



Published in final edited form as:

Eval Program Plann. 2022 February ; 90: 101981. doi:10.1016/j.evalprogplan.2021.101981.

Evaluating for health equity among a cluster of health departments implementing PrEP services

Jarvis W. Carter Jr.^{a,*}, Yamir Salabarría-Peña^a, Errol L. Fields^b, William T. Robinson^{c,d}

^aDivision of HIV Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, Centers for Disease Control and Prevention, 1600 Clifton Road NE, Atlanta, GA, 30329 USA

^bJohns Hopkins School of Medicine, Department of Pediatrics, Division of Adolescent/Young Adult Medicine, 200 N. Wolfe St., Baltimore, MD, 21287, USA

^cLouisiana Department of Health, Office of Public Health, 1450 Poydras St., New Orleans, LA, 70112, USA

^dLouisiana State University Health Sciences Center, School of Public Health 2020 Gravier St, New Orleans, LA, 70112, USA

Abstract

African American/Black and Hispanic/Latino sexual and gender minority populations are disproportionately affected by HIV in the United States and continue to experience HIV-related disparities. CDC funded project PrIDE to support 12 health departments (HD) with implementing pre-exposure prophylaxis (PrEP) strategies for men who have sex with men (MSM) and transgender persons, with a health-equity focus established by HDs. Each HD conducted mixed-methods evaluation of at least one local strategy. CDC employed a cluster evaluation approach to maximize cross validation. As a result, this cluster evaluation focused on three HDs that evaluated health equity-focused PrEP implementation strategies. Findings suggest that integrating health equity strategies such as storytelling and healthcare worker (HCW) trainings can help reduce HIV-related disparities. Storytelling improved HCW's understanding of clients' experiences of stigma due to racial, gender, and sexual identities. Provider training increased competencies on culturally appropriate care and the use of clinic services by Black and Hispanic MSM and transgender persons. Good practices included community engagement, seeking leadership buy-in, and integration of programmatic staff in health equity and evaluation activities. Evaluating strategies and training policies addressing social determinants of health that adversely affect

*Corresponding author at: 1600 Clifton Rd NE Mailstop US8-3, Atlanta, GA, 30329, USA. JWCarter@cdc.gov (J.W. Carter).
Author statement

Jarvis W. Carter Jr: Conceptualization, Methodology, Analysis, Writing Original Draft

Yamir Salabarría-Peña: Conceptualization, Methodology, Analysis, Co-Writing Original Draft, Supervision and Project Administration

Errol L. Fields: Co-Writing Original Draft and Reviewing/Editing

William T. Robinson: Co-Writing Original Draft and Reviewing/Editing

Disclaimer

The findings and conclusions in this manuscript are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

Declaration of Competing Interest

None.

HIV outcomes may help mitigate barriers Black and Hispanic MSM and transgender populations encounter in their HIV prevention seeking efforts.

Keywords

HIV; PrEP; Cluster evaluation; Health equity; Social determinants; Racial/ethnic minorities; Sexual minorities; Gender minorities; Transgender

1. Background

1.1. HIV disparities and social determinants of health

The human immunodeficiency virus (HIV) continues to affect African American/Black (hereafter referred to as Black) and Hispanic/Latino (hereafter referred to as Hispanic) populations in the United States at disproportionate rates in comparison to their White counterparts, particularly among sexual minority populations—gay, bisexual men, and other men who have sex with men (MSM) and transgender populations (CDC, 2019a,b,c, 2020a,b; Clark, Babu, Wiewel, Opoku, & Crepaz, 2017). Both Black and Hispanic MSM and transgender populations experience disparities in HIV-related outcomes along the HIV care continuum (HCC) (i.e., HIV diagnosis, linkage to care, retention in care, and viral suppression) (Beer, Oster, Mattson, & Skarbinski, 2014; Kalichman, Hernandez, Finneran, Price, & Driver, 2017; Levison, Levinson, & Alegría, 2018; McCree et al., 2019). Data also indicate that PrEP uptake among Black and Hispanic MSM and transgender persons is low relative to their White counterparts (Cahill et al., 2017; Eaton et al., 2017; Elope, Kudroff, Westfall, Overton, & Mugavero, 2017; Kamitani et al., 2018; Poteat et al., 2019). Increasing PrEP uptake among those disproportionately affected by HIV could reduce disparities in HIV infection. Additionally, addressing social determinants of health (SDH) that can impede uptake of PrEP and other prevention and care services should be considered and evaluated to determine their effect on disparate HIV-related outcomes.

Social determinants of health result from the complex integration of overlapping social and economic systems and structures that are influenced by the distribution of resources, money, and policies (CDC, 2010). In the context of HIV, there are an array of SDH that adversely affect HIV-related outcomes especially for Black and Hispanic MSM and transgender populations. In addition to experiencing SDH such as unstable housing or lack of/insufficient health insurance, racial and ethnic minority MSM and transgender persons also deal with stigma and discrimination based on racial/ethnic and minority sexual and gender identities (Arnold, Rebhook, & Kegeles, 2014; Bowleg, 2012; Choi, Paul, Ayala, Boylan, & Gregorich, 2013; Frye et al., 2015; Quinn & Dickson-Gomez, 2016; Safer et al., 2016). Evidence suggests that social and structural determinants sustain and exacerbate disparities in HIV, preventing achievement in health equity for delivery of HIV prevention and care services (Millett, Flores, Peterson, & Bakeman, 2007, 2012; Yehia et al., 2015). Adopting health equity frameworks in our programmatic and evaluative activities may facilitate reduction of disparities for racial, ethnic, and sexual minorities (Braveman, 2003).

1.2. Health equity in project PrIDE

Health equity occurs when everyone has a fair opportunity to achieve their full health potential and includes the avoidance of unfair differences in health outcomes and access to healthcare among groups of people (World Health Organization, 2008). Given the pronounced disparities in HIV among Black and Hispanic MSM and transgender populations, we are far from attaining the goal of health equity in HIV. In the United States, it is well-documented that Black and Hispanic MSM and transgender persons encounter racial, sexual, and gender identity discrimination; HIV-related stigma; negative implicit biases of HCWs; as well as differential treatment due to structural barriers within civic institutions with longstanding histories of unfair, unjust, and unequal treatments (Aidala et al., 2016; Arnold et al., 2014; Blair et al., 2013; Eaton et al., 2015; Geter, Herron, & Sutton, 2018; Wohl et al., 2013). Some of these structural barriers include, but are not limited to, institutional racism, HIV criminalization laws, being uninsured or underinsured, and medical distrust (Bogart et al., 2016; Cahill et al., 2017; Feagin & Bennefield, 2014; Lehman et al., 2014; Patel et al., 2017; Quinn et al., 2018; Yehia et al., 2014). These structural level barriers perpetuate the disparities in HIV, and, as result, become challenges health departments must overcome to satisfactorily achieve desired HIV outcomes for these minority communities.

From 2015–2019, the Centers for Disease Control and Prevention (CDC) funded the PrEP Implementation, Data to Care, and Evaluation (PrIDE) demonstration project to support health departments with implementing PrEP and data-to-care (D2C) strategies prioritizing service provision for Black and Hispanic MSM and transgender persons. All participating health departments (hereinafter called funded recipients) incorporated health equity activities into their strategies for increasing PrEP knowledge, awareness, and uptake among the project's priority populations. As a major component of the project, local site-specific evaluations (LE) allowed the funded recipients to conduct rigorous evaluations on various project strategies. These evaluations adhered to the steps and standards of the CDC Framework for Program Evaluation in Public Health (Milstein & Wetterhall, 1999). Of the 12 funded recipients, three recipients evaluated SDH-related strategies to continue making progress towards achieving health equity for the priority populations. This paper serves as an introductory paper that highlights overarching cluster evaluation findings across the three funded recipients that evaluated health equity activities in Project PrIDE. The objectives of this paper are to (a) describe the cluster evaluation approach used in Project PrIDE; (b) highlight overarching findings across three funded recipients that evaluated health equity strategies, lessons learned to inform the integration of health equity strategies in the provision of PrEP services and uptake; and (d) introduce individual PrIDE local evaluations on health equity strategies that will appear in this special issue.

2. Evaluation approach

2.1. Cluster evaluation approach

In addition to the LE conducted by funded recipients, Project PrIDE used a cluster evaluation approach (Millet, 1995; Sanders, 1997). Cluster evaluation is an approach that looks across a group of programs/projects that share similarities and identifies common high-level themes that if confirmed across can have great significance (Bitar, Hbeichi,

Al-Zou'bi, & Russon, 2015). This approach maximized opportunities for cross-validation among LE. Conducting the cluster evaluation was a collaborative process between funded recipients and CDC that occurred between 2017 and 2019. As part of this process, funded recipients identified questions to be addressed in evaluating their PrIDE strategies/activities and independently developed data collection instruments. Of these questions, across all the local evaluations, CDC identified those that were similar across project strategies. That is, all similar questions revolved around one of five project strategies (i.e., community engagement, provider capacity building, health equity, navigation, and media). Other questions instrumental to understanding the implementation of strategies and the evaluation process (e.g., What were lessons learned?) were also identified by both funded recipients and CDC.

CDC shared these grouped questions with the funded recipients, and in turn, the recipients reviewed and provided feedback regarding the cluster evaluation process (including evaluation questions, data collection and reporting, and a data use plan). Specifically, over a seven-month time period, CDC and funded recipients participated in monthly conference calls on these thematic clusters to share progress and findings.

In cluster evaluation, primary data collection methods such as interviews with evaluation staff and documentation of site visits tend to be used as data sources for analysis (Barley & Jenness, 1993; Bitar, Hbeichi, Al-Zou'bi, & Russon, 2014; Sanders, 2013); however, to prevent data burden for funded recipients, project documents became the main data source as secondary data can be used to answer evaluation questions (i. e., LE protocol, a preliminary LE report, final LE report, 2018 and 2019 annual progress reports, notes from site visits, monthly cluster calls, and annual project meeting presentations).

Document review analysis, a method used in evaluation, depends on the quality of the documents and how the documents assist with answering evaluation questions (Bowen Glenn, 2009; Caulley, 1983; Gross, 2018). As such, each LE protocol, LE preliminary report and final reports were assessed at CDC by a multidisciplinary review team against all quality evaluation standards (i.e., utility, feasibility, propriety, and accuracy) (Milstein & Wetterhall, 1999; Yarbrough, Shulha, Hopson, & Caruthers, 2011), feedback was provided, and these documents were not approved until all standards were met. In addition, the preliminary LE report was submitted to CDC to ensure that local evaluations were answering the evaluation questions, measuring progress, and pointing out needed revisions (e.g., gather more data, conduct a different analysis). This process was applied to the final LE report, which captured contextual factors that affected the project and LE (e.g., state and local policies affecting racial/ethnic, sexual and gender minorities, PrEP implementation maturity), facilitators and challenges of each evaluation stage (i.e., protocol development, implementation, analysis, utilization and dissemination) and findings per question, a separate section included the cluster evaluation questions, and a utilization plan. Additionally, specific questions regarding LE and cluster questions were shared in preparation for annual site visits and were discussed accordingly. Presentations at monthly cluster calls and annual project meetings also aided in this process.

Two CDC reviewers abstracted information from the cluster evaluation questions (see Table 1) and used a framework method with a simplified qualitative content analysis for identifying themes (Gale, Heath, Cameron, Rashid, & Redwood, 2013). This was an interactive process that also involved discussions to reach consensus about themes and conclusions and conferring with funded recipients as needed.

2.2. Cluster description

Of the 12 PrIDE funded recipients, the cluster approach identified three funded recipients that evaluated health equity-related strategies (i. e., Baltimore City Health Department, Louisiana Department of Health, and New York City Department of Health and Mental Hygiene; hereinafter referred to by the state or city they represent). These three Project PrIDE funded recipients addressed common overlapping barriers (e.g., medical distrust, discrimination due to race, gender, or sexuality), but the context in which these barriers affected HIV outcomes for the priority populations varied across the three. For instance, Baltimore City addressed historical and current medical distrust of local medical and public health establishments that exists among members of priority populations and negative implicit biases toward priority populations by some HCWs that affect the care of these patients. Louisiana and New York City addressed barriers with emphasis on minority racial, sexual, or gender identities. Louisiana recognized the importance of addressing institutional racism, homophobia, and transphobia within their local jurisdiction at the organizational level; whereas, New York City addressed structural barriers their transgender and gender non-conforming (TGNC) clients experience when accessing sexual health services.

Recipients conducted different outcome evaluations in the health equity cluster (e.g., utilizing pre-post methodology to evaluate change). Baltimore's mixed-methods outcome evaluation focused on the use of a storytelling approach, Baltimore in Conversation, to reduce medical distrust and increase empathy among HCWs toward priority populations, and to improve HCWs' understanding, beliefs, and practices related to racial/ethnic, sexual, and gender minority patients. Baltimore conducted five storytelling nights where HCWs ($n = 55$) participated in the storytelling sessions to enhance their understanding of the barriers clients encounter in seeking HIV prevention and care services. Louisiana conducted pre- and post-outcome evaluations of at least 10 trainings that addressed institutional racism, homophobia, and transphobia among its health department staff and collaborating partners ($n = 242$). Lastly, New York City conducted an outcome evaluation of a training for sexual health clinic (formerly known as Sexually Transmitted Diseases Clinics) staff to determine self-perceptions in providing culturally affirming care. Culturally affirming care occurs when clients receive appropriate services within their cultural context by having health care providers that are aware of and familiar with clients' social context and culture, including sexual, gender, and racial identities (Furness et al., 2020; Pitts & Greene, 2020; Schilder et al., 2001).

Since Project PrIDE was funded by a programmatic, rather than a research award, the project did not utilize experimental or quasi-experimental designs. Table 1 summarizes the health equity strategies evaluated and audiences, and the cluster evaluation questions funded recipients addressed collectively. Additional information regarding the specific

methodology, outcome measures used, and evaluation findings are detailed elsewhere (This Issue).

All the funded recipients targeted the same audience (i.e., providers) with their efforts. Two of three (Louisiana and New York City) used training as their strategy. These similarities allowed for a cluster evaluation and provided an opportunity to learn about groundbreaking strategies such as storytelling in Baltimore, a training policy in Louisiana's health department, and a culturally affirming care training in New York City. Details on the health equity local evaluations are provided after this article in this special issue.

3. Overarching findings

3.1. To what extent did changes in equity-related outcomes result from PrIDE?

The health equity cluster provided an opportunity to use findings based on cross-cutting evaluation questions to assess and improve implemented strategies. Overall, the findings from the health equity cluster indicate that all recipients demonstrated progress towards their respective health-equity related outcomes (see Fields and Robinson in this special issue). For instance, post-event surveys of health care workers (HCWs) who participated in the storytelling events in Baltimore indicated an improvement in their empathy and understanding of their local priority populations' experiences of stigma due to racial, gender, and sexual identities. In addition, qualitative analysis of HCWs written feedback/notes used while individuals shared their stories indicated HCWs learned new approaches for working with sexual and gender minority patients through the shared stories. This strategy for sharing experiential realities may even help to decrease medical distrust experienced by sexual and gender minority patients by improving patient-HCW relationship dynamics, resulting in, fewer barriers to HIV prevention and treatment.

The provision of staff trainings was successful at improving culturally affirming services and care in Louisiana and New York City. After undergoing the Undoing Racism[®] workshop and trainings that address institutional racism and other discriminatory practices such as homophobia and transphobia (People's Institute for Survival and Beyond, 2018), Louisiana saw significant increases in staff and community partners' knowledge, motivation, and perceived behavioral skills needed to address these discriminatory practices in their jurisdiction. New York City observed positive perspectives among clients of sexual health clinics regarding receipt of culturally appropriate care. Additionally, New York City observed an increase in utilization of their sexual health clinics by both Black and Hispanic MSM and transgender clients following changes implemented to improve the cultural appropriateness of services provided. Some enhancements to improve culture appropriateness of services included role-based, skills-building, cultural sensitivity trainings for clinic staff, creating a welcoming environment, development of and regularly convening a transgender community advisory board, and implementing policies and procedures that better capture pertinent health data for these clients.

The findings from the three funded recipients demonstrate the value of multiple approaches to changing beliefs and perspectives of HCWs. These examples highlight both storytelling

and direct HCW training that address social and structural barriers as promising strategies that can assist with reducing HIV-related disparities for priority populations.

3.2. What were the lessons learned?

The health equity cluster provided valuable lessons. One of the major lessons learned was that each funded recipient demonstrated the feasibility of evaluating innovative health equity strategies and organizational-level policies within the scope and timeframe of project PrIDE with technical assistance and support from CDC. Funded recipients routinely collect performance monitoring data; however, the LEs included in the health equity cluster showed that more rigorous evaluations can be conducted. Moreover, when these strategies respond to local needs, it enhances the utility of findings. Although funded recipients noted challenges clients encountered due to social and structural barriers (e.g., medical distrust, institutional racism), these evaluations emphasized the importance of serving clients holistically, rather than only focusing, for example, on PrEP uptake specifically. While project PrIDE was specific to HIV prevention and care activities (e.g., PrEP), the interventions evaluated illuminated the need to shift the paradigm from activities that are heavily focused on individuals to those that incorporate and evaluate the impact of organizations, systems, or policies on HIV-related outcomes; findings consistent with recent literature on addressing disparities among priority populations (Carter & Flores, 2019).

By conducting the cluster evaluation approach, we noted unexpected findings from LE. For instance, Baltimore City identified mental health services as an additional need for its priority populations. Although this is not a novel finding for the field, the prioritization of this local public health area of need might not have been discovered if not for the evaluation work performed. Identification of additional needs can sometimes be enhanced by combining intersectionality and health equity frameworks. Intersectionality frameworks—frameworks that assist with understanding how the combined effect of possessing multiple socially constructed identities (e.g., race, class, gender, etc.) shape an individual's experience through the lens of privilege and oppression—can be combined with health equity approaches to better identify barriers and inform holistic application of strategies so health departments can better serve priority populations (Bowleg, 2012; Crenshaw, 1989; Weber, 2010). For instance, the priority populations for project PrIDE possess multiple minority identities (i.e., race, gender, and sexuality) and intersectionality frameworks can assist health department staff better identify and address complex barriers their clients may experience due to possessing more than one minority identity. Instead of focusing on one identity that presents barriers (e.g., race), HDs can integrate intersectionality and health equity frameworks to not only identify barriers to HIV prevention and care services, but also adequately address these barriers in the context of how their clients experience them due to the intersection of their racial, sexual, and gender identities (Corus & Saatcioglu, 2015).

Lastly, another major lesson from the three jurisdictions that constituted the health equity cluster was the value of conducting participatory evaluations (Garaway, 1995), which engages key stakeholders throughout the evaluation process (Chouinard, 2013). For instance, priority population members were critical to identifying areas of focus for the health equity strategies evaluated and assisting with the development of LE protocols, data collection

tools, and data use plans particularly among priority population members. Furthermore, priority populations were engaged as member of consumer advisory boards that provided input and feedback throughout the evaluation process. For instance, priority population members participated in the storytelling events in Baltimore, where they shared their experiences in seeking HIV prevention and care services and the barriers encountered. Having these partners engaged in ongoing discussions about and data from the program evaluation activities may have been particularly relevant in developing programs conducted in this health equity cluster, yielding more useful results for all stakeholders involved.

3.3. What good evaluation practices were identified?

Given the local success of the evaluation findings, the funded recipients provided insight on good practices to employ when conducting health equity-focused evaluations. Health departments and other public health entities can incorporate these practices when conducting evaluations that seek to improve health equity-related outcomes. First, engagement of the priority population(s) is paramount as these are critical stakeholders. The health equity cluster recipients found that collaborative and participatory approaches with priority populations not only strengthened the trust among priority population groups and HCWs, but in some cases helped to improve patient-HCW dynamics. Another good practice identified was to integrate programmatic and evaluation staff in the conduct of evaluation activities. Funded recipients found that ongoing collaboration with program and evaluation staff enhanced team cohesiveness, trust, and understanding of the evaluative tasks. Although this good practice is often common when conducting evaluations, the experience of the project funded recipients indicated that this practice is necessary, particularly when evaluating health-equity-specific strategies that impact priority populations.

Funded recipients also identified leadership buy-in in their health departments as an important component to help facilitate the evaluation objectives and the assurance that dedicated staff and resources will be available to conduct more rigorous evaluation activities. One example of leadership buy-in was the establishment of agency-wide health equity policies in Louisiana that shifted how health department staff and their community partners engaged in and provided services to priority populations. Another example of leadership buy-in was demonstrated in the sexual health clinics in NYC where the clinic leadership initiated processes to evaluate their standard of care to their sexual minority clients resulting in conducting a health-equity focused evaluation to improve upon that standard of care.

In addition to leadership buy-in, the two funded recipients that evaluated health equity relevant trainings in this cluster (i.e., New York City, Louisiana) identified on-going staff training via technical assistance and staff capacity building as important components to successfully improve equity in services and improve evaluation outcomes. The premise was that one training was not enough to provide culturally appropriate care and services. For example, funded recipients provided the initial trainings and offered booster or refresher trainings to address areas that training participants did not understand or had challenges implementing in the field. Ongoing trainings that address health equity are critical to achieve lasting favorable outcomes.

Lastly, there are opportunities (or local evaluations were opportunities) to use evaluation findings to highlight inequities for certain populations and incorporate health equity activities into all health department HIV programmatic efforts. Given that SDH are pervasive and contribute to unfavorable HIV outcomes for the priority populations, collection and use of SDH data are good practices to generate evidence regarding barriers, gaps, and areas of opportunity and improvement in the provision of HIV prevention and care services.

4. Limitations

Cluster Evaluation allowed the funder to learn about context and findings pertaining to major strategies such as addressing health equity that funded recipients implemented and evaluated. Funders sponsoring cluster evaluation, do not dictate how programs will be implemented or evaluated (Sanders, 2013). Hence, the approach was appropriate for Project PrIDE. On one hand, it allowed implementers to learn from each other, share evaluation findings, and cross collaborate (e.g., sharing data collection instruments). On the other hand, findings across funded recipients increased funder's understanding of the contexts surrounding the implementation of health equity strategies and cross contribution to PrEP uptake and other outcomes. However, there are some limitations to be highlighted. Although in cluster evaluation quantitative outcome data tends to be aggregated across sites (Sanders, 2010), this was not possible because expected outcomes varied across sites. In addition, even when there were common evaluation questions across sites, program strategies were implemented differently, including data collection methods and instruments. This underscores the importance of discussing with funding recipients during LE protocol development questions they have in common, and feasibility of at least using same data collection sources, methods, and data collection instruments.

5. Implications for public health and evaluation

The findings of these three evaluations demonstrate the need and importance of evaluating health-equity-related strategies in the service provision of HIV prevention and care, particularly as it relates to PrEP uptake among racial and sexual minority priority populations. The major findings and lessons learned from the health equity cluster evaluation highlight the significance of ensuring health departments conduct feasible evaluations with the goal of providing holistic HIV prevention and care services. In addition, the findings and lessons learned show the value in moving from individual-focused approaches to those that center on improving systems and organizational policies that will advance health equity outcomes for the populations served. Furthermore, these cluster evaluation findings reiterate the importance of conducting participatory evaluations which may be more critical in the evaluation of health-equity-related activities to ensure all pertinent stakeholders are engaged as evaluation partners.

Project PrIDE was one of the first demonstration projects to specifically allocate funding to rigorous local program evaluations. Although the funded recipients showed progress towards achieving some health equity outcomes, our understanding of how health equity activities and strategies impact changes in HIV prevention outcomes, such as PrEP uptake among the priority populations, is in its infancy and continually evolving. With the implementation

of the *Ending the HIV Epidemic in the United States* initiative that has a goal of ending HIV domestically by 2030 (Fauci, Redfield, Sigounas, Weahkee, & Giroir, 2019), we need more opportunities to conduct rigorous evaluations of programs in areas where gaps remain, particularly as it relates to health equity activities that can assist with providing holistic services to priority populations. Such evaluations can provide valuable information about strategies to reduce disparities in priority populations. To achieve such an ambitious goal in 10 years, when these communities have encountered the aforementioned barriers and more for centuries, will require that we reduce missed opportunities to evaluate and share promising strategies and practices that can assist with ending the HIV epidemic among racial/ethnic and sexual minorities.

Based on the cluster evaluation, we propose future considerations regarding evaluation of HIV programmatic activities similar to those conducted in Project PrIDE that incorporate health equity strategies including the following: (a) continue to conduct evaluations to build evidence on the link between health equity strategies and HIV outcomes; (b) identify which components of health-equity strategies affect PrEP use and prescription among priority populations; (c) routinize health-equity-specific activities and evaluations to achieve local, state, and national HIV prevention goals; (d) review, evaluate, and modify organizational policies that serve as barriers to HIV prevention and care for populations disproportionately affected by HIV; and (e) incorporate participatory evaluation approaches that engage key stakeholders, including evaluation and programmatic staff and priority population members.

5.1. Next site-specific evaluations

The following manuscripts represent two local health equity-related evaluations conducted in Project PrIDE by funded recipients in Baltimore City, where storytelling was implemented, and Louisiana where trainings about undoing racism, homophobia and transphobia took place among health department staff. Each manuscript provides detailed background information about HIV among racial/ethnic minorities and among MSM and transgender populations in their jurisdictions, the evaluation methodology utilized, findings, conclusions and lessons learned.

Acknowledgement

This work was supported with funds from the CDC, PS15-1506.

Biography

Jarvis W. Carter, Jr. is a Public Health Advisor in the Division of HIV Prevention at the Centers for Disease Control and Prevention in Atlanta, GA. In this role, Dr. Carter oversees the coordination of local and state HIV prevention programmatic activities for funded health departments and community-based organizations.

References

- Aidala AA, Wilson MG, Shubert V, Gogolishvili D, Globerman J, Rueda S, et al. (2016). Housing status, medical care, and health outcomes among people living with HIV/AIDS: A systematic review. *American Journal of Public Health*, 106(1), 95. 10.2105/AJPH.2015.302905a

- Arnold EA, Rebchook GM, & Kegeles SM (2014). "Triply cursed": Racism, homophobia and HIV-related stigma are barriers to regular HIV testing, treatment adherence and disclosure among young Black gay men. *Culture, Health & Sexuality*, 16(6), 710–722. 10.1080/13691058.2014.905706
- Barley ZA, & Jenness M (1993). Cluster evaluation: A method to strengthen evaluation in smaller programs with similar purposes. *The American Journal of Evaluation*, 14(2), 141–147.
- Beer L, Oster A, Mattson C, & Skarbinski J (2014). Disparities in HIV transmission risk among HIV-infected black and white men who have sex with men, United States, 2009. *AIDS*, 28(1), 105–114. [PubMed: 23942058]
- People's Institute for Survival and Beyond. (2018). Undoing racism. Retrieved April 15, 2020 from <http://www.pisab.org/>.
- Bitar K, Hbeichi R, Al-Zou'bi L, & Russon C (2015). Evaluation capacity development through cluster evaluation. *Journal of MultiDisciplinary Evaluation*, 11, 68–75.
- Bitar K, Hbeichi R, Al-Zou'bi L, & Russon C (2014). Evaluation capacity development through cluster evaluation. *Journal of MultiDisciplinary Evaluation*, 11 (24), 68–75. https://journals.sfu.ca/jmde/index.php/jmde_1/article/view/407%.
- Blair IV, Havranek EP, Price DW, Hanratty R, Fairclough DL, Farley TA, et al. (2013). Assessment of biases against Latinos and African Americans among primary care providers and community members. *American Journal of Public Health*, 103(1), 92–98. 10.2105/ajph.2012.300812 [PubMed: 23153155]
- Bogart LM, Wagner GJ, Green HD, Mutchler MG, Klein DJ, McDavitt B, et al. (2016). Medical mistrust among social network members may contribute to antiretroviral treatment nonadherence in African Americans living with HIV. *Social Science & Medicine*, 164, 133–140. 10.1016/j.socscimed.2016.03.028 [PubMed: 27046475]
- Bowen Glenn A (2009). Document analysis as a qualitative research method. *Qualitative Research Journal*, 9(2), 27–40. 10.3316/QRJ0902027
- Bowleg L (2012). "Once you've blended the cake, you can't take the parts back to the main ingredients": Black gay and bisexual men's descriptions and experiences of intersectionality. *Sex Roles*, 1–14. 10.1007/s11199-012-0152-4
- Braveman PA (2003). Monitoring equity in health and healthcare: A conceptual framework. *Journal of Health, Population, and Nutrition*, 21(3), 181–192. <http://www.jstor.org/stable/23499216>. [PubMed: 14717564]
- Cahill S, Taylor SW, Elsesser SA, Mena L, Hickson D, & Mayer KH (2017). Stigma, medical mistrust, and perceived racism may affect PrEP awareness and uptake in black compared to white gay and bisexual men in Jackson, Mississippi and Boston, Massachusetts. *AIDS Care*, 29(11), 1351–1358. 10.1080/09540121.2017.1300633 [PubMed: 28286983]
- Carter Jarvis Jr., & Flores Stephen (2019). Improving the HIV prevention landscape to reduce disparities for black MSM in the south. *AIDS & Behavior*, 23, 331–339. 10.1007/s10461-019-02671-w [PubMed: 31541391]
- Caulley DN (1983). Document analysis in program evaluation. *Evaluation and Program Planning*, 6(1), 19–29. 10.1016/0149-7189(83)90041-1
- CDC. (2010). Establishing a holistic framework to reduce inequities in HIV, viral hepatitis, STDs, and tuberculosis in the United States. www.cdc.gov/socialdeterminants.
- CDC. (2019a). HIV and transgender people. CDC. <https://www.cdc.gov/hiv/pdf/group/gender/transgender/cdc-hiv-transgender-factsheet.pdf>.
- CDC. (2020a). HIV and African American gay and bisexual men. CDC. <https://www.cdc.gov/hiv/pdf/group/msm/cdc-hiv-bmsm.pdf>.
- CDC. (2019b). HIV surveillance report, 2018 (preliminary): Diagnoses of HIV infection in the United States and dependent areas (vol. 30), 2018 <https://www.cdc.gov/hiv/pdf/library/reports/surveillance/cdc-hiv-surveillance-report-2018-vol-30.pdf>.
- CDC. (2020b). HIV and Hispanic/Latino gay and bisexual men. CDC. <https://www.cdc.gov/hiv/pdf/group/msm/cdc-hiv-factsheet-msm-hispanic-latino.pdf>.
- CDC. (2019c). HIV surveillance report: Diagnoses of HIV infection in the United States and dependent areas (vol. 29), 2017 <http://www.cdc.gov/hiv/library/reports/hiv-surveillance.html>.

- Choi K-H, Paul J, Ayala G, Boylan R, & Gregorich SEP (2013). Experiences of discrimination and their impact on the mental health among African American, Asian and Pacific Islander, and Latino men who have sex with men. *American Journal of Public Health*, 103(5), 868–874. [PubMed: 23488483]
- Chouinard JA (2013). The case for participatory evaluation in an era of accountability. *The American Journal of Evaluation*, 34(2), 237–253. 10.1177/1098214013478142
- Clark H, Babu AS, Wiewel EW, Opoku J, & Crepaz N (2017). Diagnosed HIV infection in transgender adults and adolescents: Results from the national HIV surveillance system, 2009–2014. *AIDS and Behavior*, 21(9), 2774–2783. 10.1007/s10461-016-1656-7 [PubMed: 28035497]
- Corus C, & Saatcioglu B (2015). An intersectionality framework for transformative services research. *Service Industries Journal*, 35(7–8), 415–429. 10.1080/02642069.2015.1015522
- Crenshaw K (1989). Demarginalizing the intersection of race and sex: A black feminist critique of antidiscrimination doctrine, feminist theory and antiracist politics. *University of Chicago Legal Forum*.
- Eaton L, Driffin DD, Kegler C, Smith H, Conway-Washington C, White D, et al. (2015). The role of stigma and medical mistrust in the routine health care engagement of black men who have sex with men. *American Journal of Public Health*, 105(2), e75–e82. 10.2105/ajph.2014.302322
- Eaton L, Kalichman S, Price D, Finneran S, Allen A, & Maksut J (2017). Stigma and conspiracy beliefs related to pre-exposure prophylaxis (PrEP) and interest in using PrEP among black and white men and transgender women who have sex with men. *AIDS and Behavior*, 21(5), 1236–1246. 10.1007/s10461-017-1690-0 [PubMed: 28108878]
- Elopre L, Kudroff K, Westfall AO, Overton ET, & Mugavero MJ (2017). The right people, right places, and right practices: Disparities in PrEP access among African American men, women and MSM in the deep south. *Journal of Acquired Immune Deficiency Syndromes* (1999), 74(1), 56–59. 10.1097/QAI.0000000000001165 [PubMed: 27552156]
- Fauci AS, Redfield RR, Sigounas G, Weahkee MD, & Giroir BP (2019). Ending the HIV epidemic: A plan for the United States. *JAMA*, 321(9), 844–845. 10.1001/jama.2019.1343. %J JAMA. [PubMed: 30730529]
- Feagin J, & Bennefield Z (2014). Systemic racism and U.S. health care. *Social Science & Medicine*, 103, 7–14. 10.1016/j.socscimed.2013.09.006 [PubMed: 24507906]
- Frye V, Nandi V, Egan J, Cerda M, Greene E, Ompad D, et al. (2015). Sexual orientation- and race-based discrimination and sexual HIV risk behavior among urban MSM. *AIDS and Behavior*, 19(2), 257–269. [PubMed: 25381561]
- Furness BW, Goldhammer H, Montalvo W, Gagnon K, Bifulco L, Lentine D, et al. (2020). Transforming primary care for lesbian, gay, bisexual, and transgender people: A collaborative quality improvement initiative. *Annals of Family Medicine*, 18 (4), 292–302. 10.1370/afm.2542 [PubMed: 32661029]
- Gale N, Heath G, Cameron E, Rashid S, & Redwood S (2013). Using the framework method for the analysis of qualitative data in multi-disciplinary health research. *BMC Medical Research Methodology*, 13(1), 117. [PubMed: 24047204]
- Garaway GB (1995). Participatory evaluation. *Studies in Educational Evaluation*, 21(1), 85–102. 10.1016/0191-491X(95)00007-H
- Geter A, Herron AR, & Sutton MY (2018). HIV-related stigma by healthcare providers in the United States: A systematic review. *AIDS Patient Care and STDs*, 32 (10), 418–424. 10.1089/apc.2018.0114 [PubMed: 30277814]
- Kalichman SC, Hernandez D, Finneran S, Price D, & Driver R (2017). Transgender women and HIV-related health disparities: Falling off the HIV treatment cascade. *Sexual Health*, 14(5), 469–476. 10.1071/SH17015. <https://www.publish.csiro.au/sh/pdf/SH17015> [PubMed: 28870282]
- Kamitani E, Wichser ME, Adegbite AH, Mullins MM, Johnson WD, Crouch P-C, et al. (2018). Increasing prevalence of self-reported HIV preexposure prophylaxis use in published surveys: A systematic review and meta-analysis. *AIDS (London, England)*, 32(17), 2633–2635. 10.1097/QAD.0000000000001983 [PubMed: 30096073]

- Lehman JS, Carr MH, Nichol AJ, Ruisanchez A, Knight DW, Langford AE, et al. (2014). Prevalence and public health implications of state laws that criminalize potential HIV exposure in the United States. *AIDS and Behavior*, 18(6), 997–1006. 10.1007/s10461-014-0724-0 [PubMed: 24633716]
- Levison JH, Levinson JK, & Alegría M (2018). A critical review and commentary on the challenges in engaging HIV-Infected latinos in the continuum of HIV care. *AIDS and Behavior*, 22(8), 2500–2512. 10.1007/s10461-018-2187-1 [PubMed: 29948334]
- McCree DH, Williams AM, Chesson HW, Beer L, Jeffries WLI, Lemons A, et al. (2019). Changes in disparities in estimated HIV incidence rates among black, Hispanic/Latino, and white men who have sex with men (MSM) in the United States. *Journal of Acquired Immune Deficiency Syndromes*, 81(1), 57–62. 10.1097/qai.0000000000001977, 2010–2015. [PubMed: 30964805]
- Millet R (1995). W.K. Kellogg Foundation cluster evaluation model of evolving practices. W. K. Kellogg Foundation.
- Millett GA, Flores SA, Peterson JL, & Bakeman R (2007). Explaining disparities in HIV infection among black and white men who have sex with men: A meta-analysis of HIV risk behaviors. *AIDS*, 21(15), 2083–2091. http://journals.lww.com/aidsonline/Fulltext/2007/10010/Explaining_disparities_in_HIV_infection_among.11.aspx. [PubMed: 17885299]
- Millett GA, Peterson JL, Flores SA, Hart TA, Jeffries WL 4th, Wilson PA, et al. (2012). Comparisons of disparities and risks of HIV infection in black and other men who have sex with men in Canada, UK, and USA: A meta-analysis. *Lancet*, 380 (9839), 341–348. <http://www.sciencedirect.com/science/article/pii/S014067361260899X>. [PubMed: 22819656]
- Milstein B, & Wetherhall SF (1999). Framework for program evaluation in public health [Journal Issue]. *MMWR. Recommendations and reports : Morbidity and mortality weekly report. Recommendations and reports*; v. 48, no. RR-11 <https://stacks.cdc.gov/view/cdc/5204>.
- Organization WH (2008). Closing the gap in a generation: Health equity through action on the social determinants of health. Report from the commission on social determinants of health. http://www.who.int/social_determinants/thecommission/finalreport/en/index.html.
- Patel R, Mena L, Nunn A, McBride T, Harrison L, Oldenburg C, et al. (2017). Impact of insurance coverage on utilization of pre-exposure prophylaxis for HIV prevention. *PloS One*, 12(5). e0178737. [PubMed: 28558067]
- Pitts RA, & Greene RE (2020). Promoting positive sexual health. *American Journal of Public Health*, 110(2), 149–150. 10.2105/AJPH.2019.305336 [PubMed: 31913675]
- Poteat T, Wirtz A, Malik M, Cooney E, Cannon C, Hardy WD, et al. (2019). A gap between willingness and uptake: Findings from mixed methods research on HIV prevention among black and latina transgender women. *Journal of Acquired Immune Deficiency Syndromes*, 82(2), 131–140. 10.1097/qai.0000000000002112 [PubMed: 31180995]
- Quinn K, & Dickson-Gomez J (2016). Homonegativity, religiosity, and the intersecting identities of young black men who have sex with men. *AIDS and Behavior*, 20(1), 51–64. [PubMed: 26373283]
- Quinn K, Dickson-Gomez J, Zarwell M, Pearson B, Lewis MJA, & Behavior. (2018). “A gay man and a doctor are just like, a recipe for destruction”: How racism and homonegativity in healthcare settings influence PrEP uptake among young black MSM [journal article]. 10.1007/s10461-018-2375-z.
- Safer JD, Coleman E, Feldman J, Garofalo R, Hembree W, Radix A, et al. (2016). Barriers to healthcare for transgender individuals. *Current Opinion in Endocrinology, Diabetes, and Obesity*, 23(2), 168–171. 10.1097/MED.0000000000000227 [PubMed: 26910276]
- Sanders JR (1997). Cluster evaluation. In Chelimsky ES, & R W (Eds.), *Evaluation for the 21st century: A handbook* (pp. 396–404). Sage.
- Sanders JR (2013). Cluster evaluation. In Chelimsky ES, & R W (Eds.), *Evaluation for the 21st century: A handbook* (pp. 396–404). Sage.
- Schilder AJ, Kennedy C, Goldstone IL, Ogden RD, Hogg RS, & O’Shaughnessy MV (2001). Being dealt with as a whole person.” Care seeking and adherence: The benefits of culturally competent care. *Social Science & Medicine*, 52 (11), 1643–1659. 10.1016/S0277-9536(00)00274-4 [PubMed: 11327138]
- Weber L (2010). *Understanding Race, Class, Gender, and Sexuality: A conceptual framework*. Oxford University Press, Inc.

- Wohl AR, Galvan FH, Carlos J-A, Myers HF, Garland W, Witt MD, et al. (2013). A comparison of MSM stigma, HIV stigma and depression in HIV-Positive Latino and African American men who have sex with men (MSM) [journal article]. *AIDS and Behavior*, 17(4), 1454–1464. 10.1007/s10461-012-0385-9 [PubMed: 23247362]
- Yarbrough DB, Shulha LM, Hopson RK, & Caruthers FA (2011). *The program evaluation standards: A guide for evaluators and evaluation users* (3rd ed.). SAGE.
- Yehia B, Fleishman J, Agwu A, Metlay J, Berry S, & Gebo K (2014). Health insurance coverage for persons in HIV care, 2006–2012. *JAIDS Journal of Acquired Immune Deficiency Syndromes*, 67(1), 102–106. [PubMed: 24977377]
- Yehia BR, Stewart L, Momplaisir F, Mody A, Holtzman CW, Jacobs LM, et al. (2015). Barriers and facilitators to patient retention in HIV care. *BMC Infectious Diseases*, 15(1), 246. 10.1186/s12879-015-0990-0 [PubMed: 26123158]

Table 1

Health Equity Cluster Evaluation Questions.

Funded Recipient (City/ State Health Department)	Strategy Evaluated/Audience	Cluster Evaluation Questions	
Baltimore	<i>Baltimore in Conversation Storytelling Events</i> included stories of LGBTQ persons of color to inspire hope and to increase health care workers' empathy for the stigma suffered by racial/ethnic, sexual, and gender minorities clients they serve	1	To what extent did changes in equity-related outcomes (e.g., decrease stigma, decrease HCW distrust, etc.) result from PrIDE trainings?
Louisiana	Training to health department staff and partners on how to tackle and reduce institutional racism, homophobia, and transphobia	2	What were the lessons learned?
		3	What were the good practices identified?
New York City	Training to health clinic staff to increase culturally affirming care among sexual health clinics' staff particularly for their sexual minority clients		