out of pocket costs. 2) Simplify PrEP DAP program enrollment by creating an online portal for application submission. C) Community-Based Program Enhancements: 1) Implemented community-based PrEP navigation model to provide support to high risk individuals navigating healthcare and payer systems to access and be retained in PrEP services.

Lessons Learned: Outreach to providers takes staff time and effort—requires dedicated staff person, billing can be complicated and expensive for providers, application process burdensome for some enrollees (required documentation, re-enrollment, etc), navigators help but have a limited reach, hard to project costs for medical and lab billing, data input is time consuming and requires adequate staff time, program not reaching AA MSM or Latinx MSM in the same numbers as white MSM, don't have Medicaid PrEP data so only seeing a small piece of the overall PrEP picture in our state, community based health care provider (Kelly Ross) is less familiar with insurance, how it works, and how to trouble-shoot denials.

Abstract 5620 - Improving access to PEP in the City that Never Sleeps: PEP centers of excellence in NYC

Author(s): *Carolina Alcalá, Sarah Ramteke, Jessica Klajman, Angela Merges, Zoe Edelstein, Lena Saleh, Benjamin Tsoi, Demetre Daskalakis, Julie Myers*

Issue: Post-exposure prophylaxis (PEP) prevents HIV if taken within 72 hours of exposure. However, many individuals have sought PEP in emergency departments (ED), which can be inefficient, resulting in delays from long wait times, lack of familiarity with prescribing among staff, lack of privacy, and the potential for high out-of-pocket cost. Centralizing PEP at non-ED sites can increase access for priority populations with streamlined, patient-centered workflows, expert staff, and free drug on-hand.

Setting: Beginning in July 2016, New York City Health Department funded one NYC-wide PEP 24/7 call center (PCC) and four brick-and-mortar clinical sites as “PEP Centers of Excellence” (PCE) with the goal of coordinated PEP delivery.

Project: During business hours, PCC/PCE program staff link clients to brick-and-mortar sites, including PCEs. After hours, PCC is operated by physicians who conduct eligibility assessments and prescribe PEP through 15 retail pharmacies citywide; clients then retrieve a PEP starter pack (PSP) free of cost. PCC follows-up with these clients to navigate them to a brick-and-mortar site the next business day. Brick-and-mortar PCEs are located throughout the city and receive referrals from PCC and other mechanisms. Once engaged at PCEs, clients receive medical evaluation, additional PEP medication and ongoing non-medical support, including weekly check-in calls, assistance with payment, adherence education, and supportive services. PCE physicians also discuss PrEP and facilitate PrEP transition. We report on data collected and entered during the first year of service delivery, April 2017-March 2018.

Results: PCC hotline conducted 1,490 PEP-eligibility assessments, many among priority populations: 1,048 (70%) among men who have sex with men (MSM) and 644 (43%) among people of color (i.e., Latino and Black). Overall, 95% (1,411/1,490) of assessments were PEP-eligible; among them, 68% (962/1,411) resulted in PEP prescriptions, 65% (915/1411) in PEP starter pack retrieval, and 87% (1224/1411) in linkage to a PEP provider at a brick-and-mortar site. At the brick-and-mortar PCEs, 590 clients were enrolled, including 296 (50%) MSM, 384 (65%) persons of color, and 252 (43%) uninsured/underinsured persons. PCEs conducted 608 PEP eligibility assessments, including 18 repeat assessments; 98% (598/608) were PEP-eligible and, among them, 96% (576/598) received a medical evaluation and initiated PEP. Among PEP initiators, 81% (464/576) received adherence support from navigation staff, 49% (280/576) returned for a 30-day visit, and 94% (539/576) received PrEP education.

Lessons Learned: A PEP delivery system consisting of a hotline and brick-and-mortar sites distributed a large volume of PEP to priority populations, contributing to PEP uptake and possible PrEP transition. During implementation, challenges were identified and addressed, including: integrating grant-funded programs into hospital systems; administrative barriers to site-specific branding due to HIV-related stigma (i.e., difficulties with implementing promotional strategies for recruitment into these HIV prevention programs); reaching uninsured clients; and follow-up visit attrition. Moving forward, technical assistance will be provided around increasing inter-departmental collaboration within clinical facilities (e.g., between the clinics and their internal pharmacy, laboratory and emergency departments)

to streamline PEP service delivery and enhancing marketing and recruitment efforts to improve program reach and focus.

Session B17 - Understanding and Confronting Stigma

Room: International North (Hyatt Regency Atlanta)

Abstract 5278 - "To me, everybody is infected": understanding narratives about HIV risk in the deep South among HIV-negative black men who have sex with men

Author(s): *Damian Denson, Deborah Gelaude, Heather Saul, Alisu Schoua-Glusberg, Laura Randall, Katherine Kenward, Elizabeth Gall, DeMarc Hickson, Jay Schamel, Paula Frew*

Background: For non-Hispanic black MSM living in the Deep South, the intersection of sexuality, race, and geography impacts HIV risk substantially, revealing some of the highest rates of HIV prevalence and incidence nationally. Therefore, understanding how HIV-negative black MSM in the Deep South have maintained their negative HIV status could inform protective practices for this population.

Methods: Between July and September 2016, we conducted a qualitative study using a purposive sampling to interview 99 HIV-negative black MSM in five cities with elevated HIV prevalence: Atlanta, GA; New Orleans, LA; Baton Rouge, LA; Jackson, MS; and Miami, FL. Participants were recruited through referrals from local health departments, clinics, and HIV testing centers or flyers distributed by partner agencies. Interviews were conducted face-to-face. We utilized NVivo 10.0 software for team-based coding and analyses that included assessment of interrater reliability and cluster analysis. Quantitative analyses included descriptive statistics.

Results: We enrolled 99 HIV-negative black MSM (mean age: 33.6; SD = 12.8; range: 17-68 years) from Atlanta, GA (33.3%, n = 33), Jackson, MS (32.3%, n=32), New Orleans, LA (18.2%, n = 18), Baton Rouge, LA (11.1%, n = 11), and Miami, FL (5.0%, n =5). Team-based analyses revealed four overarching themes: (1) harboring fear of HIV and the internalization of HIV stigma; (2) scrutinizing potential partners to assess riskiness and HIV status; (3) embracing distance and isolation from those perceived as a threat to HIV status; and (4) exhibiting self-efficacy towards HIV prevention and utilizing risk-reduction strategies.

Conclusions/Implications: This study highlights how psychosocial (fear of HIV, internalization of HIV stigma, HIV prevention self-efficacy) and socio-geographic (partner scrutiny in social networks and social/community/geographic distancing strategies) factors contribute to the maintenance of negative HIV status among black MSM in the Deep South. Future HIV prevention interventions may benefit by balancing risk and deficit-based strategies with those that emphasize resilience, address disenfranchisement via structural interventions, and assess and treat the inherent trauma as experienced by black MSM in the Deep South.

Abstract 6040 - Experiences of pre-exposure prophylaxis (PrEP) stigma among Latino gay and bisexual men in Los Angeles

Author(s): *Ronald Brooks, Omar Nieto, Amanda Landrian, Annie Fehrenbacher*

Background: In the United States, Latino gay, bisexual and other men who have sex with men (MSM) are a group critically affected by HIV. The Centers for Disease Control and Prevention (CDC) estimates the lifetime risk is 1 in 4 for Latino MSM compared with a lifetime risk of 1 in 11 for white MSM. Pre-Exposure Prophylaxis (PrEP) is a proven biomedical prevention strategy with the potential to dramatically reduce the rate of HIV infections in the U.S. While evidence suggests that PrEP use is rising in the U.S., disparities persist in uptake among Latino MSM. The negative and stigmatizing perceptions of PrEP users present in the gay community may deter adoption or continued use of PrEP among Latino MSM. In this qualitative study, we explored the real world experiences of Latino MSM PrEP users, focusing on experiences of PrEP stigma (i.e., anticipated, enacted, and internalized).

Methods: A targeted sample of Latino MSM PrEP users were recruited between January 2017 and October 2017 through gay-oriented social networking apps, community events, and community agency referrals to complete an in-person, semi-structured interview. The interview guide explored experiences of using PrEP among Latino MSM. Participants were asked about: their experiences with family, friends/peers, sex partners when disclosing their PrEP use and discussions with providers when accessing PrEP; experiences where they did not disclose their PrEP use for fear that they might be judged or treated differently; and their personal feelings relating to their PrEP use (e.g., feeling more responsible, shame, guilt). Interviews were recorded and transcribed verbatim for analysis. Interview transcripts were coded, sorted, and analyzed using a thematic analysis process.

Results: A total of 29 Latino MSM PrEP users were enrolled into the study. Almost all participants expressed an awareness of the existence of PrEP stigma within the gay community. Among participants, the sources of PrEP stigma and discrimination included sex partners, friends/peers, family, and medical providers. The majority of participants reported experiences of anticipated and enacted stigma, and PrEP-related gay stigma. Only a few men reported internalized stigma. Our analysis identified five major themes associated with PrEP stigma: 1) perceptions that PrEP users engage in high-risk sexual behaviors, resulting in negative labels ascribed to PrEP users; perception that PrEP users are HIV-positive; the belief that PrEP is unnecessary for HIV prevention given the effectiveness of condoms; experiences of PrEP-induced conflict in relationships; experiences of judgment or homophobia from medical providers; and PrEP-related gay stigma.

Conclusions/Implications: The stigma attached to PrEP is a socially constructed phenomenon that stems from the persistent negative perceptions of PrEP users that are present within the gay community. These perceptions have contributed to the development of a negative social identity assigned to anyone who uses PrEP. PrEP implementation programs, public health departments, and community agencies need to be aware that there are social consequences attached to using PrEP. Efforts are needed to help mediate these negative perceptions of PrEP users to facilitate greater uptake among those populations that would most benefit from adoption, such as Latino MSM.

Abstract 5273 - Effectiveness of HIV stigma interventions for men who have sex with men (MSM) living with and without HIV: a systematic review

Author(s): *Cherie Rooks-Peck, Leslie Ross, Christa Denard, Megan Wichser, Julia DeLuca, Adrienne Herron, William Jeffries IV, Stephen Flores, Donna McCree, Darrel Higa*

Background: For men who have sex with men (MSM) regardless of HIV status, HIV stigma may intersect with homophobia and other forms of discrimination, placing them at greater risk for poor HIV-related health outcomes. For example, HIV stigma can prevent MSM from accessing prevention and treatment services, and it can make them vulnerable to sexual risk behaviors. Identifying effective strategies to reduce both internalized HIV stigma and experienced HIV stigma among MSM may help to improve HIV-related outcomes. Therefore, we conducted a qualitative systematic review to identify stigma-reduction interventions for MSM and summarize their effectiveness on decreasing internalized and experienced HIV stigma, and improving HIV-related outcomes.

Methods: We conducted a systematic literature search in several databases (e.g., MEDLINE, PsycINFO and CINAHL) to identify US-based studies published between 2000 and 2017. We included studies that examined the effectiveness of HIV stigma interventions for MSM with and without HIV on decreasing HIV stigma (e.g., internalized or experienced), reducing sexual risk behaviors (e.g., condomless anal intercourse), and improving HIV prevention and care outcomes (e.g., HIV testing and engagement in HIV care). We summarized the evidence by qualitative synthesis.

Results: Twelve intervention studies met our inclusion criteria. Six studies examined black MSM, and eight studies assessed sexual risk behavior outcomes. Two studies were implemented in Latino populations and five in youths (≤ 21 years of age). Two types of interventions were identified: 1) interventions that specifically focused on stigma reduction (stigma-focused; 4 studies), and 2) multi-focused interventions that included stigma as a secondary component (multi-focused; 8 studies). Stigma-focused interventions observed reductions in internalized or experienced HIV stigma, although no intervention reported statistically significant findings. One community-level stigma-focused intervention observed statistically significant increases in HIV testing, but no change in experienced HIV stigma. No other relevant outcomes were assessed by stigma-focused interventions. Among the multi-focused intervention studies, statistically significant reductions in sexual risk behaviors (7 studies) (e.g., condomless anal intercourse and sex under the influence of drugs or alcohol) and increases in HIV testing (2 studies) were observed. One community-level multi-focused intervention found no statistically significant intervention effect on experienced HIV stigma.

Conclusions/Implications: Only four studies focused specifically on stigma reduction, and none observed significant improvements in HIV stigma-related outcomes. The lack of significant findings may be due to the measurement of HIV stigma, or the low statistical power of included studies. The small number of studies identified for this review is a limitation. Intervention studies that measure HIV stigma and assess stigma, prevention, and treatment outcomes are needed for MSM.

Abstract 5736 - A holistic approach to HIV prevention and treatment

Author(s): *Brenda Cruz Scotton, Miguel Taveras*

Issue: Newark is the largest city in the state of New Jersey (NJ), with a population of 281,944, of which 29.7 percent identified as living in poverty (U.S. Census Bureau, 2015). Newark is home to 15 percent of all those living with HIV/AIDS in NJ, and is a municipality of Essex County, which has the highest number of people living with HIV/AIDS (14,919) in the state (NJDOH, 2016).

Setting: The North Jersey Community Research Initiative (NJCRI), A CDC funded organization providing HIV prevention and treatment services to NJ and NY residents.

Project: NJCRI was the first AIDS service organization in New Jersey to provide medical care to those with HIV. In the late '80s, NJ residents looking to gain access to new and promising HIV/AIDS treatment clinical trials had to travel to New York City. NJCRI responded by adopting a "one-stop shop," holistic approach to prevention and care services. Clients have access to ancillary services such as: laundry, clothing and food pantries, showers, living and dining rooms, internet café, syringe exchange, an on-site pharmacy, and career academy.

To address co-occurring illnesses and other medical conditions, NJCRI offers substance-use treatment, behavioral-health counseling, support groups, gynecology, primary care, infectious-diseases treatment, nursing, dentistry, pediatrics, and a fitness center complete with equipment and a professional volunteer trainer.

NJCRI now uses an electronic records and check-in system, departments working with a client are notified when their clients are on-site for any other service. The Client is less likely to miss an appointment and can have ongoing and consistent access to their entire treatment team.

NJCRI has been able to continue expanding their services by diversifying their funding sources. Since 2014, NJCRI has offered billable services as part of the organization's business model.

Results: Embracing the "one-stop shop," model has decreased the stigma around accessing NJCRI services, as it is no longer considered an "HIV-only" service provider.

NJCRI's use of an electronic records and check-in system has increased communication among staff for improved delivery of comprehensive services. Grant-funding now helps to support services for undocumented clients ineligible for insurance, while revenue generated from billable services has afforded NJCRI a more sustainable and flexible service-delivery model.

NJCRI's client statistics show an average of 3,500 individuals tested for HIV, Viral Hepatitis, and other STDs, annually, and a 2% seropositivity rate. In the past year, 100% of those identified as a PLWHA were linked to care, 96% of those identified as high-risk negative individuals were linked to prevention services, and all received these linkages on the same day of initial service.

Lessons Learned: - Having an ongoing flow of communication from clients to staff to leadership is critical in order to properly meet the needs of the population.

- Billable-services diminish dependence on grant funding, improve sustainability.

- Offering non-HIV related services can help de-stigmatize a HIV-service organization.

- If an organization is not equipped or able to offer a wider range of services, it is important to establish memoranda of understanding (MOUs).

Abstract 6045 - High levels of perceived HIV stigma among the house ball community

Author(s): *Robin Fatch, Wayne Steward, Hong-Ha Truong*

Background: Young black men who have sex with men (MSM) in the United States are disproportionately affected by HIV, accounting for nearly 60% of HIV infections among young MSM. The house ball community is a subgroup of this high-risk population which has many members who are young black MSM. While the house ball community provides social support and creates a family

structure for its members, some studies have found HIV-related stigma to be prominent within the community. We evaluated the association between stigma beliefs and HIV testing and care among members of the house ball community.

Methods: Young men who were members of the house ball community in Oakland, CA, were recruited through an adapted respondent-driven sampling methodology. Bivariate associations between HIV stigma beliefs and HIV testing history were assessed using Fisher's exact test. Correlations between the HIV stigma belief statements were assessed by Spearman correlations.

Results: Fifty-two men were enrolled in the study; 85% were black, with a median age of 26 years. Forty-two participants reported ever testing for HIV, of whom 88% reported testing within the past twelve months and 24% reported being HIV-positive. Nearly all HIV-positive men disclosed their test results to someone, but only one participant disclosed his status to a house member. Of the 10 HIV-positive men, 7 were currently in care, 6 had ever taken HIV medications and 3 were currently taking HIV medications. Most participants agreed with the statements that most people "are uncomfortable around a person with HIV" (56%); "believe a person with HIV is dirty" (52%); "think a person with HIV has slept around" (81%); and "think a person with HIV brought it on themselves" (62%). Participants disagreed with the statement "most people think a person with HIV is disgusting" (58%), and were evenly split regarding the statement "most people treat a person with HIV like an outcast" (50%). Participants who agreed that "most people believe a person with HIV is dirty" were more likely to have ever tested for HIV ($p=0.04$). There were no significant associations observed between HIV stigma beliefs and seeing an HIV care provider or taking HIV medications among the HIV-positive men. Correlations between the HIV stigma belief statements were low to moderate.

Conclusions/Implications: There were high levels of HIV testing and disclosure of test results among the house ball community members in our study. There was also an overall belief that persons with HIV face substantial stigmatization. Among the HIV-positive men, there was a notable lack of disclosure of their HIV status to house members. Hesitancy to disclose an HIV-positive status may reflect concerns about potential discrimination against their house by other house ball community members. Our findings highlight the need for increased outreach and education to reduce HIV stigma within the house ball community.

Session B20 - Getting to No New HIV Infections: A Collaborative Effort Between Community-Based Organizations and the Centers for Disease Control and Prevention

Room: International South (Hyatt Regency Atlanta)

Abstract 5375 - The background of program evaluation at CDC-funded community-based organizations

Author(s): *Mariette Marano, Gary Uhl, Adanze Eke, Tanesha Joshua, Angela Hickman, Antonya Rakestraw, Erica Dunbar*

Issue: The speaker will present the background and context for CDC's evaluation of HIV testing programs at CBOs.

Setting: In order to continually improve the HIV prevention programs at CBOs and get to no new HIV infections, continuous monitoring and evaluation is critical. Historically, CDC received CBO National HIV Prevention Program Monitoring & Evaluation (NHM&E) data indirectly through each CBO's health department. CDC was unable to identify specific CBOs and therefore could not use these data for program monitoring. In addition to having their HIV testing data uploaded by health departments, CBOs reported their data in aggregate to CDC through annual performance reports making it difficult to verify and perform data quality assurance.

Project: To better monitor and evaluate CBO programs, CDC transitioned to web-based data entry by the CBOs. CDC worked with their contractor to program a system that allowed CBOs to directly enter and locally evaluate their HIV testing data. Beginning in 2016, CBOs were required to directly enter and submit their NHM&E data through this system.

Results: Both grantees and CDC staff now have immediate access to entered data, which facilitates monitoring and evaluation. Accurate, regular entry and submission of NHM&E variables are essential to successful monitoring and evaluation of directly funded CBOs.

Lessons Learned: Challenges related to direct data entry into a web-based data reporting system include training and access to the data entry system, grantee burden, and shifting from local data entry systems. CDC and its directly funded CBOs have dealt with challenges and overcome them to improve the overall quality of NHM&E Data. Evaluating complex and changing HIV prevention programs requires a reporting system that is adaptable and is not burdensome.

Abstract 5402 - HIV prevention programs at CDC-funded community-based organizations

Author(s): *Angela Hickman, Erica Dunbar, Gary Uhl, Adanze Eke, Mariette Marano, Antonya Rakestraw, Tanesha Joshua*

Issue: The speaker will describe HIV prevention programs at CDC-funded CBOs. The speaker will provide a brief history of CDC funding CBOs and a detailed description of the current CBO Notice of Funding Opportunities, including next steps.

Setting: CBOs have been critical partners in CDC's HIV prevention efforts since 1989. CDC's approach to HIV prevention has evolved over the years, starting with a behavioral approach to an increased focus on a biomedical approach.

Project: To advance HIV prevention goals and maximize the effectiveness of current HIV prevention methods, CDC pursues a high-impact HIV prevention approach. By using combinations of scientifically proven, cost-effective, and scalable interventions targeted to the right populations in the right geographic areas, this approach promises to greatly increase the impact of HIV prevention efforts.

Results: CDC currently funds 101 CBOs through two notices of funding opportunity (NOFO). One NOFO funds CBOs to provide HIV prevention services to members of racial/ethnic minority communities and groups that are at high risk for acquiring or transmitting HIV; the other NOFO funds CBOs to provide these services to young men of color who have sex with men and young transgender persons of color.

For both NOFOs, HIV testing is a key component of a CBO's HIV prevention program, constituting a large percentage of their CDC-funded HIV prevention program budget.

Lessons Learned: HIV testing, linkage to HIV medical care, and viral suppression are critical components of getting to no new HIV infections. The speaker will share perspectives and examples of the collaboration between CBOs and CDC that have advanced progress towards getting to no new HIV infections.

Abstract 5403 - National HIV prevention program monitoring and evaluation: how data requirements, quality assurance, and reporting improve HIV prevention programs

Author(s): *Adanze Eke, Mariette Marano, Gary Uhl, Tanesha Joshua, Erica Dunbar, Antonya Rakestraw, Angela Hickman*

Issue: This speaker will describe CDC's evaluation of HIV testing programs at CBOs, specifically data requirements, quality assurance, and data reporting.

Setting: CDC staff work closely with CBOs to ensure they are correctly collecting, entering, and quality assuring the data. Since web-based reporting has been initiated, CBO NHM&E data can be analyzed and evaluated more effectively. Currently, CDC conducts national-level monitoring and evaluation of 101 CBOs funded to deliver HIV prevention services to critical target populations through two notices of funding opportunity.

Project: Using standardized measures, CDC assesses key elements of the HIV prevention programs to help answer questions such as: Are CBOs reaching persons at risk for HIV? Do CBOs identify HIV infection among persons at risk? Are HIV-positive persons being linked to HIV medical care? Once data are entered into the web-based reporting system, CDC quality assures these data and works directly with CBOs to provide technical assistance.

Results: Reporting evaluation data is an important step in program improvement. CDC uses evaluation reports such as the Rapid Feedback Report (RFR) to facilitate program improvement. The RFR, which is distributed to CBOs and internal CDC staff twice per year, is a concise report that measures CBO progress toward meeting program objectives. It provides an overall picture of the NOFO regarding what is happening with HIV prevention. The RFR helps CBOs and CDC to determine where to focus capacity-building and quality improvement efforts and spurs improved performance to help meet goals.

Lessons Learned: Having access to accurate data has improved CDC's ability to monitor and evaluate CDC-funded CBOs. When concerns have arisen about the time required to develop evaluation reports, CDC staff have identified solutions. In addition to standard biannual evaluation reports, CDC now develops monthly reports that are disseminated quickly to project officers.

Abstract 5404 - Los Angeles LGBT center's perspective on CDC-funded HIV prevention programs at community-based organizations

Author(s): *Blair Ralston, Percival Pandey*

Issue: L.A. County continues to have the second largest number of persons living with HIV (PLWH), including AIDS, DHSP estimates that there were approximately 58,503 PLWH in the county, including 7,196 persons who were undiagnosed and unaware of their HIV infection. Undiagnosed persons represent approximately 12.3% of total PLWH. California is second in the U.S. for annual new HIV infections, with nearly 4,700 Californians being diagnosed annually and at the end of 2015, an estimated 1.1 million persons aged 13 and older were living with HIV infection in the US.

Setting: Since 1969, The Center has been an indomitable force in the fight against bigotry and the struggle to build a world in which LGBT people can be healthy, equal, and complete members of society and has cared for, championed and celebrated LGBT individuals and families around the world. Today, we also provide services for those who cannot afford the set standard of care living with HIV. The Center has been able to address the specific needs of PLWH by being innovative in the usage of funding streams from the CDC and other funders. As well as integrating government programs into our service catalog such as ADAP, RYAN White and being awarded the title of an FQHC.

Project: With CDC funding, the Center has partnered with several organizations to provide HIV prevention services to Black/Latinx MSM 18- 29 years of age and other vulnerable populations. Our organization has tested 420 individuals, diagnosing 14 new HIV cases and linked 13 to care in FY 2017-18. Of the 420 tested, 15 were linked or reengaged into care via our clinical service points or behavioral interventions. We have partnered with Children's Hospital of L.A. to glean from the years their institution has been working with youth. Bienestar and The Wall Las Memorias have helped us comprehend the unique cultural needs of the Latinx community and realize the need for grass-root advocacy and community organizing.

Results: The utilization of tools like Evaluation Web to quantify and analyze data is essential to the longevity and efficacy of all programs. Analyzing this data has helped us shape programming around biomedical interventions when it comes to high-risk negatives in LA County. In this program year we have activated several campaigns to educate and engage people of color in PrEP/PEP services at the Center. Our efforts have led to 406 consumers being tested under CDC funded grants. Of the 406 tested, 192 were linked to PEP services, and 103 were engaged in PrEP services.

Lessons Learned: As the LA LGBT Center, we seek to improve the provision of HIV care, prevention services, and general medical services. We inform our programmatic and direct services based off data and research provided by various data collection systems, funding streams and research around HIV and healthcare in LA County as well as aligning our efforts with the National HIV strategy produced under the Obama administration. The takeaways from these noted entities and plans will guide us towards providing a direct impact as an organization.

Abstract 5405 - Southwest Center for HIV/AIDS' perspective on CDC-funded HIV prevention programs at community-based organizations

Author(s): *Gaia Farnam, Lisa Fontes, Heather Garcia, Priscilla Morataya, Emily Halling, Arthur Dominguez, Benjamin Van Maren, John Chagnon, Tessa Valladares, Jonathan Brier*

Issue: There are approximately 166,000 (15%) persons who were unaware of their HIV infection. Young persons have a higher rate of living with undiagnosed HIV infection, with approximately 44% of persons ages 13-24 who are unaware of their HIV infection, and approximately 29% of persons ages 25-34. This speaker will describe CBOs perspectives on delivering HIV prevention services, especially HIV testing to communities in need.

Setting: There are 17,464 individuals living in Arizona who have been diagnosed with HIV/AIDS. Rates of new HIV infections are rising in the state. In Phoenix, 35% of new HIV cases were among individuals ages 20-29, and more than half (53%) of the individuals infected were Hispanic. The Southwest Center for HIV/AIDS (SWHIV) provides integrated HIV care and support services to individuals living in Arizona's central region, including: HIV/STI testing and treatment; community outreach; education; PrEP/nPEP; nutrition, counseling, and case management services; and behavioral interventions. The Center has been serving Arizonans infected with and affected by HIV/AIDS since 1990.

Project: SWHIV is contracted by the CDC under the PS17-1704 program to provide High Impact HIV Prevention Services in Arizona, including: program promotion, outreach, and recruitment; targeted HIV testing that integrates Social Network Strategy and Testing Together; comprehensive HIV prevention with HIV-positive and high-risk HIV negative persons, including the Mpowerment and CLEAR interventions; and condom distribution. SWHIV's program serves Hispanic and African American YMSM ages 13-29, and provides services in-house at its outpatient clinic and project safe space, at community locations where the target population congregates, and through its partner, one-n-ten, an agency that serves LGBTQ+ youth.

Results: SWHIV offers HIV and STI testing in its outpatient clinic and at several off-site locations (bars, bath houses, youth centers, etc.) frequented by individuals at high-risk for acquiring HIV. SWHIV identified 31 HIV-positive individuals during Year 1 of the PS17-1704 program—double the project goal. It was also able to implement Social Network Strategy and Testing Together to recruit individuals into testing services. SWHIV uses evaluation data to: ensure it reaches its deliverables and target populations; understand trends and change programming to meet community needs; evaluate clients' risk behaviors; follow clients in the care continuum; and inform prevention marketing messages.

Lessons Learned: SWHIV learned that most Hispanic YMSM were monolingual English speakers; creating marketing and interventions materials in Spanish for these individuals was not necessary. Hispanics were also more likely to respond to programming geared toward individuals rather than groups. Social Network Strategy proved effective at recruiting at-risk individuals into testing services and helped SWHIV build rapport among target populations. SWHIV also learned that individuals were more likely to test at off-site settings if INSTI tests were provided. Providing STI and HIV testing together also helped recruit individuals for testing; people think they are more at risk for STIs than HIV.

Session B26 - Social Marketing to Increase PrEP Awareness Among Black/African American and Hispanic/Latino MSM—Approaches Used by Jurisdictions Funded Through CDC's Project PrIDE Demonstration Project

Room: Regency V (Hyatt Regency Atlanta)

Abstract 5707 - Social marketing to increase PrEP awareness among black/African American and Hispanic/Latino MSM—approaches used by jurisdictions funded through CDC’s Project PrIDE demonstration project (15-1506)

Author(s): *Arin Freeman, Kehinde Bademosi, Leo Moore, Chelsea Martin, Trevor Hedberg*

Issue: The CDC recommends daily tenofovir/emtricitabine (TDF/FTC) or Pre-exposure Prophylaxis (PrEP) as one prevention option for sexually active MSM at substantial risk for HIV infection, as well as for other high-risk groups. However, since FDA-approval of TDF/TDC for PrEP in 2012, uptake has been slow among black/African American and Hispanic/Latino persons. An analysis conducted by Gilead Sciences found that from 2012 to 2015 only 10.1% and 12% of the patients who initiated PrEP were black or Hispanic/Latino, respectively, compared to 74% white. Furthermore, among blacks, a decrease in PrEP uptake was observed--from 12.3% in 2012 to 9.7% in 2015. One key reason may be low awareness of PrEP among minority populations. Although social determinants such as stigma, racism and medical mistrust may also act as barriers to PrEP uptake, there is an immediate need to increase PrEP awareness and demand for PrEP among those at risk. Use of culturally relevant marketing strategies can help.

Setting: The Centers for Disease Control and Prevention funded twelve U.S. health departments to increase PrEP uptake among men who have sex with men and transgender women, prioritizing persons of color.

Project: With funding from the PrEP Implementation, Data to Care, and Evaluation (PrIDE) demonstration project, the health departments developed and disseminated PrEP social marketing campaigns for consumers. All aspects of campaign development and dissemination included community input.

Results: Health departments developed marketing and media materials for consumers that included culturally relevant messaging and imagery. Four health departments with model approaches will discuss their processes for engaging the target populations in their planning, development, and dissemination phases of their social marketing campaigns. The Baltimore City Health Department will discuss their process for using social media comments to select preliminary photographs and messages for their campaign, how they engaged a Community Advisory Board to gain insights into initial advertisement drafts, and their implementation of a survey during a community event to gain real-time feedback on their campaign. Los Angeles will provide an overview of the development of their PrEP campaign, and how ongoing evaluation was used to solicit community feedback and enhance messaging throughout the campaign. Michigan will present the strategies utilized when working to create a relevant and effective PrEP media campaign with a focus on successes, challenges, and opportunities. Finally, New York City will provide a description of the steps required to successfully rebrand the NYC STD Clinics as Sexual Health Clinics and market their new services, including PrEP initiation, with an emphasis on reaching priority populations.

Lessons Learned: Increasing PrEP awareness is critical to increasing PrEP uptake. Creating effective social marketing campaigns to increase PrEP awareness requires ongoing input from the target population. It is critical to continuously update or refresh campaigns to remain culturally relevant.

Abstract 5805 - Strategies to engage Los Angeles County's trans-identified community in PrEP social marketing campaign evaluation

Author(s): *Leo Moore, Shoshanna Nakelsky*

Issue: In 2016, the Los Angeles (LAC) County Department of Public Health Division of HIV and STD Programs (DHSP) launched a PrEP awareness campaign and supported expanded PrEP services in LAC. These efforts were targeted to increasing PrEP uptake in LAC priority populations, including men who have sex with men (MSM) and transgender women. To monitor core PrEP outcomes (awareness, willingness to use PrEP and PrEP use) and evaluate the campaign, DHSP implemented a biannual online survey. Respondents were recruited via social network dating applications (apps). The app-based recruitment strategy was successful for MSM, but failed to recruit many transgender respondents.

Setting: Los Angeles County is home to an estimated 60,000 transgender individuals. Many of these individuals seek services outside of the County clinics and partner agencies. An online survey presented the best opportunity to access a representative sample of transgender LAC residents for campaign evaluation.

Project: Beginning in November 2016, DHSP embarked on a process of enhancing transgender recruitment for the PrEP survey. Initial steps were to modify the survey to better capture gender identity, redesign recruitment ads, engage transgender community groups in protocol development, and hire transgender consultants to implement the transgender-specific recruitment methodology. In April 2017, DHSP launched TransinLA, a social network, on Facebook, Twitter, Instagram and Tumblr. It quickly became evident that Facebook was the only platform that allowed for substantial interaction and all efforts were refocused on building the network on Facebook. To increase the likelihood of engagement, a closed Facebook group was added to the TransinLA profile. Beginning in August 2017, a respondent driven sampling approach was implemented using TransinLA to identify seeds.

Results: By June 2017, 175 transgender individuals followed the TransinLA Facebook page and the TransinLA private group had a membership of over 70 people. Nearly 300 posts appear on the page, including original content created by transgender consultants, DHSP, and transgender or gender non-conforming community authors. The development of a social network for transgender persons with content developed by transgender persons, resulted in increasing access to a diverse network of transgender LAC residents. Relying on these individuals to serve as seeds in our respondent driven sampling approach resulted in a substantial increase in transgender survey respondents from 1% (n=11) in April 2016 to 19% (n= 188) in February 2018. Over the two-year period, the percentage of transgender respondents increased every survey cycle.

Lessons Learned: Transgender recruitment in the baseline survey cycle was far below expectations and elucidated the need for a different approach to survey recruitment for transgender persons. Through steps to engage the transgender community in protocol development, recruiting transgender consultants, creation of a social network for transgender persons, and use of respondent driven sampling, DHSP saw a consistent increase in transgender survey respondents, which allowed DHSP to better understand transgender awareness, willingness, and use of PrEP in LAC. The use of these

methods could be considered by other jurisdictions to engage transgender or gender non-conforming persons in sexual health campaigns and survey recruitment.

Abstract 5866 - Social marketing to increase PrEP awareness among black/African American and Hispanic/Latino MSM—approaches used by jurisdictions funded through CDC’s Project PrIDE demonstration project (15-1506)

Author(s): *Chelsea Martin*

Issue: The CDC recommends daily tenofovir/emtricitabine (TDF/FTC) or Pre-exposure Prophylaxis (PrEP) as one prevention option for sexually active MSM at substantial risk for HIV infection, as well as for other high-risk groups. However, since FDA-approval of TDF/TDC for PrEP in 2012, uptake has been slow among black/African American and Hispanic/Latino persons. An analysis conducted by Gilead Sciences found that from 2012 to 2015 only 10.1% and 12% of the patients who initiated PrEP were black or Hispanic/Latino, respectively, compared to 74% white. Furthermore, among blacks, a decrease in PrEP uptake was observed--from 12.3% in 2012 to 9.7% in 2015. One key reason may be low awareness of PrEP among minority populations. Although social determinants such as stigma, racism and medical mistrust may also act as barriers to PrEP uptake, there is an immediate need to increase PrEP awareness and demand for PrEP among those at risk. Use of culturally relevant marketing strategies can help.

Setting: Michigan department of Health and Human Services developed a social marketing campaign that ran in Wayne County with the goal to increase PrEP uptake among men who have sex with men and transgender women, prioritizing persons of color.

Project: As part of the Project PrIDE demonstration project, the Michigan Department of Health and Human Services (MDHHS) began working to increase PrEP uptake in Detroit and Wayne County. To help meet this goal the PrEP media campaign was developed through collaboration with partners, including the Community Advisory Board (CAB). The PrEP media campaign's, “Love Free From HIV,” objective is to increase awareness and usage of PrEP specifically by men who have sex with men (MSM) and the transgender community. The campaign aims to reach 18-34 year-olds who are at substantial risk for acquiring HIV, including African American MSM and transgender individuals of color.

Results: One challenge faced was ensuring individuals featured in the campaign reflected the priority population. Through persistent advocacy by MDHHS staff and with CAB input, the campaign did include a member of the transgender community. Another challenge included the limited number of platforms the campaign could be shown on including the exclusion of dating apps. The campaign was placed on the following mediums: cable television, streaming radio, print advertisements in the LGBT publication *Between the Lines*, indoor posters in bars, audio and video streaming, digital ads, and mobile ads. There were more than 25 million impressions across all mediums.

Lessons Learned: Lessons learned from these challenges and program changes included offering funding to community based organizations serving Wayne County to develop complimentary images and messages that could be placed on dating apps and social media platforms like Snapchat. Evaluation of these efforts is ongoing but preliminary data show positive results.

Abstract 5652 - What's in a name? The rebranding of New York City Department of Health and Mental Hygiene sexually transmitted disease clinics

Author(s): Trevor Hedberg, Sarah McKenney, Christine Borges, Julie Myers, Susan Blank

Issue: In 2016, the New York City Department of Health and Mental Hygiene (NYCDOHMH) developed an ambitious strategy to align with the plan to end the HIV epidemic (EtE) in New York State by 2020. For NYCDOHMH's 8 publicly-funded STD clinics, this included scaling up HIV prevention and treatment, engaging new demographic groups through social marketing, developing a new workforce focused on supportive services, and expanding other sexual health services. Here, we describe the process for rebranding the STD Clinics.

Setting: NYCDOHMH operates 8 STD Clinics across 4 boroughs that served over 49,000 unique patients in 2017.

Project: To better reflect the expansion of services at NYCDOHMH STD Clinics, we sought to rename them and launch a sex-positive social marketing campaign advertising the new services under the new name. In 2016, we engaged a consultant to conduct community-based focus groups to test new clinic names and social marketing campaign concepts. Participants rated the perceived effectiveness of 8 proposed clinic names: STD Clinic, STI Clinic, Sexual Health Clinic, Sexual Health Center, Sexual Wellness Clinic, Sexual Wellness Center, Personal Health Clinic, and Personal Health Center. Each name was scored using letters A (most effective), B, C, or D (least effective). Participants also rated the appeal of 3 advertising campaign concepts using 3 categories: appealing, appealing with issues, unappealing.

Results: We conducted 7 community-based focus groups, 3 of which consisted of only men who have sex with men (MSM), with a total of 70 participants. Twenty-nine participants gave a D rating to the "STD Clinic" name; some participants noted the stigma attached to receiving services at an "STD Clinic." In contrast, the "Sexual Health Clinic" name was highly rated most often; it received almost twice the number of A ratings (n=31) as "STD Clinic" (n=16). Of the 3 campaign concepts, the "We've Got You Covered" concept was deemed most appealing by participants. This campaign utilized humorous, sex-positive imagery with playful cartoons to advertise expanded clinic services. Based on this feedback, NYCDOHMH rebranded the clinics as Sexual Health Clinics and launched the "We've Got You Covered" campaign in 2017. Campaign advertisements were placed throughout NYC, including on public transportation, social media platforms, and dating apps used by MSM (e.g., Grindr). The campaign cost approximately \$1 million, including development and placement.

Lessons Learned: The rebranding of the Sexual Health Clinics is not only a name change, but a reflection of a cultural shift from episodic STI care and disease intervention to a more comprehensive sexual health approach. Community feedback was essential to tailoring rebranding efforts to meet the unique needs of our jurisdiction. While developing and placing a social marketing campaign to advertise the expanded services and new name required considerable expense, the renaming of STD Clinics to Sexual Health Clinics required limited time and funding. Jurisdictions with similar initiatives may wish to consider renaming their STD clinics to reduce stigma and advertise these clinics by adapting sex-positive campaigns from other jurisdictions – such as NYCDOHMH's "We've Got You Covered" campaign – at low cost.

Abstract 5757 - Development of a community-informed PrEP campaign in racial/ethnic minority LGBT communities in Baltimore

Author(s): *Kehinde Bademosi, Amanda Long, Errol Fields, Christina Schumacher, Aruna Chandran, Yvonne Kingon, Patrick Chaulk, Jacky Jennings*

Background: LGBT populations, particularly racial/ethnic minority MSM and transgender persons experience significant HIV disparities. Public health campaigns to reduce disparities may inadvertently stigmatize LGBT populations. Our goal was to develop a public health department PrEP campaign for LGBT persons of color to reduce HIV transmission and HIV disparities in Baltimore City.

Methods: Social media comments on the health department Facebook page were used to select preliminary campaign photographs and messages. A community advisory board (CAB) was convened to gather feedback on initial advertisement drafts. CAB feedback was then used to create an electronic survey, implemented at the 2017 Baltimore Pride Weekend to gain feedback from LGBT persons and allies. Survey questions focused on ad photos and respondent's impressions on whether images represented the diversity of LGBTQ communities in Baltimore, wording of the PrEP messaging, and comprehension of icons in the ads.

Results: 7 individuals participated in the CAB discussion; all participants identified as sexual or gender minorities and racial/ethnic minorities. 77 individuals participated in the survey; 69% (53) identified as sexual or gender minorities and 66% (51) as racial/ethnic minorities. CAB participants stressed the importance of including language that is common among community members and non-stigmatizing icons. 30 survey participants (39%) suggested including more racial diversity. Survey participants suggested using supportive greetings in the ads, such as "Hey Gorgeous" (58%) and "Hey Beautiful" (44%). Based on this feedback, five final ads were developed and featured on buses, bus shelters, billboards, and pamphlets.

Conclusions/Implications: Our process and findings suggest that a PrEP campaign to reduce HIV transmission among LGBT persons of color benefits from community-informed processes to avoid presenting messages that do not resonate with this population. Co-creating with campaign audiences using principles of user-generated content can facilitate the development of more engaging campaigns championed by community members.

Session B30 - Intersections in Prevention: HIV and Other STIs

Room: Embassy A-C (Hyatt Regency Atlanta)

Abstract 5841 - Impact of pre-exposure prophylaxis use on the incidence of sexually transmitted infections among men who have sex with men: a meta-analysis

Author(s): *Nina Harawa, Erica Su, Steve Shoptaw, Raphael Landovitz, Ian Holloway, Sonali Kulkarni, Mario Perez*

Background: Our team identified several errors in a late 2016 report on the incidence of STIs among MSM using HIV pre-exposure prophylaxis (PrEP) compared to MSM not using PrEP. We reexamined

these studies to assess the incidence rates and ratios of chlamydia, gonorrhea, and syphilis in longitudinal studies examining MSM using and not using PrEP.

Methods: In a previous study PubMed was used to identify articles, including cohort studies of MSM and STI incidence rates reported from nucleic acid amplification testing (NAAT). We re-abstracted the data from the identified papers or cohorts. We then conducted Bayesian random effects meta-analyses of incidence for each STI among MSM prescribed and not prescribed PrEP. We used incidence rate ratios (IRRs) to assess relative STI rates and meta-regression to evaluate the impact of study-level covariates on STI incidence.

Results: This meta-analysis includes 16 publications, including 15 of those properly included in the original meta-analysis. The estimated incidence per 100 person-years with 95% credible interval for chlamydia among PrEP groups is 9.8 (3.8-19.9) and non-PrEP groups is 7.7 (3.1-15.7); gonorrhea among PrEP groups is 8.4 (3.4-17.3) and non-PrEP groups is 8.9 (3.6-18.2); and syphilis among PrEP groups is 3.8 (1.2-9.0) and non-PrEP groups is 3.5 (1.1-8.4). The associated IRRs comparing MSM prescribed and not prescribed PrEP are 1.27 (0.99-1.61), 0.95 (0.76-1.16), and 1.07 (0.95-1.21) for chlamydia, gonorrhea, and syphilis, respectively. Meta-regression suggests study start date, race, and STI screening frequency are significant predictors of STI incidence rates.

Conclusions/Implications: Unlike the incorrectly performed previous meta-analysis, the IRRs do not suggest higher risk of STIs in MSM using PrEP, especially for gonorrhea and syphilis. It is important to take into account differences in STI screening frequency, race, and cohort effects when examining potential predictors of STIs in different cohorts. We are currently expanding our analysis to include over 25 articles that were not part of the original meta analysis. We will also present findings based on more comprehensive and contemporary data.

Abstract 6008 - Derivation and validation of an HIV risk prediction score among men who have sex with men to inform PrEP initiation in an STD clinic setting

Author(s): *Diana Tordoff, Lindley Barbee, Christine Khosropour, James Hughes, Matthew Golden*

Background: Ensuring that HIV pre-exposure prophylaxis (PrEP) reaches the populations at greatest risk for infection is critical to maximizing the intervention's public health impact. We sought to develop a contemporary HIV Risk Prediction Score for MSM to identify individuals who should initiate PrEP.

Methods: We created a retrospective longitudinal cohort of MSM patients from an STD clinic in Seattle, WA. The cohort included MSM for whom we observed at least two negative HIV test results between January 1, 2001 and December 31, 2015, or a negative HIV test at baseline and either a subsequent HIV positive test or report of a positive test in WA State HIV surveillance. We split the cohort randomly 2:1 to create derivation and validation datasets and used Cox proportional hazards to estimate the hazard of testing positive for HIV, with sexual behavior and clinical predictor variables obtained at subjects' initial clinic visit. We used a stepwise procedure akin to the Akaike Information Criterion to determine which variables to retain in the model. Coefficients from the derivation dataset were converted to integers and summed to create the risk score. We used the validation data to test the calibration and

discrimination of the risk score. Lastly, we restricted the datasets to January 1, 2011 through December 31, 2015 to develop and test a risk score reflective of the era of treatment as prevention (TaSP).

Results: Among 28,261 MSM, 675 tested positive for HIV over a 14.3 year follow-up period. One-year cumulative incidence of HIV diagnosis was 1.04% (95% CI: 0.97%, 1.12%). The best prediction model included 12 variables (in order of highest to lowest hazard ratio): current syphilis diagnosis, methamphetamine use, rectal gonorrhea, any HIV positive sex partners, a history of gonorrhea or chlamydia in the prior year, age <32 years, inhaled nitrates in the prior year, >4 sex partners in the prior 2 months, any condomless receptive anal intercourse or anonymous sex partners in the prior year, and rectal chlamydia. This model had an area under the receiver operating characteristic curve (AUC) of 0.69 (95% CI: 0.65, 0.72) in the validation sample. A risk score cut point of 9 was 67% sensitive and 60% specific, with one-year cumulative incidence of HIV diagnosis of 0.5% for scores 0-7 and 2.2% for scores 8 or higher. A prediction model restricted to the post-2010 period included just 5 predictors (current syphilis diagnosis, any HIV positive partners in the prior year, methamphetamine use, current diagnosis of rectal gonorrhea, history of gonorrhea in the prior year) and had an AUC of 0.60 (95% CI: 0.53, 0.67). A risk score cut point of 6 was 55% sensitive and 60% specific, with one-year cumulative incidence of HIV diagnosis of 1.0% for scores 0-5 and 2.8% for scores 6 or higher.

Conclusions/Implications: Two HIV risk prediction scores, including a simplified score for the TaSP era, were predictive of HIV acquisition and could be an important tool to help clinicians and public health agencies identify MSM to prioritize for PrEP initiation.

Abstract 5649 - Factors associated with HIV acquisition after a sexually transmitted infection within a 2-year period

Author(s): *Kerri Dorsey, Adam Allston, Amanda Castel*

Background: It has been well documented that sexually transmitted infections (STI) increase the risk of HIV acquisition; however, the timing between STIs and HIV acquisition is not well described. Knowledge of the timing is critical for identifying those at highest risk for HIV to institute interventions such as PrEP. We sought to describe potential predictors of HIV acquisition within a 2-year observational period among persons with preceding STI diagnoses.

Methods: STI and HIV surveillance data from the DC Department of Health (DOH) were extracted from their respective surveillance systems (DC PHIS and eHARS). Data were limited to STI events reported to DC DOH between 2015 and 2017 and new HIV diagnoses reported January 2015-June 2018. STI positive individuals were matched to the newly diagnosed HIV cases using a 2-step method; an 11 key SAS algorithm using combinations of name and DOB and probabilistic matching using Link Plus. Individuals were observed for up to two years or to the time of seroconversion after their first STI; repeat infections and co-infections that occurred outside of the observation period were not included in the analysis. Individuals with an HIV diagnosis prior to or within 30 days of their STI infection were excluded. Demographics, gender of sex partner, type and number of STIs, and STI co-infections were assessed using univariate and multivariate logistic regression.

Results: 26,382 individuals were identified during the 2-year observational period. Ninety-four (0.35%) individuals acquired HIV during this time. Males had 3.7 times (aOR: 3.7, 95%CI: 1.8,7.3) the odds of acquiring HIV within in the 2-years after an STI compared to women. Those 20-29 years old at the time of first STI infection had 2.7 times the odds of acquiring HIV (aOR: 2.7, 95%CI: 1.2, 5.8) compared to individuals 40 years and older. Each additional STI infection increased the odds of acquiring HIV by 23% (aOR: 1.23, 95%CI: 1.0, 1.5) after adjusting for other potential predictors. Individuals who had gonorrhea during the observation period had a 10-fold increased odds of acquiring HIV (aOR: 10.4, 95%CI: 4.1, 26.7) compared to those with chlamydia alone and individuals who had an STI in combination with syphilis had a 6-fold increase in odds of acquiring HIV (aOR: 6.2, 95%CI: 2.2, 17.4) compared to those infected with chlamydia alone. In univariate analysis, men who had sex with both men and women (MSMW) had a 70% increased odds (OR: 1.7, 95%CI: 0.6, 4.89) of acquiring HIV after an STI compared to men that only had sex with men.

Conclusions/Implications: While we observed a relatively low incidence of HIV seroconversion in the two years following an STI, men, young people and those with gonorrhea or syphilis infections had higher odds of acquiring HIV within two years after an STI. Clinicians and community health organizations serving these populations should be familiar with their clients' demographic and STI trends so they may provide targeted education and prevention measures such as PrEP.

Abstract 5819 - Providing expedited access to HIV pre-exposure prophylaxis (PrEP) at Denver metro health clinic, a categorical STD clinic

Author(s): *Kevin Kamis, Rachel Piette, Julia Weise, Angela Montgomery, Andrew Hickok, Jennifer Scanlon, Sarah Rowan, Karen Wendel*

Issue: HIV pre-exposure prophylaxis (PrEP) is an effective method to prevent HIV acquisition. Many settings including STD clinics identify individuals vulnerable to HIV but refer clients to other PrEP providers to establish care, resulting in delayed initiation and risk for loss to follow-up. To reduce barriers and time to PrEP initiation, we implemented a walk-in expedited PrEP model at a large, publicly-funded STD clinic.

Setting: Denver Metro Health Clinic (DMHC) is Metro Denver's only categorical STD clinic. In 2017, the clinic completed 13,302 visits, with 3,012 visits for men who have sex with men (MSM). DMHC diagnosed 61 cases of HIV, 283 cases of rectal chlamydia, 324 cases of rectal gonorrhea, and 100 cases of early syphilis among MSM, indicating a patient-base at significant risk for HIV.

Project: In February 2018, DMHC implemented an expedited PrEP program. Patients are evaluated for PrEP by detailed history and physical exam. Laboratory evaluation includes serum creatinine (SCr), hepatitis B surface antigen (HBsAg) test, and a point-of-care HIV antigen/antibody test. Patients with symptoms or signs of acute HIV are evaluated with HIV viral load, and PrEP initiation is held pending this result. PrEP-eligible patients are given a 30-day prescription for PrEP without refills which must be filled within 2 weeks from the negative HIV test date. Patients meet with a patient navigator for additional PrEP counseling, financial assistance, and follow-up appointment scheduling. Uninsured patients receive continuity PrEP-care at DMHC, and insured patients are navigated to other clinics. Patient navigation is provided until patients attend their first follow-up appointment.

Results: From February 5 to June 30, 2018, 277 patients were prescribed PrEP (55% non-Hispanic White; 6% non-Hispanic Black; 36% Hispanic, all races; 3% Asian; 96% male; 2% female; 1% transgender female; 0.4% transgender male). The median age was 27 years (IQR 24-34). At intake, 35% were uninsured, 41% had commercial insurance, 23% had Medicaid, and 1% had Medicare. All patients were screened for HIV, but 2 SCr and 2 HBsAg labs were missed on first visit. All creatinine clearance results were > 60 mL/min and no patient was found to be reactive for HBsAg. HIV viral load was obtained in 19 clients (6.8%), and all were negative. 78% of patients filled their initial PrEP prescription. Referral locations included DMHC (32%), infectious diseases clinics (18%), primary care providers (39%), or other clinics (3%), and 7% did not receive a referral. A majority of patients (70%) required patient navigation for financial assistance. Of the 187 patients eligible for a one month follow-up visit, 63% are confirmed to have attended their appointment. DMHC provided 12 follow-up appointments for insured individuals unable to link to an external clinic within one month.

Lessons Learned: Expedited access to PrEP in an STD-clinic is safe, feasible, and highly utilized. Patient navigation and robust referral networks are critical to establish ongoing PrEP care. Payment assistance for PrEP remains high even in a Medicaid-expansion state, and the ability to provide PrEP continuity care in the STD clinic for uninsured patients fills a critical niche.

Abstract 5836 - Enhancing the routine screening infrastructure to address a syphilis epidemic in Miami-Dade County

Author(s): *William Duquette, Heather Melbourne, Giselle Gallo, Kira Villamizar, Glenda Butterfield, Luis Rodriguez*

Background: Florida continues to experience high numbers of new HIV infections, and Miami was the top city in the U.S. for new HIV infections. In a recent Sexually Transmitted Disease (STD) surveillance report from the Centers for Disease Control and Prevention (CDC), Miami-Dade County had the nation's fourth-highest rate of infectious syphilis.

In an effort to interrupt continued syphilis transmission, Homestead Hospital (HH) embraced the state of Florida's revision to the HIV testing statutes and the CDC's testing recommendations by implementing a routine HIV and hepatitis C (HCV) screening program in the Emergency Department (ED). HH's close collaboration with the Florida Department of Health in Miami-Dade County (DOH-Miami-Dade) prompted a retrospective audit of HIV cases, which revealed 33% of HIV-positive patients screened for syphilis had a previous syphilis infection prior to diagnosis. As a public health response, HH enhanced the routine HIV/HCV screening model with a smart screening algorithm to test high-risk HIV negative patients for syphilis.

Methods: A rule in the hospital's electronic health record (EHR) system was developed to trigger a syphilis test. The rule is based upon the reason for medical visit (e.g., rash, penile discharge), as well as a positive pregnancy test or a positive STD result on date of service or historical results. Working in partnership with the DOH-Miami-Dade, HH's program has a dedicated Disease Intervention Specialist (DIS) who is dispatched to the hospital for every syphilis case. The formalized partnership helps immediately link these individuals to care, provide comprehensive prevention services, and conduct partner notification.

Results: Since implementation, 645 syphilis tests were triggered by the smart screening algorithm and 20 were reactive (3.1% seropositivity), six were pregnant (Data reflects April 2018 - June 2018). One case of neurosyphilis was diagnosed in a gay man in his late 30s who was asymptomatic except for a headache, with a titer of 1:256. The algorithm triggered a syphilis test order based upon a historical STD result. Another case involved a male in his mid-20s who tested negative for GC/Chlamydia, but the algorithm triggered a syphilis test based upon the patient's chief complaint (i.e., penile rash).

Conclusions/Implications: HH and the Florida DOH's response to Miami's syphilis problem is innovative and replicable. The program embraces technology and enhances the routine screening model to prevent the acquisition of HIV. The smart screening algorithm is facilitating a precision diagnosis, which is reducing health care costs and interrupting disease transmission.

Track C

Session C08 - What Works: Interventions to Improve Engagement in HIV Prevention and Care

Room: Imperial B (Atlanta Marriott Marquis)

Abstract 6083 - Preliminary program outcomes for HIV positive Medicaid clients enrolled in health homes

Author(s): *Rajeev Yerneni, Charles Neighbors, Shannon Healy, Luidmila Shapoval, Sarah Macinski, Carol-Ann Swain, Jayleen Gunn, Bridget Anderson*

Background: Improving care for persons living with a diagnosis of HIV (PLWDH) is a public health priority and a pillar of New York State's (NYS) Ending the Epidemic (ETE) initiative, which seeks to reduce transmissions and optimize treatment outcomes. The NYS Health Homes (HH) program provides care management for high-risk individuals, including PLWDH with chronic comorbidities. Our objective was to test whether HHs increased HIV care utilization in the year after enrollment.

Methods: Utilizing the HIV/AIDS surveillance registry in partnership with state agencies, we identified 16,608 HIV infected Medicaid clients enrolled in HHs from 2012-14. Propensity score matching was used to create a comparison group of PLWDH who were not enrolled in HHs from the Medicaid claims data and eligibility information (n=15,651). The HH enrolled clients (cases) and non-HH enrolled clients (controls) were matched on demographics (gender, race, and age) and on co-morbidities (substance use history, severe mental health diagnosis, heart disease, diabetes, and asthma). This comparison group was used to evaluate the impact of HHs on Medicaid utilization measures following enrollment. Utilization measures were adapted from state and national guidelines. These included HIV outpatient services, sexually transmitted infection testing, and antiretroviral medication adherence, which were collected from Medicaid claims, and viral load testing and suppression statistics, which were collected from the NYS HIV/AIDS surveillance registry. We utilized a multilevel longitudinal model, including difference in difference methods, to estimate the effect of HHs on HIV care.

Results: Overall, Medicaid claims indicated higher levels of comorbidities among the cases and controls compared to all other PLWDH: 45% substance use history, 18% severe mental health diagnosis, 23% heart disease, 14% diabetes, and 11% asthma. The propensity score matching process ensured that

cases and controls were similar: 57% were male; average age was 45 years; 48% were African American, 34% were Hispanic and 84% resided in NYC. Difference in difference estimates of HIV care utilization measures for pre-post HH enrollment indicated a significant increase among cases compared to controls for HIV outpatient services (19.7%, $p<0.01$), sexually transmitted infection testing (5.4%, $p<0.01$), viral load testing (5%, $p<0.01$), adherence to anti-retroviral medications (2.2%, $p<0.01$) and viral suppression (2.1%, $p=0.0458$).

Conclusions/Implications: Results suggest that providing HH services, care management and coordination, to PLWDH improves healthcare engagement and supports NYS ETE goals.

Abstract 5950 - Enlaces Por La Salud: a personal health navigator-led intervention grounded in the transnational framework shows high rates of virologic suppression

Author(s): *Lisa Hightow-Weidman, Joaquin Carcano, Seul Ki Choi, Lynne Sampson, Maritza Chirinos, Aleida Espinal, Clare Barrington*

Issue: Annual rates of HIV diagnoses among Hispanic males in North Carolina (NC), particularly Hispanic men who have sex with men (MSM), have increased each year from 2012 to 2016. Further, in 2016, in NC, 51% of HIV+ Hispanic/Latinos were virally suppressed, the lowest rate of any other racial/ethnic group. There is a lack of culturally responsive interventions targeting HIV care continuum outcomes among this population.

Setting: Newly diagnosed and out-of-care Mexican men and transgender women in NC were recruited to participate in Enlaces Por La Salud, a personal health navigator (PHN) led intervention to facilitate engagement in care and viral load (VL) suppression.

Project: PHNs trained in strengths-based counseling worked one-on-one with participants to connect/re-engage them to care, link to support services, and deliver six intervention sessions over approximately six months. The Enlaces intervention was grounded in the transnational framework, which recognizes that health seeking behavior is influenced by experiences and ties to the country of origin as well as the new migrant destination. To this end, participants' migration histories served as the foundation for the intervention sessions and PHN-participant interactions'. Odds ratios for VL suppression and change in CD4 count were analyzed by logistic regression.

Results: 91 participants were enrolled (50 new to care and 41 out of care); mean age was 36.7 years and 91.2% identified as male. Most had a high school education or less (81.8%); were uninsured (82.4%) and had a total 12-month household income less than the federal poverty level (61.5%). Most were born in Mexico (89.8%); mean age of immigration to the US was 20.1 years. Overall retention in Enlaces was 70/91 (76.9%) at 6 months and 69/91 (75.8%) at 12 months. Most (81.3%) participants completed all 6 sessions. The mean time from the first session to the last was 166 days (~5.5 months). At baseline, VL suppression (undetectable defined as <40 copies/mL) was 20.5%, improving to 76.9% at 6-months and 85.7% at 12 months (p -value: <0.001 for both time points). The odds of a participant having an undetectable VL was 12.92 times ($CI=6.28, 26.57, p<0.0001$) higher at 6-month follow-up compared to baseline and 23.25 times ($CI=10.17, 53.17, p<0.0001$) higher at 12-months. At baseline 35.9% of participants had a CD4 count <200 cells/mm³, decreasing to 24.0% at 6-months and 17.5% at 12-

months. The odds of having a CD4 count less than 200 was 44% (CI=0.37, 0.85, p=0.007) lower at 6-month follow-up compared to baseline and 62% (CI=0.21, 0.69, p=0.0001) lower at 12-months.

Lessons Learned: The transnational framework facilitated a holistic approach to engaging with participants and facilitated a deeper level of trust between the PHN and participants. This connection likely contributed to the high retention and session completion rates. High levels of viral suppression and improvements in CD4 counts point to the potential success of Enlaces for increasing HIV care outcomes among Latino men and transgender women with HIV.

Abstract 5361 - Addressing HIV across borders: a case study of Washington, D.C.'s multijurisdictional initiative to improve regional HIV service infrastructure

Author(s): Sarah Pedersen, Elizabeth Gall, Valerie Betley, Neal Carnes, James Carey, Aisha Wilkes, Alisu Schoua-Glusberg, Casey Tesfaye, Laura Randall, Paula Frew

Background: Large metropolitan areas at the borders of states or other jurisdictions, such as Washington, DC, face a unique challenge preventing HIV: movement of nonresidents into and out of the jurisdiction for work or play. Residents of neighboring jurisdictions often seek HIV prevention, care, and treatment services in Washington, DC, due to limited access in their own communities and Washington, DC's reputation for quality HIV services. This movement can strain resources, since some funding sources for services are restricted to jurisdiction residents. Further, an imbalance of HIV services has resulted in inequitable service access, potentially contributing to the spread of HIV infection. Washington, DC's CDC-funded initiative, IMPACT DMV (Improve Measurable Participation and Access to Care and Treatment, District of Columbia, Maryland, & Virginia), attempts to address these challenges through a collaborative demonstration with the neighboring governments in Virginia and Maryland. Guided by the principles of high-impact prevention, the initiative's coalition of health care providers, HIV care clinics, and community-based organizations supports and implements cross-organizational strategies to strengthen the region's health and wellness system for gay, bisexual, and other men of color who have sex with men (MSM).

Methods: We conducted a case study of Washington, DC's HIV response system to assess the barriers and facilitators to addressing the HIV prevention, care, and treatment needs of MSM. The data included: (1) 30 semi-structured interviews with health department staff, community-based organizations' staff, and community members involved in HIV service delivery; (2) observations of activities relevant for MSM; and (3) in-depth assessment of documents that concern MSM (e.g., policy and planning documents).

Results: We found that all respondent types regard IMPACT DMV as an effective service delivery model to address barriers to HIV prevention, care, and treatment for MSM in the Washington, DC area. Through IMPACT DMV, the respondents believe that the region has made advancements in collaboratively establishing equitable access to screening, care and treatment, behavioral health, economic opportunity, peer support, and other supportive services, regardless of residence. These advancements have been made through cross-jurisdictional initiatives such as the promotion of HIV testing services through social marketing and community outreach, establishment of Medicaid and

other coverage options for PrEP, expansion of navigator programs, and development of protocols for timely linkage to care and reporting by providers of newly diagnosed HIV cases.

Conclusions/Implications: Identifying and implementing solutions to the unique challenge of service delivery across porous borders is critical to meeting local, state, and national goals in reducing HIV. Based on the findings, IMPACT DMV offers lessons learned and promising practices for delivering HIV prevention, care, and treatment services in areas that border jurisdictions with different requirements, policies, and services. Such lessons for improvement include: initiating a coordinated funding and service gap analysis prior to program implementation (to ensure program design aligns with need); improving surveillance systems to better communicate with clinical care systems (e.g., electronic health records) and capture data on reasons for noncompliance; and designing comprehensive feedback loops to understand if program activities are working as intended.

Abstract 5320 - Differences in sociodemographic and HIV-related characteristics of out-of-care HIV-diagnosed persons who accepted or declined health department assistance to re-engage then in HIV care

Author(s): *Chi-Chi Udeagu, Sharmila Shah, Kavita Misra*

Issue: Persons living with HIV (PLWH) who are not receiving regular HIV care are more likely than persons in care to suffer HIV-related morbidity and mortality and carry greater risk of onward HIV transmission to their sex or needle-sharing partners.

Setting: NYC communities and HIV medical facilities.

Project: Since 2007, the New York City (NYC) Health Department and Mental Hygiene Disease Intervention Specialists (DIS) attempt to re-engage PLWH presumed to be out-of-care (OOC) because they lack HIV registry report of viral load or CD4 cell count ≥ 9 months from selection date. If successfully contacted, DIS offer assistance with re-engagement with an HIV care provider. Each year, 28-50% of OOC-PLWH contacted decline DIS assistance with re-engagement in care. We examined the differences in sociodemographic and HIV-related characteristics between OOC persons who agreed and those who declined to re-engage in HIV care after being contacted by DIS.

Results: From January 2008-December 2017, 3,445 OOC-PLWH were offered assistance by DIS for re-engagement in care; 2153 (62%) agreed, and were re-engaged in care, and 1292 (38%) declined. Overall, the majority of OOC-PLWH were non-Hispanic blacks (60%), male (64%), US-born (76%), or had public health insurance (79%) at the time they were located by DIS. Their median age at HIV diagnosis was 46 years. Compared with OOC-PLWH who re-engaged in care, those who declined were significantly more likely to have had a history of incarceration (4% vs. 3%, $P=0.03$) or homelessness (16% vs. 11%, $P=0.0001$), and to have had an active health insurance plan at the time of DIS contact (92% vs 79%, $P<0.0001$). Persons who re-engaged in care had been living with HIV longer than persons who declined (median: 13 years vs. 10 years), had been OOC for a shorter time (median: 1 year vs. 2 years), and had a shorter time from successful DIS contact to first viral load or CD4 test report in the registry after re-engagement (median: 1 month vs. 8 months) (all $P<0.0001$). Declining to re-engage in care was independently associated with being 30-49 years of age (OR=1.4, 95% CI 1.04-1.80) or 16-29 years

(OR=1.14, 95% CI 1.14-2.43) at the time of diagnosis (vs. ≥ 50 years of age); had duration <3 years since OOC (1-2 years, AOR=0.31, 95% CI 0.22-0.43) or <1 year (<1 year, AOR=0.20, 95% CI 0.09-0.40) (vs. ≥ 3 years; or were US-born (AOR=1.52, 95% CI 1.03-2.02) (vs. foreign-born).

Lessons Learned: Timely linkage to HIV care following HIV diagnosis and sustained effort by providers to retain PLWH in HIV care are critical. Health departments should use the surveillance registry to identify demographic and other subgroups, e.g., young adults that may be at high risk of being OOC for prioritizing outreach efforts.

Session C10 - Using modeling and risk information to estimate transmission risk

Room: A706-A707 (Atlanta Marriott Marquis)

Abstract 6173 - Estimating the impact of HIV prevention in the United States, 2006-2015

Author(s): Paul Farnham, Stephanie Sansom

Background: The United States has made substantial progress in slowing the course of human immunodeficiency virus (HIV) infection. One way to measure the effect of HIV prevention efforts, including treatment as prevention, is to compare the difference between the number of infections that have occurred with the number that might have occurred in the absence of these programs, based on annual HIV transmission rates estimated with and without prevention efforts. The authors previously estimated that an additional 362,000 HIV infections costing \$129.9 billion would have occurred between 1991 and 2006 if the U.S. annual transmission rate had not dropped below 8.2%, the 2007 global transmission rate (JAIDS 2010). We updated this analysis for the period 2006–2015 using the 2007 global transmission rate and a transmission rate based on U.S. experience.

Methods: Combining HIV incidence, prevalence, and death data from the paper by Song et al. (JAIDS 2017) and the CDC HIV Surveillance Supplemental Report 2018; 23(1), we defined $I(x)$ as the incidence or number of new infections in year x ; prevalence, $P(x)$, as the number of persons living with HIV in year x ; and the transmission rate for year x , $T(x)$, as $[I(x) / P(x-1)] \times 100$. We compared the actual annual transmission rate for 2006–2015 with two alternatives: (1) the 2007 global transmission rate (8.2%), which we used in the previous analysis; and (2) a pre-antiretroviral therapy (ART) U.S. transmission rate (6.6%) from the period 1990–1996 before the widespread use of treatment that revolutionized HIV prevention (JAIDS 2010). We estimated annual projected incidence assuming that each of these rates had been held constant, and we estimated annual projected prevalence as the number of existing cases of HIV plus the number of new cases $[I(x)]$ minus the number of deaths among persons with HIV. We defined cases prevented as the difference between actual incidence and projected incidence for each year. To estimate the cost savings of cases prevented, we multiplied the number of cases prevented by an estimate (\$478,000) of the lifetime treatment cost of HIV (JAIDS 2013 updated to \$US 2017).

Results: The actual transmission rate decreased from 5.24% in 2006 to 3.50% in 2015. Comparing these transmission rates with the 2007 global transmission rate, we estimated that 555,000 cases were prevented. Using the U.S. pre-ART transmission rate as the comparator, we estimated that 306,000 cases were prevented with a direct medical cost savings of \$146.2 billion.

Conclusions/Implications: We estimate that HIV prevention efforts, including diagnosis and treatment of those infected and interventions for those at risk, have resulted in a substantial decrease in the U.S. HIV transmission rate, a significant number of cases prevented, and corresponding medical cost savings. Although some of these cases might have been prevented without these programs, our approach represents a method for estimating program impact. Increasing levels of diagnosis and viral suppression are likely to result in a further reduction in the HIV transmission rate.

Abstract 5437 - The impact of maintaining viral suppression on reducing HIV incidence: congruence of modeling results

Author(s): *Paul Farnham, Evin Jacobson, Yao-Hsuan Chen, Katherine Hicks, Stephanie Sansom*

Background: CDC's HIV Optimization and Prevention Economics (HOPE) model has been applied to estimate the effects of reaching national goals on HIV incidence in the United States and to estimate the national HIV effective reproduction number (R_e). R_e , the average number of secondary infections from an infected person in a population where some persons have already been infected, is a fundamental epidemiologic concept used to study the potential spread of infectious disease. Given that the first model application focuses on the policy question of reaching national goals while the second approach estimates a theoretical epidemiologic concept, policy makers should know if the implications of the two approaches are similar.

Methods: The HOPE model simulates the sexually active U.S. population aged 13 to 64 years stratified into 195 subpopulations by transmission category, sex, race/ethnicity, age group, male circumcision status, and HIV risk level. People transition from being uninfected into 23 infected compartments defined by disease progression and continuum-of-care stage. We first used the model to estimate the impact on HIV incidence of reaching the goals of 90% of persons with HIV having diagnosed infection, 85% linked to care, and 80% of those diagnosed achieving viral suppression by 2020. In the second application, we estimated R_e over this same period by integrating subpopulation transmission rates among persons with HIV with their transition rates by disease and continuum stage to determine whether R_e was significantly below its threshold value of 1.0, which would indicate the possibility of disease eradication. We then examined the effect of changes in continuum flow rates on R_e .

Results: In the first application, achieving and maintaining the goal of viral suppression resulted in the greatest reduction in HIV incidence. Reaching the 2020 viral suppression goal required the use of a combination of strategies: increasing the probabilities of antiretroviral therapy (ART) prescription and viral suppression and decreasing the probability of losing viral suppression after having achieved it. The importance of keeping persons on ART from becoming non-adherent was a key finding of this analysis, which included rates of infected persons transitioning from being prescribed ART to becoming virally suppressed either immediately or after a delay, and reverse transitions indicating the loss of viral suppression. In the second application, the R_e estimate was slightly below 1.0, suggesting that intensified prevention efforts to improve the rates of progression along the HIV care continuum are needed to ensure disease elimination, and that decreases in prevention efforts could result in rebounding incidence trends. Preventing the loss of viral suppression after achieving it was the one intervention that could reduce the estimated R_e to a value substantially below the 1.0 threshold.

Conclusions/Implications: The conclusions of these two disparate applications of the same model were similar. A focus on achieving and, perhaps more important, maintaining viral suppression among HIV-infected persons appears to yield the greatest impact on reducing HIV incidence. Policy makers can have increased confidence in the results of one modeling approach with confirmation of results by an alternative analysis.

Abstract 5419 - HIV transmission along the continuum of care - United States, 2016

Author(s): *Zihao Li, Yao-Hsuan Chen, Chaitra Gopalappa, Paul Farnham, Stephanie Sansom*

Background: Human immunodeficiency virus (HIV) is primarily transmitted via unprotected sexual acts and shared needles for injection drug use. The rate of HIV transmission per sexual or needle-sharing partnership is dependent on risk behaviors that vary by transmission category and the HIV viral load of the infected partner. Viral load varies significantly by the partner's stage along the HIV continuum of care. Being able to accurately estimate the rate of transmission associated with each transmission category and by HIV care-continuum position is critical to quantifying the importance of moving persons with HIV (PWH) along the continuum to viral suppression.

Methods: We used a previously published agent-based model, Progression and Transmission of HIV/AIDS (PATH 2.0), to estimate transmission rates in the United States. We expanded the existing model to include persons who inject drugs (PWID), who transmit HIV via sexual and needle-sharing activities. We also updated some of PATH's input parameters, as well as its structure, to account for recent data from the National HIV Surveillance System (NHSS) and the National HIV Behavioral Surveillance System (NHBS), as well as new developments in HIV care and antiretroviral therapy (ART). We began the model in 2006, and ran it through 2015, the year for which updated incidence estimates are available. We tracked the number of transmissions and the distribution of PWH across the care-continuum steps. We estimated the average annual transmission rates in 2015 by HIV care-continuum steps and by transmission category, and we compared our results to NHSS data in 2015.

Results: We estimated the overall transmission rate in 2015 at 3.51 per 100 person-years, compared to 3.43 from NHSS (calculated as overall incidence divided by overall prevalence). The average annualized transmission rate was 0.07 per 100 person-years for persons who are on ART and virally suppressed. Persons who are in care but not virally suppressed, aware but not in care, non-acutely infected and unaware, and acutely infected and unaware are 81, 85, 127, and 223 times as likely (transmission rates of 5.65, 5.98, 8.89, and 15.64 per 100 person-years, respectively) to transmit HIV compared to persons who are virally suppressed. Among the estimated 38,546 number of new infections in 2015, 71.0% were transmitted by men who have sex with men (MSM), 19.8% by PWID, and 9.7% by heterosexuals. The transmission rate for MSM was 4.42; for men who inject drugs, 4.82; for women who inject drugs, 3.06; for heterosexual men, 2.03; and for heterosexual women, 0.79 per 100 person-years.

Conclusions/Implications: Acutely infected persons have the highest transmission rate compared to persons along other care-continuum steps. Being virally suppressed was associated with a greatly reduced HIV transmission rate. Transmissions from MSM accounted for the majority of transmissions in 2015. Among transmission categories, men who inject drugs had the highest transmission rate; and female heterosexuals, the lowest.

Abstract 5534 - Comparing the effects of decreasing the time to diagnosis and increasing time spent virally suppressed on HIV incidence

Author(s): *Evin Jacobson, Zihao Li, Chaitra Gopalappa, Stephanie Sansom*

Background: Summary of topics: The panel will highlight each organization's activities with the common objective of advancing the current prescriptive approach of PrEP screening, counseling, and provision to one that involves (1) universal PrEP education for all women, particularly in locations where women access care; (2) engagement with women around self-assessment of HIV vulnerability; and (3) provision of comprehensive HIV prevention services, including (but not limited to) PrEP. Agencies will discuss the innovative ways in which their initiatives disseminate information to women, communities, clinicians and clinics, including organizational culture change, self-screening tools, patient and provider resources, outreach, social marketing campaigns, and provider detailing. The panel will discuss barriers and facilitators experienced locally and collectively to promoting equity in PrEP knowledge and access among women and reducing racial/ethnic disparities.

Results: The one-year decrease in the average time spent with an undiagnosed HIV infection from the base case value of 4 years to 3 years for the cohort of all persons who were infected with HIV in 2015 resulted in 17% (3,347) fewer cases over 16 years compared to a base case of 19,566 transmissions. Most of that reduction, 1,988 cases, or 59% of the total reduction, occurred during the first 6 years after infection. When we instead increased the time the cohort spent virally suppressed from 6.5 years to 7.5 years, the result was 16% (3,105) fewer cases over 16 years compared to the base case. Most of that reduction 2,749 cases, or 88% of the total reduction, occurred in the last 10 years.

Conclusions/Implications: The interventions of increasing testing frequency and increasing the adherence to HIV treatment both have a sizable effect on HIV incidence, with the transmission benefits of early diagnosis occurring early in the life of the cohort. Future research exploring best strategies to increase testing frequency and promote adherence would be valuable.

Abstract 5232 - High-risk sex among MSM with diagnosed HIV, United States - 2015–2017

Author(s): *Sharoda Dasgupta, Yunfeng Tie, Linda Beer, Heather Bradley, Jennifer Fagan, R. Luke Shouse*

Background: Understanding sexual partnerships of HIV-positive persons, particularly at the dyad level, can be used to quantify HIV transmission risk to serodiscordant partners and inform HIV transmission models. In addition, dyad level data provide much more granular detail than summary measures of sexual behaviors for quantifying HIV transmission risk. Using nationally representative data from the Medical Monitoring Project (MMP), we described characteristics of sexual partnerships among persons with diagnosed HIV and identified partnerships in which there may be a high risk for sexual HIV transmission.

Methods: During 2015–2016, MMP staff conducted telephone and face-to-face interviews among adults with diagnosed HIV. Sexual behaviors from the past 12 months were assessed by interview, and included information about participants' five most recent sexual partners, such as demographic information, HIV status, and PrEP use. Viral load results during the past 12 months were obtained through medical record abstraction. Among adults with diagnosed HIV who reported having anal or vaginal sex (n=2,145), we

estimated the proportion who had condomless anal or vaginal sex, and examined their sexual partnerships overall and by gender, race/ethnicity, and HIV status of partner. Of HIV-serodiscordant partnerships, we estimated the proportion at high risk for sexual HIV transmission, defined by the HIV-positive person: (1) having a detectable viral load (≥ 1 viral load ≥ 200 copies/mL), and (2) having condomless sex with an HIV-negative or HIV-unknown partner who was not known to be on PrEP. Among partnerships with high risk for sexual transmission, we assessed differences in partnerships by reported frequency of condomless anal or vaginal sex (≥ 10 vs. < 10 times). For all analyses, we reported weighted percentages and used Rao-Scott chi-square tests to assess statistically significant differences between groups.

Results: Overall, 53% of sexually active adults with diagnosed HIV had condomless sex. Thirty-eight percent had a detectable viral load during the past 12 months, of whom 16% had condomless sex with an HIV-negative or HIV-unknown partner not on PrEP. Among all sexual partnerships ($n=4,350$) of HIV-diagnosed persons, 20% were white/white, 29% were black/black, and 67% were male/male pairings; 36% were HIV-positive seroconcordant, 35% were HIV-positive/HIV-negative discordant, and 30% were HIV-positive/HIV-unknown discordant. Of 2,805 (65%) total serodiscordant partnerships, 35% had condomless anal or vaginal sex, and 10% had a high risk of sexual transmission. Within high-risk partnerships, a higher percentage of persons in heterosexual pairings had >10 episodes of condomless anal or vaginal sex compared with those in same sex partnerships (61% vs. 26%, $P<0.01$), and a higher percentage of persons in committed partnerships had >10 episodes of condomless anal or vaginal sex compared with those in casual partnerships (67% vs. 33%, $P<0.01$).

Conclusions/Implications: Of sexual partnerships among adults with diagnosed HIV, 65% included an HIV-negative or HIV-unknown partner; 10% of serodiscordant partnerships had a high risk of sexual transmission of HIV. Persons in heterosexual pairings and committed relationships were more likely to have high frequency of anal or vaginal sex without a condom. Estimating HIV transmission risk within partnerships with HIV-positive persons may inform HIV transmission models and interventions aimed to reduce HIV transmission.

**Session C11 - Integrating Community Health Workers into HIV Care and Prevention Services:
Experiences Implementing The Southern Initiative**

Room: A703-A704 (Atlanta Marriott Marquis)

Abstract 5916 - Integrating community health workers into HIV care and prevention services to improve outcomes among minority populations in the South

Author(s): *Vanessa Arenas, Emily Leung, Gretchen Weiss, Lindsay Senter, Sarah Getachew, Dawn Middleton*

Issue: The Southern U.S. bears a disproportionate burden of newly diagnosed cases of HIV and poor outcomes along the HIV care continuum, with significant and enduring disparities among minority populations. Healthcare systems need to identify and integrate models and practices that help individuals disproportionately affected by HIV address and navigate underlying social determinants of health to improve retention in care and promote health equity.

Setting: This presentation will describe The Southern Initiative, funded by the Secretary’s Minority AIDS Initiative Fund and administered by the Health Resources and Services Administration’s HIV/AIDS Bureau. Funding supports two FQHCs and two AIDS Service Organizations in Ryan White HIV/AIDS Program Part A jurisdictions in the South – Atlanta, Houston, Memphis, and New Orleans – to strengthen care delivery systems and implement evidence-based and innovative service delivery models to improve rates of retention in HIV care among minority populations, including MSM, youth, and cisgender and transgender women.

Project: The National Association of County and City Health Officials (NACCHO) and CAI serve as the Coordination and Technical Assistance Center (CTAC), providing service delivery funding and training and technical assistance (TTA) to support participating agencies in implementation of systems strengthening and innovative strategies to improve rates of retention in care. CTAC activities included capacity and needs assessments conducted with each agency, and based on findings, selection of a CHW model to increase HIV care retention and viral suppression. Blended TTA strategies, including face-to-face capacity building, community of practice (CoP) sessions, senior team coaching, and data collection and reporting, are used to facilitate implementation of key components of the CHW model. Key components include: defined CHW roles and responsibilities, integration of CHWs into care teams, processes to identify eligible clients, facilitating immediate linkage to CHW services, staff buy-in and awareness, community partnerships to align critical HIV services, monitoring and evaluation systems, and CHW supervisory structures. TTA to address the root causes of health inequities is also provided and agencies are undertaking efforts to increase engagement and acceptance among minority populations, including tailored marketing, social networking strategies, and public awareness campaigns.

Results: From November 2017-May 2018 client encounter data was collected and reviewed monthly to facilitate CQI. Data reveal agencies engaged 146 unique clients and completed 652 encounters (~4 encounter per client). Common barriers to retention identified during encounters include: limited mobility/transportation (14%), mental health issues (11%), healthcare setting issues (e.g., clinic systems, provider factors) (11%), competing life priorities (10%), and financial instability (8%). Participation in CoP sessions was high; 84% average attendance rate.

Staff surveys administered November 2017 suggest that staff across the four sites are knowledgeable about the agency’s activities to integrate CHWs (84%) and the services CHWs provide to HIV+ clients (80%). Additionally, 77% agreed that linking clients to CHW services will improve health outcomes.

Lessons Learned: CHWs are well suited to identify and address barriers that impede individuals from seeking critical medical and supportive services. Implementing TTA approaches to support agencies in development, implementation, and continuous improvement of systems and practices to facilitate integration of CHWs into healthcare settings is essential to successful implementation.

Abstract 5806 - Aligning systems and processes with community partners to enhance linkage to HIV services

Author(s): *Oscar Perez, Kevin Anderson*

Issue: The Southern U.S. has disproportionately high HIV rates among minority populations, as well as enduring disparities in HIV care outcomes. In the Houston Eligible Metropolitan Area, African Americans (AA) accounted for 48.8% of people living with HIV (PLWH) in 2015. Men who have sex with Men (MSM) account for 56% of PLWH and AA women face higher rates of new diagnoses. Only 69% of PLWH are retained in care.

Setting: AVENUE 360 Health and Wellness (AVENUE 360), located in Houston, TX, is a federally qualified health center (FQHC), offering comprehensive healthcare services including primary medical care, dental care, pharmacy, and behavioral health. AVENUE 360 partnered with AIDS Foundation Houston (AFH), a non-profit organization dedicated to helping PLWH in Houston access stabilizing services. The AVENUE 360/AFH partnership is one of four sites in Ryan White HIV/AIDS Program Part A jurisdictions in the South participating in The Southern Initiative to implement innovative and evidence-based interventions for priority populations. Over the past year, the two agencies have worked on aligning service delivery and business processes to enhance linkage and retention to HIV care. Priority populations include PLWH who are out of care, LGBTQ, MSM, transgender individuals, undocumented immigrants, youth, and AA women.

Project: AVENUE 360 partnered with AFH to implement a community health worker (CHW) program to increase viral suppression by coordinating across systems to promote continuum of care and connect clients to medical and supportive services. To ensure care team integration and a clear standard of care across the two agencies, AVENUE 360 and AFH convened joint staff training and career development activities related to agency services, PrEP, motivational interviewing, and the community-centered health home model. Furthermore, AVENUE 360 and AFH have worked on aligning systems and structures to increase communication, optimize referral processes across the two agencies, and capitalize on strengths and resources to enhance service delivery.

During the presentation, we will present how the two agencies have improved care coordination and increase the efficiency of referral processes, as well as align business processes to support organizational development and expansion of HIV services.

Results: Through this partnership, AVENUE 360 and AFH have conducted 619 HIV screenings, identifying 28 individuals who are HIV+. Of these individuals diagnosed, 18 have been successfully linked to a CHW and engaged in critical HIV care services, resulting in a 64% linkage-to-care rate.

Aligning business processes has increased development opportunities for both agencies, resulting in: 1) access to a robust and seasoned development team, resulting in savings of ~\$250,000 annually; 2) opportunities to build on AFH's existing development capacity while expanding HIV services, and 3) the merging of two, long-standing HIV-related fundraisers to promote economies of scale, reduce administrative overhead, and increase potential donors.

Lessons Learned: Lack of care coordination has been a significant barriers in addressing the needs of HIV+ individuals in Houston. Agencies should capitalize on collaborative opportunities to combine strengths and minimize barriers. This requires a willingness to change existing structures within and between agency partners in order to have a lasting impact.

Abstract 5822 - Identifying HIV+ patients at risk of falling out of care for early community health worker intervention

Author(s): *Nicole Shatz*

Issue: The Southern U.S. has disproportionately high HIV rates among minority populations, as well as enduring disparities in HIV care outcomes. In 2014, New Orleans, LA (NOLA) was ranked 3rd highest in the nation in number of HIV cases, and health outcomes for African Americans (AA) are worse than those of their White counterparts. Thirteen years after Hurricane Katrina, residents continue to face social challenges (e.g. poverty, housing, limited public transportation) that hinder access to immediate linkage to critical HIV services. Identifying individuals who need enhanced support to achieve viral suppression is critical to addressing HIV health outcomes in NOLA.

Setting: CrescentCare, located in NOLA, is a federally qualified health center (FQHC) that is well-recognized as the most comprehensive and largest AIDS Services Organization in LA and the Gulf South. CrescentCare offers comprehensive healthcare services including primary medical care, behavioral health, and support services such as housing, peer support, and HIV testing and prevention services. CrescentCare is one of four sites in Ryan White HIV/AIDS Program Part A jurisdictions participating in The Southern Initiative, implementing a Community Health Worker (CHW) program to link priority populations to HIV and supportive services in an effort to improve health outcomes and reduce health disparities. CrescentCare's priority population includes AA men who have sex with men, people who inject drugs, transgender women, and youth.

Project: CrescentCare's HIV+ clients often face numerous socioeconomic barriers to treatment adherence. To improve retention rates, CrescentCare has developed a system to identify factors for clients "at-risk" for falling out of care; factors include a missed last appointment, and an elevated viral load (VL > 200). The team created an Electronic Medical Record (EMR) database to run reports on these factors to identify eligible patients for CHW assignment. Staff rely on regular monitoring of the EMR system, referrals from case management, and weekly primary care team huddles to identify at-risk clients and facilitate linkage to CHW support services. During the presentation, we will discuss the process for determining "at-risk" factors and developing a system to identify and rapidly assign clients to enhanced services through optimization of EMR reports, internal referrals, and care team huddles.

Results: This system for identifying potential CHW clients has been highly effective. Since September 2017, 87 clients have been identified and 77 have been assigned to CHWs for supportive services. Of these, 66 clients have had contact with CHWs and received support to overcome barriers and more effectively access care, and 49 have been linked back into HIV medical care. The presentation will review common barriers faced by clients (e.g., lack of transportation, unstable housing, unemployment), and methods for working with a client to overcome them.

Lessons Learned: CrescentCare's CHW program has shown the value of connecting higher risk clients to critical care services to improve HIV and health outcomes. Identifying characteristics of at-risk clients and developing a system to link those clients to enhanced supportive services can significantly impact PLWH's retention rates and overall quality of life.

Abstract 5834 -"Let's talk about it:" community raising public awareness on HIV stigma to improve health outcomes in disproportionately impacted populations across Memphis and surrounding areas

Author(s): *John Michael Alderson, Diane Duke*

Issue: The Southern United States has disproportionately high HIV rates among minority populations, as well as enduring disparities in HIV care outcomes. The Memphis Metropolitan Statistical Area (MSA) faces multiple socioeconomic factors including high rates of poverty and low educational attainment rates that contribute to high incidences of HIV/STIs. For many people living with HIV (PLWH), HIV-related stigma can negatively impact adherence to treatment and , community-level testing and linkage.

Setting: Friends for Life (FFL), located in Memphis, TN, is the largest HIV/AIDS service organization serving the Mid-South, offering a full spectrum of services along the continuum of care such as testing and counseling, linkage to care, housing, early intervention services, and medical case management. FFL serves individuals residing in select counties in Tennessee, Arkansas, and Mississippi. FFL is one of four organizations in Ryan White HIV/AIDS Program Part A jurisdictions in the South participating in The Southern Initiative to implement innovative and evidence-based interventions for priority populations.

Project: FFL is working with young African American (AA) MSM, youth ages 15-34, and HIV+ individuals who have been out of care for over 6 months to foster community-level dialogue around HIV stigma through two approaches: 1) expansion of the Status Memphis anti-stigma marketing campaign in target zip codes, and 2) creating non-stigmatized settings for education and testing by strengthening community partnerships in faith-based organizations.

During the presentation, we will share FFL's interventions that are working to improve and promote community outreach, marketing of services, and community dialogue around HIV stigma. FFL has designed a multi-tier strategy; starting with the Status Memphis campaign, which provides a foothold for CHWs to gain entrance into conservative faith communities and have robust conversations with faith leaders. This in turn creates dialogue and testing opportunities within community-approved "safe zones" such as places of worship, and thereby results in a safe atmosphere for our priority population to be tested. A CHW model is another component of the intervention where CHWs are trained and supported to provide help to newly tested and diagnosed clients, free from judgement, shame, and stigma.

Results: As a result of the faith-based campaign and community education efforts, FFL tested 536 individuals in the community for HIV, established partnerships with 20 faith-based organizations, and tested 30 individuals for HIV in faith-based settings.

The Status Memphis campaign has placed more than 35 ads monthly on magazine, buses, and bus shelters, achieving more than 500,000 consumer impressions per month in target zip codes with high incidence of HIV or high density of target populations. More than 250,000 individuals have been reached through social media and 3,250 attendees have participated in Status Memphis-sponsored events. Additionally, Status Memphis sponsored numerous community events and distributed flyers, posters, buttons, tee-shirts and bumper stickers at more than 50 community events.

Lessons Learned: HIV-related stigma is a critical issue affecting the care and treatment of HIV clients. FFL's anti-stigma campaign community-wide, along with the specific collaboration with faith-based

organizations, creates a dialogue that raises awareness, and increases community influencers in conservative settings.

Abstract 5832 - Strategies for integrating the community health worker program into agency practice

Author(s): *Jon Hoekstra*

Issue: The Southern U.S. has disproportionately high HIV rates among minority populations, as well as enduring disparities in HIV care outcomes. Georgia ranks 8th in the U.S. for HIV prevalence and Atlanta has become the epicenter of new HIV infections. Integration of evidence-based interventions (EBIs) and systems changes are required to address these disparities, especially for disproportionately-impacted populations.

Setting: Positive Impact Health Centers (PIHC), located in Atlanta, GA, offers comprehensive healthcare services including HIV specialty care, HIV and STI testing, EBIs, behavioral health, and other supportive services. Annually, PIHC provides medical care to 1,600 PLWH, tests 7,500+ individuals for HIV, and provides 6,000+ individual counseling sessions to 800+ behavioral health clients. PIHC is one of four sites in Ryan White HIV/AIDS Program Part A jurisdictions in the South participating in The Southern Initiative to implement innovative and evidence-based interventions, including a Community Health Worker (CHW) model for priority populations. PIHC's priority populations include African Americans and Latinos and LGBTQ+ individuals, a majority of whom are men who have sex with men.

Project: PIHC integrated the CHW program by first having the CHWs interview all departments to understand their functions, needs, and workflows. Then, the CHWs designed their workflow to, minimize overlap, and address service gaps. Resources (e.g., referral form, procedural worksheets, and caseload management tools) were created to strengthen referral and workflow processes. Additionally, the CHWs launched an ongoing staff education campaign about the CHW program and what it can do for struggling clients; campaign activities included CHW program updates in the internal organizational newsletter, presentations to different departments, and consulting with providers to identify potential referrals. CHWs foster clinic visibility and collaboration through close, daily coordination with providers, co-located office space with referral providers, and participation in weekly case conferences, all-staff meetings, and other interdepartmental initiatives.

Results: A staff survey assessing awareness, knowledge, and beliefs on the CHW program indicated that 94% of staff (n=31) were aware of the agency's work to integrate CHWs, 84% knew which clients would benefit most from CHW services, and 65% knew how to work with the CHWs. Since implementing the model, CHWs have increased their efforts to foster collaboration, visibility, and education on the program, resulting in the CHWs serving 150+ patients in ten months and receiving 140 internal referrals from care team members. Of the CHW-engaged patients who started with detectable viral loads, 60% saw significant reduction in loads (average=400,000) and only two increased. CHWs have located 60% of all lost-to-care patients and either re-engaged them or verified receipt of care elsewhere. CHWs also identified and engaged 10 patients directly from clinic-wide viral load EHR reports.

Lessons Learned: Successful integration of our CHW program required on-going implementation of multiple strategies including clinic visibility, continuous education on the CHW program, clear

differentiation of roles, collaboration with the care team, and well-defined referral and workflow processes. These strategies have helped improve care coordination between providers, successful engagement of patients previously lost to care, and patients' ability to work towards larger goals that support retention in care and viral suppression.

Special Sessions

Session SS01 - Implementation Science Research in HIV: Closing the Gap Between Evidence, Policy, and Practice

Room: Embassy D-F (Hyatt Regency Atlanta)

Abstract 5642 - A scoping review of recently-funded implementation research in HIV: examining characteristics of interventions and implementation research methods

Author(s): Justin Smith, Nanette Benbow, Hendricks Brown, Lisa Hirschhorn, Dennis Li

Background: The field of HIV has the necessary interventions to significantly reduce, if not eliminate, new infections. With effective tools in hand, achieving the goal of zero new infections becomes an issue of implementation. The NIH currently supports a broad portfolio of HIV-related research—a small proportion of which is implementation research. This study sought to examine the implementation research (IR) methods being used in recently-funded HIV research by the NIH.

Methods: We conducted a scoping review in April 2018 of studies in NIH RePORT of studies funded since 2013 that were both focused on prevention and treatment of HIV and were also addressing an IR question. The NIH definition of IR was used for selection. Of the 4,630 unique projects identified, 216 were deemed to meet the inclusion criteria of HIV and IR. Extraction of methodologic characteristics was then conducted on the study aims/intent, study design, and IR outcomes included. Coding was then done to characterize the stage of IR using the coding of the aims, design, and outcomes. Analyses are largely descriptive.

Results: Descriptive analysis of 202 HIV studies that involved some level of implementation research show that half were conducted in the US. Twenty-five percent of them focused on the general population, 23% focused on women, and 18% focused on men who have sex with men (MSM). Eighteen percent of the studies focused on PrEP, 18% on HIV testing, 10% on risk reduction, and 5% on integrated HIV/substance use/mental health services. Concerning the aims/intent, 28% of studies were evaluating the impact of implementation strategy or bundle of strategies; 22% were examining barriers and facilitators; and 14% were developing or adapting an implementation strategy. The majority of studies (54%) did not specifically mention evaluating an IR outcomes, such as reach, fidelity, or adoption. Of those that had an IR outcome, 74% mentioned only 1 or 2 outcomes (21% had 3 or 4, and 6 had 5 or more). Almost half of studies used an RCT design with individual patient randomization. 22% used within-, between-, or within- and between-site designs. Crosstab analyses indicated that about 1/3 of all studies, regardless of stage of investigation, failed to include an IR outcome.

Conclusions/Implications: The results of this scoping review are useful for improving the specification and reporting of IR project in HIV and have elucidated a number of potential opportunities to gather

implementation outcomes and inform where additional IR efforts are needed in this field. A limitation of this review is the reliance on project descriptions and not complete articles—a future direction.

Abstract 5644 - Novel study designs for understanding eHealth HIV intervention implementation

Author(s): *Brian Mustanski*

Issue: eHealth interventions have recently proven to be efficacious at reducing HIV risk among populations at increased risk. While these interventions have proven efficacy, very little is known about how to implement HIV eHealth interventions within the US prevention services landscape. As such, a key next step in this area is implementation science research on how to bring these program to scale. However, researchers familiar with efficacy trials may not be familiar with design, methodology, and outcome measures in implementation science. The aim of this talk is to present novel study designs that can answer important implementation questions for eHealth interventions in HIV prevention.

Setting: I will present two case studies of eHealth HIV prevention interventions being delivered nationally to adolescent and young adult MSM.

Project: The first study, SMART, is a type I effectiveness–implementation hybrid trial targeted toward 13-18-year-olds with developmental, linguistic, and cultural adaptations to program content and technology. SMART uses a sequential multiple assignment randomized trial design to test the effectiveness of a stepped care package of increasingly intensive intervention for AMSM while gathering information to inform future implementation. In the stepped-care strategy, all individuals initially receive an inexpensive and highly-scalable intervention (Queer Sex Ed), and non-responsive individuals receive increasingly potent but more resource-intensive Interventions (KIU! and YMHP Motivational Interviewing).

The second study, Keep It Up! 3.0 (KIU!), is a type III effectiveness–implementation hybrid design targeted to YMSM 18-29 years old. This implementation trial uses a cluster-RCT design to compare two implementation strategies (direct to consumer vs. uptake and use by CBOs) while gathering information and test results to confirm its effectiveness.

As such these two case studies illustrate examples of hybrid trials that either prioritize collection of effectiveness or implementation outcomes.

Results: In SMART, the primary effectiveness outcome is condomless anal sex. Secondary implementation outcomes include constructs of the RE-AIM model and collection of cost effectiveness data. Data on implementation readiness, barriers and facilitators, and culture (at the organizational level); outcomes of the program (reach, effectiveness); and costs associated with start-up, ongoing delivery, and program sustainment will provide convincing information for decision makers about how to implement the SMART Program.

In KIU! 3.0, we are using mixed-methods to capture multiple metrics of effectiveness and implementation, while outcomes are focused on reach, uptake, AND effectiveness comparing 2 approaches to content-delivery, as well as sustainability. We will discuss a novel modeling approach for a single primary outcome that integrates information across reach and effectiveness.

Lessons Learned: Hybrid trials and cluster-RCTs (like SMART and KIU! 3.0) may demonstrate the efficiency and cost-effectiveness of study designs that utilize implementation AND effectiveness methodology with eHealth interventions. The digital nature of eHealth poses unique benefits and challenges to implementation. The biggest challenge we face are implementation and the ever-changing evolution of technology to deliver effective eHealth interventions. We hope that HIV prevention researchers and funders embrace implementation science methods to make prevention programs more accessible to those individuals most at-risk for new HIV infections.

Abstract 5686 - What would it take to bring an eHealth HIV intervention to scale? Lessons learned from a decade of Keep It Up!

Author(s): *Dennis Li, Krystal Madkins, Rana Saber, Brian Mustanski*

Issue: A number of eHealth behavioral interventions for HIV have demonstrated efficacy via the research literature in reducing HIV risk among priority populations. Despite this evidence and the potential for efficient scalability with digital technologies, almost no eHealth HIV interventions have made it to widespread use, suggesting that implementation is the missing key. However, there has been a dearth of research on how to bring eHealth HIV interventions to scale and equally little guidance for potential implementers to access and use such programs. In response, this presentation will apply an implementation science lens to over 10 years of experience designing, administering, and studying an eHealth HIV prevention program called Keep It Up! (KIU!). We aim to describe our experiences regarding past and potential implementation of KIU! and to describe strategies and challenges for eHealth HIV interventions moving forward.

Setting: This work was conducted in an academic research setting across multiple funded projects in collaboration with community-based organizations (CBOs) focused on preventing HIV transmission among young men who have sex with men (YMSM), one of the most at-risk groups for HIV.

Project: KIU! is an interactive, online HIV prevention intervention for racially/ethnically diverse YMSM. Its efficacy in significantly reducing condomless anal sex and STI incidence relative to an active control was established in a multicity randomized controlled trial, making it the first eHealth HIV intervention to show an effect on a clinical outcome. In addition to the pilot and efficacy trials, we have studied how to implement KIU! in real-world settings through various projects, including 2 service implementation projects, an adaptation for adolescent MSM, interviews with past and potential CBO implementers, and interviews with broader implementation and sustainability stakeholders (e.g., health departments, clinics, industry partners).

Results: This presentation will share qualitative findings from our experiences implementing KIU! in community settings and from our interviews with CBO implementers and broader stakeholders. We will present key considerations/needs that we have identified for implementing eHealth HIV interventions, which can inform the dissemination and implementation of existing programs as well as the future development of new ones. We will also discuss potential strategies for long-term sustainability.

Lessons Learned: For new eHealth HIV interventions, implementation issues should be considered starting at the development stage. The human–technology relationship and the systems-level

perspective are critical contexts that must not be overlooked, even for fully online, self-directed interventions; eHealth HIV interventions must therefore have some flexibility in how they are implemented. Given the unique costs and needs associated with implementing and maintaining eHealth HIV interventions, current models of HIV prevention dissemination and funding may need to be adjusted to support the scaling out of these technologies.

Session SS05 - Collaborating for Effective Cluster Detection and Response

Room: Regency VI (Hyatt Regency Atlanta)

Abstract 1014 - Cluster detection and response: an important tool for refining prevention efforts

Author(s): *Alexandra Oster*

HIV cluster detection and response is a critical component of DHAP's overall strategy for bringing the nation closer to the goal of no new HIV infections. This new HIV prevention strategy is now a part of the Division's integrated HIV surveillance and prevention program for health departments. This presentation will provide an overview of cluster detection and response and will include several examples of cluster response.

Abstract 1033 - Developing a successful cluster response program

Author(s): *Kathleen Brady*

The work of cluster detection and response is implemented by state and local health departments. This presentation will provide a health department perspective on the benefits of cluster detection and response and the role of community engagement and other key foundational activities in developing a successful cluster response program.

Abstract 1031 - CDC community engagement, concerns raised, and how CDC has addressed them

Author(s): *Stacy Muckleroy, Anne Marie France*

CDC has engaged with partners in a variety of settings to gain input on cluster detection and response, and some partners have identified important questions about implementation of this work. This presentation will discuss themes identified during discussions with various constituent groups, including: the importance of community knowledge of and input into cluster detection and response; data protections and potential use of cluster data for non-public health purposes (i.e. in criminal proceedings); whether this work results in improved prevention efforts; and, whether interventions will respect the rights of people with HIV. This presentation will discuss how CDC has addressed these concerns.

Storytelling

Session ST03 - PrEP Rally

Room: Learning Center (Hyatt Regency Atlanta)

Abstract 6072 - PrEParing for Pleasure: invitations and innovations for ending the HIV epidemic

Author(s): *Damon Jacobs*

Set the Scene: “What if there was a way to end HIV and nobody cared?”

This was the question I asked in July, 2013, a full year after the FDA approved Truvada as the first (and so far only) HIV prevention strategy. We finally had a scientifically and medically proven way to reduce HIV transmissions by 99%. Yet very few media sources were talking about it, hardly any agencies or clinics were offering it, and most doctors did not know about it. New diagnoses in the U.S. remained stagnant at about 50,000 per year. How was this possible?

Experience: I was working in vaccine research (HVTN 505) when I started using PrEP in 2011. Almost immediately I felt relieved as two decades of fear and anticipation of becoming HIV positive lifted. But I didn't openly discuss it; that wasn't my "job" to teach about PrEP. My work was focused on recruiting for vaccine trials and recommending the condoms-only strategy for prevention.

The drag community in NYC was particularly supportive of this work, and would sometimes let me talk on their stage about the research. In summer of 2013, HVTN 505 ended after it proved zero efficacy. I lost my job, and was quite saddened. One of the performers who had given me time on his stage saw me on the street and asked me about the research. I explained my disappointment, but then excitedly explained how PrEP was a new innovation in ending the epidemic.

My friend did not share my enthusiasm. He simply looked at me and asked, "Why didn't you tell me about PrEP? I just tested positive three months ago. I didn't know there was a pill that could have prevented that. Why didn't you tell me?"

The burn of knowing I could have done something to help someone remain HIV negative, and had missed that opportunity because of my silence, was a painful wake-up call. Vowing not to repeat this mistake, I created the first and so far largest PrEP community group in social media. "PrEP Facts: Rethinking HIV Prevention and Sex," on Facebook has over 21,500 members who discuss science, stigma, struggle, adherence, and pleasure daily (and nightly). I have subsequently engaged media and medical communities in discussions of health and sexual pleasure so everyone could learn about the role of PrEP in ending the HIV epidemic.

Lessons Learned: -Social media and peer support play an essential role in ending the HIV epidemic.

- Consumers are more engaged in prevention when they are given options for having pleasurable sex.
- We ALL have a responsibility to educate and normalize these ideas.
- It is more important than ever that providers build relationships founded in respect, facts, collaboration.

Implications: We are at an unprecedented movement in history. Never before have we had the biomedical interventions and social media options to help people learn about and access PrEP. Every single one of us is a vital catalyst for ending the epidemic with intelligence, science, creativity, compassion, and love. We can and will do this together.

Abstract 5452 - Stages of change: how one organization came to question, then investigate, and ultimately rally its community in support of biomedical high impact prevention

Author(s): *Stephen Fallon*

Set the Scene: In 2011, this very conference launched, “High Impact Prevention,” which seemed to overturn two decades of best practices in favor of testing, Treatment as Prevention and PrEP. My own young South Florida CBO, Latinos Salud, wasn’t even an HIV testing agency yet. Our focus was outreach and delivering the “talking” interventions known as DEBIs. To adapt to HIP, we needed to progress through the Stages of Change, by Contemplating and Preparing, before taking Action.

Experience: We moved quickly to set up our testing program, and started digging into the proofs for these new biomedical approaches. The first glimpses were not promising: Treatment as Prevention hadn’t been proven with gay men. PrEP’s low 44% success rate may have been due to non-adherence, but that wasn’t proven yet either.

We feared CDC might be putting too much of its portfolio on this one “bet” of biomedical prevention, and asked that question in an AIDS & Behavior article in 2012. Soon, though, researchers began answering those tough questions. The Opposites Attract and PARTNER studies proved that TasP works with gay couples, too, and 37 studies documented PrEP effectiveness when people take their doses. We surveyed 300 local gay men, and found our community was not ready for HIP. Most couldn’t keep track of the alphabet soup of new prevention strategies, and those that heard of them seemed hostile to anything but the condom code.

Lessons Learned: We needed to “walk the talk” of change with our community. We held listening sessions and developed our own homegrown strategy for disseminating the innovations, centered on a cherished community value: diversity. Our new “DiversiSAFE” approach said that you don’t have switch to the same new risk reduction method as your peers; just don’t bash PrEP users, demonize the undetectables, moan about condoms, or rain on someone’s parade when they choose to Test Twice, Talk and Trust. Our one-on-one, client centered counseling protocol guides clients to access and implement whichever risk reduction choice(s) most motivate them, and also addresses Living Healthier for PLWH.

Implications: We decided to stage town halls that would inform and inspire. But we’d seen so many biomedical town halls crash and burn because no one shows up. Too many used a piecemeal approach, this one on TasP, another on PrEP, still another on STDs. With DiversiSAFE, we’d roll out all the options at once, in plain language, hitting the key takeaway points; without browbeating the crowd in hours of dense lectures.

We also chose to invest in making our town halls F-U-N. Our first town hall drew 300 participants; our recent ones, over 500, and post tests found nearly all had more knowledge and readiness to adopt their chosen strategy. Participants actually take photos of our slides with DiversiSAFE factoids, to take the messages home.

The community, we learned, is just like HIV prevention CBOs: if you listen to their fears and objections, speak to their concerns, and use their own language, people will hear you, and maybe change. Just as we did at Latinos Salud.

Abstract 5814 - The Pill Pusher: intersections of biomedical advocacy and provider beliefs

Author(s): *George Mizrahi*

Set the Scene: “Pill pushing” seems to be the next wave of HIV prevention. But why are many providers “reluctant” to embrace biomedical HIV prevention? Provider stigma and personal beliefs often dictate if a patient is granted or denied access to these life saving tools. This workshop will explore the real-life experiences and challenges of a Biomedical HIV Prevention Coordinator’s efforts with access and advocacy for PEP and PrEP.

Experience: Picture it, you’re HIV negative individual with a real risk for acquiring the virus. You’re sexually popular, prefer intimacy, medically insured, empowered and work in HIV/AIDS prevention. You’re practically the poster child for PrEP. Twenty-eight days ago you rushed into the E.R. after a HIV scare. You fully adhered and completed the PEP regimen as it was prescribed. You are now referred by your medical provider to a PrEP Specialist. The doctor, is somehow “reluctant to prescribe” you PrEP because they think it will increase your “high risk behavior”. You now feel ashamed, stigmatized and judged for being honest about your sexual history, condom usage, preference for intimacy and ultimately for wanting to use PrEP.

When one’s beliefs and practices intersect, how do you advocate for your own personal choice? This workshop will help answer these questions.

Lessons Learned: In order to normalize biomedical HIV prevention, we must destigmatize the virus. PrEP needs to be akin to birth control, PEP to Plan B, and Anti-Retroviral Therapy to prenatal care. We need to celebrate people for protecting themselves against HIV/AIDS not stigmatize them. We need to celebrate them, like we celebrate women for using contraceptives or individuals who get regular “check-ups”.

Plan B is sold at your local target, no prescription, no labs, no embarrassing visits, no uncomfortable conversations or behavior stigma. We praise women for using contraceptives, Men for getting vasectomies, and both for practicing abstinence. We allow all people easy access to preventing pregnancy, STD/STI’s, and even common colds, why should biomedical HIV prevention tools be any different?

Self agency shouldn’t be the deciding factor for accessing life-saving tools. We have to, somehow align patient and provider beliefs. This means somehow changing public health norms?

Implications: Biomedical HIV prevention needs to be as normal and accessible as Condoms, Lube, Plan B, Birth Control and any other sexual health tool. About 8-17% percent of the population is allergic to latex, yet we advise everyone to use condoms 100% of the time. Only about 1% percent of the general population would have adverse reactions to Truvada, yet we don’t make PrEP readily available, Why? My interactive narrative will provide answers to the posed questions and examples of strategies used to navigate barriers of stigma and lay the framework for a robust dialogue between providers, community members and health navigators. I will highlight the importance of biomedical HIV education, self advocacy and patient navigation within the systems of Healthcare and illustrate the importance of managing personal beliefs, while holistically addressing another individual's needs.

Abstract 5441 - Black Women and PrEP: Is It Really For Me?

Author(s): *Leisha McKinley-Beach*

Background: While we now have evidence that PrEP works to prevent getting HIV if the drugs are taken as prescribed, much more work needs to be done before PrEP becomes widely used and accepted for Black women. African American/black women have a disproportionately higher lifetime risk of infection (1 in 54 black women compared to 1 in 256 Hispanic/Latina women and 1 in 941 white women) . Although PrEP is a highly effective, woman-controlled prevention option for HIV-negative women, PrEP use among women has been very low (especially among Black women).

Methods: Hosted conversations with Black women who provide PrEP education or prescription services, women who have selected PrEP as a component of their HIV prevention strategy, and Black women from the general population who may not have been aware of PrEP. The women interviewed are all located in the southern United States. The purpose of the interviews was to explore potential benefits and drawbacks of pre-exposure prophylaxis (PrEP) use among Black women.

Results: Black women highlighted three major themes why PrEP uptake hasn't been seen among Black women in the South: (1) Black women don't know about PrEP (2) Medical Mistrust (3) PrEP is not a stand-alone, other social determinants of health impact Black women's decision to use PrEP.

Conclusions/Implication: There is a need for groups like the U.S. Women and PrEP Working Group and Sisterlove Inc. to serve as a clearing house for resources, best practices, and tools to support local activities that prioritize Black women's access to PrEP. Additionally focus groups and/or key informant interviews should always be conducted before implementation of any PrEP program.

WEDNESDAY, MARCH 20 | CONCURRENT SESSIONS | 4:00 PM – 5:30 PM

Track A

Session A08 - Strength Training: Building Organizational Muscle through Capacity Building to get to No New Infections

Room: Imperial A (Atlanta Marriott Marquis)

Abstract 5946 - Understanding HIV nonprofit response to healthcare landscape changes: findings from a national survey on the state of AIDS service organizations

Author(s): *Marissa Tonelli, Michael Shankle, Brian Hujdich*

Background: Driven and impacted by federal health care policy and private market reforms, national public health strategies, and biomedical prevention developments, new HIV service delivery models are some of the fundamental changes impacting HIV nonprofits in the U.S. Reduction and re-direction of public HIV funding and increased focus on accountability and outcomes requires organizations to remain responsive and proactive. While AIDS Service Organizations and Community-Based Organizations (ASOs/CBOs) provide critical services to people living with and at risk for HIV, health departments estimate health care landscape changes will result in nearly 50% of organizations closing in 2-5 years.

Methods: HealthHIV conducted a first-of-its-kind survey of 500 ASOs/CBOs in the U.S. to evaluate the sustainability and availability of HIV services as well as the capacity and structure of the organizations providing them. The non-incentivized survey consisted of 64 questions (49 qualitative, 15 quantitative), and was distributed nationally online and via targeted email lists, newsletters, and website postings from August to December 2017. It assessed how ASOs/CBOs are responding to healthcare landscape changes, particularly its impact on: workforce development; service and program coordination; fiscal sustainability; partnership development; leadership advancement; strategic planning; and integration and alignment of services.

Results: Survey results indicate that ASOs/CBOs are reaching individuals at highest risk for HIV infection; however, organizations are small (47% have fewer than 20 staff members) and are largely reliant on government funding. Nearly 30% of ASOs/CBOs indicated most or all funding comes from government sources, and 12% rely on a single source of funding to maintain HIV services. Despite concerns of financial sustainability, most ASOs/CBOs (76%) have increased service offerings in the past three years in response to client needs. The most common areas for service expansion are: PrEP; mental health; housing; primary care; harm reduction; and, HCV testing. Some ASOs/CBOs implemented infrastructure-level changes, such as expanding missions (37%), reducing overhead costs (31%), and developing shared service partnerships with other agencies (23%).

ASOs/CBOs, along with health departments, are the largest providers of free or low-cost HIV testing and support services for people living with HIV. Yet fewer than half of ASOs/CBOs (40%) offer the newest testing technology and only 49% currently provide clinical services, such as PrEP, HIV care, and primary care. It is a critical missed opportunity to connect hard-to-reach populations to biomedical interventions and treatment. ASOs/CBOs will need additional training and technical assistance to: understand and

implement 4th generation HIV testing guidelines and algorithms; increase staffing (47% don't have credentialed staff); and, implement third-party billing for HIV testing and clinical services (54% don't bill).

Conclusions/Implications: Survey findings provide stakeholders with stronger insights to inform development of educational resources and training programs. Needs identified by the survey include: infrastructure development (e.g. electronic health systems) to demonstrate patient health outcomes; revenue and resource diversification strategies; service expansion to include clinical offerings; leadership skills in strategic and business planning; and partnership development. Survey findings inform HealthHIV's ASO/CBO sustainability trainings and online curricula, such as the ASO/CBO Leadership Training & Certificate ProgramTM and "The BLT"TM: Board Leadership Training Program.

Abstract 5416 - Capacity building: an integral part of the HIV care continuum

Author(s): *Stacy Vogan, Deborah Wyatt-O'Neal, Tim Vincent, Duran Rutledge, Patrick Piper*

Issue: Capacity Building can often involve the need to provide support on multiple programmatic layers including both organizational and individual levels. Assessing how capacity building assistance (CBA) services may address the specific components on the HIV Care Continuum enables CBA providers to identify organizational and individual factors contributing to both CBA requests, and to successful program implementation. CBA providers have the opportunity to link capacity building services to specific components on the HIV Care Continuum, contributing to the ability of health departments and funded programs to identify program gaps and adapt services to more efficiently and effectively decrease continuum gaps and lead to reaching the overarching national goal of 'getting to no new HIV infections'.

Setting: The California Prevention Training Center (CAPTC) is a Center for Disease Control (CDC) funded CBA program, tasked with providing capacity building services to health departments across the United States. Capacity building services are delivered on site at local health departments and/or via on-line mechanisms (e.g.: webinars, Zoom). Recipients of capacity building services include health department staff and community based organization (CBO) staff funded by the local health departments.

Project: The CAPTC CBA Program responded to 141 requests from health departments and their locally-funded programs in the most recent funding cycle. A large majority of these requests center around the development of skills, knowledge, policies, and program processes regarding the content areas of stigma, homo/transphobia, professional boundaries, social determinants of health, structural interventions, and incorporating strength based approaches. In the last year, the CAPTC incorporated an additional key component in the evaluation of its CBA services to determine the extent to which addressing these content areas impact the HIV Care Continuum. This presentation will describe the data variables, tools developed, and processes integrated into CBA service delivery; as well as initial results obtained from evaluation of the impact of CBA services on specific Care Continuum components.

Results: A mixed methods approach to evaluate capacity building services has been adopted within the CAPTC CBA program to determine the impact specifically on 'testing', 'linkage to care', 'retention in care' and 'access and adherence to ARV and/or PrEP'. The presentation will share both qualitative and

quantitative findings pertaining to the integration of this data collection strategy into CBA service delivery.

Lessons Learned: The content areas for which the CAPTC has been most asked to address – stigma, social determinants of health, implicit bias, structural interventions, and strength based approaches – have a profound effect on whether or not clients access HIV prevention and care services, adhere to medications, test to know their status, or are retained in care. Understanding how CBA services are integrally connected to and can support the HIV Care Continuum, is an important element towards supporting us all to reach the level of no new HIV infections.

Abstract 5316 - Culturally responsive evaluation: methods and practical applications for capacity-building assistance (CBA)

Author(s): *Gabriela Betancourt*

Issue: Recent CDC estimates indicate declines in HIV infections and diagnoses on average at the larger population level, but with marked increases among specific priority populations - such as young Latino men who have sex with men (MSM). Goal 3 of DHAP's Strategic Plan 2017-212 for achieving "No New Infections" is to reduce HIV-related disparities and health inequities by employing strategies that center the importance of culturally relevant and competent provider and organizational capacities and interventions. Culturally responsive CBA to increase the abilities and skills of community-based organizations (CBOs) in employing these strategies may be effective in meeting Goal 3, but necessitates a culturally responsive evaluative approach. Culturally responsive frameworks that center both protective and risk factors associated with culture are pivotal to programming, CBA, and evaluation to achieve "no new infections" effectively and efficiently at the local, community level.

Setting: CBOs across the US and territories. Hands United (HU) is a national CBA provider funded under Category B (CBA for CBOs) for program components "Prevention with Positives" (PwP), "HIV Testing" (Testing), and "Organizational Development and Management (ODM)," (PS 14-1403). HU is also part of the larger CBA division of the Latino Commission on AIDS (The Commission) with offices in New York City, North Carolina, South Carolina, and Texas. Across all three components, HU offers CBA on evaluation (i.e. programmatic evaluation, organization-level evaluation, etc.). Furthermore, internal evaluation of all CBA activities assess processes, outcomes and impact for continuous programmatic monitoring and improvement, and serve as a secondary assessment of further CBA needs for consumers.

Project: HU employs the CHANGE (customized, holistic, analytic, network, grassroots, evaluative) model (Vega) for the provision of CBA services. Since 2017, HU has applied a culturally responsive evaluation (CRE) framework developed by Hopson (2009) to evaluate programmatic activities and outcomes, using various methods, designs, and applications. Specifically, Hopson defines CRE as, "a theoretical, conceptual and inherently political position that includes the centrality of and [attunement] to culture in the theory and practice of evaluation. That is, CRE recognizes that demographic, sociopolitical, and contextual dimensions, locations, perspectives, and characteristics of culture matter fundamentally in evaluation." (p. 431)

Results: This workshop will present a case study of a CBA culturally responsive evaluative approach within a CBO setting. Specifically, we will present the development of evaluation indicators, both process and outcome, that relate to Hopson's evaluation framework "stages": 1. Prepare for evaluation; 2. Engage stakeholders; 3. Identify purpose of the evaluation; 4. Frame the right questions; 5. Design the evaluation; 6. Select and adapt instrumentation; 7. Collect data; 8. Analyze data; and 9. Dissemination and use of the results.

Lessons Learned: Satisfaction ratings of this evaluative approach are relatively high (between "good" and "excellent") on average. Challenges to be discussed include operationalization and standardization of indicators. Using macro level "domains" that encompass cultural responsiveness may be more appropriate when using this evaluative approach for CBA within CBO settings.

Track B

Session B08 - PrEP Clinic: From Implementation to Evaluation

Room: Regency VII (Hyatt Regency Atlanta)

Abstract 6024 - How to open a PrEP Clinic in six weeks: CDC directly-funded community based organizations

Author(s): *Nike Blue*

Issue: One in two black men who have sex with men (MSM) and one in four Hispanic MSM will acquire HIV in their lifetimes. Nationally, in 2011, among all young men who have sex with men (YMSM) aged 13 to 24 years, an estimated 58% were black, and 20% were Hispanic. According to the Houston Health Department 2015 statistics, people younger than 24 years represent 6% of all people living with HIV but 24% of new HIV diagnoses. In Houston, Black MSM and MSM younger than 24 years have the lowest viral suppression outcomes, at 50% and 44% respectively. Given the high rate of HIV transmission and a low percentage of viral suppression, more culturally sensitive and appropriate engagement into pre-exposure prophylaxis (PrEP) treatment services are needed for this population. The presentation will describe how 501c3 non-profit organizations can expand their HIV prevention services by collaborating with medical providers to prescribe PrEP. It will describe steps non-profit organizations, who are directly-funded by Centers for Disease Control Prevention (CDC) and other eligible funding sources, can take to generate 340B cost savings and expand their HIV prevention activities. It will also share practical strategies for engaging the target population in HIV prevention and PrEP treatment services.

Setting: One community-based organization (CBO) and one private medical provider interested in providing targeted HIV and STI counseling, testing and treatment services. The CBO is a directly-funded by the CDC, thus making it an eligible 340B entity to provide PrEP treatment services. This partnership implemented an after regular business hours PrEP clinic, centrally located in Houston, Texas targeting uninsured and under-insured MSM of color with a comprehensive marketing strategy and social media outreach.

Project: This collaborative effort aimed at achieving three primary outcomes: 1) increase PrEP resources to the highest priority population in Houston, Texas, 2) increase engagement and retention in PrEP

services for MSM of color, and 3) increase identification and treatment of other STIs. The key strategies for outreach and engagement were the use of information websites, videos and social media posts, phone apps, and word of mouth. This presentation will describe the method of collaboration between the CBO and medical provider, staffing structure, and review initial results of the collaboration: demographics of persons served, PrEP cascade, and practical strategies for retention).

Results: Through this collaborative effort the CBO was successfully able to engage approximately 60 individuals (mainly MSM of color) in HIV/STI counseling, testing and treatment services. Of the 60, 51 were successfully engaged in STI and PrEP treatment services, utilizing only 6 after hours clinics and approximately 18 hours of the medical provider's time.

Lessons Learned: CBOs can play a unique role in engaging the community in HIV preventative services. CBOs can leverage partnerships to expand HIV prevention efforts to include PrEP treatment. Enhancing partnerships is key to maximizing limited sources of funding.

Abstract 5991 - PrEP initiation following PEP: creating a corridor of care at Actuel

Author(s): *Zoe Greenwald, Marieve Beauchemin, Jason Szabo, Judith Alexia Robin, Pierre-Jean Maziade, Michel Boissonnault, Réjean Thomas*

Background: Since 2013, Pre-Exposure Prophylaxis (PrEP) counseling has been offered during Post-Exposure Prophylaxis (PEP) consultations at Actuel, a sexual health clinic in Montreal. We aim to assess the proportion of men who have sex with men (MSM) patients initiating PrEP following PEP and factors associated with this decision.

Methods: Using PEP and PrEP databases, we retrospectively calculated the proportion of MSM beginning PrEP following PEP treatment from January 2013 to November 2017. Among all individuals who sought PEP, we compare demographic and risk profiles between groups of individuals electing to initiate PrEP or not, using chi-square and t-tests. Multivariate logistic regression estimated adjusted Odds Ratios (aORs) for factors associated with PrEP initiation, including age, education, number of PEP episodes, antecedent STI (yes/no), and chemsex (yes/no).

Results: 1939 MSM consulted for PEP, and 513 (26.5%) subsequently initiated PrEP during the analysis period. Among those who initiated PrEP, 32% initiated PrEP within one week of PEP completion. PEP users who subsequently decided to initiate PrEP had experienced more PEP episodes on average (56.3% one PEP only; 20.5% two PEPs; 19.1% three or more PEPs) when compared to those who did not decide to initiate PrEP (73.3% one PEP only; 16.8% two PEPs; 9.9% three or more PEPs). Probability of PrEP initiation was only associated with PEP frequency (2 episodes relative to 1, aOR=1.83 (95%CI: 1.42-2.37); ≥ 3 episodes relative to 1, aOR=2.35 (95%CI: 1.75-3.15)), chemsex use (aOR=1.56, 95%CI: 1.19-2.04) and antecedent STI (aOR=1.29, 95%CI: 1.12-1.72). No effect was observed for age or education.

Conclusions/Implications: Among PEP users, it was observed that the probability of PrEP initiation was greatest among those who presented with greater baseline risk factors; such as a history of multiple PEP episodes, STIs and chemsex practices. This indicates that individuals with ongoing risks of HIV acquisition are receptive to PrEP referrals which may lead to reductions in the need for PEP.

Abstract 5808 - No wrong door: Virginia's approach for creating new opportunities for PrEP

Author(s): *Fatima Elamin, Eric Mayes*

Issue: The Virginia Department of Health, Division of Disease Prevention (DDP) is addressing a consistent rate of new HIV diagnoses through the implementation of a statewide HIV pre-exposure prophylaxis (PrEP) program aimed at increasing accessibility to HIV-preventative medication and reducing the number of HIV new diagnoses in Virginia.

Setting: DDP established PrEP clinics in rural and urban areas across Virginia. As of June 2018, DDP has 13 PrEP clinics housed at a variety of clinical settings: local health departments, free clinics, private health systems, and federally qualified health centers (FQHCs). By the end of 2018, DDP will add six PrEP clinics across the state, which will further expand the availability of PrEP in currently under-served areas.

Project: Virginia's "No Wrong Door to PrEP" approach focuses on increasing access to PrEP services while simultaneously reducing stigma around PrEP. As of July 2018, DDP has 13 active PrEP clinics located within local health department STD clinics, free clinics, private health systems, and federally qualified health centers. Virginia's unique ability to leverage state resources in order to provide PrEP medication at no cost to Virginia residents continues to play a large role in the steady rates of PrEP uptake. DDP also promotes public awareness of PrEP as an HIV prevention medication through regional and statewide PrEP media campaigns. An incentivized PrEP Ambassadors program trains and mobilizes both HIV positive and HIV negative individuals promote and provide information on PrEP in their communities and to members of their social networks. A home delivery program allows persons who have been on PrEP for at 90 days to receive subsequent PrEP prescriptions through the mail. This presentation will discuss DDP's implementation of PrEP in various community and clinical settings and plans for sustainability.

Results: As of May 31, 2018, 713 persons received clinical screening for PrEP across Virginia's PrEP clinics. Of all clients who were screened, 96% were medically eligible for PrEP (n=688), as based on acceptable kidney function and HIV negative status. Ninety-eight percent of clients who were clinically eligible for PrEP (n=677) received at least one 30-day supply of PrEP through the DDP program. When looking at all PrEP prescription data, 2% of clients received 24 months of PrEP (n=3), 6% percent received between 13 and 18 months (n=42), 28% of PrEP have been on PrEP for 6 to 12 months (n=192), and 64% percent of clients have been on PrEP for less than six months (n=430).

Lessons Learned: Cost is often cited as the reason individuals in Virginia are hesitant to seek PrEP services. Focus groups of priority populations also reveal that there is stigma around Truvada as an HIV medication, further deterring individuals from seeking PrEP. The successful implementation of PrEP requires a multifaceted approach that addresses cost, education, and stigma while simultaneously striving to increase access to free or low-cost PrEP services in a variety of clinical settings in both rural and urban areas. With a new HIV positivity rate of 4%, DDP's PrEP program is proving to be a critical point for identifying new HIV infections.

Abstract 5803 - PrEP initiation in a Washington D.C. sexual health clinic and linkage to primary care

Author(s): *Megan Coleman, DeAndra Godwin, Melanie Logan, Austin Peer, David Cornell*

Background: Daily TDF/FTC for pre-exposure prophylaxis (PrEP) is highly effective at preventing HIV infection but barriers exist to its uptake. To reduce such barriers for PrEP uptake and initiation, an after-hours Sexual Health Clinic in Washington DC implemented a pilot project to evaluate the feasibility of same day PrEP initiation with direct linkage to primary care services.

Methods: Clients who presented to the sexual health clinic were offered additional counseling on PrEP between 5/2017-2/2018. If interested in starting PrEP, clients were provided a brief education session with a PrEP counselor, a short medical visit, basic PrEP laboratory screening tests (inclusive of 4th generation Ag/Ab HIV testing and a rapid HIV test). Pending no history of diagnosed renal compromise, signs of acute HIV infection, or active Hepatitis B, patients were provided a 30 day prescription to fill at the on-site pharmacy. New PrEP patients were provided an appointment with a primary care provider at Whitman-Walker Health within 3 weeks to establish continued medical care for PrEP. Insurance navigation and patient assistance were provided based on individual patient's needs. Retrospective electronic medical chart review was used to analyze and provide descriptive statistics for pilot PrEP cohort.

Results: TDF/FTC was prescribed to 38/43 individuals who were interested in PrEP (average age 32.5; 97% MSM, 3% TGF) over a 10 month pilot period. Pilot cohort demographics were: 55.8% White (24/43), 32.6% AA (14/43), 6.9% Hispanic (3/43), 9.3% Asian (4/43). Overall 89.5% (33/38) initiated PrEP (average time to prescription pick up 7.25 days). 66.7% (24/36) successfully linked to primary care within one month for follow up visit and of those 70.8% (17/24) attended 3 month follow-up visit. Baseline STI (Syphilis, Gonorrhea, or Chlamydia) positivity rate was 34.9%.

Conclusions/Implications: In a population at high risk of HIV infection presenting at an urban sexual health clinic, a pilot program initiating PrEP demonstrated early success at linking patients to HIV prevention methods and to primary care services. Linkage and initial persistence in primary care services were high for this population, however there was a delay in prescription pick up of seven days, even with collocated pharmacy and navigation services provided. Further research is needed to evaluate longer impact of engagement with primary care and contributing factors to the delay in PrEP initiation.

Abstract 5423 - Meeting PrEP needs of adolescents: lessons learned from 3 adolescent PrEP programs in NYC

Author(s): *Jaime Martin, Sarah Ramteke, Mohini Persaud, Angela Merges, Zoe Edelstein, Lena Saleh, Oni Blackstock, Demetre Daskalakis, Julie Myers*

Issue: In 2016, approximately 21% of new HIV diagnoses in the United States were aged 13-24 years, representing a key population for HIV prevention interventions, including pre-exposure prophylaxis (PrEP). Barriers to PrEP use related to access, consent, payment, and adherence/retention in clinical care have been identified in this population. Leveraging the experience of agencies in providing holistic care to HIV-infected youth, New York City (NYC) Health Department funded three PrEP clinical sites to effectively engage adolescents who might benefit from PrEP through a suite of dedicated clinical and support services tailored to their needs.

Setting: Three youth-serving clinical sites located in the Bronx and Upper Manhattan neighborhoods of NYC were funded. These programs form part of the PlaySure Network, a formal collaborative of funded clinical and non-clinical providers established by NYC DOHMH to increase access to HIV prevention services citywide, primarily through outreach, education, and navigation.

Project: The program model attempts to address the structural, financial and psychosocial factors associated with engaging adolescents, including minors, who might benefit from PrEP. Programs conduct outreach; initial screening (anonymous); program enrollment, including a psychosocial needs assessment; PrEP/PEP education; PrEP medical visits; and supportive services, including insurance/payment assistance and support for adherence/retention. Staff include patient navigators and benefits specialists. Between July 2016 and March 2017, sites worked in collaboration with Health Department staff to optimize program implementation, including hiring/training program staff, and formalizing PrEP policies and procedures. We report on the first year of standardized service delivery, April 2017-March 2018

Results: There were 442 anonymous screens and 185 enrollments conducted among adolescents. Among enrollments, median age was 22 (range 15-24) and 10% were minors; 55%, 20% and 21% were Latino, Non-Latino Black and Non-Latino White, respectively. The majority (60%) were men who have sex with men (MSM); among them, 66% were Black or Latino MSM. Among enrollments, 93% reported condomless sex, 19% reported previous STIs, and 13% reported sex with a partner living with HIV (all past 6 months). Most were insured (74%); among them, half (51%) were under parent's insurance. Overall, 91% (168/185) received PrEP/PEP education, 57% (106/185) received benefits navigation, and 70% (130/185) were prescribed PrEP. Among minors enrolled, 56% (10/18) received PrEP prescriptions.

Lessons Learned: In their first year, these holistic, client-centered adolescent programs were successful in screening adolescents at high risk, leading to enrollment for some, and among them, high utilization of PrEP-related services. Key facilitators to engagement were identified, including consistent communication between navigator and patients; co-located services; and flexible appointment scheduling. Challenges included development of adolescent-tailored messaging; expansion of outreach through social media; and enhancing motivation and self-perception of having indications for PrEP through screening conversations. Many of these were addressed through technical assistance. Fortuitously, a final challenge related to minor consent and parental involvement was partially addressed through New York State regulatory amendments and the FDA expansion of Truvada's indication for PrEP; however, more is needed to ensure minors have full access to PrEP-related medication assistance programs. Analyses are planned to understand how this model may optimize PrEP adherence/retention among adolescents.

Session B12 - Making Health Care Fabulous: Improving Delivery and Awareness of PrEP and Care Services to Transgender and Sexual Minority

Room: International North (Hyatt Regency Atlanta)

Abstract 5705 - Creating a PrEP infrastructure for trans women of color in the Memphis metropolitan area

Author(s): Christopher Mathews, Halenia Crews, Kayla Gore, Allison Sanders, Meredith Brantley

Issue: In the United States, in 2013, 1 in 4 transgender women – and more than half of Black/African American transgender women – were living with HIV. Transgender women are disproportionately impacted by mental health issues, incarceration, homelessness, and unemployment, and more likely to engage in commercial sex work and substance misuse, leading to higher rates of HIV transmission compared to the general population. Although Trans Women of Color (TOC) are adversely affected by HIV, they are less likely to engage in HIV behavioral preventions

Setting: In 2015, the Tennessee Department of Health collaborated with two community based organizations (Partnership to End Aids Status [PEAS] and OUT Memphis) on demonstration project 15-1506, Project PrIDE, to reduce HIV infection among TOC in the Memphis Metropolitan Statistical Area.

Project: The partnership focused on increasing access to biomedical prevention (i.e., PrEP) by identifying and educating TOC about PrEP and providing candidates with navigation services. Specifically, the two organizations were tasked with recruiting, screening, testing, and linking TOC to local PrEP providers, and providing adherence support for up to 6 months post-linkage.

Results: During October 2016 to October 2017, the project encountered 64 TOC; 51 were identified as candidates for PrEP and 22 accepted a PrEP offer. Twenty clients were referred to PrEP providers, 15 were linked, and 11 were prescribed PrEP. TOC in the Memphis MSA were less likely to be linked to PrEP services due as lack of insurance, lack of financial means, lack of transportation, problems with identification, availability of culturally sensitive providers, and provider concerns with PrEP/hormone therapy interactions. Linkage facilitators included providing transportation, assisting TOC with identity change, identifying TOC friendly providers, identifying providers that addressed TOC hormone therapy needs, and identifying additional wraparound services to address TOC primary needs. Multiple innovative recruitment strategies also emerged as a result of this project, including allowing TOC to create and implement their own recruitment events and using support groups as a recruitment tool.

Lessons Learned: Tennessee Department of health developed strategies to improve the delivery of PrEP services to the local transgender community, those strategies included best practices for:

1. Establishing a relationship between health departments and CBOs providing direct services to TOC;
2. Recruiting and educating TOC on local PrEP services;
3. Addressing barriers that adversely affect the linkage of TOC to PrEP services and facilitate in adherence to their PrEP regiment.

Abstract 5712 - Getting to better: improving care for transgender and gender non-conforming patients in New York City Sexual Health Clinics, 2016-2018

Author(s): *Christine Borges, Somjen Frazer, Levi Solimine, Michael Castro, Kate Washburn, Lena Saleh, Julie Myers, Susan Blank*

Issue: Recognizing that transgender and gender nonconforming (TGNC) people face multiple barriers to quality health care, the New York City (NYC) Department of Health and Mental Hygiene (DOHMH) Bureau of STD Control (BSTD), which runs the city's public sexual health clinics (SHC), worked with a consultant to gather information about TGNC patients' experiences seeking medical care in NYC. Based

on these findings, recommendations were made for how to improve services, environments and policies to provide more affirming and higher quality care to TGNC patients.

Setting: NYC SHCs provide low-to-no-cost, walk-in sexual health services to anyone age >12 years in 8 clinics across the city. Services are available, regardless of insurance or immigration status, ability to produce identification, or parental consent.

Project: The aim of the project was to assess the capacity of SHC staff and systems to serve TGNC patients and implement indicated improvements. Our consultant convened a Transgender Community Advisory Board (TCAB) to guide the assessment, which included 3 clinic walk-throughs, 4 key informant interviews with clinic staff, and 3 focus groups with 23 TGNC New Yorkers. The findings gathered from these activities informed recommendations to BSTD leadership, who then established an internal workgroup to plan and implement related strategies

Results: Key recommendations included role-specific staff training; updating policies, forms and physical spaces; developing systems of meaningful engagement with the TGNC community; and using community outreach to inform potential patients of the availability and quality of relevant services. Over 300 staff received a full-day didactic training on providing affirming care to TGNC patients; the curriculum was developed and delivered by trainers, the majority of whom were TGNC. The TCAB suggested a skills-based workshop with TGNC practice patients for medical providers, social workers and patient navigators; 87 patient-facing staff participated in this training. Additionally, BSTD has updated forms such as the clinic triage card and electronic medical record to better capture a range of gender identities, and more appropriately and sensitively elicit and collect sexual history information. BSTD will be creating and displaying non-gendered anatomy posters, developing gender pronoun labels for employees and patients to wear, and establishing an ongoing TCAB for the program.

Lessons Learned: Before we took on this effort, TGNC visits made up less than 1% of all clinic visits (about 150 visits annually.) To address staff perceptions that TGNC patient-volume does not justify the effort of training, and changing staff behavior to create an affirming environment, we have emphasized the importance and ethical imperative of providing the TGNC population with access to quality services. While transforming into a more affirming and welcoming environment takes time and effort, we must remain committed to ongoing trainings, assessments and improvements. Additionally, while we included individuals who are TGNC as core members of the assessment and planning team, we should have done this earlier in the process. Meaningful engagement with the TGNC community should occur during all phases including conceptualizing, funding, planning, implementation and evaluation.

Abstract 5758 - PrEP in the transgender community: a multi-level community-based approach

Author(s): *Erin Starzyk, Rose-Marie Nelson, Eduardo Gabrieloff*

Issue: The transgender community is disproportionately impacted by HIV in the United States. The most recent data indicates that twenty-seven percent of Male to Female (MTF) transgender persons are living with HIV. Transgender persons also experience significant transphobia and HIV-associated stigma, which create barriers for accessing health care. The literature shows that transgenders persons are more likely

to delay accessing health care, are refused care due to their gender identity, and report experiencing harassment in a health care setting. In an effort to address the issues that the transgender community experience and prevent HIV, the Colorado Department of Public Health and Environment implemented a multi-level community-based approach as part of the Centers for Disease Control and Prevention (CDC) funded PS15-1506 'CO-PrIDE' demonstration project.

Setting: CO-PrIDE is a three year Pre-Exposure Prophylaxis (PrEP) demonstration project started in October, 2015. The CO-PrIDE project is a collaborative HIV prevention intervention to increase access to PrEP for men who have sex with men (MSM), particularly MSM of color, and transgender persons in the Denver/Aurora Metropolitan Statistical Area (MSA). This project is a population-level biomedical intervention that promotes the education, screening and referral of MSM and transgender persons to trained clinicians to be assessed for and prospectively prescribed PrEP. This presentation will focus on CO-PrIDE work with the transgender community.

Project: CO-PrIDE has implemented a multi-level community-based approach to promote PrEP to transgender persons in the Denver/Aurora MSA. This approach includes 1) an innovative social marketing campaign featuring authentic stories from the transgender community 2) participatory methodologies that empower transgender persons and honors their voices and experiences including digital storytelling and client-centered survey 3) transgender community focused training courses for internal and external partners and 4) collaboration with transgender allies and community-based organizations across the Denver/Aurora MSA. In order to assess this multi-level approach and its impact, CO-PrIDE developed a participatory-based evaluation plan utilizing quantitative and qualitative methodologies.

Results: The evaluation data indicate that CO-PrIDE's approach is effectively reaching the transgender community. From October, 2015 to March, 2018, CO-PrIDE screened 108 transgender individuals for PrEP in the MSA. Of those screened, 91.6% (n=99) were eligible for PrEP based on the intake risk assessment. 19.2% (n=19) of eligible persons accepted the referral to a medical provider. 57% (n=11) of those who accepted the referral started PrEP. Logistic regression results show that transgender persons are significantly more likely to start PrEP when compared with other risk groups (not including MSM) (OR: 5.6, CI: 2.5-12.3). Preliminary data from the client-centered experience survey demonstrate 60% of respondents spoke to their providers about PrEP, 60% received information about PrEP when testing for HIV, and 40% received help paying for PrEP. For the next steps in the evaluation plan, CO-PrIDE is conducting digital storytelling workshops with transgender persons to understand their experiences with sexual health and PrEP. The results are forthcoming.

Lessons Learned: Implementing a multi-level community-based plan is an effective approach for reaching the transgender community in promoting PrEP.

Abstract 5559 - Barriers and facilitators to PrEP use among trans women in Philadelphia and Sacramento: a comparison of two cities

Author(s): *Jesse Brajuha, Sarah Bass, Kim Koester, Luis Gutierrez-Mock, Jae Sevelius*

Background: Trans women are disproportionately affected by HIV; US estimates indicate they are 34 times more likely to be living with HIV than other adults. Pre-exposure prophylaxis (PrEP) shows significant promise for reducing risk of HIV acquisition, but a subanalysis of the iPrEx study found no effectiveness among trans women, likely due to low levels of uptake and adherence. Understanding barriers to PrEP use among trans women and developing culturally relevant messages and interventions is urgent.

Methods: We conducted 5 focus groups with trans women, 3 in Philadelphia (n=20) and 2 in Sacramento (n=14) to identify and compared barriers to and facilitators of PrEP use to inform the development of a quantitative survey. Participants were recruited through community organizations, social media, and word of mouth. Groups were facilitated by study staff at trans-friendly locations and digitally recorded. Recordings were transcribed verbatim and analyzed using an iterative process leading to theme development and constant comparison across groups and locations.

Results: Participants were diverse, with 44% African American, 41% White and 21% Latino. Participants ranged in age from 19 to 69 years old (average=41.6); 38% had finished high school and 18% had a college degree. Only 26.5% indicated they were employed full time and 46% indicated that they “barely get by on the money I have”. Over 60% indicated they had ever been homeless or lived in a shelter, 22% within in the last month. The majority had never used PrEP (66.7%). Of those that had, only 27% were still taking it. None of the participants in Sacramento had ever used PrEP.

Barriers to use were similar between locations with some key differences. In Philadelphia, barriers included concern about daily pill taking, perceptions that PrEP was marketed to men who have sex with men rather than trans women, threat of stigma from partners or others who associate PrEP with HIV or risky behavior, and dismissal of the need for PrEP given the effectiveness of antiretroviral therapy. In Sacramento, barriers included concerns about accessing PrEP and navigating gatekeepers due to lack of trans sensitivity, feeling awkward about discussing sex with providers, and pill burden (if also taking hormones). In both locations, transphobia, misogyny, and racism were discussed as structural barriers, in addition to worry about other pressing issues such as violence and discrimination.

Some important perceptions about PrEP that warrant serious consideration before marketing PrEP to trans women included participants’ perceptions that PrEP is regarded as a “magic pill” that makes people “invincible”, worrying about resistance, getting other STIs, side effects, questioning PrEP’s efficacy, and believing that PrEP injections might cause HIV.

Conclusions/Implications: There is clearly a need for culturally relevant PrEP messaging and interventions addressing trans women’s unique concerns. These messages and interventions may need to be tailored to specific regions of the US to address differing community concerns. Participants indicated that hearing these messages from people within their community, particularly trans women of color, was an important strategy to effectively engage trans women in PrEP services.

Abstract 5713 - Perspectives of and experiences with PrEP among transgender, non-binary, and gender-fluid people in Milwaukee

Author(s): *Meagan Zarwell, Katherine Quinn, Julia Dickson-Gomez*

Background: Although PrEP is considered promising for reducing HIV-related health disparities, few studies have examined its use among transgender, non-binary, and gender-fluid (TNG) individuals who may be at elevated risk for HIV infection. Understanding the healthcare-related stigmas and barriers that prevent TNG individuals from accessing PrEP will inform interventions to increase engagement with high impact prevention activities in these populations. This study investigates perspectives of and experiences with PrEP among a diverse sample of TNG people using the gender affirmation framework.

Methods: We conducted 28 semi-structured interviews with 16 transgender women, 8 transgender men, and 4 non-binary individuals in Milwaukee. 16 of the participants identified as Black, 7 as White, and the remaining 5 as multiracial or another race/ethnicity. The average age was 34 (range: 18-71 years old) and 2 transgender women were currently living with HIV. Recruitment occurred at community sites and through peer referral. Each interview lasted approximately 90 minutes, was audio recorded, and transcribed. The transcripts were analyzed by 3 researchers in MAXQDA using the constant comparative method. Interviews explored healthcare experiences throughout childhood, adolescence, and adulthood; social networks and support mechanisms; and experiences with HIV prevention.

Results: In general, participants indicated a lack of communication and awareness about PrEP within the TNG community, particularly among individuals who did not frequent support groups. Participants identified a number of factors that influence PrEP uptake among TNG people. In the absence of a clinic specifically for TNG health, participants described discomfort discussing PrEP with healthcare providers due to assumptions about sexual identity and behaviors. In addition, participants perceived larger facilities such as hospitals to be more likely to provide consistent, quality care compared to smaller clinics with higher provider turnover. Misconceptions about PrEP included that the medication is only recommended for people with HIV positive partners or for people who are not in long term relationships. Many participants described themselves to be at low-risk, particularly those who were not currently sexually active or who were in a relationship with a cisgender woman. Intermittent PrEP use was common among 5 transgender women with current PrEP prescriptions. Reasons for inconsistent PrEP use included recent changes in sexual partners; distrust in PrEP efficacy; potential for unknown side effects and interactions with hormone therapy; inconsistent insurance coverage and distrust of medical assistance programs; and conflicting information about PrEP adherence and accuracy. While one participant described PrEP as convenient to take alongside her current medications, another participant who recently began hormone therapy described difficulty remembering to take all of her new prescriptions properly.

Conclusions/Implications: Reducing HIV-related health disparities, particularly among trans women and trans men who have sex with cis men, requires understanding barriers and facilitators to using PrEP. This study supports the critical need for interventions designed to increase awareness of and access to PrEP among TNG individuals. Potential interventions should aim to reduce stigma and provide gender affirming services which take into account the variation TNG individuals' sexual relationships and practices.

Session B18 - Novel Data Use for PrEP

Room: International South (Hyatt Regency Atlanta)

Abstract 5479 - PrEP and AIDSvu: accessing, analyzing, and visualizing PrEP usage data

Author(s): *Chandni Jaggi, Elizabeth Pembleton, Patrick Sullivan*

Issue: The United States National HIV/AIDS Strategy (NHAS) has called for public health professionals to address problems in HIV prevention within communities where HIV is highly concentrated; however, data about HIV prevention, specifically PrEP use, and HIV prevalence and new diagnoses are not consistently available at fine geographic resolutions across the US. This presentation will review AIDSvu, a website created to address this lack of HIV and PrEP data.

Setting: The United States in all 50 states, plus Washington DC and Puerto Rico.

Project: This year, AIDSvu launched the first-ever state-level data and interactive maps on PrEP users and rates of PrEP use (“PrEP Prevalence”). AIDSvu previously displayed HIV prevalence and new diagnoses rates and cases for all 50 states (plus Washington DC and Puerto Rico), 3220 counties and over 35 cities. At the state level, AIDSvu also mapped mortality. To strengthen the data already on the website, this year AIDSvu added maps on PrEP use and rates. AIDSvu also released data for download on PrEP use and rates at the Zip-3 level.

Results: The state-level data can be viewed at the overall level, or stratified by certain demographic filters, like age and sex. PrEP usage can be seen over time, showing geographical trends, by accessing the individual maps by year, from 2012-2016. Additionally, five social determinants of health can be displayed side-by-side with the PrEP maps, including poverty, high school education, and median household income. Provider overlays may be added on top of the maps to show service locations, such as HIV testing sites, PrEP services, and Ryan White Care Providers. The PrEP data at the state- and ZIP3-level can be downloaded for use in analyses, and the state-level maps can be downloaded to presentations or reports. Key data points have been developed into shareable infographics, which may also be downloaded and incorporated into materials for use. In addition to the PrEP data, AIDSvu also includes HIV surveillance data for prevalence, new diagnosis, and mortality, with displays at different geographic levels and with various stratifications and all the functionality as the PrEP data.

Lessons Learned: All of the information on AIDSvu can be leveraged by public health officials, policymakers, healthcare professionals, researchers, and community leaders to see the levels of PrEP and HIV data in their community. This information can inform resource allocation, target prevention efforts, and support grant writing. For example, health educators can download the maps and infographics on PrEP to use in presentations. Public health professionals at the state or local government levels can analyze the PrEP use data to determine which populations of people have lower PrEP uptake, and therefore inform how resources should be allocated for the next year. Researchers can also look at the PrEP across the years to see what regions of the country are improving and what regions need improved PrEP education and access. All of the maps and data on the website are free to use,

allowing researchers and other public health personnel access to data that was previously not publicly available.

Abstract 5637 - Demonstration of a web-based tool to estimate the number of persons with indications for PrEP by transmission risk group and race/ethnicity

Author(s): Dawn Smith, Kevin Weiss, Michelle Van Handel, Eli Rosenberg

Issue: A national estimate of the number of persons with indications for HIV preexposure prophylaxis (PrEP) use was published in 2015. Building on this work, a recently published analysis provided estimates of the number of persons with indications for PrEP in each state and Washington, D.C. by transmission risk group and race/ethnicity. These data are useful for assessing the PrEP clinical care and behavioral support needs of local populations who would benefit most from its use.

Setting: State and local health departments and other HIV prevention program staff engaged in planning, goal setting, and capacity development for PrEP implementation in the US.

Project: To disseminate the ability to make jurisdiction-specific estimates, a webtool was developed using the RShiny platform. The ability to make estimates overall and by transmission risk group (men who have sex with men, heterosexuals, persons who use injection drugs), and race/ethnicity (black/African American, Hispanic/Latino, white) was incorporated. Users may use prepopulated values (e.g. estimated state MSM population) or may enter their own locally-determined values. Population estimates, in tabular and graphic form, can be downloaded in multiple formats.

Results: Health department staff piloting the tool found that the tool was easy to use to generate downloadable, local estimates. Users expressed interest in the methodology and data sources used and expanding the list of jurisdictions with pre-populated data. Users were positive about the potential to use the tool in data-driven decision-making. The presentation will demonstrate the use of the webtool to produce tailored local estimates of persons with indications for PrEP and discuss potential uses of the data for local planning and evaluation of PrEP activities.

Lessons Learned: The webtool is easily understood and can help assess the potential resource needs for PrEP provision in a local jurisdiction. The availability of downloadable reports with figures and summary data tables adds to the utility of the tool. The webtool is available at <https://prepind.shinyapps.io/prepind2/>. There is interest in adding or adapting the tool to accommodate county or MSA-level data.

Abstract 5480 - Engaging women in PrEP care at a New York City sexual and reproductive health services provider

Author(s): Kimberly Sanders, Kate Collier, Lisa Colarossi

Issue: AIDSvu data show that women accounted for only 7% of U.S. PrEP users in 2016, although they represent approximately 20% of people diagnosed with HIV in the U.S. each year. Barriers to women's PrEP uptake include their limited knowledge of PrEP and low perceived HIV risk, as well as a lack of PrEP knowledge and readiness to prescribe among women-serving providers.

Setting: Our sexual and reproductive health services organization, Planned Parenthood of New York City (PPNYC), serves more than 56,000 patients annually, approximately 95% of whom identify as women. We began to offer PrEP in August 2016 at one of our five health centers.

Project: We extracted data from electronic medical records to assess PrEP uptake by female-identifying patients over a one-year period (4/1/17-3/31/18) that followed a start-up implementation phase. During the review period, PPNYC conducted activities to increase women's engagement in the first seven steps of the PrEP care continuum (Nunn et al., 2017), related to PrEP awareness and uptake. Activities included: 1) Adopting a same-day prescribing model for most patients initiating PrEP; 2) Staff training to support expansion of PrEP services to all health center locations and our mobile medical unit, with greater scheduling flexibility for patients; 3) A women-focused PrEP social marketing campaign appearing on wallboards in 36 salons and laundromats in Bronx and Brooklyn neighborhoods with the highest prevalence of HIV, lasting 16 weeks; 4) Dissemination of more than 2,000 copies of a community-tested, printed palm card with PrEP information and HIV risk self-assessment questions; and 5) Integration of PrEP content into our regular educational programming for community adults and professionals, including one dedicated half-day training session on PrEP for NYC social service and health education providers.

Results: Of 150 patients who newly initiated PrEP at PPNYC over the review period, a minority (21.3%) identified as female (87.5% cisgender, 12.5% transgender). Women initiating PrEP ranged in age from 21 to 59 years (M = 31.5, SD = 9.5); 37.5% identified as non-Latina black, 37.5% as Latina, 18.8% as non-Latina white, and 6.2% were of unknown race/ethnicity. Sixty-three percent resided in NYC neighborhoods with elevated HIV prevalence relative to NYC overall, and 25% in the Bronx and Brooklyn neighborhoods where social marketing efforts were focused. We found a trend of increasing engagement of women over time, with women representing only 14.3% of all patients initiating PrEP in the first quarter of the review period, versus 40.6% of all patients initiating PrEP in the fourth quarter.

Lessons Learned: Findings suggest some modest success reaching women with PrEP, but considerable room to grow in terms of the overall scope of PPNYC's PrEP services and reach to women at highest risk for HIV. Increased and coordinated marketing, education, and clinical practice efforts are needed to stimulate women's awareness and knowledge of PrEP, and their interest in adopting it as part of a comprehensive HIV prevention strategy.

Abstract 5328 - Use of the electronic medical record (EMR) for evaluation of PrEP uptake among transgender and gender non-binary (TGNB) people at a NYC health center

Author(s): *Asa Radix, Pedro Carneiro, Stephanie Mosher*

Issue: Transgender women (TW), especially from communities of color, are disproportionately affected by HIV. Although less is known about transgender men (TM), recent studies have demonstrated elevated risk among those who identify as gay or bisexual (trans-MSM). PrEP is an effective biomedical intervention to prevent acquisition of HIV. Adherence, often monitored in clinical trials using biomarkers of adherence, is reported to be lower among TW. These biomarkers (such as dried blood spot) are not feasible for community settings as they are not commercially available and expensive. Other options to measure adherence, such as self report and pill counts, are not reliable.

Setting: Callen-Lorde Community Health Center is an LGBT-focused clinic in NYC that predominantly cares for HIV-infected and at-risk clients. Callen-Lorde provides care to 5322 TGNB clients, making this the largest clinic cohort of TGNB clients in the USA. In 2012 Callen-Lorde implemented PrEP services. Over 2700 clients (including 555 who are TGNC) had initiated PrEP by June 2018. One of the goals was to create a program that used targeted EHR-based strategies to assess uptake and adherence to PrEP.

Project: We have used the customized EHR template that includes data on sexual orientation and gender identity (SOGI) to has allowed us to track PrEP utilization for clients accessing PrEP at every stage of the HIV Prevention Continuum, from testing to adherence and persistence.

Results: 555 TGNB clients have initiated PrEP, including 201 TW, 50 TM, 291 GNB assigned male at birth. Use of the EHR has used anal gonorrhea and chlamydia results to identify those who are eligible for PrEP. In 2017 only 47% of TW with an anal STI were on PrEP compared with 81% of cisMSM. Disparities also existed by race and ethnicity, especially for African-American TW. PrEP persistence was measured using prescription renewals with gaps of over 160 days (less than 4 tablets per week). Results demonstrated that 29% of TW and 27% GNB_AMAB clients had gaps over 160 days compared to only 16.7% of prescriptions for cisMSM.

Lessons Learned: Disparities exist for transgender and gender nonbinary people at every stage of the HIV prevention Continuum. As scale-up of PrEP continues, clinics considering implementation of PrEP need to ensure that they track utilization to monitor disparities among users. Addressing PrEP uptake among transgender clients requires a multi-faceted approach. The EHR is a valuable tool to track adherence and persistence on PrEP.

Abstract 5482 - The impact of HIV pre-exposure prophylaxis for adults and adolescents on the HIV epidemic among MSM over the sexual life course: a modeling study

Author(s): *Deven Hamilton, Steven Goodreau, Samuel Jenness, Patrick Sullivan, Li Yan Wang, Richard Dunville, Lisa Barrios, Maria Aslam, Eli Rosenberg*

Background: HIV pre-exposure prophylaxis (PrEP) is an effective and safe intervention approved for use by adults and recently, adolescents. Previous modeling studies have evaluated the potential impact of PrEP interventions among adult men who have sex with men (MSM) and adolescent sexual minority males (ASMM) with results indicating that a significant number of infections could be averted within each population. However, to date the overall impact of these interventions on the entire MSM population from adolescence through adulthood has not been evaluated. This research project evaluates the potential impact of PrEP interventions among adult MSM and ASMM on the HIV epidemic among all MSM age 13-39.

Methods: An agent-based network transmission model was used to estimate the number of HIV infections averted, the percent of infections averted (PIA), the number needed to treat to avert an infection as well as changes in incidence and prevalence for a population of 13-39 year old MSM. PrEP was implemented among adult MSM age 19-39 following CDC guidelines. A program of PrEP implementation among sexually active 16-18 year-old ASMM was then added to the adult focused program.

Results: The implementation of a PrEP program for adult MSM following CDC guidelines with 40% coverage resulted in 29.0% (95% Credible Interval (CrI): 24.0%, 34.4%) of infections being averted among all MSM (adult and ASMM) over 10 years, reducing prevalence from 23.2% (95% CrI: 21.4%, 24.5%) to 17.0% (95% CrI: 15.7%, 18.0%). For ASMM specifically, the adult focused PrEP program reduced prevalence from 6.04% (95% CrI: 4.04%, 8.33%) to 4.28% (95% CrI: 2.30%, 6.47%). The addition of a PrEP program targeting 16-18 year old ASMM with 30% coverage increase the PIA to 29.9% (23.6%, 35.0%) and further reduced prevalence among ASMM to 3.84% (95% CrI: 2.01%, 5.99%).

Conclusions/Implications: PrEP use among only adult MSM may result in a significant reduction in infections at the population level, and includes substantial indirect benefits for ASMM. PrEP programs targeting ASMM may not have a large impact on the overall HIV epidemic among persons 13-39 years due to the small size of the anal intercourse experienced 16-18 year-old ASMM population relative to the entire MSM population. However among ASMM, such a targeted program would significantly reduce the number of new infections while helping to achieve health equity for this key at-risk population.

Session B21 - Latex Nation: Condoms Are Not a Lost Art

Room: Regency V (Hyatt Regency Atlanta)

Abstract 5737 - Bringing sexy back: incorporating a sex-positive approach to promoting condom use in D.C.

Author(s): *Andrea Augustine, Veronica Urquilla*

Issue: The desire to prevent HIV/STDs and unplanned pregnancy is rarely the sole or strongest predictor of sexual decision making. However, the advent of HIV/AIDS engendered a sex-negative programmatic approach to sexual health that ignored broader, influential factors by emphasizing risk avoidance. The HIV/AIDS, Hepatitis, STD and TB Administration (HAHSTA) at DC Health abandoned this practice and adopted a sex-positive philosophy that situates prevention within the wider context of sexual health.

Setting: HAHSTA is the core government agency that prevents, reduces the transmission of, and provides care and treatment for persons with HIV/AIDS, STDs, tuberculosis, and viral hepatitis. Though HAHSTA serves all DC residents, its HIV/STD prevention efforts focus on those with the highest rates of infection: youth, women, and MSM.

Project: HAHSTA established a city-wide condom distribution program in 2007 to increase the availability, accessibility, and acceptability of condoms to DC residents. In 2010, HAHSTA launched Rubber Revolution, a campaign promoting its distribution program and increased condom use. It was part of a broader, 5-year social marketing initiative to encourage HIV-preventive behaviors among Black heterosexual men and women and MSM in high-prevalence areas. The campaign was informed by field research with DC residents, in which they identified size, comfort, inconvenient timing, and poor knowledge of correct use as barriers to use. In response, HAHSTA developed a sex-positive approach that relied on attractive models, striking imagery, and a playful, casual tone. In 2017, HAHSTA engaged capacity-building assistance from AIDS Project Los Angeles to enhance its program's alignment with the CDC's "No New HIV Infections" approach and to strengthen the impact of its efforts.

Results: In a 2014 study with 810 respondents, of those reached specifically by the Rubber Revolution campaign, 71% felt more comfortable obtaining or purchasing condoms, 71% knew where to get free condoms, 74% were more likely to use condoms, and 80% felt more comfortable talking about condoms or safe sex. To date, Rubber Revolution has also received approximately 400M media impressions. Additionally, by 2013, HAHSTA distributed 6.9M condoms. This tenfold increase from 2007 was achieved through innovative partnerships with over 100 multi-sectoral partners and an online mail order service that ships condoms to residents' homes. In recent years, distribution has hovered closer to 5M. However, DC's program remains the highest distributor of condoms in the US with 7 condoms per capita and contributes to the 33% decline in new HIV infections reported in December 2017.

Lessons Learned: Despite the recent popularity of sex-positive approaches in public health practice, HAHSTA was already ahead of the trend. Though PrEP's novelty detracts attention from condoms, it provides the opportunity to recalibrate HIV/STD messaging to promote holistic sexual health, especially pleasure. HAHSTA will build on the success of Rubber Revolution and enhance the acceptability of condoms by highlighting their potential to heighten sexual pleasure. Pilot HIV/STD outreach and education projects that eroticize condoms have proven promising, and plans to diffuse a sex-positive framework at the organizational level are underway.

Abstract 5769 - Establishing condom distribution as statewide, collaborative structural intervention

Author(s): *John Sapero*

Issue: The 2018 to 2021 Arizona Integrated HIV Prevention and Care Plan prioritizes condom distribution as a high-impact approach that will contribute to effectively ending the state's HIV epidemic. However, condom distribution in Arizona was fragmented, and consumer condom use was in decline. Statewide assessments of young African American/Black and Latino Men who have Sex with Men (MSM) and African American women demonstrated occasional condom use often based on in-the-moment decisions. In an assessment of LGBTQ+ individuals, approximately 33% of condom-using participants used condoms 25 percent of the time or less. Adding to these issues, the state's political environment meant that no social marketing or promotion of condoms could be undertaken by the HIV Prevention Program, and community-led marketing/media was sporadic and primarily targeted MSM. John Sapero, HIV Prevention Program Office Chief, will present on the development of an initiative to re-ignite consumer awareness and engagement in condom use by establishing statewide condom distribution as a structural intervention.

Setting: Populations prioritized for condom distribution include MSM, especially young African American/Black and Hispanic MSM, African American/Black and Hispanic Women, and Native Americans. The HIV Prevention Program of Arizona Department of Health Services provided free condoms by mail and bulk distribution to providers. Community-based organizations implemented multiple, competing strategies to place condom dispensers in community spaces, with little data use or stakeholder input to inform location choices.

Project: In 2017, the Arizona HIV Prevention Program gathered more than 20 stakeholders from across the state to participate in a two-day capacity building activity to evaluate existing condom distribution and engagement strategies, and priority populations. Participants then crafted an initiative to

restructure condom distribution as a structural intervention focused on increasing condom Availability, Accessibility, and Acceptability by the community (3As).

Results: The presenter will discuss the rationale for seeking capacity building assistance, how the health department engaged stakeholders, the outcome of the CBA provided, and the implementation of the intervention. The Arizona HIV Prevention Program established a contract with Southwest Center for HIV (SWHIV), Arizona's largest HIV service organization, to implement condom distribution using the 3As. Under this contract, SWHIV will be responsible for coordinating community-led condom distribution efforts by establishing a single, statewide "brand" Nice Package, social marketing, and distribution that any entity can utilize. Additionally, SWHIV will coordinate and promote bulk condom distribution to providers serving HIV priority populations and offer packs of 10 condoms by mail order, or included in HIV medication refills at ADAP pharmacies. SWHIV intends to distribute more than 1 million condoms statewide each year, with 30% distributed to people living with HIV.

Lessons Learned: Diverse stakeholder engagement was critical to establishing a common, statewide initiative for unified condom distribution. The 3As framework guided the development of the initiative and fostered collaboration among multiple organizations. There were candid discussions of where, how, and who condoms were being distributed to, geographic plotting of distribution sites, and issues that hindered condom use. Ultimately, a strategy was developed that addressed the goals of the Arizona Statewide Integrated HIV Prevention and Care Plan.

Abstract 5867 - Implementing structured condom distribution in Puerto Rico for MSM and trans population

Author(s): *Cesar Concepcion-Acevedo, Peter Shepard-Rivas, José Mulinelli-Rodríguez*

Issue: Puerto Rico (PR) is ranked 10th on the list of states/territories with the highest number of reported cases of HIV with more than 49,000 people living with the HIV. Political and economic transformations impact HIV preventions efforts even more especially when taking into account that 45% of individuals live below poverty level. Moreover as a result of homophobia, patriarchy and religious hegemony, MSM and Trans individuals experience high levels of stigma that translates as barriers to access health and prevention services. The island has also one of the most active hurricane seasons that last from June to November posing a constant threat to its infrastructure leaving health services inoperable and population vulnerable without access to basic prevention tools such as condoms.

Setting: Coai's - Aché Taking on Prevention is a program for Latino MSM 18 to 59 years old with two main offices: Metropolitan Area, and west side of the Island. Before the Technical Assistance, condom distribution and safe sex kits were circulated during outreach events, in-office settings and upon participants request. Keeping track of condom distribution efforts and effectiveness was only measured through the frequency of safe sex kits distributed, monitored by inventories input and output.

Project: Considering the three A's framework (availability, accessibility and acceptability), a structured time-based plan was jointly developed to respond to the challenges and barriers faced by the island. Baseline statistical information regarding our target population was gathered through PR Department of Health reports and from an assessment developed and distributed to further understand community

needs regarding condom use. Detailed action steps and objectives were developed to inform the following interventions: in-house and community condom distribution efforts, CTR, outreach events and mail delivery. These objectives aligned with the needs of the prioritized geographic regions.

Results: Over 33,000 condoms were distributed and 12 dispensers were refilled and routes for restocking were established twice a month or upon request. Protocols were established to implement a condom by mail strategy where over 400 condoms were successfully distributed for the first time in PR. Promotional efforts were developed to boost this intervention's enrollment and retention rate by creating an enrollment procedure on the program's web page. A social marketing campaign was crafted and resources are currently being identified to implement said strategy, to further increase condom acceptability and HIV prevention awareness.

Lessons Learned: Through the implementation of 3As, Coai has increased the efficiency of condom distribution and reduced barriers to access condoms for the community members. This was especially vital after the hurricanes Irma and Maria. Partnering with different institutions (i.e. health department, CBOs, businesses, etc.) is key in addressing access. Mailing orders have increased access to condoms and is cost-effective and feasible for regions with challenging transportation infrastructure. Increasing acceptability of condoms can be done through more cost-effective measures such as providing trainings to HIV testing providers to offer condoms, conducting outreach campaigns to normalize and increase the visibility of condoms.

Abstract 5838 - Capacity building approach: enhancing nationwide implementation of condom distribution as structural-level intervention

Author(s): *Jenny Liu, Miguel Chion*

Issue: As long as there has been HIV/STI Prevention, there has been condom distribution. While most organizations have been conducting condom distribution as an HIV prevention activity for years, it has rarely been implemented as a stand-alone structural intervention. Structural interventions can be difficult to implement because they can involve major policy or programmatic changes that challenge firmly rooted norms and interests. In 2011, the U.S. Centers for Disease Control and Prevention (CDC) released official guidelines for Condom Distribution as a Structural-level Intervention (CDSI). As there are no standardized models and tools available, agencies funded to implement CDSI have difficulties in operationalizing CD as a structural-level intervention within their communities. Furthermore, effective structural intervention requires consensus building and an understanding of local situations and challenges. This presentation will describe the Condom Distribution Regional Institute (CDRI) and how it provides a foundation in alignment with the CDC's 3A's framework to condom distribution grantees on what components are needed to effectively implement structural interventions in their jurisdictions.

Setting: APLA Shared Action HD and other capacity building assistance (CBA) providers formed a CDSI Workgroup to increase coordination of technical assistance services to improve nationwide implementation of CDSI amongst providers (health departments, HCOs, and CBOs). Since 2015, Shared Action HD and CDSIWG have been conducting the regional institutes across the United States and its territories. Additional technical assistance is provided if program staff identify additional area of needs.

Recipients of technical assistance are health departments directly funded by CDC and some community-based organizations.

Project: CDRI creates the foundational knowledge and understanding to plan, communicate and create important collaborations to implement a successful structural intervention that will have a positive impact on a jurisdiction. Through the facilitated planning process (FPP) approach, participants are able to apply the acquired skills and knowledge into practice by developing a comprehensive implementation plan to identify and address specific needs and challenges for their current program model. The 2-day face-to-face institute consists of 9 core modules; CDSI overview, a panel of successful local CDSI implementation, implementation plan, community assessment, condom economics, partnerships & collaboration, social marketing & promotion, evaluation & monitoring, and capacity building assistance. Follow-ups were conducted to offer additional technical assistance to the participants.

Results: At the end of the institute, evaluation forms were distributed to the participants to provide their feedback on the overall effectiveness of the institute, each module presented, and any recommendations for improvements. Out of a total of 12 institutes, there were 320 participants (5 institutes were in the West, 3 in South, 2 in Puerto Rico, 1 in Midwest, and 1 in the northeastern region). As a result of the institute, additional 37 TA services were requested as a follow-up to the institute. This presentation will present the results and findings from the evaluation efforts of the CDRI.

Lessons Learned: The regional institutes are instrumental in bringing diverse stakeholders to a common understanding of the CDSI framework and how to access additional CBA technical services. Facilitated planning process and peer involvement were effective and applicable to engage participants in structuring their implementation plan around the 3A's framework.

Abstract 6056 - Destination-specific and local condom norms influence sexual behavior during travel

Author(s): *Hong-Ha Truong, Robin Fatch, Willi McFarland, Michael Grasso, H. Fisher Raymond, Wayne Steward*

Background: Perceived social norms about HIV risk reduction practices may influence sexual behavior in the local home environment and during travel. Condom use norms can vary between countries and within a country. We examined the association between perceived condom norms and condomless anal intercourse (CAI) locally and during international and domestic travel.

Methods: A probability-based sample of gay and bisexual men from the San Francisco Bay Area who traveled internationally in the previous 12 months were recruited by respondent-driven sampling (N=501). Partnership-level data were collected for up to 3 of the most recent partnerships per international country in up to 2 of the most recently-visited countries; up to 3 of the most recent partnerships during domestic travel within the US; and up to 3 of the most recent partnerships while staying locally in the Bay Area. Generalized estimating equations models were clustered at the participant-level.

Results: Destination-specific condom norms were associated with CAI during international travel ($p=0.03$) and locally in the Bay Area ($p<0.01$) but not during domestic travel ($p=0.94$). Perceived local Bay

Area condom norms were associated with CAI during domestic travel ($p=0.02$) but not during international travel ($p=0.79$). Respondents did not know the destination-specific condom norms at 50% of international destinations, 14% of domestic destinations and 6% locally. Not knowing destination-specific condom norms compared to perceiving the norm as not to use condoms was associated with a lower likelihood of CAI during international travel ($aOR=0.49$; $p<0.01$) and locally in the Bay Area ($aOR=0.32$; $p=0.03$) but not during domestic travel ($aOR=0.91$; $p=0.86$).

Conclusions/Implications: Men were less likely to engage in CAI when traveling internationally if they did not know the destination-specific condom norms of the country being visited. Unfamiliarity with the environment and culture of these countries may have influenced some men to refrain from higher-risk sexual activity. During domestic travel, however, some men appeared to apply local Bay Area condom norms to their sexual practices. These men may have perceived sufficient similarities between the Bay Area and other US cities to apply local rather than destination-specific condom norms. The assumption that similar condom norms exist across the US may be erroneous in some situations, and thus may pose an HIV transmission risk for men and their partners met while traveling.

Session B29 - Developing a PrEP Monitoring and Evaluation Plan (PMEP) for Estimation of PrEP

Uptake: Lessons Learned from Five Jurisdictions

Room: Embassy A-C (Hyatt Regency Atlanta)

Abstract 5687 - Translating PrEP monitoring and evaluation plans into program evaluations in Fulton County, GA

Author(s): *Udodirim Onwubiko, Allison Chamberlain, Hogai Nassery, David Holland*

Issue: HIV pre-exposure prophylaxis (PrEP) is now a central component of HIV prevention efforts. At local health departments, PrEP-related activities include efforts to directly provide PrEP to high-risk persons and population-based efforts to monitor uptake of the intervention. We evaluated a sexual health clinic (SHC)-based PrEP program at the Fulton County Board of Health (FCBOH) and describe progress in implementing population-based PrEP monitoring.

Setting: FCBOH serves an estimated 1.04 million persons through eight health centers located across the county. In 2016, nearly 1 out of every 4 persons with newly diagnosed HIV/AIDS in Georgia was a resident of Fulton County. To increase access to intensive HIV prevention services, particularly to its low-income residents, FCBOH launched a PrEP clinic in March 2016 housed at one of the two local centers offering sexual health services in the county.

Project: As a part of the HIV Technical Cooperation Group PrEP Monitoring and Evaluation Work Group and in line with the epidemiology of incident HIV in Fulton County, FCBOH chose to monitor PrEP referral, uptake and retention among three key populations – 1) Black men who have sex with men (MSM), 2) non-Black MSM and 3) women at risk of HIV infection. For each of these priority populations, evaluations are conducted on two levels: Tier 1 - among the population seeking care at the sexual health clinics and Tier 2 – among the general Fulton County population. For all Tier 1 analysis conducted to date, a risk score tool (Fulton County HIV Risk Assessment Questionnaire (FC-HRAQ)) was used to identify individuals at increased risk for HIV and to categorize them by risk levels. For Tier 2 evaluations,

current plans include conducting a cross-sectional survey of the priority populations through anonymous paper and internet-based surveys at the Atlanta Black Gay Pride and Atlanta Pride Festivals in fall 2018 and a PrEP provider survey in early 2019.

Results: Tiers 1 and 2 evaluations are currently at different stages of implementation, with Tier 1 evaluations being furthest along. For example, preliminary analysis show that among 575 high-risk (FC-HRAQ score >10), PrEP-eligible, black MSM seeking care at the SHC between 2016 & 2017, 155 (27%) were referred to the in-house PrEP clinic. Of those referred, 84 (54%) attended a PrEP initiation appointment, and 73 (87%) of those attending an appointment received Emtricitabine/Tenofovir prescription for PrEP. Among the non-Black MSM seeking care at the SHC, 33 (28%) of the 199 deemed high-risk for HIV were referred for PrEP, 24 (73%) of those referred attended a PrEP initiation visit, and 23 (96%) of those who attended received a prescription.

Lessons Learned: Translating written PrEP monitoring and evaluation plans (PMEPs) into actual program evaluations at local health departments is often a difficult hurdle to cross. Several challenges exist, but actualizing PMEPs offer local health departments a concrete process for identifying gaps in PrEP services and clarifying how to obtain population-level assessments of PrEP coverage.

Abstract 5752 - Development of a PrEP monitoring and evaluation plan in Philadelphia

Author(s): *Caitlin Conyngham, Tanner Nassau, Melissa Miller, Kathleen Brady*

Issue: Philadelphia is home to numerous academic medical institutions conducting PrEP research and a robust infrastructure for PrEP delivery; 35 medical practices that provide PrEP are listed on the Philadelphia Department of Public Health (PDPH) referral list. LGBT serving and HIV treating medical providers were early to adopt PrEP provision in clinical settings. PDPH funded PrEP navigation programs are expanding across the City through CDC PS15-1509/PS18-1802 funding. However, based on National HIV Behavioral Surveillance data from the 2017 Men who have sex with men (MSM) cycle, PrEP uptake is low (19.5%). Historically, PrEP uptake was monitored through program level evaluation which was not consistent across sites/funding streams. PDPH had no formal, standardized mechanism to evaluate City-wide PrEP uptake across or within priority populations. To achieve the goal of reducing new HIV infections through increasing PrEP access and utilization, PDPH must monitor and evaluate PrEP use at the population level to ensure goals are met.

Setting: Philadelphia is a high morbidity area with 19,113 individuals living with HIV as of 2016 (HIV prevalence=1.2%). However, there is disproportionate impact of HIV on racial/ethnic minorities, and in sexual minorities including MSM and transgender persons who have sex with men (TSM).

Project: In 2018, PDPH participated in the HIV Technical Cooperation Group PrEP Monitoring and Evaluation Work Group to develop a local PrEP monitoring and evaluation plan (PMEP). Workgroup video conference calls allowed PDPH to collaborate with other health departments on each step of PMEP development. Timelines and a PMEP template were used by each participating health department. Key steps in the process were identifying priority populations, goal setting for PrEP uptake in each population, and determining what new and existing data sources would be used for monitoring PrEP uptake in priority populations.

Results: Through the PMEP process, the PDPH estimated the size of the populations with an indication for PrEP. Using CDC methods, the PDPH estimates that there are 8,287 MSM (86% in persons of color (POC)), 3,331 heterosexuals (93% in POC) and 1,495 persons who inject drugs (67% in POC) with an indication for PrEP in Philadelphia. Definitions of at-risk were outlined for MSM, PWID, heterosexuals, and TSM along with specific goals for each population with an overall goal of increasing the number of persons on PrEP in priority populations to 50% by 2022. Plans for implementation include analysis of existing data and primary data collection through provider and internet surveys in priority populations.

Lessons Learned: Through development of the PMEP plan, PDPH has identified areas of existing strengths and those that need improvement. Several areas of improvement were identified within the Partner Services interview and data collection process. Additionally, PDPH inventoried data sources to identify those that are existing and under- and unutilized. Through the implementation of best practices criteria and mystery calls, provider sites are operating with fewer barriers to care than anticipated. On-going monitoring of population level health disparities will be key to ensure that PrEP programs effectively engage populations at greatest risk for HIV.

Abstract 5366 - The chicken or the egg: hatching a pre-exposure prophylaxis (PrEP) monitoring and evaluation (M&E) plan for Texas after initial data collection

Author(s): Sarah Norkin, Simon Andrade, Emily Rowlinson, Jenny McFarlane

Issue: In 2016, the Texas Department of State Health Services (TXDSHS) awarded funds for PrEP navigation and clinical services to organizations serving populations at high risk for HIV. To accommodate rapid initiation of service delivery, TXDSHS developed an initial PrEP services data collection tool prior to formalizing a PrEP monitoring and evaluation plan (PMEP). However, this data collection tool did not adequately capture the data needed for monitoring and evaluation.

Setting: There were 4,391 new diagnoses of HIV in Texas in 2017. The majority (64%) of new cases are diagnosed in 5 urban counties (Houston, Dallas, Fort Worth, Austin, and San Antonio). TXDSHS awarded funds to three local health departments, four community based-organizations, and one hospital system to provide PrEP navigation and clinical services for individuals at highest risk of HIV acquisition within four of these five counties with the highest burden of HIV. Sites submitted data using a TXDSHS-developed pilot data collection tool starting in May 2017.

Project: Several factors necessitated a redevelopment of the PrEP services data collection tool that was initially provided to funded sites: 1) sites found the data tool to be overly burdensome to complete given limited resources and high demand for services 2) the PrEP services data tool was created prior to development of a formalized PMEP 3) the metrics captured on the original data tool were inconsistent were CDC-mandated metrics for organizations providing PrEP services delivery.

Results: In October 2017, TXDSHS created a streamlined data collection tool to capture critical information for assessing PrEP uptake and adherence at funded sites. The number of required data elements was reduced from 52 to 22. The data elements assess 1) how many individuals served by funded sites were referred for PrEP 2) how many referred persons attended a PrEP intake appointment, 3) how many persons received an initial PrEP prescription at intake, and 4) PrEP adherence using

subsequent prescription dates as a proxy. These four main metrics will assess both PrEP promotion activities by funded sites and uptake among clients. A PrEP workgroup is working to add indicators and a data source to address PrEP screening and eligibility. Preliminary results are: 3,139 individuals have been referred to PrEP, 48% of those referred (n=1,517) attended a PrEP intake appointment, 84% of those who attended a PrEP intake appointment (n=1,270) received a PrEP prescription, and 45% of those whose initial PrEP prescription is at least 30 days old (n=556) have received at least 1 subsequent PrEP prescription.

Lessons Learned: Feedback from sites on the initial data tool and preliminary analysis of the preliminary data was critical to refinement of data collection. Continuous PrEP use of clients who are referred out to a private provider from a funded PrEP site are not captured in the current data system. Defining successful PrEP adherence outcomes at the client or population level is a continuous challenge, as PrEP users' goals and seasons of risk vary widely. Data collection and interpretation of continuous PrEP use may require different flexible, methodology.

Abstract 5310 - Developing a plan for expanded PrEP monitoring and evaluation in Los Angeles County

Author(s): *Shoshanna Nakelsky, Leo Moore, Wendy Garland*

Issue: Strengthening ongoing PrEP implementation efforts and monitoring PrEP uptake are critical to the success of Los Angeles County's (LAC) HIV/AIDS Strategy, which aims to reduce HIV incidence to fewer than 500 infections annually by 2022. PrEP was initially implemented in LAC through a CDC-funded demonstration project and uptake was monitored as the number of men who have sex with men (MSM) and transgender women enrolled in PrEP Services within DHSP-funded clinics. However, to evaluate the role of PrEP in reaching the HIV/AIDS Strategy goals, expanding priority groups and identifying comprehensive strategies for long-term monitoring were needed.

Setting: LAC is an expansive, diverse region with over ten million residents. Approximately 60,000 people are living with HIV in LAC and nearly 2,000 more are diagnosed annually. In 2015, the LAC Department of Public Health, Division of HIV and STD Programs (DHSP) initiated the first large scale effort to implement PrEP services countywide.

Project: In 2018, DHSP collaborated with the HIV Technical Cooperation Group PrEP Monitoring and Evaluation Work Group to develop a local, comprehensive PrEP Monitoring and Evaluation Plan (PMEP). Key PMEP steps were setting clear goals for monitoring, defining parameters for uptake, using established local methodologies to identify priority populations, and evaluating new and existing sources of PrEP data to determine the feasibility and scope of data collection for each priority population. PrEP uptake will be estimated by triangulating data from partner agencies, surveys, and supplementary sources.

Results: The PMEP defined three levels of PrEP uptake for monitoring: screening, initiation, and retention. The goals were to identify trends in PrEP uptake and monitor for emerging disparities. Populations at highest risk of HIV acquisition in LAC, including Black and Latino MSM, Black cis-gender women, and transgender persons were identified as priority populations. PrEP uptake goals were adapted from LAC's established goals and were highest for Black MSM (51%), followed by Latino MSM

(21%), transgender persons (20%) and Black cis-gender women (11%). To date, data have been obtained from seven sources identified in the PMEP. These include screening, initiation, and retention data from DHSP-funded clinics, self-reported PrEP use from behavioral surveillance and app-based surveys and prescription data.

Lessons Learned: While PrEP implementation preceded the development of the PMEP, the process of developing the plan enhanced local capacity to monitor existing PrEP service provision and broaden the scope of PrEP uptake evaluation. Establishing definitions of PrEP uptake and defining priority populations was a challenging but crucial step. Involving programmatic, evaluation, and clinical staff helped to ensure that the definitions were meaningful and feasible. The PMEP is a living document and will be updated as more is learned about the priority populations and patterns of PrEP use. Next steps will include integrating data collected through PrEP monitoring efforts to refine definitions of priority populations and PrEP uptake goals. Additionally, several data sources were proposed in the PMEP as each contributes uniquely to the understanding of PrEP uptake in LAC. Evaluating the best use of each data system, data management techniques, and developing an analysis plan will be among the next steps.

Abstract 5295 - Developing a PrEP monitoring and evaluation plan in Miami-Dade County

Author(s): *Sarah Kenneally, Camille Lowe*

Issue: An analysis of the 2016 HIV testing data for Miami-Dade County, Florida found about 31,000 negative individuals were candidates for PrEP, but only an estimated 700 individuals were receiving PrEP services. The 99% of PrEP eligible candidates not engaged in care marked a missed opportunity to connect individuals to services during an HIV testing session. To support PrEP expansion and strengthen ongoing implementation efforts, monitoring population-based uptake efforts are critical. This analysis identified a need to develop a PrEP Monitoring and Evaluation Plan to identify data sources, key populations for uptake, and assist in developing a cascade of care for negative individuals.

Setting: Florida takes a national lead for new infections, with the epicenter of cases located in Miami-Dade County. In 2016, Florida Department of Health – Miami-Dade County (DOH-MDC) established PrEP medical services and expanded community capacity to increase uptake. As of December 2017, there are an estimated 1,204 individuals engaged in PrEP care.

Project: Florida Department of Health in Miami-Dade County (DOH-MDC) collaborated with the HIV Technical Cooperation Group PrEP Monitoring and Evaluation Work Group to develop a PMEP. The plan is intended to evaluate the local PrEP service model focusing on the uptake in identified key populations. The project scope involved identifying priority populations for PrEP uptake, data sources, data management, and the feasibility of evaluating PrEP uptake. This project filled a need to capture PrEP data and allow for a better understanding of the potential demand for PrEP services.

Results: DOH-MDC established a goal by 2021 to increase PrEP uptake by 500%. To achieve this result, implementation efforts need to focus on increasing PrEP uptake for gay and bisexual men with a diagnosed STD, Black and Hispanic women, and trans-identified women. There are four data sources identified that can track the progress of increasing uptake among these priority populations. The

collaboration with other jurisdictions identified other best practices that steer uptake including: utilizing awareness surveys, venue-based outreach efforts, data management systems, and examples of partner service questions used to monitor PrEP uptake.

Lessons Learned: PrEP implementation in Miami was further advanced than the PrEP Monitoring and Evaluation Plan. Establishing numerators and denominators of target populations was difficult and managing data stored in multiple systems was a challenge. This process was stimulating and critical to developing a robust cascade of care for negative individuals. Next steps will be to develop a large-scale PrEP awareness survey and refine partner services referral questions for PrEP.

Track C

Session C07 - Engaging Providers and Providing Engagement: The Role of Service Providers in HIV Prevention and Care

Room: A703-A704 (Atlanta Marriott Marquis)

Abstract 5722 - Engagement in care: characterization of provider-patient Interactions and HIV prevention from a population-based sample of HIV positive adults in Washington State from 2015-2016

Author(s): *Steven Erly, Jen Reuer, Tom Jaenicke, Chelsey Kaasa*

Background: Discussions during routine visits with HIV healthcare providers may serve as a key source of information and a point of intervention to ensure optimal care and prevention strategies. In spite of this opportunity, it is unclear how often these discussions occur in Washington State and what impact they have. The objective of this analysis was to characterize these interactions by: (1) Estimating the proportion of people living with diagnosed HIV who have discussions about prevention strategies and antiretroviral therapy (ART) adherence with their providers, (2) Comparing the risk behaviors of patients who have these discussions to those who do not, and (3) Identifying barriers for providers to have these discussions.

Methods: Participant demographics, HIV prevention strategies, and participant reports of discussions with providers about prevention and ART use were collected between 2015 and 2016 as part of the Medical Monitoring Project, a national representative surveillance system used to learn about people living with HIV from annual interviews. The frequency that participants recalled having discussions with their providers in the last 12 months about sexual activity, protecting partners and oneself from STD's and HIV, difficulty in getting ART, and missing ART doses were estimated using 2015 data and survey weights. The association of these discussions with safer sexual practices and ART dose compliance were measured using chi-square tests and Poisson regression on the unweighted 2015 and 2016 data. Barriers to discussion (language, race, sexual orientation, age, time since diagnosis, and attendance of non-Ryan White funded facilities) were evaluated using t-tests and chi-square tests.

Results: From the 178 participants in the 2015 sample, an estimated 45% of people living with diagnosed HIV in Washington State had a conversation with their doctor about preventing transmission, 66% were asked about their sexual activity, 76% were asked about problems taking ART, and 67% were

asked about missing doses. Among the 340 participants in the 2015-2016 sample, people who talked to their doctors about preventing transmission or sexual activity engaged in less high risk sexual behavior (RR=0.791, 0.7935; $p<0.001$, <0.001 ; respectively). There were no significant differences in the reported rate of missing ART doses between participants who were asked about missing doses and those who were not (1.6 vs 1.3 doses/month, $p=0.311$) or those who were asked about problems taking ART (1.6 vs 1.4 doses/month, $p=0.5896$). There were significant differences in the proportion of participants who were asked about sexual activity across race, language, and age ($p<0.05$). Older patients and those diagnosed more than 5 years ago discussed prevention strategies less ($p<0.05$). There were significant differences across age for rates of discussions of ART ($p<0.05$). Discussions of prevention strategies, sexual activity, and problems getting ART were more frequent in Ryan White funded facilities ($p<0.05$).

Conclusions/Implications: A large proportion of providers talk with their patients about ART use, but fewer discuss behavioral prevention. Participants who had conversations practiced safer sex. Differences between rates of discussion about sexual activity across language, race, and age suggest that providers may be uncomfortable discussing topics with certain groups.

Abstract 5595 - Communicating with health care providers about treatment as prevention (TasP) and viral suppression

Author(s): Dayna Alexander, Jocelyn Taylor, Monica Scales, Jennifer Uhrig, Mina Rasheed, Dayle Kern, Euna August, Jo Stryker

Background: Health care providers are essential in promoting the ongoing medical care of people with HIV (PWH). To encourage health care providers to integrate HIV counseling and education into their practice, the CDC provides evidence-based tools and resources through the Prevention IS Care campaign. This formative research study tested messages for health care providers about prevention, with an emphasis on treatment as prevention (TasP) and viral suppression.

Methods: In March 2018, semi-structured, one-hour phone interviews were conducted with a purposive sample of experienced HIV care providers (N=13). Interviews were audio-recorded and transcribed. Participants viewed messages about a range of prevention options, with an emphasis on TasP and viral suppression messages, including alternative statements for conveying sexual transmission risk, and provided their reactions and receptivity. A thematic analysis of the qualitative data identified patterns across interviews. Additionally, a brief survey was administered to collect data about participants' demographics and clinical practice. Descriptive statistics were calculated for the survey items.

Results: A majority of participants identified as white (61%), male (69%), practicing physicians (84%), and worked within an academic/university-affiliated hospital (62%). Participants were between the ages of 44 and 72 years and have been practicing medicine for 18 to 47 years. Approximately three-fourths (77%) of participants either specialized in HIV medicine or infectious diseases. Participants responded favorably to the messages about the prevention benefits of treatment, using condoms to prevent sexually transmitted infections (STIs), the importance of maintaining viral suppression, open-ended "conversation starter" questions for providers, and clear guidelines on the frequency of viral load testing for virally suppressed patients. Conversely, some participants expressed discomfort with their patients relying on TasP and viral suppression as their only strategy to prevent transmission and discussed

condomless sex as a possible unintended consequence of messages promoting TasP. Participants also acknowledged that determinants of health are barriers for medication adherence, raising concerns about their patients' ability to maintain an undetectable viral load. Participants requested that messages define what constitutes a "blip" and clarify biomarkers for suppressed viral load and undetectable viral load. Participants' preferences varied for the language to describe sexual transmission risk when a PWH has and maintains viral suppression. Of the five alternative transmission risk statements reviewed, participants consistently favored "effectively no risk," "almost no risk," and "extremely low to no risk," while "insignificant risk" and "negligible risk" were not preferred.

Conclusions/Implications: This study underscores the need for viral suppression messages that are transparent and encourage open dialogue between health care providers and patients. Findings indicate that messages and materials on TasP and viral suppression should consider the potential unintended effects of messaging and should be tailorable to address patient characteristics, needs, and understanding. Future studies should engage a broader range of health care providers, including those with less experience in practicing HIV medicine and infectious disease.

Abstract 5454 - Linkage to HIV care in emergency departments: understanding the core influencers of the implementation process

Author(s): *Carolyn Nganga-Good*

Background: Despite the advances in HIV prevention and treatment, the overall rate of those who are engaged in care and virally suppressed in US remains sub-optimal to the national and UNAIDS goals. Without being engaged in medical care, HIV-infected persons cannot take advantage of the lifesaving antiretroviral therapy that help them live nearly normal lifespans and help reduce transmission to others. Emergency departments (ED) have become a key venue for diagnosing new HIV infections and linking HIV-infected clients to care because they often encounter HIV-vulnerable populations. EDs struggle to identify the best models for ensuring that the clients they encounter are successfully linked to HIV medical care given the transitory nature of EDs. Identifying the best practices for engaging persons encountered in ED setting into medical care and bridging the gap between research and practice is likely to improve linkage to care (LTC) rates and ultimately health outcomes.

Methods: This study aimed to explore the core influencers (core components) of ED-based LTC programs and the organizational and provider influences (barriers and facilitators) of engaging HIV-infected persons who are encountered in ED settings into medical care. Qualitative research, case study and implementation science methodologies were used to explore these core components and influences. Participants were purposively selected from three U.S. urban EDs that have routine HIV testing programs. Data were collected via in-depth interviews and focus group discussions. Interview questions were generated from the Consolidated Framework for Implementation Research interview guide. NVivo was used for data management and to identify the central themes and subthemes.

Results: Three focus groups and seven individual interviews with program staff and leaders were conducted. Four central themes and nine sub-themes were identified as the core influencers of the LTC process. The sub-themes included: LTC protocols; access to HIV care and support services; staff and leadership engagement and support; organizational resources, infrastructure, and partnerships;

organizational values, culture, and reputation; staff stability, working relationships, and competence; provider perceptions; ethical and legal factors; and other external factors. Overall, active LTC protocols that incorporate immediate LTC to HIV medical care and referrals to other social and harm reduction services were more likely to be successful in engaging patients to HIV care. There are also organizational, provider, and external factors that need to be in place in order to facilitate easier and more effective LTC processes in EDs and successful retention in HIV care.

Conclusions/Implications: EDs are an important venue for identifying new HIV diagnoses early, linking them to care, and reengaging those who have fallen out of care back to care. Effective LTC practices have the potential of closing the gaps in the HIV continuum of care for better HIV outcomes. To accelerate closing the gap between research findings, practice, and policy, it is imperative to identify and adopt best practices that may help develop standardized protocols that are likely to successfully link HIV-infected persons to care with the goal of keeping them in care for better viral suppression and health outcomes.

Abstract 5494 - Lessons from the New York City translation of a care coordination program: Science-Based Translation of Effective Program Strategies (STEPS) to Care

Author(s): *Mary Irvine, Aisha Wilkes, Lydia O'Donnell, Katherine Penrose, Patricia Bessler, Julie Rwan, Athi Myint-U, Cari Courtenay-Quirk*

Background: Health outcomes improvement for people with HIV (PWH) and the success of treatment as prevention hinge on increasing the proportions of PWH who experience timely linkage to HIV care and consistent retention thereafter. Reducing gaps in the HIV care continuum demands interventions to address both challenges faced by HIV patients and challenges for service delivery. The Ryan White Part A-funded New York City (NYC) HIV Care Coordination Program (CCP) integrates multiple strategies to reduce agency-level and patient-level barriers to HIV care engagement, and has shown effectiveness among high-need PWH. The Centers for Disease Control and Prevention (CDC) partnered with Education Development Center (EDC) and the NYC Department of Health and Mental Hygiene (DOHMH) to translate evidence-informed CCP strategies into web-based tools and trainings for national dissemination. Three CCP strategies were highlighted and integrated into the Science-Based Translation of Effective Programs (STEPS) to Care Toolkit: (1) Patient Navigation, (2) Care Team Coordination, and (3) HIV Self-Management.

Methods: A 4-step translation process included: (1) consultation with CCP implementing agencies, (2) translation of strategies into tools, (3) pilot testing, and (4) refinement. Pilot site selection criteria included service delivery to at least 100 predominantly racial/ethnic minority PWH annually; documented difficulty with linkage, retention, and/or viral suppression; provision of medical care onsite or through a formal service partner; and staff availability (e.g., case managers). Agencies received a STEPS to Care orientation, along with onsite and remote technical assistance. Service delivery and client data were reported through the Electronic System for HIV/AIDS Reporting and Evaluation (eSHARE), a secure, web-based system maintained by DOHMH.

Results: Between July 2015 and February 2016, 5 agencies in 3 boroughs participated in the pilot, including 2 community health centers, 2 hospitals, and a community-based organization. Across

agencies, 127 participants were enrolled and followed; 54% were male, 74% black and 23% Latino. Ninety-four percent lived below the federal poverty level, 48% had less than a high school diploma, and 13% were unstably housed. Reasons for enrollment most often included antiretroviral treatment adherence difficulties (56%) and/or irregular care (53%); 90% had a current antiretroviral prescription, but only 58% were virally suppressed at baseline. Nine out of 10 received services beyond the intake assessment and half (54%) were engaged for over 3 months. Patient Navigation services were delivered to 80%; however, fewer than half (48%) received services for other strategies (e.g., case conferencing as part of Care Team Coordination). Tool use was highest during the intake assessment process; additionally, 40% of participants used the interactive, client-facing HIV Self-Management website.

Conclusions/Implications: Pilot agency reports demonstrate STEPS to Care was used in diverse settings with client populations likely to experience poor outcomes across the care continuum. Tools used included a mix of provider-facing practice aids and client-facing support. Findings suggest that STEPS to Care services reliant upon organizational change and primary care provider buy-in (i.e., multidisciplinary case conferencing) were more challenging to integrate than 1-on-1 Patient Navigation services, at least over the relatively short pilot timetable. The STEPS to Care toolkit will be available at <https://effectiveinterventions.cdc.gov/> summer 2018.

Abstract 5380 - Experiences of black gay, bisexual, and other men who have sex with men working in HIV/AIDS treatment and prevention

Author(s): *Marxavian Jones, Shamia Moore, Justin Smith, Jasper Hood, Gary Harper, Andres Camacho-Gonzalez, Carlos del Rio, Sophia Hussen*

Background: In the United States, Black gay, bisexual and other men who have sex with men (B-GBMSM) are disproportionately impacted by HIV/AIDS. Many B-GBMSM also work on the front lines of HIV prevention and treatment efforts. Little is known about how B-GBMSM experience this work, as both care providers and also members of a high-risk demographic group.

Methods: We conducted qualitative in-depth interviews with HIV service and care providers in Atlanta, USA, as part of the process of developing an intervention for young B-GBMSM living with HIV. The majority of respondents were B-GBMSM, and their unique experiences working in the field emerged as an important theme, which was subsequently incorporated into our interview guide. We used thematic analysis and a rigorous team coding approach to examine the resultant qualitative data.

Results: We interviewed 20 B-GBMSM ranging from 22-62 years of age, who had been working in health care and community-based organizations for an average of 10 years. Participants discussed advantages of working in the field as B-GBMSM, including (1) ways in which they could use their own personal experiences to connect with and inspire their clients; (2) ways in which shared experiences enhanced cultural competence in their work environments; and (3) personal fulfillment from helping others in their own communities. Participants also described significant frustrations, including: (1) tokenism; (2) limited power/ potential for career advancement within their organizations; (3) inadequate appreciation/compensation; and (4) difficulty maintaining boundaries between their work responsibilities and personal lives. The intensity of this work often led to “HIV Burnout”, in which

participants paradoxically suffered the same negative emotional and physical health outcomes that they were working to prevent in others.

Conclusions/Implications: B-GBMSM play important roles in HIV treatment and prevention efforts, and their involvement at all levels enhances the acceptability and effectiveness of HIV/AIDS interventions. In order to sustain these benefits to the community, however, there is a need for greater attention to the impact of this work on B-GBMSM employed in the field. Specifically, more attention should be paid to self-care and wellness of B-GBMSM, as well as career mentorship and opportunities for meaningful leadership roles within organizations.

Session C09 - Using Technology to Engage Diverse Populations

Room: Imperial B (Atlanta Marriott Marquis)

Abstract 6132 - HOME: an mHealth combination HIV prevention intervention for young black and Latino men who have sex with men

Author(s): *Hyman Scott, Kenneth Coleman, Rafael Gonzalez, Nicole Walker, Nicole Laborde, Albert Liu, Eric Vittinghoff, Susan Buchbinder*

Background: New HIV diagnoses are disproportionately higher among young Black and Latino men who have sex with men (MSM) in the US. Delays in HIV testing and undiagnosed sexually transmitted infections (STI) are drivers of new HIV infections, and targets for HIV prevention interventions. mHealth interventions that leverage high smartphone use among these populations may reach MSM who do not access traditional services. We developed and evaluated an mHealth intervention to increase HIV and STI testing, and PrEP uptake among young Black and Latino MSM in the San Francisco Bay Area.

Methods: Participants were recruited from January 2017 to February 2018 and were eligible if they were male, HIV negative by self-report, Black or Latino, between 18-35 years, and reported anal sex with >1 male partner in the past year. They were randomized 2:1 to the HOME intervention or control at baseline and followed for 9 months. The HOME intervention, developed through formative work, uses a mobile website with: the personalized HIV risk assessment tool, the Sexual Health Promotion (Sex Pro) Score; access to home HIV self-testing (Oraquick) and home STI self-collection; text message testing reminders; and PrEP information and referrals. Control participants received counseling and referral to local HIV/STI testing sites and PrEP referrals at baseline. The primary analysis used logistic regression to evaluate the primary outcomes of quarterly HIV and STI testing, and PrEP uptake assessed via computer assisted self-interview.

Results: A total of 102 participants were enrolled and overall retention was 78% at 9 months. The median age was 26.5 years [interquartile range (IQR): 23-31]; 34% were Black and 66% Latino. At baseline, men reported a median of 3 (IQR: 1-5) male anal sex partners in the previous 3 months, with no significant differences between intervention and control groups. Intervention participants were more likely to report ever having been incarcerated (22% vs 6.1%, $p=0.04$), having an annual income less than \$30,000 per year (61.5% vs 38.7%, $p=0.04$), and somewhat less likely to be extremely or very interested in PrEP (32% vs. 52%, $p=0.06$). During follow-up, intervention participants were significantly more likely to report any HIV testing (78% vs. 100%, $p<0.001$), and quarterly HIV testing [Odds Ratio (OR): 6.24; 95%

Confidence Interval (95%CI): 3.36-11.60; $p < 0.001$]; any STI testing (78% vs 100%, $p < 0.001$), and quarterly STI testing (OR: 5.95; 95%CI: 3.05-11.62; $p < 0.001$). Participants reported both HIV and STI testing was easy to use, and the mHealth intervention was acceptable with a mean System Usability Score of 80/100. Overall, 26% tested for HIV with a partner, friend, or family member. PrEP use at 9 months was low, and not significantly different between intervention and control groups (26.4 vs. 15.4%, $p = 0.3$).

Conclusions/Implications: The HOME mHealth intervention was acceptable, feasible, and efficacious at increasing HIV and STI testing among young Black and Latino MSM. The HOME intervention may be scaled to increase HIV and STI testing among Black and Latino MSM in other communities, and additional research is needed to understand how to improve PrEP uptake among Black and Latino MSM using mHealth.

Abstract 5854 - Development of a mobile contingency management intervention for PrEP adherence among young black men who have sex with men

Author(s): *John Mitchell, Tony McLaurin, Justin Frye, Mehri McKellar, Goutam Satapathy, Mackenzie Cottrell, Angela DM Kashuba, F. Joseph McClernon, Sharon Parker, N. Lance Okeke*

Background: Young black men who have sex with men (YBMSM) account for disproportionately higher rates of new HIV infections. While pre-exposure prophylaxis (PrEP) provides a strong preventative benefit, rates of adherence are variable and adversely impact PrEP efficacy. The objective of this study was to pilot test a smartphone-based intervention, called mSMART, that targets PrEP adherence. mSMART provides a low cost contingency management (CM) component in the form of monetary incentives for daily PrEP adherence based on a real-time adherence assessment using a camera-based medication event-monitoring tool, as well as medication reminders, PrEP education, individualized behavioral strategies to address PrEP adherence barriers, and medication adherence feedback.

Methods: This was an eight-week open-label, phase I trial in a community sample of YBMSM already on PrEP or initiating PrEP ($n = 13$). Average age of the sample was 25.15 years ($SD = 2.19$, range = 23 to 29). At study initiation, participants were on PrEP for an average of 9.47 months ($SD = 13.96$, range = 2 days to 48 months). Participants attended two laboratory visits immediately prior to and following the eight-week mSMART intervention.

Results: There was no study attrition. Preliminary analyses indicate high ratings for satisfaction, usability, and willingness to recommend mSMART to others (M 's = 3.15-3.62 on a scale of 1 [not at all] to 4 [extremely]). Perceived barriers to medication adherence improved for 62% of the sample ($n = 8$) at post-treatment. Participants logged doses in mSMART 80% of the time (range: 47% to 100%). The majority of the sample (85%) logged doses at least 70% of the time. Minor technical issues with mSMART emerged (e.g., connectivity issues) for some participants. Additional analyses including a semi-ordinal composite PrEP adherence score based on concentrations of tenofovir (TFV) in plasma and intracellular TFV- diphosphate in upper layer packed cells at prior to and following mSMART will be conducted—enrollment is currently ongoing.

Conclusions/Implications: This research is the first to apply a low cost CM to PrEP adherence and is targeting a group at high risk for HIV infection. Preliminary findings indicated that mSMART is feasible

and acceptable. Such an adherence intervention administered via a user-friendly smartphone application can allow for widespread dissemination. Future efficacy trials are needed.

Abstract 5594 - Potential mediators of a smartphone adherence game for young people living with HIV in the southern United States

Author(s): *Nicholas Tarantino, Lacey Craker, Laura Whiteley, Larry Brown*

Background: Adolescents and young adults (young people) account for over 20% of new HIV infections in the United States. Once linked to care, young people living with HIV (YPLH) struggle with treatment adherence. Consequently, compared to any other age group, they have the lowest rates of viral suppression. To address this issue, we developed a theory-driven smartphone adherence intervention aimed at improving HIV treatment adherence among YPLH. We examine our intervention's theoretical constructs in relation to youth viral suppression outcomes over the course of a 16-week randomized controlled trial (RCT).

Methods: Sixty-one YPLH aged 16 to 27 years with a detectable viral load (>20 copies) were recruited from an HIV clinic in the southern U.S. to participate in an RCT. Half of participants were randomized to a smartphone adherence game which included text message reminders and the other half received the control condition (a smartphone game unrelated to HIV treatment). In addition to health functioning, participants were assessed on the following theoretical constructs related to the Information-Motivation-Behavioral Skills (IMB) model at baseline (T1) and six (T2) and 16 weeks (T3) post-baseline: adherence-related social support, information, motivation, and behavioral skills.

Results: Most YPLH identified as male (79%), MSM (71%), and Black/African American (97%), and 36% had recently started antiretroviral therapy (ART). By T3, 53% had an undetectable viral load. Initial analyses using repeated measures ANOVAs revealed no significant intervention effects on IMB constructs. However, subgroup analyses of participants by ART status (newly-initiated vs. experienced) demonstrated that ART-experienced YPLH who received the intervention had an increase in adherence-related social support compared to ART-experienced control participants. Similarly, newly ART-initiated YPLH in the intervention had an increase in HIV knowledge compared to newly ART-initiated control participants. A second set of analyses examined the association between change in IMB constructs and likelihood of being undetectable at T3. In logistic regression models controlling for the effect of the intervention, increases in social support from T1 to T2 (odds ratio [OR] = 5.88, 95% confidence interval [CI] = 0.95, 36.39, $p = .057$) for ART-experienced YPLH and increases in treatment motivation (OR = 9.78, 95% CI = 1.35, 70.09, $p = .024$) from T1 to T2 for newly ART-initiated participants were associated with higher likelihoods of being undetectable at T3.

Conclusions/Implications: While findings from our study should be interpreted with caution given the small sample size, they provide an initial evaluation of how a game-based smartphone app paired with text messages may reduce the viral load of YPLH. We found that our intervention affected different theoretical mechanisms for newly ART-initiated vs. ART-experienced YPLH. Further, different mechanisms between these subgroups may also influence treatment adherence and health outcomes. Future intervention development should consider the possibility of using distinct strategies to engage YPLH based on their exposure to ART.

Abstract 5968 - "I ain't ready to die": mobile technology for healthy aging among older HIV positive black men who have sex with men

Author(s): *Judy Tan, Anna Napoles*

Background: People living with HIV are living longer in the U.S as a result of antiretroviral therapy. Black men who have sex with men (MSM) are disproportionately affected by HIV and have low rates of engagement in HIV care and treatment. Mobile technology holds tremendous promise as an intervention platform, but little is known regarding its use among older Black MSM with HIV. The main goal of the study was to explore the intersection of aging, living with HIV, and mobile technology to inform mHealth intervention development for improving HIV care engagement among older Black men living with HIV.

Methods: A total of 12 Black MSM living with HIV age 50 or older participated in in-person, semi-structured interviews exploring issues of aging, HIV care engagement, and mobile technology use. Participants were recruited using purposive sampling to participate in a one-time in-person interview to explore the role of mobile technology in care engagement among older Black MSM living with HIV. Recruiters distributed study materials containing a dedicated study phone number at AIDS service and community-based organizations serving Black MSM in the Bay Area and social venues (e.g., local bars, cafes). Potential participants were screened by phone for eligibility. Individuals were eligible if: they identified as Black or African-American and a cisgender man at the time of the study; was currently living with HIV; owned a personal mobile telephone device; and was 50 years or older. We chose the age threshold because overwhelming evidence demonstrates that aging syndromes (e.g., frailty, HIV-associated neurocognitive disorders) occur earlier (i.e., by age 50) in people living with HIV. An interview guide was used to explore overlaps among the topics of aging, HIV care and treatment, and mobile technology. Sample interview questions include, "What does aging mean to you," and "How do you use your mobile phone in your health care?" Each interview lasted approximately 1.5 hours, and were audiotaped and transcribed for analysis.

Results: A total of 12 Black cisgender men (Mean=57.7; SD=6.5 years) living with HIV participated in one-on-one interviews. Nine men reported receiving or applying for social security disability benefits; three men had full-time employment. Annual household income ranged from <\$10,000-\$55,000. All men reported currently taking antiretroviral medications. Length of time on antiretroviral therapy (ART) ranged from three to >22 years. Almost all men appreciated having survived the AIDS epidemic. Some expressed discomfort and ambivalence toward aging. Men described various levels of engagement in HIV care and treatment, with challenges including social isolation and need for support that was not focused on HIV. Almost all described using mobile technology to engage in healthcare, while some referenced important barriers and challenges to technology use.

Conclusions/Implications: Findings highlighted a high level of interest toward a mobile technology-based intervention targeting older Black men, but also identified barriers and challenges to using mobile technology for healthcare engagement, some of which were related to aging. Mobile technology is well-incorporated into older Black MSM's lives, and shows potential as an intervention platform for addressing aging issues to enhance engagement in HIV care and treatment.

Abstract 5522 - Structural barriers to participation in ecological momentary assessments for young MSM and trans women living with HIV in San Francisco

Author(s): *Caitlin Turner, Sean Arayasirikul, Dillon Trujillo, Victory Le, Erin Wilson*

Background: Ecological momentary assessments (EMA) are data collection tools administered in real-time via text messaging or other internet-mediated technologies. With widespread cell phone access, EMA are becoming more available to even the most disenfranchised communities. For young men who have sex with men (MSM) and trans women (TW) living with HIV, EMA text prompts provide a critical outlet for real-time communication, assistance, and linkage to HIV-related care. However, structural barriers such as housing instability, competing needs (i.e., foregoing HIV medication to pay for food), incarceration, and educational constraints disproportionately burden young MSM and TW living with HIV and threaten participation in HIV-related research and interventions. This analysis aims to identify the structural barriers to engagement in EMA text-message data collection nested within a novel digital HIV care navigation intervention for young MSM and TW living with HIV in San Francisco.

Methods: A total of 10,800 EMA SMS text messages were delivered daily over a period of 90 days to 120 participants enrolled in the Health eNav intervention at San Francisco Department of Public Health in 2017-8. Text messages inquired about participants daily affect, sexual behaviors, substance use, and treatment adherence. Text message completion was calculated after 30, 60, and 90 days of follow up. Characteristics of non-starters (i.e., those who provided less than 4 complete responses to the first 7 EMA text prompts they received) were identified in crude analyses. Multivariable Cox proportional hazards regression models were used to analyze the demographic and structural correlates of days to first weeklong or more discontinuation of responding to EMA text prompts.

Results: Participants completed 4,384/10,800 (40.6%) EMA text prompts. Completion of 70% or more of EMA text surveys was attained by 56/120 participants (46.7%) at 30 days of follow-up, 40/120 (33.3%) at 60 days of follow-up, and 30/120 (25.0%) by the end of the 90-day study period. Twenty-eight participants (23.3%) were identified as non-starters, and were more likely to be recently incarcerated (prevalence ratio, PR=2.3, $p<0.01$), forego basic needs for HIV medications (PR=2.4, $p<0.01$), and be diagnosed with HIV in the last year (PR=2.2, $p<0.05$). Adjusting for non-starter status, young MSM and TW who lived in SROs, hotels, halfway houses, or jail (adjusted hazard ratio, aHR=1.8, 95%CI=1.1-3.0), those who had to forego HIV medications to afford basic needs (aHR=1.7, 95%CI=1.1-2.7), and those who completed high school or a GED compared to those who completed college (aHR=3.5, 95%CI=1.4-9.0) had a higher hazard of weeklong or more discontinuation of responses to EMA text prompts.

Conclusions/Implications: While access and use of technology is increasingly ubiquitous, this analysis demonstrates persisting gaps in EMA engagement by structural factors such as incarceration, education level, housing, and competing needs for young MSM and TW living with HIV in San Francisco. Moreover, those recently diagnosed with HIV were more likely to experience an immediate drop-off in responding to EMA text prompts. These findings suggest that EMA is feasible and that HIV prevention technologies addressing the aforementioned barriers and leveraging similar methodology may be critically effective for young MSM and TW living with HIV.

Special Sessions

Session SS11 - The Role of the Pharmacy in HIV Care and Prevention

Room: A706-A707 (Atlanta Marriott Marquis)

Abstract 6186 - The Iowa Pharmacy Association's community-based pharmacy HIV point of care testing project

Author(s): *Kellie Staiert*

Background: In 2017, 125 Iowans were newly diagnosed with HIV, 35 (28%) had lived with HIV for a significant amount of time before being diagnosed, these “late testers” are patients with a diagnosis of AIDS within 3 months of their initial HIV diagnosis. In Iowa, there are 12 Iowa Department of Public Health (IDPH) funded rapid HIV testing sites and 71 federally qualified health centers (FQHCs) to implement routine opt-out HIV testing. However, these sites do not cover all of Iowa’s 99 counties nor the 28% of Iowans living with HIV in more rural areas. Existing local pharmacies have the opportunity to provide testing services in areas of Iowa currently lacking services. These pharmacies can then link positive reactive patients to HIV care and treatment services to prevent transmissions to others and begin treatment. The objectives of the pilot project are to: 1.) provide technical assistance and trainings to support the implementation of HIV screening within Iowa community-based pharmacies, and 2.) monitor preventative services guidelines and develop the framework for a best practices manual for community-based pharmacies.

Methods: A feasibility survey was distributed to selected pharmacy sites within Iowa counties lacking HIV rapid testing services. Interested pharmacies returned a letter of understanding and commitment to the multi year project. Testing policies and procedures were established and an economic model for the Community-based Pharmacy HIV Testing program was created. A marketing campaign with patient and public education was created and distributed to the community and surrounding healthcare providers. Pharmacists were provided with trainings on the INSTI™ rapid HIV test, collection of client-level data for reactive tests, counseling on results as well as processes for confirmatory tests for reactive tests. Pharmacies were provided support on pharmacy modifications to incorporate HIV testing into their workflows.

Results: Eight Iowa pharmacies participated in the HIV rapid testing training program implemented by the Iowa Pharmacy Association (IPA) and IDPH. Each of the eight pharmacies received INSTI™ rapid HIV test kits, HIV Screening Case Report forms for reactive tests, usage logs to track the number of kits used and flowcharts for referrals to confirmatory tests. De-identified patient data is collected on reactive positive tests only. The pharmacies will begin testing patients prior to the January 2019 implementation goal.

Conclusions/Implications: Training and technical assistance provided by IPA and IDPH has been sufficient in creating eight new HIV testing sites in Iowa. The impact of community pharmacy HIV testing will be quantified through data collected in this pilot program. Future plans for the project include adding 30 additional community-based pharmacies in the next 2 years.

Abstract 1030 - Planning for pharmacy-based HIV testing implementation: CDC's HIV testing in retail pharmacies training and billing and implementation models

Author(s): *Gillian Miles*

Pharmacy-based HIV testing is a cost-effective, acceptable, feasible, and, for some people, a less stigmatizing model for identifying persons at risk for and living with HIV. Pharmacies are strategic settings to conduct HIV tests because they have the necessary infrastructure to integrate HIV testing into existing services. Pharmacies typically offer extended evening and weekend hours that make testing convenient and discreet, and it is estimated that 70% of rural consumers live within 15 miles of a pharmacy, and 90% of urban consumers live within 2 miles of a pharmacy. Pharmacies offer flexibility in terms of costing schemes and implementation options. Additionally, consumers view pharmacists as trustworthy sources of clinical information and services. In 2018, the Centers for Disease Control and Prevention (CDC) developed and began offering a nationwide training, "HIV Testing in Retail Pharmacies", to community and chain pharmacy and community-based organization staff. This presentation will provide evidence that supports the pharmacy-based HIV testing model, and describe CDC's "HIV Testing in Retail Pharmacies" training: its content, audience, length, and the available continuing education credits. It will review three pharmacy-based testing implementation models: standalone pharmacy, partnership with the health department, and partnership with community-based organizations. Persons who may conduct the rapid point-of-care HIV test include: pharmacists, pharmacy technicians, pharmacy retail staff, and embedded community-based organization staff. Three models of confirmatory testing and treatment linkage will be described: collaborative practice with medical facilities, health department initiated, and pharmacy referral. Finally, three billing models will be described: public/private cost sharing, third-party billing, and consumer-based payment.

Abstract 1038 - Role of pharmacy in HIV prevention care

Author(s): *Angela Bower*

In depth review of a retail health HIV prevention program discussing provider and pharmacist collaboration opportunities to improve patient access and adherence.

Abstract 1028 - Non-prescription syringe sales in community pharmacies for prevention of blood-borne pathogens among persons who inject drugs

Author(s): *Paul Weidle*

Persons who inject drugs (PWID) can substantially reduce their risk of getting and transmitting HIV, viral hepatitis, and other blood-borne infections by using a sterile needle and syringe for every injection. In many jurisdictions, persons who inject drugs can access sterile needles and syringes through syringe services programs (SSPs) and through pharmacies via non-prescription syringe sales (NPSS). Other than through SSPs, pharmacies are usually the only other option for a person to access a sterile syringe legally. However, legality of NPSS varies by state, and even within the same state or city, based on restrictive state laws, store policy, or an individual pharmacist's discretion. In 2015, of the more than 10,000 PWID surveyed through the National HIV Behavior Survey in 20 geographically diverse cities in the United States, 52% reported obtaining syringes from community pharmacies and 25% reported using pharmacies as their primary source of sterile syringes (*International Journal of Drug Policy* 62

(2018) 51“58). Additionally, from a 2015 survey of nearly 80% of the more than 1,000 community pharmacies in Massachusetts, where there is no limit on the number of syringes that can be sold, 97% of community pharmacies reported selling nonprescription syringes; they reported median sales per store of 75 per week or nearly 100,000 nonprescription syringes sold statewide per week (Journal of the American Pharmacists Association 57 (2017) S34-44). Pharmacies are ubiquitous in every community in the United States and access to a pharmacy is a socially innocuous act that can avert barriers such as travel distance and stigma of attending SSPs. However, pharmacists are not as well-equipped to offer PWID the comprehensive services an SSP often can. Minnesota, New York and California, have established pharmacy-based syringe access programs which provide a framework within which NPSS can be optimized. Pharmacists are positioned to apply harm reduction strategies among PWID by selling syringes, discussing safe syringe disposal, performing HIV and hepatitis C testing, administering recommended immunizations, providing counseling and education, assessing medications and adherence, and linking patients to appropriate healthcare. In addition, these pharmacists can counsel patients and family members on naloxone administration in order to address injection related opioid overdose concerns. This presentation will provide an overview of the unique opportunities and challenges of NPSS through community pharmacies and the training and resources pharmacists require to deliver effective harm reduction services.

Abstract 1026 - Retention in care among participants in the patient-centered HIV care model project: a collaboration between community pharmacists and primary medical providers

Author(s): *Kathy Byrd*

Background: Of the estimated 1.1 million people living with HIV in the United States, only 57% are retained in medical care. Community pharmacies represent environments uniquely poised to initiate and continuously address barriers to care and treatment. The Patient-centered HIV Care Model integrated community pharmacists with primary medical providers for patient-centered HIV care. The three main goals of the project were to increase: retention in HIV care, adherence to antiretroviral therapy and HIV viral suppression. This analysis describes the retention in HIV care outcomes. **Methods:** The model was implemented at 10 project sites throughout the country; each site consisted of a clinic and 1-2 community-based HIV specialized pharmacies that were part of the same national pharmacy chain. Clinics shared pertinent patient information (e.g., medical histories, medication regimens, laboratory results) with their partnered pharmacists for review, and pharmacists provided consultative services to patients. Depending on the type of identified medication-related problems, the pharmacists worked with their partnered clinic and/or patients to make recommendations and develop potential action plans and intervention strategies for problems identified during their review. Additionally, the pharmacists worked directly with all patients to provide adherence support. Persons were included in the analysis if they were HIV-diagnosed at least 12 months prior to enrollment, and were censored if they voluntarily withdrew from the project or were no longer clients of either the project clinic or pharmacy. We used log-binomial regression models to compare the proportion of persons who were retained in care (at least one medical visit in each 6-month period of a 12-month measurement period with a minimum of 60 days between medical visits), pre- and post- model implementation. Multivariable log-binomial regression was used to determine factors associated with retention, post-implementation. Each regression model included baseline retention (whether a person was retained in care pre-implementation). Participant demographics, type of pharmacist intervention, and number of

patient/pharmacist encounters were used as explanatory variables in the model. Results: A total of 765 persons were enrolled into the project with 680 persons included in the pre-implementation analysis. The plurality of those included in the pre-implementation analysis were non-Hispanic black (n=298) and male (n=487) with a median age of 49 years (IQR=39-56). Overall, retention improved 12.9% from 60.7% to 68.5%, pre- to post-implementation (p=0.002). The largest increase was seen among non-Hispanic black persons, who improved 22.6% from 59.7% to 73.2% (p=0.0002). Also, during the post-implementation period, non-Hispanic black persons (ARR: 1.27; 95% CI: 1.08-1.48), persons who received ≥ 1 pharmacist-clinic developed action plan (ARR: 1.51; 95% CI: 1.18-1.93), and persons who had ≥ 3 pharmacist encounters (ARR: 1.17; 95% CI: 1.05-1.30), were more likely to be retained when compared to non-Hispanic white persons, persons who did not receive a pharmacist-clinic developed action plan, and those who had.

Session SS14 - Addressing Community Concerns About Uses of HIV Data Through Engagement, Policy, and Law

Room: Regency VI (Hyatt Regency Atlanta)

Abstract 1032 - CDC community engagement, concerns raised, and how CDC has addressed them

Author(s): *Meg Watson, Donato Clarke*

CDC has engaged with partners in a variety of settings to gain input on cluster detection and response, and some partners have identified important questions about implementation of this work. This presentation will discuss themes identified during discussions with various constituent groups, including: the importance of community knowledge of and input into cluster detection and response; data protections and potential use of cluster data for non-public health purposes (i.e. in criminal proceedings); whether this work results in improved prevention efforts; and, whether interventions will respect the rights of people with HIV. This presentation will discuss how CDC has addressed these concerns.

Abstract 1035 - Best practices in protection of public health data

Author(s): *Amy Killelea*

This presentation will discuss findings from an assessment of protections for public health data conducted by NASTAD, including the extent to which state laws allow or compel health departments to share personally identifiable information, gatekeeper functions of the health department, and community engagement around data sharing. The speaker will also share best practices that health department can adopt to strengthen data protection, particularly as relates to the collection and use of molecular HIV data.

Abstract 1034 - Modernizing HIV criminalization laws: a national perspective

Author(s): *Carol Galletly*

Speaker will provide an update on recent and ongoing efforts to reform and modernize HIV-specific criminal statutes. Potential effects of statutes on effectiveness of public health prevention programs,

stigma, and public trust will be discussed, as well as consideration of potential steps to minimize harms to people with HIV.

Abstract 1036 - Modernizing HIV control laws: the North Carolina experience

Author(s): *Erika Samoff*

In 2018, the North Carolina Commission for Public Health voted to modernize the state's HIV control measures, a series of statutes written into state law in 1988. The changes incorporate new understanding about risk for HIV transmission. When a person living with HIV is in care, adherent to treatment, and virally suppressed for at least 6 months, they are now considered "not at risk" for transmitting HIV. The law now also takes into considerations other circumstances, such as having a partner who is taking pre-exposure prophylaxis. This presentation will discuss how and why the laws in North Carolina were changed and what other states can learn from NC's experience.

Storytelling

Session ST04 - Missing Pieces in HIV Prevention

Room: Learning Center (Hyatt Regency Atlanta)

Abstract 5589 - Defining the population of transgender women for quantitative research

Author(s): *Evelyn Olansky*

Set the Scene: For over a decade, CDC's Division of HIV/AIDS Prevention (DHAP) has considered how best to include transgender populations in their programmatic and research efforts. In particular, DHAP's Behavioral Surveillance Team recently expanded their National HIV Behavioral Surveillance (NHBS) efforts to include a special population project focused on Transgender Women (NHBS-Trans), with 200 participants in each of 8 major U.S. cities. As an openly transgender woman, I've worked on NHBS-Trans over the past 3 years in a number of roles at the grantee and federal level. Throughout NHBS-Trans piloting and development, the question of sample composition and eligibility criteria remained a central concern and topic of debate – first among CDC staff and consultants, and later among grantees and their stakeholders.

Experience: Some grantee sites expressed concern that non-binary and genderqueer community members would not meet eligibility, potentially harming community buy-in from participants with excluded friends. Conversely, other grantee sites expressed concern that expanding eligibility criteria beyond transgender women risked splitting the sample into related but distinct groups, damaging the potential significance of any findings. CDC led a decision-making workgroup by which grantees proposed revised eligibility criteria and questions, culminating in a ranked-choice vote among the favored proposals. This workgroup process increased our grantees' stake in the project's final design, and equipped site staff to more thoroughly discuss the project design with local stakeholders.

Lessons Learned: As with many communities, Transgender communities are not monolithic, and some community members may disagree on seemingly fundamental concepts depending on their local cultural norms. As we found, even a diverse array of transgender stakeholders and experts from across

the United States may struggle to identify a singular solution that is acceptable to and inclusive of all who wish to be included. CDC staff and grantees alike had to learn how to strike a balance between community buy-in, implementation concerns, statistical feasibility, government approval and oversight, and maintaining comparability to previous cycles of NHBS. Ultimately, all parties had to compromise their ideal vision of the project to create a workable plan of action for all sites. Perhaps the hardest lesson was in learning that our aspirations as a team were not the primary limiting factor on our work.

Implications: Life as a transgender person may be fundamentally different depending on what city you live in, even selecting amongst traditionally Trans-friendly locations. While it has long been noted that transgender communities are easier to find in large, metropolitan areas than in small rural areas, awareness of diversity within and across transgender and gender non-conforming communities are relatively unexplored topics. Historically, the greatest missteps in transgender research have been omissions, beginning with the refusal to recognize our existence, followed by several awkward decades of misclassification, conflation with other groups, and assumptions of pathology. NHBS-Trans marks a point of inflection in the history of transgender representation in research, as our collective goals move beyond determining what is anecdotally acceptable towards synthesizing a nationally coherent approach.

Abstract 5714 - When disaster hits: integrating survival and HIV prevention - the example of Puerto Rico

Author(s): *Miguel Taveras*

Set the Scene: On September 6, as PROCEED staff were meeting and greeting colleagues from Puerto Rico at The United States Conference on AIDS (USCA), the island was hit by hurricane Irma leaving 5 people dead, close to 1 million people without power and over \$1 billion in damages (Time, 2017). On September 20th, Hurricane Maria hits Puerto Rico leaving mass destruction. This time it is reported that 4,645 people have died (70 times the official estimates) and damages are estimated at \$94 billion (Kishore et al., 2018).

Experience: On September 22, a planned quarterly call with HIV prevention organizations in Puerto Rico, fondly called "Boricua Task Force," could not take place due to the Maria's extensive damage to the island's infrastructure. However, there were organizations that managed to continue to offer some level of service. While PROCEED continued to support HIV prevention organizations in Puerto Rico from the capacity-building angle, PROCEED's leadership decided to do more and began a drive to collect emergency items and money for people on the island. PROCEED recognized that during this disaster situation HIV prevention needed to go hand in hand with life-saving assistance. In addition, those providing services also needed aid since they had not been spared from the impact of Irma and Maria.

Lessons Learned: These organizations did not have an emergency plan in place, however they continued to provide prevention services and assist the community after Irma and Maria. In New Jersey, PROCEED became a communication hub for all Puerto Rican prevention and treatment organizations to communicate with the mainland U.S. From September 28th, PROCEED began to host weekly calls and distributed information that was shared during the calls through email blasts. However, a lot more needed to be done. PROCEED began to collect monetary donations and emergency items from late

September to December 2017. In December, PROCEED sent \$9,000, a total of 126 boxes of emergency items and 153 cases of water. This aid reached the HIV prevention agencies on February 2, 2018. PROCEED staff were on-site to provide capacity building assistance and helped with the distribution.

Implications: Irma and Maria weren't the first hurricanes to hit Caribbean islands or the mainland and they won't be the last. The fact that these organizations were able to continue to operate and also provide emergency assistance was remarkable. PROCEED wants to make sure that going forward, we apply the lessons learned in the aftermath of Irma and Maria. As part of the continued work with the Boricua Task Force, PROCEED has worked to ensure that all organizations have service contingency plans in place. As you have seen bureaucracy can get in the way, the aid PROCEED shipped took months to reach the agencies, but we need to not be surprised, but rather find ways to address those issues as part of our plan.

I want to leave you with this question: Does your organization have an emergency plan?

Abstract 5680 - How structural violence and gender bias gives women HIV

Author(s): *Terri Wilder*

Set the Scene: Several years ago I was living in the South and received an email from a friend who I had lost touch with. I was excited to hear from her as she is a person who can really light up a room! We quickly set up a phone call to catch up on our lives. Hearing about her children, her work, and her many tales of adventure were a thrill. Near the end of our call she informed me that she had a recent change in her life—a diagnosis of HIV. I almost dropped the phone. She had seen 8-10 medical providers before she was finally diagnosed. She was consistently told that she had “mono”, “strep throat”, or a “sinus infection” despite the fact that she had lost 30 pounds in one month, was experiencing fatigue, fevers, and thrush. These medical institutions had failed her and almost killed her.

Experience: I was angry about her diagnosis. It wasn't rational but I believed that had we stayed in contact this would not have happened. I experienced an overwhelming feeling of guilt that I had let her down. Structural violence and gender bias were at work inching her closer to death and disability. After months of crying I made a commitment to make sure this never happened again. This commitment informs the work that I do developing clinical education trainings and tools for medical providers in New York State. In the past five years my team has developed an acute HIV clinical education video, an HIV testing video, clinical cards addressing HIV testing, PrEP, and PrEP, as well as a PrEP and Women course, and an HIV and Women's Conference. We are on a mission to train medical providers!

Lessons Learned: Women are not taken as seriously as their male counterparts when they enter the medical system. There is a culture of belief that women are not accurate judges of when something is truly wrong with their bodies. When it took my friend 8-10 medical appointments to get diagnosed with HIV she was being dismissed, misdiagnosed, and experiencing what Johan Galtung refers to as structural violence- a form of violence in which a social institution harms people by preventing them from meeting a basic need.

Implications: Structural violence, a form of violence where some social structures/social institutions prevent women from accessing a basic need like HIV prevention services is another form of violence against women. Women are often dismissed, told their health complaints are “all in their head,” and that they are overreacting. If we do not address structural violence and gender bias in our HIV prevention work every day to dismantle it women will continue to be at heightened risk for premature death and unnecessary disability due to HIV. Gender bias in medicine is largely unconscious and systemic. Challenging stereotypes about women begins today. All of the advances in HIV prevention are meaningless if the women who need it most can’t benefit from it. HIV prevention is a right. It will never not be.

Abstract 5348 - Recruit, involve, and commit: finding common ground for young men who have sex with men of color (YMSMC)

Author(s): *Benjamin Ignalino*

Set the Scene: Role: Program Coordinator of prevention program in San Diego, CA.

Background of story: Providing direct services to YMSMC at a local non-profit agency funded by the CDC. This is a story of conducting an activity for young people of color.

Experience: In February 2003, I was hired as a HIV Health Educator for the ITM program. One of my very first tasks as a new staff member was to recruit YMSMC to the program. Their responsibilities included outreach, plan social events, and build a social marketing campaign. To onboard new volunteers, a Peer Health education training was planned. The training would be held over the weekend in a retreat style format that included icebreakers, team building exercises and some creative crafts in addition to educational workshops.

The first retreat was held in July 2003 with 25 people in attendance from various ethnic backgrounds. I facilitated an activity titled Privilege Line and was looking forward to this activity because the group was still very much divided and socializing in silos.

After welcome introductions to the weekend, I set up this activity by placing participants shoulder to shoulder. The instructions are simple, 1. holds hands, 2. stay silent, 3. if you relate to the statement - move forward, if not, stand still, and look left and right to see who moved. I also informed them to hold hands as long as possible.

As the group moves through the exercise, participant begin letting go of each other’s hand. The line which initially was straight now looks like an expanded accordion. Then I read one statement that changed everything. It was “I love myself and who I am.” Once read, it was shocking to see that everyone stood still.

A debriefing followed and I ask the group how they are feeling. One participant replied “I love myself and who I am” was a hard statement to answer. One by one each participant what this statement meant to them. Some spoke about painful moments of rejection and others about not loving themselves at all. The discussion was filled with honesty, heartbreak, and hope.

Lessons Learned: I learned that there is a lot of trauma our clients experience that is not shared with us. My cross training in mental health, and substance use really came in handy but may not always get to the root of what is truly happening with a client.

I also walked away from this moment knowing that direct service provision involves much more than interventions and strategies being taught. My prevention toolkit requires ways to instill self-esteem and self-worth.

Implications: My direct service experience brings a humanness to the CBA work I do with organizations working with people of color communities. Asking CBOs to be vulnerable and to trust the process is very similar to what happened with the participants in the story. I walked away from this moment knowing that I need to create spaces for differences to be discussed and similarities to find each other.

Abstract 5602 - Beyond outreach; preventing career burnout

Author(s): *Edward "Eddie" Wiley*

Set the Scene: Picture it... Sicily... *insert Golden Girls audience laughter* Since 2006, I have actively served in several roles in the field of HIV (case manager, coordinator, you name it). In this story, I primarily serve as an individual community member and a service provider. This has allowed me to spend a lot of time with clients, colleagues and the community from various perspectives. Career burnout has consistently served as a cause for colleagues leaving the HIV field and could have a great impact on community buy-in and uptake to HIV prevention measures. As HIV service providers, we have to ensure that we are taking care of ourselves so that we can meet the goal of getting to no new HIV infections and prevent a drop in service.

Experience: Regretfully, I have been the casualty of career burnout. I have seen colleagues leave the field and never to return due to burning out. This is also sadly true for many of the same-gender loving, black men (SGLBM) that work in the field. I have seen the quality of service decrease from not only myself, but also from other service providers due to this burnout. Client-centered care has always been my priority and when I jeopardized my vow to the community, I found my motivation to continue fighting to “get to zero”. After being at wit’s end, I sought therapy and realized that self-deprivation was causing harm to me mentally, physically and emotionally. A few weeks later, I was recovering from an emergency surgery due to conditions caused from stress. I didn’t want that to happen to my colleagues.

Lessons Learned: Realizing that I was no superhero led me to be intentional with self-care. I now follow the advice that I had been giving clients. Once I started to take care of self, I was able to pour more into my roles. I was able to work more effectively with colleagues and provide better service to clients. I comprised a team of coworkers and community partners alike. These individuals served as accountability partners and we worked together to encourage work/life balance. It resulted in me being able to better communicate, supervise and ultimately decrease the turnover rate with my staff that was predominately made of SGLBM. Consistent coaching allowed me to assist my staff with time management, case inquiries, leadership development and even mindfulness. I shared my experience of feeling “not enough” in the field and even sometimes a “cast out” as a member of the community that I served.

Implications: Though the literature may not be there to corroborate career burnout specifically in the field of HIV, many service providers can cite a case of burnout in their lifetime or acknowledgement of colleagues’. Realizing burnout, we can identify how it affects us as providers in addition to our clients. As

a field, we have the responsibility of “Getting to No New HIV Infections”, and we can only get there if we take care of ourselves and each other.

THURSDAY, MARCH 21 | CONCURRENT SESSIONS | 8:30 AM – 10:00 AM

Track B

Session B10 - Effective Approaches for Recruiting Sexual and Gender Minority Adolescents, Young Adults, and Couples Into HIV Prevention Research and Programs

Room: International North (Hyatt Regency Atlanta)

Abstract 5715 - Increasing PrEP access for men who have sex with men and transgender women: implementing strategies to address social determinants of health

Author(s): *Cynthia Prather, Aisha Wilkes*

Issue: Research has demonstrated the effectiveness of Pre-exposure Prophylaxis (PrEP), a daily pill that prevents HIV infection. Although PrEP has been shown to reduce HIV transmission via sexual contact among men who have sex with men (MSM), transgender women (TG) and heterosexual men and women, inequities exist in the continuum of services related to PrEP uptake among African American and Latino MSM and TG women. Risk behavior alone does not explain these disparities. Thus, HIV prevention programs are focusing on addressing social determinants of health that may contribute to inequities across the PrEP continuum of services, from screening through PrEP prescription.

Setting: The Centers for Disease Control and Prevention funded twelve U.S. health departments to increase PrEP uptake among MSM and TG women, prioritizing persons of color.

Project: The PrEP Implementation, Data to Care, and Evaluation (PrIDE) project was funded to support twelve health departments to implement PrEP demonstration projects. Health Departments implemented multiple strategies, including developing and conducting PrEP-specific media campaigns, drafting policies and procedures that facilitate PrEP implementation, and establishing navigation programs to support PrEP clients dealing with barriers to PrEP adherence.

Results: During project planning, health departments recognized that reaching racial/ethnic minorities required attention to social and structural factors that negatively affect awareness, linkage, initiation, and adherence to PrEP. Presenters in this panel will discuss specific strategies implemented that addressed social and structural factors that may have impeded PrEP uptake. Participating health departments include Baltimore, Chicago, and Louisiana.

To address barriers contributing to HIV transmission among racial/ethnic populations, the Baltimore City Health Department initiated Baltimore in Conversation, which discusses medical mistrust and homophobia. This program uses storytelling as a key tool to educate populations about PrEP and encourage PrEP acceptability. To address health inequities in Louisiana, the health department implemented strategies to tackle systemic racism and homophobia. Strategies include instituting policies for the health department and funded agencies to undergo mandatory intensive, multi-day trainings, that address prevalent social barriers (i.e., racism and homophobia) and hiring navigators who represent the communities being served. In Chicago, provider training to address racism and cultural competency was integrated into PrEP programming.

Lessons Learned: The programs highlighted here, and from other jurisdictions, point to the importance of directly addressing health equity in order to effectively impact HIV in the U.S. In this opening presentation, lessons learned from other PrIDE funded jurisdictions will be discussed.

Abstract 5918 - The reach of Project PrIDE in Baltimore City, Maryland: are we serving those at highest risk for HIV infection?

Author(s): *Christina Schumacher, Aruna Chandran, Linxuan Wu, Vicki Tepper, Jamie Mignano, Jason Farley, Mimi Demissew, Renata Arrington-Sanders, Patrick Chaulk, Jacky Jennings*

Issue: Priority populations for HIV pre-exposure prophylaxis (PrEP) should be focused on those who are at highest risk for HIV acquisition. One way to identify local priority populations is to utilize local and recent HIV Surveillance data on new diagnoses. In Baltimore City, Maryland 2016 HIV surveillance data a high concentration of new diagnoses among Blacks/African Americans, men who have sex with men (MSM) and youth (aged 13-29 years). Our objective was to evaluate whether a CDC-funded demonstration project, titled the Baltimore PrIDE Project, that focused on increasing the provision of PrEP in Baltimore City was reaching local priority populations. Specifically, we compared characteristics of individuals enrolled in PrIDE to those newly diagnosed with HIV approximately three years after project initiation.

Setting: Baltimore City, Maryland, a setting with syndemics of HIV and STIs among priority populations.

Project: The project was implemented by a city health department, evaluated by an academic partner and conducted in collaboration with six clinic sites and one CBO. Activities included implementation of PrEP services at clinic sites; use of mobile outreach services and partner services for PrEP referrals; and social marketing campaigns to promote and educate priority populations about PrEP. Demographic and sexual and risk behavior information were collected on HIV uninfected individuals receiving HIV prevention services at sites between September 30, 2015 and March 31, 2018. Information was collected included demographic, sexual and other risk behavior information and HIV testing. Characteristics of PrIDE Project enrollees were compared to summary statistics for individuals newly diagnosed with HIV in 2016 as reported to the Maryland Department of Health using chi-squared tests.

Results: In 2016, 278 persons were newly diagnosed with HIV in Baltimore City. In the PrIDE Project, 10,518 persons received HIV prevention or care services at one of the seven participating sites, 29% of whom (n = 3,083) were eligible for PrIDE Project services. Of those who were eligible, 18% (n=542) enrolled in the program. Compared to those newly diagnosed with HIV, those enrolled in the PrIDE Project were significantly less likely to be Black/African American (78.1% vs. 61.6%, $p < 0.001$), more likely to be White (11.5% vs. 21.3%, $p < 0.001$) and similarly likely to be younger (13-19 years: 5.4% vs. 9.2%, $p=0.15$; 20-29 years: 40.3% vs. 42.9%, $p = 0.49$) and similarly likely to be MSM (57.6% vs. 55.5%, $p=0.36$).

Lessons Learned: Baltimore City's PrIDE Project is reaching priority populations including MSM, and youth. However, when compared to the racial distribution of the HIV epidemic in Baltimore City, Blacks/African Americans are underrepresented within the PrIDE Project. These findings suggest that

without intervention, the project could exacerbate existing HIV-related health disparities. Future work should focus on identifying barriers and facilitators to program enrollment among Black/African Americans compared to Whites to increase program enrollment among Black/African Americans at elevated risk for HIV.

Abstract 5882 - Achieving Health Equity with Partnerships and Community Engagement

Author(s): *Evelyn Green, Patrick Stonehouse*

Issue: Health Equity is a social justice issue which is addressed by the Chicago Department of Public Health (CDPH) engagement and includes promoting health in all policies for a collective impact and promotion of a culture of health in the city of Chicago. CDPH recognizes that health inequity must be addressed as it not merely unjust but harmful to the health and well-being of people affected directly and indirectly by its existence. We believe that equity is a process that requires giving individuals what is needed in order for equality for all people to be the outcome. CDPH adopted this concept as a framework for our application for grant 15-1506 as we are intentional to address health inequity. The core driver for health inequities, including but not limited to HIV transmission and other HIV-related negative health outcomes, is a racist system which perpetuates the health and well-being and fails to recognize and accommodate the health and social needs of black and brown communities. As parts of this racist system, CDPH and its community partners funded to implement PrEP services through PS15-1506 must confront this system and advocate for change for staff and clients, and must do so in a culturally responsive, trauma-informed, and healing manner.

Setting: CDPH funded 6 demonstration projects across the south and west sides of Chicago to implement PrEP clinical and non-clinical services focused on gay/bisexual/men of color who have sex with men, and transgender/non-binary individuals of color.

Project: To implement PrEP clinical and non-clinical services with navigation services and a focus on confronting social determinants of PrEP acceptance and adherence, to identify other health and social concerns which impede Black and Brown people in Chicago from accessing PrEP and other medical and social services, and to explore service delivery modalities outside of strictly clinical interactions in medical settings.

Results: The six agencies funded by CDPH to implement the grant 15-1506 PrEP demonstration projects are utilizing various models and activities for engaging persons in multiple activities to increase PrEP uptake in their respective community areas. Quantitative and qualitative data on various SDOH referrals and related access to primary care and STI treatment will be available during the presentation.

Lessons Learned: -The importance of openly confronting the racist systems which maintain and perpetuate the lack of health and well-being attainment for Black and Brown gay/bisexual/MSM and Black and Brown transgender/non-binary individuals

- Anecdotal data reveals that there is major concern by the transgender population related to PrEP and hormone interaction.
- The importance of engagement of communities for cultural responsiveness,
- The importance of partnerships to build capacity for PrEP availability,

- The necessity of navigation services in communities that have historically experienced trauma in addressing health equity,
- Efforts to include community advocacy groups in PrEP marketing and the identification of community needs and service gaps support strengths based approaches that draw on the resilience and knowledge of the communities.
- Cultural ignorance/stigma/transphobia continue to be significant barriers to equity.

Abstract 5976 - Relationship: increasing PrEP access for gay and bisexual men and transgender women of color

Author(s): *Erika Sugimori*

Issue: Research shows Pre-exposure Prophylaxis (PrEP) is highly effective at preventing HIV. While HIV severely impacts gay and bisexual men and transgender women of color, PrEP uptake among these communities is low nationwide. To address existing HIV health inequities, programs to increase PrEP access must take into account systemic factors affecting the daily lives of communities so appropriate strategies can be implemented.

Setting: The Centers for Disease Control and Prevention funded twelve U.S. health departments to increase PrEP uptake among MSM and TG women, prioritizing persons of color. The Louisiana Department of Health is one of these jurisdictions, funded to address these issues in the New Orleans Metropolitan Area.

Project: The PrEP Implementation, Data to Care, and Evaluation (PrIDE) project was funded to support twelve health departments to implement PrEP demonstration projects. The Louisiana Department of Health implemented multiple strategies, including a PrEP-specific marketing campaign and programs, policies, and practices to facilitate PrEP awareness and uptake. Strategies are developed and/or informed by people who belong to prioritized communities.

Results: Increasing PrEP access for gay and bisexual men and transgender women in Louisiana requires implementing strategies that increase opportunities for better health where people live, learn, work and play. However, recognizing systemic factors affecting communities is critical to ensuring program planning and strategies are appropriate and relevant to the priority communities. To ensure systemic factors are appreciated by multilevel staff involved in planning and implementation, the health department and funded agencies are required to undergo mandatory intensive, multi-day trainings addressing social barriers (i.e., racism, homophobia, transphobia). To ensure strategies are developed and/or informed by people who belong to prioritized communities, funded agencies are expected to hire navigators who represent the communities being served, and the Community Advisory Board (CAB) for the project is made up of a demographically representative group. These policies and practices ensure the work centers the voices and experience of prioritized populations in all social marketing, social media, and digital advertising, and that other recruitment strategies strive to address trust, service needs, communication, and relationship-building with the priority populations. The jurisdiction has observed success in raising awareness about PrEP and increasing access to gay and bisexual men and transgender women, but continues to work on addressing PrEP acceptability. Louisiana also looks to new and innovative ways to deliver PrEP to reduce barriers caused by social determinants of health.

Lessons Learned: It is important to harness the strength of relationships to increase awareness and uptake of PrEP in marginalized communities. The strategies described here highlight ways to address health equity in PrEP program implementation.

Session B24 - Campaigns, Evaluation, and PrEP Uptake: Lessons Learned from Project PrIDE

Room: Regency V (Hyatt Regency Atlanta)

Abstract 5782 - Evaluating StaySure: measuring the potential impact of a combination prevention, sex-positive media campaign in New York City

Author(s): *Kathleen Scanlin, Adriana Andaluz, Zoe Edelstein, Julie Myers, Lena Saleh, Pamela Rowland, Jennifer MacGregor, Demetre Daskalakis*

Background: The New York City Health Department disseminated the StaySure campaign via various media channels (print/outdoor/digital/radio) from December 2016-January 2017. Campaign goals were to promote use and awareness of combination HIV prevention strategies and its calls to action were: (1) to seek information about HIV treatment, PrEP, PEP or STIs either online, via Health Department website, or through the NYC phone directory (311); and (2) to use HIV treatment, PrEP, PEP and condoms, alone or in select combinations for HIV prevention. We evaluated exposure to and impact of the campaign among men who have sex with men (MSM) and transgender/gender nonconforming individuals (TGNC).

Methods: Data were derived from a citywide spring 2017 survey. Eligible participants were sexually-active NYC MSM, aged 18-40 and TGNC, aged 18 or older. Recruitment occurred at venues (bars/clubs) and virtually (websites/apps). Participants were shown campaign images and those who had seen any of them were asked to recall the message and whether they considered or took any of the calls to action as a result. Separately, participants were asked how efficacious PrEP is (highly/somewhat/not at all). Data were analyzed among MSM of color (self-reported Black and/or Latino race/ethnicity) and TGNC participants.

Results: This analysis includes data from 370 MSM of color and 30 TGNC participants. Overall, 73% (270/370) of MSM and 80% (24/30) of TGNC had seen the ad(s). When asked what the ad(s) were about, the most frequent responses were: PrEP [MSM: 44% (117/268); TGNC: 42% (10/24)], "making smart choices" [MSM: 39% (105/268); TGNC: 54% (13/24)], and condoms [MSM: 33% (89/268); TGNC: 33% (8/24)] and, among TGNC, that HIV treatment reduces transmission risk [33% (8/24)]. Among those who had seen the ad, 54% of both MSM of color (144/268) and TGNC (13/24) reported considering or actually taking at least one of the calls to action as a result. The most commonly reported by MSM of color were: considering taking PrEP [35% (50/144)], talking about the ad with friends or family [33% (48/144)], and using condoms more consistently [33% (48/144)]. The most commonly reported by TGNC were: using condoms more consistently [38% (5/13)], considering taking PrEP [38% (5/13)], talking to a doctor about PrEP or PEP [38% (4/13)] and visiting the NYC Health Department website [38% (4/13)]. There was a statistically significant difference in beliefs about PrEP efficacy by ad exposure; 63% of MSM of color who saw the ad thought PrEP was "very effective" compared with 54% of those who had not seen the ad ($p < 0.05$).

Conclusions/Implications: Results demonstrate high exposure to the StaySure campaign among priority populations in NYC. Over half of participants reported considering or taking an action as a result of seeing the ad(s), and data suggest the campaign was successful in influencing participants to discuss, consider, and/or adopt combination HIV prevention approaches. Results may overestimate exposure and impact in the general NYC MSM and TGNC populations due to social-desirability and nonresponse bias. Results that belief in PrEP efficacy was associated with exposure to the campaign suggest that social marketing may be related to PrEP literacy.

Abstract 5730 - Identifying community informed language to promote PrEP in racial/ethnic minority LGBT communities in Baltimore

Author(s): *Errol Fields, Amanda Long, Kehinde Bademosi, Ricky Granderson, Christina Schumacher, Aruna Chandran, Yvonne Kingon, Jacky Jennings*

Background: Significant HIV disparities affect LGBT populations, particularly racial/ethnic minority MSM and transgender persons. Public health messages directed at reducing disparities and specifically the language used in these messages, may inadvertently stigmatize LGBT populations. The overall goal was to identify important qualities of engaging and acceptable language for LGBT persons of color for a public health department PrEP campaign to reduce HIV transmission.

Methods: Unstructured focus groups designed to be participant-driven discussions were conducted among racial/ethnic minority LGBT persons and allies. Participants were recruited via health department social media and events. Discussions were audio-recorded, transcribed and analyzed in NVivo using categorical analysis and double coding until there was group consensus.

Results: 43 individuals participated in 8 focus groups; 89% (38) identified as sexual or gender minorities and 86% (37) as racial/ethnic minorities. Four themes for engaging and acceptable language emerged. 1) Participants suggested that culturally competent, community-informed and locally relevant language be utilized - "that's the problem with efforts...developed by often well-meaning people, who aren't part of the communities...anybody who is going to decide what populations should be served and what messages, should be here in Baltimore." 2) Participants suggested messages avoid language that stigmatizes behaviors or conditions. 3) They also recommend clinical language be made accessible to lay audiences - "define undetectable for them... people who are newly diagnosed [are] not going to know what that means." 4) Finally, include identity labels that are used by priority populations and acknowledge diversity of LGBT communities.

Conclusions/Implications: Our findings suggest that a PrEP campaign to reduce HIV transmission among LGBT persons of color needs to be developed through a community-informed process to avoid stigmatizing or presenting messages that do not resonate with this population. Ongoing engagement and partnership between public health and LGBT communities can facilitate the development of campaigns with engaging and acceptable language.

Abstract 5910 - Evaluation of the Let's Talk About PrEP marketing campaign

Author(s): *Christopher Barnett*

Issue: Though Truvada as pre-exposure prophylaxis (PrEP) was approved as an HIV prevention medication in 2012, the awareness and knowledge of PrEP in the community was low in Virginia, even in communities at disproportionate risk for HIV. In a 2015 DDP survey with men who have sex with men (MSM), over 50% of respondents reported that they were unaware of what PrEP was. The Let's Talk About PrEP social marketing campaign was designed and implemented in different waves to the information needs of the MSM and transgender community.

Setting: The Virginia Beach-Norfolk-Newport News Metropolitan Statistical Area (VBN-MSA) has a disproportionate burden of HIV relative to its population density and has the highest rate of HIV incidence in the state. While just 20.5% of Virginia's population, the VBN-MSA was home to 30% of the Commonwealth's living HIV cases, and 35% of Virginia's new HIV diagnoses were in the MSA during 2016.

Project: The Let's Talk About PrEP social marketing campaign was implemented in the VBN-MSA with the intended audience of MSM and transgender females. Within those two target groups, a focus was placed on minority individuals of the intended audiences.

The Virginia Department of Health contracted with Kaiser Family Foundation (KFF) to create the Let's Talk About PrEP campaign to meet the needs aforementioned. These needs included spreading the awareness of PrEP's existence, increase in knowledge of and resources for PrEP, and stigma reduction of PrEP. Formative and process evaluation was completed to assist in campaign messaging, including analysis of social media advertising reactions and focus groups. This assisted in assessing the awareness and knowledge of PrEP and community perception. Campaign assets were implemented through social media, out-of-home advertisements, and radio, television, and digital advertisements.

Results: The campaign has had an impressive reach since the beginning of implementation. All types of media placements have garnered a reach of over 26.7 million impressions in the assigned VBN-MSA. Knowledge of PrEP according to the same MSM survey from VDH has indicated an increase of 31%. The survey also showed 0% of respondents on PrEP in 2015 and 7% on PrEP currently. Additionally, after the first wave of campaign messaging occurred in the VBN-MSA, focus group participants showed and expressed knowledge of PrEP.

Additional focus groups will occur in July 2018. VDH hopes these groups will demonstrate a shift in knowledge and perceptions regarding PrEP due to subsequent campaign messaging. Messaging has focused on connecting community members to FAQs and resources as well as personal testimonials from members of the local community.

Lessons Learned: Upon implementing the campaign, an increase in PrEP awareness was achieved quickly and received mostly positive reactions from the public. Once individuals were aware of PrEP, however, there were many questions about it such as how to get it, what the side effects were, when you should and should not take it, etc. Additionally, members of the transgender community presented that HIV and PrEP were not their largest concern in life—opting to focus on employment, finding a TG-friendly provider at all, housing, and income.

Abstract 5693 - The impact of an innovative PrEP social marketing campaign in Los Angeles County

Author(s): *Shoshanna Nakelsky, Wendy Garland, Leo Moore*

Background: In 2016, the Los Angeles (LAC) County Department of Public Health Division of HIV/STD Programs (DHSP) launched an innovative marketing campaign to increase PrEP awareness, willingness and use among priority populations. Priority populations were defined as Black and Latino men who have sex with men (MSM) and transgender persons. LAC is a large, diverse county with a heavily saturated media market. The initial campaign utilized bold colors and eye-catching animated superheroes, called PrEP Protectors, to stand out in the marketplace. The message “PrEP is a daily pill that can prevent HIV” was printed under the graphics. Advertisements appeared online, on public transportation, and in local venues. Routine campaign evaluation was conducted via online survey to monitor community response. Survey data informed steps to modify the campaign to better address the needs of the priority populations. Community feedback from the survey resulted in the development of Simple Messaging that clearly and concisely addressed PrEP Awareness (“Did you know there is a pill that can prevent HIV?”) and Financial Access (“Did you know the pill that can prevent HIV (PrEP) is available for free or low cost in LA County?”). Response to the Simple Messaging campaign was tested within the survey prior to implementing the new messages.

Methods: Five survey cycles were conducted between April 2016 and February 2018. Each cycle recruited over 10 days via pop-up and banner advertisements on social network dating “apps” popular among LAC priority populations. To enhance recruitment of transgender individuals, in August 2017, a respondent driven sampling approach was implemented. A total of 5,276 LAC residents completed a survey. Of these, 1,239 respondents who identified as HIV-negative members of priority populations participated in the campaign evaluation.

Results: PrEP awareness increased among MSM and transgender respondents from 84% in April 2016 to 88% in February 2018. The Protectors campaign was seen by 32% of the respondents in the priority populations. Of these, 50% report taking steps to learn more about PrEP after seeing the campaign, including talking to a doctor (23%) and starting PrEP (8%). Respondents who reported familiarity with the Protectors were more likely to be aware of PrEP ($p < 0.001$) and to report using PrEP in the past year ($p < 0.02$) than respondents who had never seen the campaign. Impact of the Protectors compared to Simple Messaging was assessed among 322 respondents who were unfamiliar with the Protectors. A higher proportion of these respondents reported they were likely to talk to their doctor about PrEP (73% vs. 57%) or start PrEP (71% vs. 50%) in response to the Simple Messaging ads compared to the Protectors ad.

Conclusions/Implications: Over the reporting period, LAC observed an increase in PrEP awareness among our priority populations which coincided with the release of the Protectors campaign. Monitoring and evaluation of campaign outcomes were critical to maximizing the potential impact of the campaign. Simplifying messaging and addressing concerns of financial barriers, which may prevent priority populations from accessing PrEP, are promising strategies that could be considered by other jurisdictions to reach populations most affected by HIV.

Abstract 5959 - Local evaluation in PrIDE demonstration project

Author(s): *Brittany Marshall, Yamir Salabarría-Pena, Cynthia Prather*

Issue: Within the context of the social determinants of health, mass media campaigns, when combined with community mobilization and interpersonal communication, are expected to affect knowledge, attitudes, and self-efficacy. These factors then influence risk-reduction behaviors, such as condom use and PrEP adherence, which are in turn expected to reduce the prevalence of HIV. At present, there remains several gaps in the literature as it relates to media evaluation in HIV prevention, and evaluations of social media/internet campaigns targeting HIV are limited. Additionally, relatively few campaigns undergo outcome evaluation to determine effectiveness. The presentation will discuss successes of PrEP social marketing campaigns and the effects of PrEP media campaigns in cognitive and behavioral outcomes among providers, MSM, and Transgender persons.

Setting: The Centers for Disease Control and Prevention (CDC) awarded a 3-year demonstration project called “PrIDE” to 12 health departments to build their capacity to implement Pre-exposure Prophylaxis (PrEP) and to identify/re-engage people diagnosed with HIV into medical care. Priority groups include men who have sex with men (MSM) and transgender women, with a special focus on black/African Americans and Hispanic/Latinos.

Project: A unique feature of this demonstration project is the allocation of funding to implement robust process and outcome local evaluations for which grantees developed protocols utilizing the American Evaluation Association standards of practice and have engaged multiple stakeholders, including members of priority populations in the evaluations. In addition, this local evaluation component evolved from being a grantee individual activity to a Cluster Evaluation activity where both grantees and CDC are learning about evaluations that fall in five thematic clusters (i.e., Social Determinants of Health, Media, Navigation, Health Care Providers capacity activities, and Community Engagement). This panel presentation will focus on Media evaluations. In this multi-site demonstration project grantees tried to evaluate beyond campaigns exposure. Virginia Department of Health evaluated their provider training (i.e., public health detailing) campaign; The Los Angeles County Department of Health and the Michigan Department of Health and Human Services evaluated their PrEP social marketing campaigns, and the Baltimore City Health Department assessed PrEP social media activities.

Results: Virginia Department of Health will discuss results from a formative evaluation pertaining to Let’s Talk About PrEP campaign. Los Angeles County Health Department will explain the increment in PrEP awareness among respondents who saw the PrEP Protectors campaign and how clients responded to different prevention messages. Baltimore City will present their innovative approaches to social media analysis to engage and use acceptable language for LGTB persons of color when developing a PrEP campaign to reduce HIV transmission. New York City Department of Health and Mental Hygiene will share actions taken by priority populations as a result of viewing their PrEP campaign.

Lessons Learned: Enhancing evaluation of mass media in multi-site demonstration projects help provide a deeper understanding of implementation and success. Results will better inform how to reach priority populations using both traditional and social media in order to increase PrEP awareness and use.

Session B27 - We are the Demonstration: HIV Workforce Professional Development by and for Transgender Communities

Room: Regency VII (Hyatt Regency Atlanta)

Abstract 6036 - Translating high-impact prevention theory into practice in transgender programs

Author(s): *J Perez, B Laris*

Issue: To advance the prevention goals of the National HIV/AIDS Strategy and maximize effectiveness of current HIV prevention methods, CDC outlined the high-impact prevention (HIP) approach in 2011. HIP uses combinations of scientifically proven cost-effective, targeted and scalable interventions for maximum impact on the HIV epidemic. Although many agencies and programs implement high-impact prevention activities, frontline staff need support to connect their everyday tasks to the national goal of getting to zero new HIV infections.

Setting: In community-based organizations, essential members of the HIV prevention workforce, such as outreach workers, community specialists, HIV testers, and navigators are often new to the field with limited access to training and professional development. The presenters will share their personal experiences of the successes and challenges of integrating high-impact prevention activities into interventions designed for the trans community.

Project: ETR's Community Impact Solutions Project (CISP) collaborated with eight transgender consultants to design and deliver a two-day professional development institute for the transgender community working in high-impact HIV prevention. The Be The Change Institute was designed to expand the quality of high-impact prevention projects provided by and for transgender members of the HIV workforce. The Institute included a workshop on describing the national HIV priorities, defining high-impact prevention, and providing examples of the levels of interventions (individual, group, and community). This session will provide the foundation for understanding the theory of high-impact prevention. To help translate the theory to practice, the session include a small group activity to develop a recruitment plan for a transgender HIP intervention.

Results: As a result of the workshop, participants will be able to list the national HIV priorities, identify 3 types of high-impact interventions, and explain how high-impact approaches can be applied to the trans community.

Lessons Learned: Skills practice supports the integration of high-impact prevention approaches and supports the personal and professional growth of transgender members of the HIV prevention workforce. A group learning environment will also strengthen the support and provide mentoring opportunities for members of the transgender community.

Abstract 6047 - Managing projects for success in transgender communities

Author(s): *Tatyana Moaton, Adrian Neil*

Issue: Effective project management is an essential element to successful project implementation of high-impact prevention programs in the transgender community. Project management is the practice of initiating, planning, executing, monitoring and evaluating tasks, and closing the work of a team to achieve goals and meet specific success criteria at the specified time.

Setting: In community-based organizations, project management tasks are often assigned or delegated to staff members without formal managerial training or onboarding. Identifying opportunities to provide concrete skills and support enhances the likelihood of success for these teams and individuals. The presenters will share their personal experiences of the successes and challenges of managing high-impact prevention projects with the trans community.

Project: ETR's Community Impact Solutions Project (CISP) collaborated with eight transgender consultants to design and deliver a two-day professional development institute for the transgender community working in high-impact HIV prevention. The Be The Change Institute was designed to expand the quality of high-impact prevention projects provided by and for transgender members of the HIV workforce. The Institute included a workshop on the steps of project management, distinguishes what is and is not project management, and gives examples of successful management strategies from a trans-focused program. This session will provide the foundation for understanding project management and support effective practices. To operationalize one project management skill, the session will also include a small group activity to conduct a SWOT analysis of high-impact prevention program for the trans community.

Results: As a result of the workshop, participants will be able to list five steps in project management, evaluate strengths, opportunities, weaknesses, and threats, and explain how effective project management can support high-impact prevention interventions in the trans community.

Lessons Learned: Skills practice supports the effective project management of high-impact prevention approaches and supports the personal and professional growth of transgender members of the HIV prevention workforce. A group learning environment will also strengthen the support and provide mentoring opportunities for members of the transgender community.

Abstract 6050 - Stepping into strategic leadership in the trans community

Author(s): *Camille Lewis, Michael Everett*

Issue: Leadership is the process of how we connect or build relationships to achieve a common goal or task. An individual's style and approach will impact how others experience our skills and talents and how we inspire and motivate action. Working effectively in the transgender community requires strong and adaptive leadership skills.

Setting: In community-based organizations, formal leadership training for staff is often limited to managers and supervisors. Understanding leadership skills is essential to the successful implementation of projects and activities for all members of the workforce. These skills are the stepping stones to increased job performance and professional growth and advancement. The presenters will share their personal experiences of the successes and challenges of adopting new leadership approaches in high-impact prevention projects in the trans community.

Project: ETR's Community Impact Solutions Project (CISP) collaborated with eight transgender consultants to design and deliver a two-day professional development institute for the transgender community working in high-impact HIV prevention. The Be The Change Institute was designed to expand

the quality of high-impact prevention projects provided by and for transgender members of the HIV workforce. The Institute included a workshop on a situational approach to leadership, reviews leadership strategies to inspire diverse individuals, and gives examples of successful leadership experiences from a trans-focused program. This session will provide a new way of thinking about integrating leadership principles into program activities. To practice differentiating leadership styles, the session will also include a large group activity to match work styles and leadership styles.

Results: As a result of the workshop, participants will be able to recognize the difference between leadership and management, identify four leadership styles, and explain how different staff personalities necessitate different leadership styles.

Lessons Learned: Skills practice will support new thinking in ways to lead tasks, projects, and programs and support the personal and professional growth of transgender members of the HIV prevention workforce. A group learning environment will also strengthen the support and provide mentoring opportunities for members of the transgender community.

Abstract 6052 - Facilitation micro-skills to support high-impact prevention in transgender programs

Author(s): *Jahnell Butler, BA Laris*

Issue: Most high-impact prevention activities include presenting or sharing information with participants. Effective facilitation skills enable program staff in transgender focused programs to elevate the participants' ability to engage and integrate the information. Facilitation micro-skills and the ability to manage challenging situations can support a facilitator's dynamic delivery of the information and content.

Setting: High-impact HIV prevention activities and interventions integrate education and facilitation. The sensitive nature of the topics and experiences discussed in transgender program sessions may lead to emotionally charged sessions. Advanced facilitation skills training and practice can support the effectiveness of all staff to communicate effectively to support the learning and understanding of all participants.

Project: ETR's Community Impact Solutions Project (CISP) collaborated with eight transgender consultants to design and deliver a two-day professional development institute for the transgender community working in high-impact HIV prevention. The Be The Change Institute was designed to expand the quality of high-impact prevention projects provided by and for transgender members of the HIV workforce. The Institute included a workshop on facilitation micro-skills, reviews approaches to managing challenging training situations, and provides tips garnered from group facilitation experiences from a trans-focused program. To practice facilitation skills, the session will also include a large group activity on responding to high intensity questions.

Results: As a result of the workshop, participants will be able to identify 8 facilitation micro-skills, recognize three ways to prevent challenging situations, and demonstrate one response to a difficult participant question.

Lessons Learned: Skills practice supports the application of facilitation micro-skills to enhance the delivery of high-impact prevention education sessions and support the personal and professional growth of transgender members of the HIV prevention workforce. A group learning environment will also strengthen the support and provide mentoring opportunities for members of the transgender community.

Session B31 - HIV-Related Health Disparities Among MSM of Color

Room: International South (Hyatt Regency Atlanta)

Abstract 5984 - Pathways among syndemic factors of violence, substance use, and HIV risk behaviors in black and white young men who have sex with men

Author(s): *Donald Gerke*

Background: YMSM are at disproportionately high risk for HIV. Results of research based on the syndemic framework suggest that violence exposure and substance use are individually and additively associated with increased HIV risk in MSM. Additionally, previous research has demonstrated that substance use mediates the relationship between childhood sexual abuse and HIV risk behaviors. Yet, the extent to which YMSM are exposed to different types of violence has not been well described, and few studies have examined potential pathways between violence exposure, substance use, and HIV risk behaviors in this high-risk population. Explicating the pathways between syndemic factors and HIV risk behaviors in YMSM may lead to targeted HIV prevention interventions. Therefore, the following research questions were pursued: 1) To what extent do YMSM experience adverse childhood experiences (ACEs, including child abuse), intimate partner violence (IPV), and community violence? 2) Is violence exposure directly or indirectly (through substance use) related to HIV risk behaviors in YMSM?

Methods: Participants were 168 YMSM ages 18-34 ($M=25.01$, $SD=3.58$) recruited from ASOs that provide HIV prevention services in two mid-sized midwestern cities. They were 57.7% Black and 42.3% White. Data were collected through computer-assisted personal interviews. Dependent variables were HIV risk behaviors in last 12 months: UAI (no condom AND no PrEP); multiple male sex partners (MSEX). Independent variables included the following syndemic factors: number of adverse childhood experiences (ACEs; BRFSS ACEs module; Bynum et al., 2010); intimate partner violence (IPV-GBM; Stephenson & Finneran, 2013); community violence (CDC M2 Victimization Scale; Dahlberg et al., 2005); hazardous drinking (AUDIT-10; Babor et al., 2001); drug abuse (DAST-10; Yudko, Lozhkina, & Fouts, 2007); polydrug use (lifetime, number of types of drugs used). Demographic variables included self-reported ethnicity (Black/White), education, income, employment (full time/part-time or unemployed). Data analyses included descriptive statistics, negative binomial regression, and simple mediation analysis using the PROCESS macro.

Results: Descriptive results indicated that a substantial proportion of YMSM experienced 4 or more ACEs (43%), IPV in the last year (58%), and community violence (35% experiences, 46% witnessed). Results of negative binomial regressions showed no significant direct relationships between violence exposure and HIV risk behaviors in multivariable models, controlling for demographics. However, mediation analyses indicated that number of ACEs and severity of IPV was significantly indirectly associated with MSEXP through lifetime polydrug use.

Conclusions/Implications: Findings suggest that YMSM experience different forms of violence at a greater frequency than the general population and previous adult MSM samples. Although violence exposure was not directly associated with HIV risk behaviors in this sample, number of ACEs and IPV did impact HIV risk through lifetime polydrug use. Incorporating screening, brief intervention, and referral to treatment for substance use into HIV prevention services provided by ASOs may aid in reducing HIV risk in this high-risk population. Future research should incorporate mental health as a potential mediator and test more complex mediating models, such as parallel or sequential mediation models. Findings may be generalizable to YMSM attending ASOs in mid-sized cities.

Abstract 5862 - Sexual and behavioral health disparities among sexual and gender minorities in the Northeast corridor: challenges and intervention opportunities

Author(s): Omar Martinez, Omar Valentin, Ethan Levine, Kristine Kim

Background: Sexual and gender minorities continue to be disproportionately impacted by sexual and behavioral health disparities. With growing health disparities among this group, the highest burden remains among Black and Latino/a sexual and gender minorities. Disparities in HIV/AIDS are further increased in the Northeast Corridor, an epicenter of the HIV epidemic in the U.S. Several psychosocial and structural conditions have been attributed to the high incidence and prevalence, including low socioeconomic status, lack of health insurance, discrimination, and educational attainment. This study analyzed sexual and behavioral health issues among cisgender men and transgender individuals who have sex with men in the Northeast Corridor.

Methods: The study included data from 280 participants who completed the screening instrument for a Minority AIDS Research Initiative (MARI) funded study focused on Latino men who have sex with men (MSM). Data analysis was conducted in 2018. Descriptive analyses examined the sexual HIV risk behaviors, depressive symptoms, childhood sexual abuse, and demographic characteristics.

Results: Mean age was 31 years and almost half self-identified as Hispanic/Latino (n=108, 45%). Most reported having health insurance (n=222, 87%) and being born in the U.S. (n=203, 79%). The majority self-reported anal sex in the past three months (n=201, 85%). Among those who reported being in a relationship (n=106), the majority (n=74, 70%) reported unprotected anal intercourse with primary partner in the past 3 months and a substantial number (n=60, 50%) reported unprotected anal intercourse with partners outside their primary relationship. The majority of the participants reported at least one experience of childhood sexual abuse before age 14 (n=115, 53%). Elevated odds of sexual HIV risk behaviors and childhood sexual abuse were found.

Conclusions/Implications: To our knowledge, this is one of the first studies to document the health and behavioral health disparities among a diverse sample of sexual and gender minorities in the Northeast Corridor. Given the high prevalence estimates of sexual HIV risk behaviors among those who disclosed being in a relationship, intervention strategies responsive to the wide range of relationships characteristics are needed. This study also sheds light on the high prevalence estimates of childhood sexual abuse among study participants. In fact, the prevalence estimates reported here are one of the highest found in the existing literature. This might be given to the way it was operationalized, including internet experiences where individuals were made to do sexual things against their will. Further

research, including longitudinal studies to understand the trajectories of risks, is needed to identify intervention opportunities in this population. In particular, HIV prevention interventions and programs should be responsive of the psychosocial and structural conditions associated with HIV sexual risk, including childhood sexual abuse.

Abstract 5550 - Social support and HIV testing among a sample of Hispanic/Latino MSM in North Carolina

Author(s): *Thomas Painter, Eunyoung Song, Jorge Alonzo, Lilli Mann-Jackson, Scott Rhodes*

Background: In the U.S., Hispanic/Latino men who have sex with men (MSM) accounted for 85% of HIV diagnoses among Hispanic/Latino men in 2015, and HIV infection trends among these MSM are cause for concern. HIV incidence among Hispanic/Latino MSM increased by 25.4% from 2008 to 2015 while it remained relatively stable among black MSM and decreased among white MSM. Engagement with HIV care is suboptimal among Hispanic/Latino MSM. The proportion of those who know of their infection, are promptly linked to care, are retained in care, and attain viral suppression, are below goals set by the National HIV/AIDS Strategy. Study findings suggest that social support may be associated with various HIV-protective actions, including HIV testing, by Hispanic/Latino MSM, and may potentially contribute to increased engagement in HIV care. However, research on the association between social support and HIV testing among Hispanic/Latino MSM has been limited, particularly in southern states where the HIV burden is heavy and where there has been rapid growth of Hispanic/Latino populations. We examined the association between social support and HIV testing among Hispanic/Latino MSM in North Carolina, where Hispanic/Latino populations increased more than 1,000% between 1990 and 2015.

Methods: Our analysis used baseline data from a sample of 304 Hispanic/Latino MSM participants in an efficacy study of a Spanish-language behavioral HIV prevention intervention designed for this population. Our baseline assessment was a Spanish-language instrument administered by Spanish speaking interviewers. We examined HIV testing as a dependent variable because it is the gateway to potential participation in high-impact prevention services, including PrEP use and HIV care and supportive services by seronegative and seropositive individuals, respectively. We used adapted scales to measure general and HIV-related social support. We measured HIV testing based on participants' self-reports of HIV testing during the previous 6 months. We assessed the social support-HIV testing association using logistic univariate and multivariable regression analyses.

Results: Participants' mean age was 30 years (SD=8.9). They had been living in the U.S. for a mean of 13.5 years; 91% were foreign-born (62% in Mexico); 45% had less than a high school education; and 64% spoke mostly or solely Spanish. Most (66%) self-identified as gay, 23% as bisexual, 5% as heterosexual, and 6% as male-to-female transgender. General social support and HIV-related social support were associated with HIV testing among Hispanic/Latino MSM in univariate (Adjusted Odds Ratio [AOR]=1.04, 95% CI=1.02-1.05 for general social support; AOR=1.12, 95% CI=1.08-1.17 for HIV-related social support) and multivariable models (AOR=1.02, 95% CI=1.00-1.04 for general social support; AOR=1.09, 95% CI=1.03-1.14 for HIV-related social support).

Conclusions/Implications: Both general and HIV-related social support were positively associated with HIV testing by Hispanic/Latino MSM in our study. The role of socially supportive relationships on HIV

risks among Hispanic/Latino MSM needs to be better understood. These relationships may contribute to HIV-related resilience and represent a potential resource for improving participation by Hispanic/Latino MSM in a range of HIV prevention services and improving the effectiveness of HIV-related services for this vulnerable population.

Abstract 5826 - Missed prevention opportunities - reasons why young, black MSM with recent HIV infection did not access PrEP

Author(s): *Latesha Elope, Chastity McDavid, Ashley Brown, K Rivet Amico, Patrick Sullivan, Jeanne Marrazzo, Janet Turan, Michael Mugavero*

Background: In the United States, disparities in HIV infection rates have persisted, with new infections highest among young, Black men who have sex with men (MSM) in the Deep South. Despite approval of HIV preexposure prophylaxis (PrEP) in 2012, these disparities persist, and may be due in part to differential uptake of PrEP. As a part of in-depth interviews with newly HIV-infected young, Black MSM, we explored reasons they did not use PrEP services.

Methods: Twenty-three in-depth interviews were conducted with participants who were: 1) 16-29 years of age, 2) diagnosed with HIV within prior 365 days, 3) Black race, 4) self-identified as a cisgender male reporting sex with men 5) AND did not report prior use of PrEP. Participants were recruited from two university-based HIV Clinics in Alabama. Interview guides were grounded in a conceptual framework that includes Anderson's Behavioral Healthcare Utilization Model (ABM), including constructs for the situated Information, Motivation and Behavioral Skills theoretical framework to aid in subsequent intervention development. Coding and analyses were conducted by two independent coders with NVivo software using thematic analysis methods.

Results: The median age of study participants was 24 and most participants (84%) identified as gay. More than two-thirds reported being unemployed (37%) with half having an annual income from 0 to \$4,999 (47%). Only 11% had an advanced degree (defined as Bachelor's or higher) and most lacked health insurance (53%). Major themes that emerged as barriers to using PrEP, included: low perceived risk for acquiring HIV; lack of comprehensive knowledge about PrEP and where to access it; and lack of prioritization of initiating PrEP as an HIV prevention strategy. Many participants reported a perception that PrEP is only for people who have multiple sexual partners, and did not consider themselves to be at risk in that way. Also, many reported being aware of PrEP prior to diagnosis, but had little understanding about side effects, cost, insurance coverage and where to access PrEP. For the few participants who attempted to access PrEP, they reported low knowledge about how to engage in PrEP care among their peers and other leaders in the Black community. Finally, many participants did not prioritize PrEP as a prevention tool given their young age and lack of experience with utilizing healthcare in general.

Conclusions/Implications: Young Black MSM in the Deep South with recent HIV acquisition lacked understanding of HIV risk and the role of PrEP in HIV prevention. In these high-risk groups, targeted interventions are needed to change risk perception, knowledge, access and prioritization of highly effective HIV prevention strategies like PrEP among young, Black MSM.

Session B32 - Improving HIV Prevention and Care Services for Incarcerated and Homeless Populations

Room: Embassy A-C (Hyatt Regency Atlanta)

Abstract 5331 - The effectiveness of routine opt-out screening in three California jails: identifying people living with HIV and not engaged in medical care

Author(s): *Dennis Fleming, Hannah Johnson*

Issue: The California Department of Public Health (CDPH), Office of AIDS estimates that in 2016, approximately 13% of HIV-infected persons living in the State were undiagnosed. African Americans are 9 times and Latinos are 3 times more likely to be undiagnosed than their white counterparts. Similarly, African Americans are 5.6 times and Latinos are 1.8 times more likely to be incarcerated. Because African-Americans and Latinos are disproportionately affected by both higher rates of incarceration and undiagnosed HIV, routine opt-out HIV screening demonstration projects were implemented in select California jails to identify people living with HIV and engage them in care.

Setting: CDPH/Office of AIDS used a portion of its CDC 12-1201 Category B funds to implement routine opt-out HIV screening projects at three county jail systems in high HIV prevalence counties: Alameda, Orange and San Diego.

Project: These projects identified people living with HIV who were unaware of their status, and subsequently linked them to care and services. They also served as an opportunity to reengage people previously diagnosed with HIV back into care. As part of the continuation of care, these projects developed robust discharge protocols that not only linked formally incarcerated people to care, but also to other essential services needed to ensure successful retention in care.

Results: Over a period of four years (2014-2017), a total of 53,183 tests were conducted across the three projects. Of the 53,183, a total of 234 HIV positive persons were identified (0.4% positivity rate). Of those positives, 63% were newly identified confirmed positive (NICP) cases, and 37% were previously diagnosed positive cases. The majority (64%) of new positive cases were non-white individuals. Of these individuals, 35.8% were African American and 46.2% were Latino. Over one quarter (25.7%) of NICP cases reported no identified HIV risk factors and 58% stated this was their first HIV test, suggesting that a majority of NICP cases would not have been identified through other methods of medical screening or focused testing.

Lessons Learned: Three areas of note were determined to be crucial for building successful routine opt-out HIV screening programs in jails. First, the initial implementation process was facilitated by building respectful relationships with and among stakeholders. Second, due to differing medical structures, working with each jail required flexible implementation guidelines, such as location, timing, and number of test conducted. These parameters were not always in line with desired project implementation, but were necessary starting points. Third, initial project buy-in from high-level administrators was crucial until positive results began to build a case for program sustainability. With a positivity rate quadruple the Centers for Disease Control and Prevention's recommended threshold for cost-effective routine opt-out HIV screening in medical settings, the project outcomes reinforced the need for testing in jails and

eventually allowed the testing parameters to expand. All three current jail sites were able to continue their programs despite the funding ending in 2017.

Abstract 5969 - Interventions to increase engagement in HIV care among people with HIV (PWH) being released from incarceration: a systematic review

Author(s): *Christina McDonald, Darrel Higa, Mary Mullins, Terrika Barham*

Background: The prevalence of HIV among people in U.S. correctional facilities is four times that of the general population. Many facilities have instituted programs to identify inmates with HIV and provide treatment. Upon release to their communities of origin, ex-inmates with HIV have many competing service needs (e.g., mental health and drug treatment) and face challenges accessing HIV care. We conducted a qualitative systematic review to describe intervention strategies to increase engagement in care among people with HIV (PWH) recently released from incarceration and summarize this evidence.

Methods: We searched the CDC HIV/AIDS Prevention Research Synthesis (PRS) cumulative database of electronic searches (MEDLINE, CINAHL, EMBASE, PsycINFO) and manual searches to identify intervention studies for increasing care engagement among PWH recently released from prison or jail. Inclusion criteria were: 1) focus on PWH recently released from incarceration or planning release, 2) report of a measure of engagement in medical care after release, 3) conducted in the U.S., and 4) published between 1988 and 2018. We excluded international and qualitative studies and those that exclusively focused on inmates while incarcerated. Two reviewers independently screened titles and abstracts, and extracted data such as research design, intervention strategies and intervention effects from included studies. Discrepancy resolution occurred through discussion.

Results: Nine studies met inclusion criteria. Most studies (n=8) included intervention strategies implemented both pre- and post-release. The most common intervention strategies included discharge planning (referrals to services or making appointments for inmates), case management, peer navigation, and HIV education. Out of the nine, four studies employed a one-group research design. These four reported positive results. Two of these studies confirmed referrals to medical care with completed appointment rates of 83% and 100%. Another found a high percentage of people retained in care after the initial post-release visit (86%). The fourth study found significant positive associations between receiving intervention services as implemented at different sites and being linked to care within 30 days of release. Evidence from two-group studies (n=5; 4 were RCTs) was inconsistent. Two of the five studies found small, non-significant intervention effects on care engagement post-release. One study found null effects. One study did not have a large enough sample size to detect statistical significance, but a higher proportion (16% more) of the intervention group than the comparison group saw a health care provider post-release. One study found a significant difference on three measures of care engagement, although one effect (linkage to HIV care post-release) was not sustained at future assessments.

Conclusions/Implications: Common intervention strategies for engaging formerly incarcerated PWH in post-release HIV care include discharge planning, HIV education, case management, and peer navigation that are implemented both pre-and post-release. While the interventions show promise in one-group studies, those evaluated in two-group studies show mostly small, non-significant intervention effects. One limitation of this review is the small number of included studies. Developing strategies that consider

the competing needs of recently released PWH and testing intervention strategies with stronger research designs are important for facilitating engagement in HIV care post-release from incarceration.

Abstract 5541 - Transgender women, jail reentry & linkage to care: adapting and pilot testing Project START into Girlfriends Connect.

Author(s): *Barry Zack, Danielle Castro, Vanessa Warri, Luna Salemm, Katie Kramer, Jae Sevelius*

Issue: By the end of the session, attendees will be able to:

Project: This project pilot tested the first culturally relevant, theory-driven adaptation of the evidence-based intervention, Project START, to improve post-incarceration healthcare engagement among transgender women in the context of gender affirmation.

Girlfriends Connect aims to improve linkage to and engagement in four healthcare domains (HIV testing/treatment, substance use, mental health, and transgender-related medical care) by being responsive to participants' self-identified needs and incorporating a transgender-specific theoretical model, the Model of Gender Affirmation. Access to gender affirmation has been shown outside of the correctional setting to support linkage, engagement, and retention in care among transgender women who are living with HIV.

Results: Using the ADAPT-ITT adaptation model, the study team created an Advisory Committee, interviewed transgender women pre-release from custody, and interviewed jail custody and medical staff as well as community service providers about the needs of trans-women and gender affirming post-release services.

Girlfriends Connect adapted the Project START logic model, intervention assessments, and immediate release planning tools.

Data indicate that of those who enrolled, 71% were transgender women of color, 93% had ever been homeless, and 21% were living with HIV. Of those living with HIV, 100% of those in the Girlfriends Connect arm were linked to HIV care post-release, versus 70% of those in the treatment as usual arm. Of those participating in Girlfriends Connect intervention, 100% said they felt that they had benefited from participation and would recommend the program to a friend.

Lessons Learned: A theory driven evidenced-based linkage to care intervention can be successfully adapted for transgender women being released from jail. Participants found the intervention both feasible and were "happy with it." Additional efforts must focus on improving the lack of resources to provide trans-specific/inclusive reentry services. Overall, using the ADAPT-ITT model, a culturally relevant corrections-focused linkage to care intervention was successfully adapted for transgender women being released from jail.

Abstract 5697 - Addressing housing care services as HIV prevention

Author(s): *Kristina Santana*

Issue: Homelessness and HIV have a complex relationship, presenting challenges as providers work to improve disease outcomes for clients. When housing is provided, research shows there is improved health outcomes for those living with HIV (e.g., medication adherence, care retention, and viral load

suppression) and those at high risk of acquiring HIV. As prevention and care efforts continue, recognition of the impact that social and economic structures, such as housing, have on those who are at high-risk of acquiring HIV and PLWH is vital to ending the epidemic.

Setting: Housing instability impacts clients nationally in both urban and rural settings. The intended audience is for health department jurisdictions who are exploring how housing can be integrated into and impacts prevention services.

Project: This presentation provides an important opportunity to explore what programs and models are being implemented across various jurisdictions and how other jurisdictions can replicate what is being done. I will look at different health department housing services and success stories. In addition, I will include housing strategies and resources geared towards provider utilization. Lastly, I will examine different funding services available to support housing in prevention services.

Results: Stable housing empowers people at high risk of HIV and those living with HIV to better manage their health and quality of life. Among individuals who are homeless or marginally housed the rates of HIV infection are up to 16x higher than those stably housed. Additionally, the homeless men who have sex with men (MSM) population is 15x more likely to delay HIV testing than stably housed MSM. When housing is provided to people living with HIV, research shows there is a reduction in emergency room visits, hospitalizations, and opportunistic infections, as well as improved mental health and decreased mortality. Often clients are able to adhere to medication regimes and consistently schedule and attend provider appointments, which we know can lead to viral load suppression. This greatly benefits those at high risk because we now know that when clients are undetectable they are untransmittable.

Lessons Learned: For communities most disproportionately impacted by HIV, housing is one of the greatest unmet needs. Housing services is fundamental to health equity and disproportionately impacts specific populations, like substance use users, communities of color, or those with unmet mental health conditions. For the first time in the history of HIV within the United States, health departments and partners have the tools within reach to effectively end the national HIV epidemic. However, it can only be done if health departments effectively address the structural barriers that are impacting HIV services.

Track C

Session LB03 - Data to Care: Identifying and reengaging those who are out of care and improving retention

Room: A707-A706 (Atlanta Marriott Marquis)

Abstract 6206 - Health information exchange: a novel re-linkage intervention in an urban health system

Author(s): *Joseph Sharp, Christine Angert, Tyania McConnell, Pascale Wortley, Eugene Pennisi, C. Christina Mehta, Wendy Armstrong, Bijal Shah, Jonathan Colasanti*

Background: Outcomes related to HIV incidence, retention, viral suppression and mortality are poorest for persons living in the South, racial/ethnic minorities and those with who use substances. Health

information exchanges (HIEs) exchange surveillance and clinical data in real-time between the department of public health (DPH) and healthcare providers. HIEs can help to target the vulnerable out-of-care (OOC) population of patients living with HIV, potentially engaging more patients in care and reducing viral transmission. We describe an OOC population of patients living with HIV who continue to access medical care in the ED of a major urban health system in the Southern United States. We evaluated linkage to care and viral suppression outcomes of those patients after an HIE informed, social work (SW) led re-linkage intervention.

Methods: We conducted a retrospective cohort study of patients who generated an HIE alert in the Grady Health System (GHS) Emergency Department (ED) between Jan 1, 2017 and Jan 31, 2018. We excluded patients admitted to hospital. Six months of follow-up data were collected. HIE alerts are sent to providers when a patient known to be HIV+ by the Georgia DPH but without CD4 or VL in the last 14 months registers in the GHS ED. Providers then notify a social worker trained in HIV disclosures who contacts the patient, discusses the importance of re-engagement in care, assesses barriers to linkage/retention to care and provides a warm hand-off to a peer counselor at the Grady ID clinic. Multivariate logistic regression analyses used SW re-linkage efforts as the independent variable and linkage to care (clinic visit at Grady ID clinic or CD4/VL documented by DPH within 6 months) and viral suppression (VL < 200 c/mL) as primary outcomes. Covariates included age, gender, race, substance use, homelessness, and prior ART.

Results: Ninety-eight OOC patients generated an alert and 20 received the SW intervention (mean age 41 ± 12 , 70% male, 93% African American). Fifty-five percent were uninsured, 30% were unstably housed and 37% had a history of substance use. Overall, 39 patients (40%) linked to care and 14 patients (14%) achieved viral suppression within 6 months. Sixty percent of patients receiving the SW intervention linked to care in six months compared to 35% who did not receive the intervention. After controlling for possible confounding variables, patients receiving the HIE informed SW intervention were significantly more likely to link to care than those who did not receive the intervention [aRR 1.63 (1.0, 2.67)] but no difference was noted in viral suppression within six months [aRR 1.59 (0.54, 4.71)].

Conclusions/Implications: Out of care patients living with HIV constitute a vulnerable population. An HIE informed re-linkage intervention in a large urban ED increased the likelihood that OOC patients linked to care within six months of their ED visit. This result indicates that an HIE informed, SW-led intervention can increase linkage to care for vulnerable OOC patients living with HIV. HIEs also represent an opportunity to intervene with higher intensity linkage and retention strategies.

Abstract 6195 - The benefits of collaborative data exchange to identify out of care people living with HIV

Author(s): *Shedane Shaw, Sindhu Shamasunder, Crystal Lucas, Melissa Miller, Kathleen Brady*

Background: In 2016, 34% of people living with diagnosed HIV (PLWH) in Philadelphia were considered out of care (OOC). Absent real-time medical visit data generated by medical facilities (MF), Health Departments (HD) are limited to identifying OOC patients through laboratory reporting alone. The Cooperative Re-Engagement Controlled Trial (CoRECT) is a CDC funded study to assess the feasibility of a

collaborative HD and MF Data to Care (D2C) effort to identify, evaluate, and reengage OOC PLWH. This analysis evaluates the impact of the collaboration on identifying truly OOC PLWH.

Methods: Data were collected by the Philadelphia Department of Public Health (PDPH) between May 2016 and January 2018. OOC criteria were: Philadelphia resident; age ≥ 18 ; and receipt of care at 1 of 7 MFs during the first 12-months of an 18-month eligibility period, with no eligible lab and/or visit in final 6 months. The process was initiated by the submission of the 12-month in-care list (N=17,327) from MFs to the PDPH (Step 1). Through a collaborative data exchange between MFs and PDPH (Step 2), individuals were categorized as: in-care per MF (N=1,494; 9%), ineligible per PDPH (deemed in-care per surveillance, out of jurisdiction, incarcerated, deceased, transferred care, included in error, or evidence of updated care status) (N=15,012; 86%), or preliminary OOC (N=821; 5%). MFs and PDPH continued to exchange information on the preliminary OOC patients and generated a secondary OOC list (Step 3). OOC lists were finalized after list reconciliation and a case conference (Step 4). To control for differences in patient volume and familiarity with study procedures, aggregate data were analyzed for all facilities during their respective 1st, 6th, and 12th months of study participation. Percent changes in OOC population were calculated for each step of data reconciliation. Paired t-tests were conducted to determine differences in OOC patients between the preliminary and final OOC list across the 3 time periods.

Results: Among 821 preliminary OOC individuals identified in Step 2, the majority were Black (60%), male (62%), PWID (50%), and aged 50+ (45%). Step 3 data exchange resulted in a secondary OOC list, containing 613 patients (25% decrease; $p=0.10$). Step 4, or case conference between PDPH and MFs, identified 256 total patients for the final OOC group (58% decrease; $p=0.07$), representing the point in collaboration at which impact was greatest. There was a statistically significant reduction in number of OOC patients between the preliminary OOC and final OOC lists at all time periods ($p<0.01$).

Conclusions/Implications: The collaborative exchange of surveillance and clinic data between health departments and medical facilities can close the gaps that occur when utilizing a single data source. This systematic exchange significantly reduces the number of patients classified as OOC and allows for targeting of limited D2C resources to those who truly need them. Jurisdictions should consider a collaborative data exchange when implementing data to care programs.

Abstract 6128 - Intertwining roads: data to care, community health workers, and linkage to care

Author(s): *Marisol Gonzalez-Drigo, Daniel Taussig, Elexis Wright, Hilary Armstrong, Brittany Carminati, Micheal Brower*

Issue: How to maximize outreach and linkage to care resources and efficiently connect PLWHA to their HIV Patient Centered Medical Home. In order to achieve Getting to Zero, it is critical for people living with HIV to remain engaged in care and virally suppressed.

Setting: The Ruth M. Rothstein CORE Center is a part of Cook County Health (CCH), the third-largest public health services provider in the United States. The CORE Center's HIV program is the largest in the Midwest – in 2017, CORE provided over 17,500 ambulatory care visits to over 4,929 unduplicated patients with HIV, and 9,463 visits for medical subspecialty care. All ambulatory outpatients are also able

to access a range of medical specialty and subspecialty services, as well as ancillary services, as a part of a comprehensive, coordinated service package. In order to achieve Getting to Zero goals, CORE made it a priority to re-engage patients lost to care to achieve and maintain viral load suppression.

Project: CORE collaborated with data consultants to develop an electronic medical record (EMR) query to identify patients who were lost to HIV care; and then, partnered with the Chicago Department of Public Health (CDPH) Data to Care (D2C) project. The D2C project under CDPH utilizes surveillance data to identify patients who are lost to HIV care. Through this project, CORE submits the Lost to Care list generated from the EMR to CDPH on a monthly basis via CDPH's Secure File Transfer Protocol (sFTP) and then runs it through the Enhanced HIV/AIDS Reporting System (EHARS) for matching. The matched data is then returned to CORE Center within one week and is distributed amongst CORE Community Health Workers (CHWs) for outreach and re-engagement activities.

Results: Since April 2017, CORE has submitted 2,415 patients to CDPH for matching. CDPH matched 1,775 of these patients and supplied the following information: 222 patients were deceased, 568 patients transferred care elsewhere and 15 patients relocated out of jurisdiction. The remaining 1,610 patients were disseminated to CHWs for outreach activities. As of April 2017, 39% of these patients have been reengaged in care.

Abstract 6180 - Adapting, implementing, and evaluating an evidence-informed intervention to improve engagement in care among black MSM living with HIV in Alameda County, CA

Author(s): *Greg Rebchook, Rob Newells, Andrew Wilson, Lance Pollack, Janet Myers, Emily Arnold, Susan Kegeles, Daryl Mangosing, Marguerita Lightfoot*

Background: Finding ways to engage Black MSM living with HIV in healthcare is critical to reduce disparities, improve health, and reduce HIV transmission. AIDS Project of the East Bay (APEB) and the University of California San Francisco's Prevention Research Center (PRC) collaborated to adapt, implement, and evaluate STYLE, an evidence-informed intervention shown to improve engagement in healthcare among young MSM of color. APEB serves the most vulnerable and marginalized individuals in a community that is experiencing increasing homelessness, rapid gentrification, and associated cost of living increases.

Methods: APEB worked with local stakeholders to tailor STYLE for the target population and rebranded it as M+. M+ was intended to provide red-carpet HIV care in a community-based clinic, support groups, educational classes, wrap-around services (e.g., case management, transportation, nutrition assistance, referrals to mental health and substance use services), social marketing, community outreach, and mobile HIV testing. The UCSF PRC and APEB evaluated M+ through qualitative interviews with staff and participants and with longitudinal quantitative surveys with M+ program participants.

Results: Full implementation of M+ did not occur as planned due to a fire in the community clinic resulting in the suspension of services for more than 1 year. The interruption in clinical services, coupled with significant front-line and managerial staff turnover, and the loss of APEB's clinical staff required that the agency find innovative ways to deliver client-centered services to Black MSM living with HIV. The evaluation is ongoing with 73 baseline surveys and 42 follow-up surveys (6-7 months post baseline

on average) conducted to date. Follow-up survey data from these 42 men indicate that: 62% earned a 12th grade education or less and 79% earn less than 150% of the federal poverty level. In the past 6 months: 78% ran out of money for basic necessities at least once; 41% had been homeless or marginally housed; 41% had moved at least once—half of those due to increased housing costs and 54% of those individuals felt less connected to their community and found it more difficult to access their healthcare provider after moving.

At follow-up, 93% of participants reporting receiving APEB services in the past 6 months: 48% attended a class or group; 26% received mental health or substance use counseling; 62% received appointment reminders; 43% received case management; 50% received other navigation services; 19% received transportation services; and 52% received food. Over three-quarters (79%) of the participants received multiple APEB services in the previous 6 months (range: 2-7 service types).

All of the participants were living with HIV and 45% had an AIDS diagnosis. In the past 6 months, 88% reported seeing their primary HIV care provider, and 86% reported having a CD4 and Viral Load (VL) count: 55% undetectable, 12% detectable, 19% didn't know results.

Conclusions/Implications: Preliminary data indicate that, despite multiple implementation barriers, APEB successfully delivered client-centered services to extremely marginalized and vulnerable individuals. The program participants surveyed to date demonstrate considerable resilience by caring for their personal health despite facing multiple economic and housing challenges.

Abstract 6190 - Measure it to manage it: results from implementing a new documentation and tracking tool for community health workers to improve retention-in-care for high-risk HIV+ individuals

Author(s): *Emily Leung, Lindsay Senter, Vanessa Arenas, Dawn Middleton*

Issue: The Southern U.S. has disproportionately high HIV rates among minority populations; Southern states account for 44% of all people living with an HIV (PLWHA) diagnosis in the U.S., but only 37% of the overall population. Furthermore, PLWH in the South experience significantly lower retention-in-care rates compared to the rest of the U.S. Integrating Community Health Workers (CHWs) into service-delivery systems is a promising model to promote PLWH's retention-in-care, especially those fallen out of care. CHW programs require practical and efficient data tracking tools to describe CHW-client encounters and use data for continuous quality improvement (CQI).

Setting: The Southern States Initiative, funded by the Health and Human Services Secretary's Minority AIDS Initiative Fund, aims to strengthen care delivery systems and implement innovative strategies to improve retention rates for HIV+ clients among 2 federally-qualified health centers and 2 AIDS service organizations in Atlanta, GA; New Orleans, LA; Memphis, TN; and Houston, TX. CAI and the National Association of County and City Health Officials are providing training and technical assistance (TTA) to these agencies to support their implementation of a CHW model to increase rates of retention, adherence and viral suppression among minority HIV+ populations (e.g., MSM, youth, cisgender and transgender women).

Project: As there were no standard CHW-client documentation tools widely available during our initial literature and resource review, CAI developed a concise, easy-to-use, and evidence-informed CHW-Client Encounter Form (CEF) to support evaluation, with input from literature, agency staff, including

CHWs. The CEF is designed to collect data on client demographics, dosage, encounter information, clinical indicators, barriers to retention and adherence, and key CHW tasks. We used REDCap, a secure, cloud-based and HIPAA-compliant platform, to implement the form so that sites can enter, review, and analyze data online or offline or using tablets. Sites regularly review their data during individual TA and groups learning sessions to monitor program implementation, identify common barriers CHWs face with clients, communicate results and outcomes, and assess whether the project is effectively reaching goals.

Results: From November 2017-August 2018 across all four sites, CHWs entered data for 177 unique clients and 975 encounters (18% initial; 82% follow-up), with each encounter averaging 68 mins. 41% clients identified as African American/Black MSM, 5% Latino MSM, 16% young MSM, 22% cisgender women, and 7% transgender women. The top barrier to care identified was limited transportation/mobility (13.2% of all encounters), competing life priorities (10.7%), and mental health (10.6%). Clinical data collected from November 2017- May 2018 show promising outcomes; 59% clients experienced significant decrease in viral loads since CHW assignment, 86% clients who were virally-suppressed at assignment remained so, and 48% clients experience significant increase in CD4 count since assignment.

Track D

Session LB04 - Using Molecular Epidemiology for Outbreak Response

Room: A703-A704 (Atlanta Marriott Marquis)

Abstract 6155 - MicrobeTrace: retooling molecular epidemiology for faster public health action

Author(s): *Ellsworth Campbell, Anthony Boyles, Sergey Knyazev, Anupama Shankar, William Switzer*

Background: Increased frequency of HIV transmission cluster investigations and the increased availability of complex genomic data highlight a need for simple and secure methods that rapidly integrate and simultaneously visualize genomic and epidemiologic contact networks. A plethora of software tools is typically required to visualize and communicate cluster investigation data. HIV-TRACE, PhyloPart and ClusterPicker are widely used for detecting molecular HIV clusters, but they are not capable of integrating these results with partner services data. Recently, robust web applications like MicroReact and NextStrain have been developed to solve these problems in the academic realm but they lack sufficient security protocols to handle personally identifiable information, such as contact networks, that public health investigations rely upon. Social network visualization tools like Gephi and Cytoscape can render partner services data securely, but they cannot help users understand these data in the context of phylogenetic results. The existing patchwork solutions all present challenges in usability, portability, security and cost. To overcome these limitations, we developed MicrobeTrace as a data visualization platform custom-built to support state and local public health practitioners with HIV cluster investigations.

Methods: MicrobeTrace uses HIV-1 polymerase molecular sequences generated from routine drug resistance testing to infer molecular HIV clusters. MicrobeTrace allows users to integrate additional interview, laboratory and contact tracing data, to generate interactive and customizable visualizations to aid cluster investigations. These visualizations include integrated contact and pathogen genetic

networks, high resolution geographic maps, timelines, association diagrams, and more. Visual characteristics can be mapped to epidemiologic information in the data set (e.g., color for risk factor, size for number of contacts, shape for infection status). MicrobeTrace leverages the Google Chrome web browser and therefore does not require administrator access, a common requirement in public health infrastructure. To preserve the security of personally identifiable information, MicrobeTrace handles data on the user's standard computer, and does not involve use of the internet other than for initial application installation. MicrobeTrace is platform independent and available at <http://bit.ly/microbetrace>.

Results: MicrobeTrace has been used by epidemiologists to seamlessly integrate disparate data sources and rapidly produce actionable intelligence. Recently, MicrobeTrace has been used to support public health investigations of HIV, HCV and TB clusters and in routine public health surveillance. Since its launch in early June, MicrobeTrace has been used in 29 states by an average of 4.8 (median = 4) unique users per state. MicrobeTrace is also used at state and local levels, with an average of 3.8 (median = 3) unique users representing 44 major metropolitan areas. MicrobeTrace is currently supporting an ongoing Epi-Aid investigation spanning two Midwest states, with three epidemiologists generating results and figures used by dozens involved in the investigation.

Conclusions/Implications: MicrobeTrace offers public health officials and scientists a secure bioinformatics tool to produce, analyze, and share reproducible and actionable pathogen transmission information; thereby providing a platform that can be implemented routinely in cluster investigations and surveillance. Our rapid development of agile custom software has proven effective at meeting the precise and sensitive requirements of public health investigations.

Abstract 6210 - Issues using molecular data and the ongoing importance of HIV partner services in detecting HIV clusters – the Washington State and King County experience

Author(s): *Jennifer Reuer, Steven Erly, Richard Lechtenberg, Susan Buskin*

Issue: Early detection of HIV clusters is crucial for early intervention and prevention of larger scale outbreaks of HIV. Current Molecular HIV Surveillance (MHS) methods may not be optimized for early detection of molecular clusters in low to moderate prevalence jurisdictions where the number of molecular clusters identified is not overwhelming. Clusters of public health importance may either be missed or have a delay in identification due to MHS criteria more suitable for higher morbidity jurisdictions.

Setting: Washington State Department of Health and Public Health – Seattle & King County HIV Surveillance programs implementing CDC HIV cluster and outbreak detection recommendations.

Project: Optimizing local guidelines for HIV cluster detection and response thresholds, beginning with the CDC recommendations for identifying priority clusters (0.5% genetic distance, cases diagnosed in most recent 3 years, 5 or more cases diagnosed in the most recent 12-month period). HIV genotype sequence data allows the identification of related strains of HIV across individuals. Genetic distance thresholds indicate the amount of relatedness (the smaller the number, the more related) and can be used for identifying priority molecular clusters for follow up. Establishing procedures and timelines for

monitoring HIV genotype sequence data for cluster detection. Using an outbreak detection and response to review and update those guidelines and procedures.

Results: Between 6/18 & 10/18 two priority (by CDC recommendations) molecular clusters were identified with five and nine cluster members. Loosening to a relatedness of 1.5% distance with a minimum of five people diagnosed in the past year results in seven clusters. At the same distance (1.5%) further loosening to a minimum of three people diagnosed in the last year results in 10 clusters, each including five to 20 newly diagnosed individuals over three years. A cluster detected in King County through partner services work in August would not have been detected through molecular cluster analysis using the priority cluster definition, but would have been detected using the 1.5% genetic distance. Median time to sequence inclusion in analysis from collection date was 96 days (26 min – 6772 max). Delays in availability are due to delays in blood draws for sequences; specimen or laboratory issues with specimens; delays in reporting of sequence results; and results not being matched to cases, imported into eHARS, or included in HIV-TRACE for cluster analysis immediately upon receipt.

Abstract 6191 - Outbreak of HIV infection linked to injection drug use among persons experiencing homelessness - Miami, FL

Author(s): *Hansel Tookes, Tyler Bartholomew*

Issue: Injection drug use continues to be a significant public health problem in the United States. High-risk injection practices among people who inject drugs (PWID), such as syringe sharing, increase a person's risk for contracting HIV. With the surging opioid epidemic, interventions to reduce HIV transmission among this vulnerable population, such as needle exchange programs (NEPs), have been effective at reducing transmission, increasing HIV testing and facilitating linkage to HIV care. However, in the absence in such programs, HIV outbreaks occur, such as Scott County, Indiana.

Setting: The IDEA Exchange, Florida's first and only legal NEP, was implemented in Miami, FL at the University of Miami Miller School of Medicine on December 1, 2016. The IDEA Exchange has a fixed site located in Overtown and a mobile unit serving Miami-Dade County.

Project: On February 19, 2018, the IDEA Exchange implemented dual routine, anonymous, opt-out, universal HIV/Hepatitis C (HCV) antibody screening of all participants at initial enrollment into the program and every three months thereafter. The quarterly HIV/HCV testing was conducted for people who inject drugs (PWID) previously testing negative with the exchange. On February 22, 2018, the IDEA Exchange identified its first HIV seroconversion. On April 13, 2018, the IDEA Exchange formally notified the Florida Department of Health of 3 new HIV cases among participants of the program. A multidisciplinary investigation between the IDEA Exchange, local and state health departments and the CDC was launched in order to (1) determine the source of the HIV transmission network (2) uncover potential clustering between infections and (3) collaboratively implement a rapid response to link individuals to HIV care.

Results: A total of 10 new HIV infections were identified, all of which were people experiencing homelessness and living within close geographic area. A Disease Intervention Specialist (DIS) was integrated into the SSP to perform contact tracing. Initial findings suggest multiple modes of

transmission, with majority of individuals reporting both injection-related and sexual risk. A low threshold induction into HIV care was created in partnership with DOH in order to streamline access to ART. Of the new HIV infections, 8 individuals were linked to care and all individuals achieved viral suppression on average 65 days post first reactive HIV result.

Abstract 6185 - Detecting and responding to an HIV outbreak among people using injection drugs in North Carolina counties served by syringe exchange services

Author(s): *Erika Samoff, Michelle Hudgins, Victoria Mobley, Ann Dennis, Michelle Mathis, Christina Caputo, Jacquelyn Clymore, Nicole Dzialowy Adams, Anna Cope, Evelyn Foust*

Background: Following the large HIV outbreak among people sharing injecting drug materials in Scott County, Indiana, several counties in North Carolina were identified as being vulnerable to a similar outbreak. A monthly review of newly diagnosed HIV surveillance data was initiated to monitor for potential outbreaks. In March 2018, an increase in new diagnoses of HIV in 2017 and 2018 was identified, including a linked group of 7 people who inject drugs (PWID) living with HIV in western North Carolina. An outbreak response, including implementation of an incident command system, was conducted.

Methods: Disease intervention specialists (DIS) investigated this group and their sexual, needle-sharing, and social contacts. Contacts who consented to an interview were tested for HIV, viral hepatitis B (HBV) and C (HCV) and linked to syringe exchange services when appropriate. All demographic, risk, laboratory testing results, and field investigation data were captured in North Carolina's electronic disease surveillance system. Disease diagnosis data were captured from tests performed during the investigation and from surveillance records of past diagnoses. HIV-1 genetic clusters were assessed for HIV-positive patients involved in this investigation using TN-93 pairwise distances ($\leq 1.5\%$ differences) between HIV-1 pol sequences using a statewide surveillance dataset of >10,000 sequences. We performed a time-scaled phylogenetic analysis of the largest cluster using BEAST2.

Results: DIS contacted the 7 linked group members diagnosed in 2017 and 2018 and received information on 177 reported contacts. Of the 90 individuals prioritized for interview, 24 (27%) were unlocatable, out of state, or deceased and the remaining 66 (73%) were contacted. All people contacted were offered testing and, if PWID, provided information about local syringe exchange services. Among these prioritized contacts, 31/90 (34%) had HCV (13 diagnosed due to response), 4/90 (4%) had HBV (2 diagnosed due to response), and 7/90 (8%) had HIV (2 diagnosed due to response). Molecular cluster data demonstrated a genetic link between the viruses of 5 of the original group of PWID living with HIV and 1 contact newly diagnosed with HIV; 5 of these 6 transmissions were estimated to have originated after 2016, suggesting a recent outbreak. All people testing positive were supported in linking to care and treatment for HIV/HCV/HBV; 6/7 of the original group of PWID living with HIV were confirmed to have linked to care (one, diagnosed in 2017, was unlocatable) and 6/7 of the original group and 1/2 newly diagnosed are virally suppressed as of November 1, 2018.

Conclusions/Implications: North Carolina identified a true outbreak of HIV and responded; the outbreak was detected early and only 2 additional HIV cases were identified. The investigation provided opportunities for local capacity enhancement, including provision of training in rapid HIV test

technology to local syringe exchange and CBO staff. The limited spread of HIV seen may be due to several factors, including NC's focus on linkage to care at the time of HIV diagnosis, the availability of syringe exchange services during the outbreak, and the intensive response which may have interrupted further transmission.

Abstract 6198 - Mobilizing an HIV outbreak response in an urban jurisdiction: a Philadelphia story

Author(s): *S. Caitlin Conyngham, Kathleen Brady, Champagnae Smith, Melissa Miller, Tanner Nassau, William Pearson, Sebastian Branca, M. Evelyn Torres, Coleman Terrell*

Issue: In the 12 months ending August 31, 2018, Philadelphia Department of Public Health (PDPH) identified 48 newly diagnosed cases of HIV (non-AIDS) among persons who inject drugs, compared to 31 cases in the previous 12 months; representing a 48% increase. The new cases are largely male (74%) and between the ages of 30-50 (74%). Approximately half of the new cases (46%) are among non-Hispanic Whites (46%) followed by Hispanics (28%) and Blacks (26%). Over half of the cases (57%) have evidence of HCV confection. PDPH upon identifying this outbreak of HIV among PWID initiated cross-divisional outbreak response efforts, which included the HIV, Viral Hepatitis, STD Control, and Opioid Divisions, and along with HIV services providers.

Setting: Philadelphia is a high morbidity area with 19,199 PLWH as of 2017 and an overall HIV prevalence of 1.2%. The number of people newly diagnosed with HIV infection through injection drug use has been falling since the syringe exchange program in Philadelphia was implemented in 1992. Between 2015 and 2017, between 28 and 32 PWID were newly diagnosed with HIV (non-AIDS) annually in Philadelphia, representing a stable 5% of all new reported HIV diagnoses. Philadelphia is now experiencing an epidemic in use of and addiction to opioids which is characterized by the introduction of fentanyl in the illicit drug supply, a rise in the number of PWID and frequency of injection, and an increase in homelessness among drug users.

Project: Response efforts included investigating and reinvestigating new cases of HIV diagnosed in 2018 with PWID risk, and contacting their sex and needle-sharing partners anonymously to offer HIV testing and ensure that persons in need of HIV care are linked to treatment. PDPH also mobilized One Stop Shop service providers to provide comprehensive healthcare services for people living with and/or at risk for HIV and HCV infection, and expanded community-based HIV testing in key areas to identify undiagnosed HIV infection and rapidly link persons to treatment.

Results: In the month prior to mobilizing outbreak response efforts, 213 HIV tests were conducted at targeted testing sites for PWID, where 46.5% of testing was among PWID. In the month following the mobilization, 525 tests were conducted at PWID focused sites, including those added as part of the expanded initiative, with 55% testing among PWID. Total testing at focused sites increased by 146.5% at these sites, and increased among PWID by 8.5%. Of the newly identified cases healthcare and non-healthcare settings, 93% (13 of 14 persons) were linked to care within 30 days. Mobilization of services is ongoing.

Special Session

Session SS02 - HIV Impact of STD Prevention Activities in High-Risk Populations

Room: Embassy D-F (Hyatt Regency Atlanta)

Abstract 1020 - HIV-related outcomes from STD partner services

Author(s): *Anna Cope*

The effectiveness of partner notification services (PNS) has traditionally been assessed as the ability of disease intervention specialists (DIS) to find and assure treatment of partners. Increasingly, DIS perform HIV-related tasks such as testing patients and partners for HIV, assuring linkage to care if positive, and referring patient to pre-exposure prophylaxis (PrEP), if negative, as a part of PNS investigations for syphilis. The documentation of these activities within STD surveillance systems varies across jurisdictions. Because formal data matches between syphilis and HIV data systems are often necessary to extract HIV-related outcomes attributable to PNS investigations, STD programs may be limited in the frequency and types of analyses that can be performed. This presentation will focus on the HIV-related outcomes potentially collected during syphilis PNS investigations for both cases and their named sex partners between 2015 and 2017 in 7 jurisdictions in the United States (Florida, Louisiana, Michigan, North Carolina, Virginia, New York City, and San Francisco). Outcomes of interest include: newly diagnosed HIV attributable to syphilis PNS, evidence of HIV testing among patients and partners not known to be living with HIV, evidence of HIV care and viral suppression for persons living with HIV both before (if previously diagnosed only) and after a PNS encounter, and documentation of receipt of or referrals for PrEP. We will present and discuss jurisdiction-specific results of these HIV-related outcomes. We will also discuss the gaps that were identified in documenting and accessing HIV outcomes attributable to syphilis PNS and the implications this has for PNS specifically, and for HIV prevention more broadly. By improving the documentation and access to HIV-related outcomes, local STD and HIV programs can jointly enhance their understanding of the impact syphilis PNS has on HIV prevention and care.

Abstract 1021 - HIV averted through adhering to the STD screening recommendations for MSM in the STD treatment guidelines

Author(s): *Kevin Weiss*

The effectiveness of partner notification services (PNS) has traditionally been assessed as the ability of disease intervention specialists (DIS) to find and assure treatment of partners. Increasingly, DIS perform HIV-related tasks such as testing patients and partners for HIV, assuring linkage to care if positive, and referring patient to pre-exposure prophylaxis (PrEP), if negative, as a part of PNS investigations for syphilis. The documentation of these activities within STD surveillance systems varies across jurisdictions. Because formal data matches between syphilis and HIV data systems are often necessary to extract HIV-related outcomes attributable to PNS investigations, STD programs may be limited in the frequency and types of analyses that can be performed. This presentation will focus on the HIV-related outcomes potentially collected during syphilis PNS investigations for both cases and their named sex partners between 2015 and 2017 in 7 jurisdictions in the United States (Florida, Louisiana, Michigan, North Carolina, Virginia, New York City, and San Francisco). Outcomes of interest include: newly

diagnosed HIV attributable to syphilis PNS, evidence of HIV testing among patients and partners not known to be living with HIV, evidence of HIV care and viral suppression for persons living with HIV both before (if previously diagnosed only) and after a PNS encounter, and documentation of receipt of or referrals for PrEP. We will present and discuss jurisdiction-specific results of these HIV-related outcomes. We will also discuss the gaps that were identified in documenting and accessing HIV outcomes attributable to syphilis PNS and the implications this has for PNS specifically, and for HIV prevention more broadly. By improving the documentation and access to HIV-related outcomes, local STD and HIV programs can jointly enhance their understanding of the impact syphilis PNS has on HIV prevention and care.

Abstract 1023 - Analysis of the viral load of PLWH with STDs and as named partners of STD patients: opportunities for re-engagement in care

Author(s): *Preeti Pathela*

This presentation will focus on the characterization of people living with HIV (PLWH) who seek services in New York City's network of public Sexual Health Clinics (SHC), and opportunities and approaches for re-engagement in HIV care. Three specific studies will be presented that: A) Quantified HIV care continuum gaps and viral suppression among SHC patients: In addition to approximately 1,600 SHC patients in a year who were known to be HIV-positive, an estimated additional 630 with unknown HIV status at time of SHC visit had HIV infection. Linkage to care status, and viral suppression (VS) for various groups (newly diagnosed, previously diagnosed, unknown HIV status) before and after SHC visit were ascertained using data from the NYC HIV surveillance registry. Results showed that many HIV-positive people, including those with uncontrolled HIV infection, attend SHCs and potentially contribute to HIV spread. However, HIV status often is not known to staff, resulting in missed linkage/relinkage to care opportunities. B) Examined correlates of HIV care and VS after clinic visit: One-third of PLWH who visited NYC SHCs in a study year were out of HIV care in the 12 months preceding the clinic visit, and were less likely than those previously in HIV care to have subsequent evidence of HIV care or VS in the 12 months after the visit. VS was particularly low among patients diagnosed with >2 sexually transmitted infections. Findings underscore that SHCs could serve as an intervention point to (re-)link PLWH to HIV care. Better outcomes could be facilitated by real-time ascertainment of HIV status and HIV care status. C) Presents preliminary findings on characteristics and time to VS among SHC patients who have been living with HIV, have no evidence of prior HIV care, and are part of the recently implemented JumpstART program, which provides treatment-naive HIV-positive patients in NYC SHCs with antiretroviral therapy (one-month supply) on day of diagnosis and active linkage to HIV care.

Abstract 1025 - The recommendations for providing quality STD clinical services

Author(s): *Laura Bachmann*

This presentation will review the CDC Recommendations for Providing Quality STD Clinical Services, a document that provides national guidance on quality STD care provided in a variety of healthcare settings. Recommendations for settings providing basic and specialized STD care will be reviewed and relevance of the guidance for HIV care settings will be discussed.