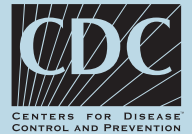


DIVISION OF HIV/AIDS PREVENTION

Annual Report 2015

PUTTING PREVENTION
ADVANCES TO WORK



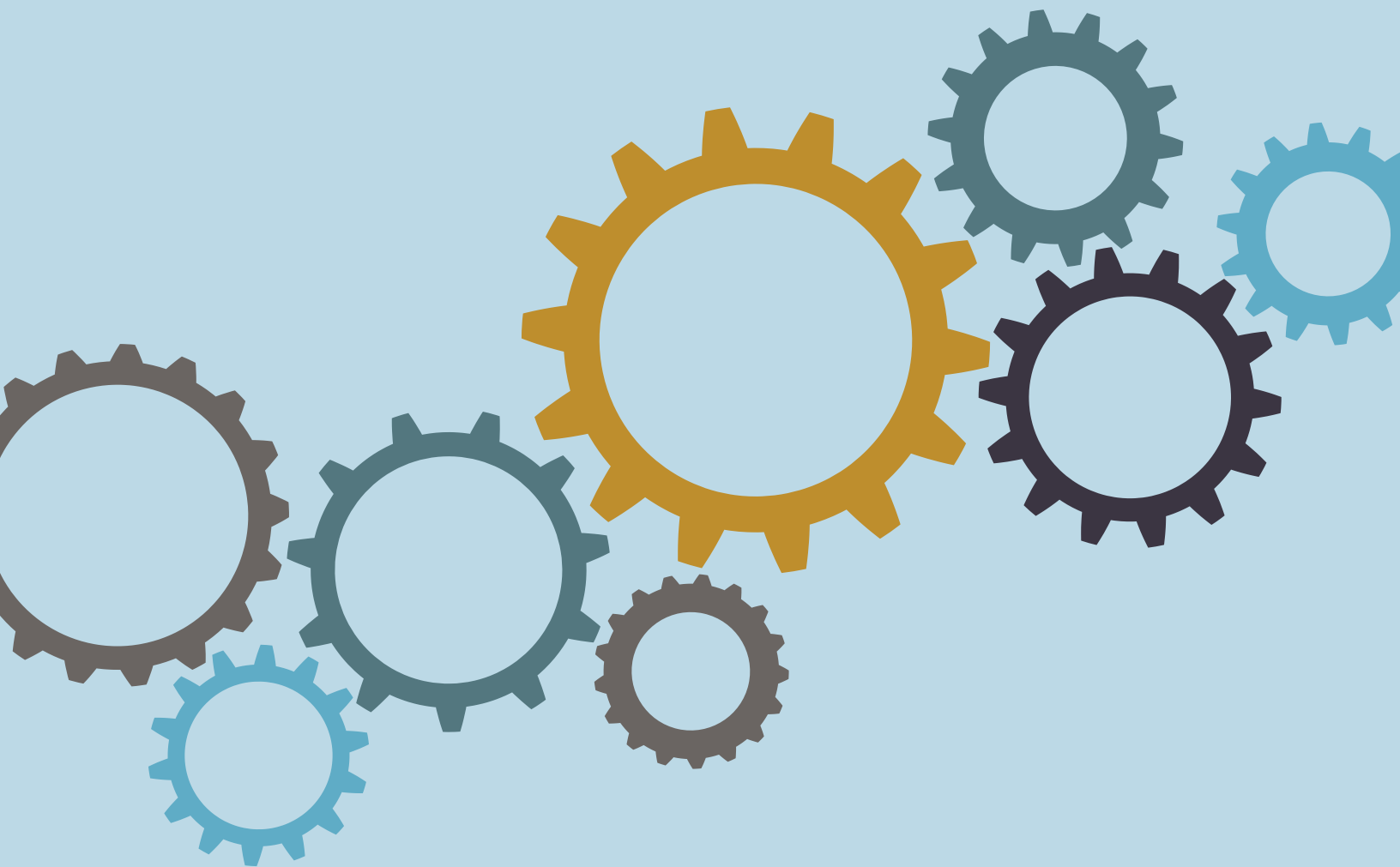





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2015 was a year of major change and progress for HIV prevention in the United States.

CDC released an analysis showing that HIV diagnoses fell by 19 percent over the past decade, driven by dramatic declines among heterosexuals, people who inject drugs, and African American women and heterosexual men. CDC also reported that, thanks to sustained testing efforts, the proportion of Americans with HIV who know their status has reached an all-time high of 87 percent. Meanwhile, implementation of the Affordable Care Act continued to increase access to critical HIV testing, prevention, and care services nationwide.

While this progress is encouraging, we now have the potential to go much further.

Recent scientific advances have given us powerful new strategies to stop HIV, including improved testing techniques, early treatment with antiretroviral medications, and pre-exposure prophylaxis (PrEP).

But these advances aren't yet reaching many people in need. Surveillance data show just 57 percent of people diagnosed with HIV are receiving care for their infection, and only 55 percent have their virus suppressed through treatment. PrEP is reaching only a small fraction of those who could benefit from it, in part because many health care providers are unaware of its promise. There are substantial gaps between Southern states and the rest of the country on critical measures including death rates among people with diagnosed HIV and knowledge of HIV-positive status.

As a result, our nation's progress has been uneven. For example, HIV diagnoses dropped 18 percent among white men who have sex with men (MSM) between 2005 and 2014, but increased 24 percent among Latino MSM – a strong signal that we must do more to reach Latino MSM with effective prevention. Diagnoses increased 22 percent among black MSM, although the increases have leveled off since 2010,

signaling that intensified prevention programs for black gay and bisexual men are beginning to pay off.

In the face of these challenges, our task is clear: to put HIV prevention advances to work for everyone in need.

Everyone – regardless of who they are or where they live – should have the opportunity to protect themselves and their partners from HIV.

At CDC's Division of HIV/AIDS Prevention, our efforts are guided by the *National HIV/AIDS Strategy: Updated to 2020*. The Strategy includes ambitious targets for HIV prevention, treatment, and care (see sidebar).

In 2015, CDC made major new investments to help deliver high-impact prevention at the state and local levels, particularly through demonstration projects for gay and bisexual men of color. We worked to increase PrEP awareness and encourage its adoption by health care providers and people at risk. We utilized cutting-edge surveillance tools to support prevention programs and respond to outbreaks. We worked to address key data gaps, including the urgent need for better data on HIV among transgender people.

But CDC's efforts are only part of the equation. Successfully meeting the goals of NHAS will depend on the efforts of many stakeholders, including state and local health departments, community-based organizations (CBOs), health care providers, and policymakers inside and outside government. In particular, it will be critical for all states to take action to improve their HIV care and prevention outcomes.

Our ability to accelerate progress and meet national goals will depend on our collective willingness to think in new ways; to focus on what works; to confront ongoing social, economic, and structural barriers to prevention; and to prepare for tomorrow's advances by capitalizing on the tools we have today.

Success is within our grasp.

But we will need to do all we can to sustain momentum. We must keep driving down HIV infections, especially among gay and bisexual men and African American women. We must reach Latinos, especially Latino MSM, with culturally relevant prevention, including access to PrEP and other tools. We must address emerging issues like increasing injection drug use in both rural and urban communities nationwide. We must better meet the needs of transgender people. We must do more to link individuals to care and treatment the *same day* they receive their HIV test results. And we must do a better job of ensuring that everyone living with HIV has unfettered access to quality health care.

It is an ambitious vision, but it can be our reality tomorrow – if we all commit to it today. I'm confident that, together, we will make bold new progress against HIV and put a stop to new infections in the United States.

Sincerely,



Eugene McCray, MD
Director, Division of
HIV/AIDS Prevention

THE NATIONAL HIV/AIDS STRATEGY: UPDATED TO 2020

In July 2015, the National HIV/AIDS Strategy (NHAS) was updated to reflect the current state of HIV in the United States and provide bold new goals for the next five years. The updated strategy to 2020 includes 10 key indicators that federal agencies and their state and local partners must work to address – for example, increasing the percentage of people living with HIV who know their serostatus to at least 90 percent, and increasing the percentage of people with diagnosed HIV infection who are virally suppressed to at least 80 percent. Over time, additional indicators will be added to track progress in increasing PrEP access, reducing the epidemic among transgender persons, and reducing stigma.

For more information,
visit www.aids.gov/nhas.





→ HIGH-IMPACT HIV PREVENTION STRATEGIES

CDC's High-Impact Prevention approach involves using combinations of scientifically proven, cost-effective, and scalable interventions, with particular attention to the most heavily affected populations and geographic areas. CDC is working to expand access to multiple high-impact strategies, including:

→ **HIV TESTING AND DIAGNOSIS.** Testing is the gateway to HIV prevention and care. CDC funds testing services and is working with partners to implement routine and regular testing for higher-risk groups, and to speed the adoption of new testing technologies that enable earlier, faster diagnosis.

→ **HIV CARE AND TREATMENT.** Early antiretroviral treatment not only improves the health of people living with HIV, but also makes them far less likely to transmit the virus. A top priority for CDC is ensuring that people diagnosed with HIV are linked to – and retained in – HIV care and treatment, so they can achieve and maintain viral suppression.

→ **ACCESS TO CONDOMS.** Consistent, correct condom use continues to be an essential prevention strategy. All CDC-funded health departments and CBOs are required to provide condom distribution services for people living with HIV and for people at high risk.

→ **PrEP AVAILABILITY AND UPTAKE.** HIV-negative people who take pre-exposure prophylaxis (PrEP), a daily anti-HIV pill, as directed can dramatically reduce their risk of becoming infected. CDC is working to build awareness of PrEP among providers and potential clients and ensure it is offered to all those who are eligible.

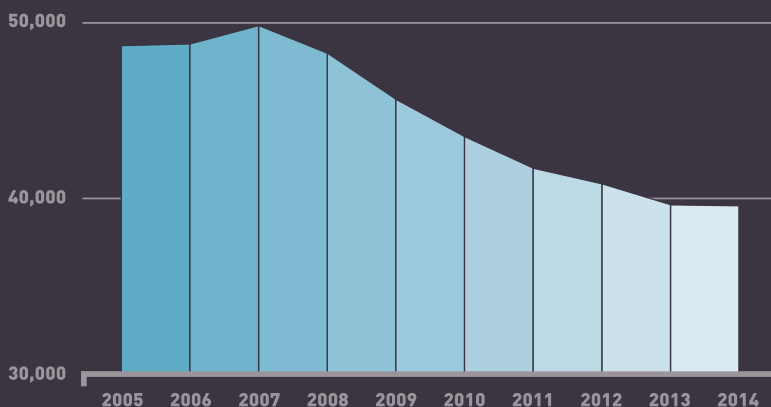
→ **RISK REDUCTION AND SUPPORT.** A number of behavior-change interventions have been proven effective for HIV prevention, although not all are cost-effective and scalable. CDC has prioritized support for interventions that help people living with HIV remain in care and avoid transmission to others. CDC-funded partners may also pursue cost-effective behavioral interventions targeting HIV-negative, high-risk individuals.

A Snapshot of HIV Infections in the United States

In the United States today, approximately 1.2 million people are living with HIV. About 87 percent of them are aware that they are infected – substantially higher than a decade ago.

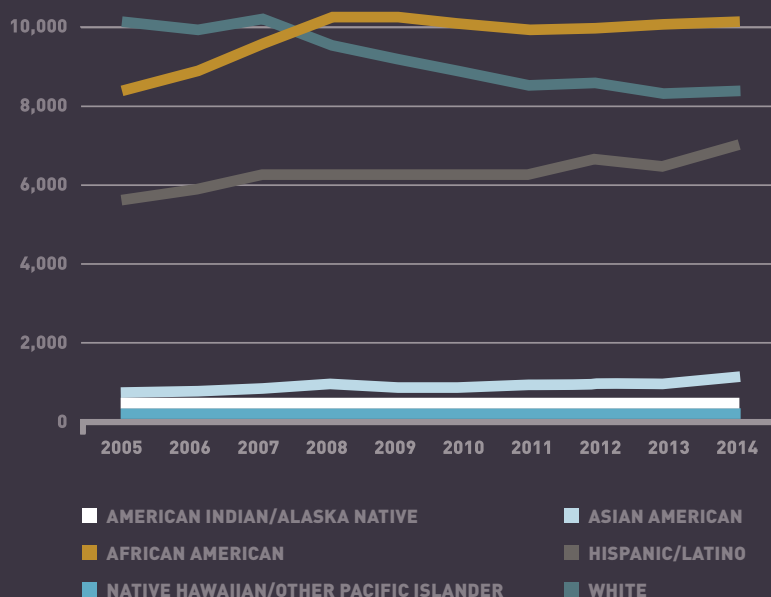
Successful HIV prevention and treatment efforts have helped to dramatically reduce HIV-related illness and deaths, slow HIV transmission rates, and decrease the annual number of new HIV diagnoses. Yet despite these successes, there is still an urgent need for HIV prevention. Many people living with or at risk for HIV are not receiving necessary prevention or care, and with more people living with HIV than ever before, there are more opportunities for HIV transmission.

Fig 1: Overall Decline in HIV Diagnoses, 2005-2014



CDC data show that the number of HIV diagnoses has declined significantly in the last decade, driven by declines among heterosexuals, people who inject drugs, African American women and heterosexual men – with especially steep declines among black women.

Fig 2: HIV Diagnoses among MSM, by Race, 2005-2014



Among MSM, diagnoses increased six percent overall in the last decade, driven by increases among black and Latino MSM. Diagnoses have recently leveled off among black MSM, who remain most affected by HIV, but have continued to increase among Latino MSM.

Transgender persons, especially transgender women of color, can be at particularly high risk for HIV.

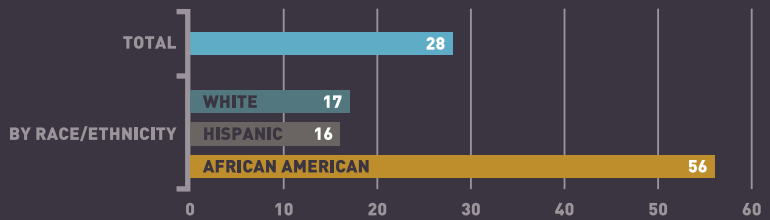
However, reliable data on this population remain limited. According to a 2008 meta-analysis of available, relevant, and reliable data, investigators estimated that approximately 28 percent of transgender women in the U.S. were living with HIV. For transgender women of color, the picture is more stark. The same study estimated that approximately 56 percent of African American transgender women were living with HIV.¹

Many Americans living with HIV are not receiving the treatment and care they need to improve their health and prevent transmission to others.

CDC surveillance data show just 57 percent of people diagnosed with HIV are receiving care for their infection, and only 55 percent have their virus suppressed through treatment.

Southern states bear the greatest burden of HIV infection, illness, and deaths among people with HIV, reflecting major gaps in access to high-quality prevention and care.

Fig 3: Estimated Percentage of Transgender Women Living with HIV Infection¹



¹ Herbst JH, Jacobs ED, Finlayson TJ, McKleroy VS, Neumann MS, Crepaz N. Estimating HIV prevalence and risk behaviors of transgender persons in the United States: a systematic review. *AIDS Behav.* 2008 Jan;12(1):1-17. Epub 2007 Aug 13.

Fig 4: Retention in HIV Medical Care and Viral Suppression among Persons Aged ≥13 Years Living with Diagnosed HIV Infection, by Sex, 2013 – 32 States and the District of Columbia

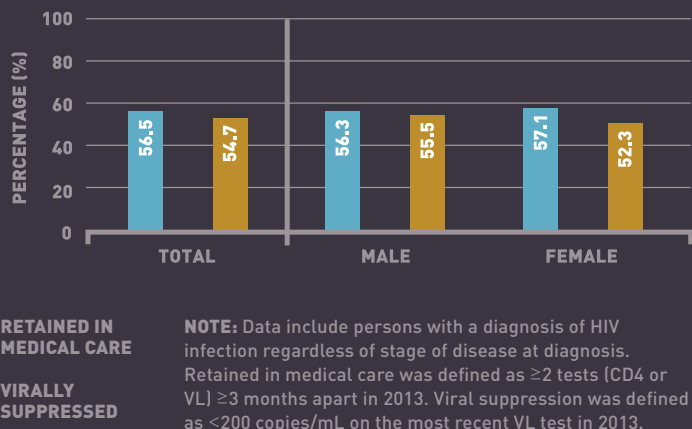
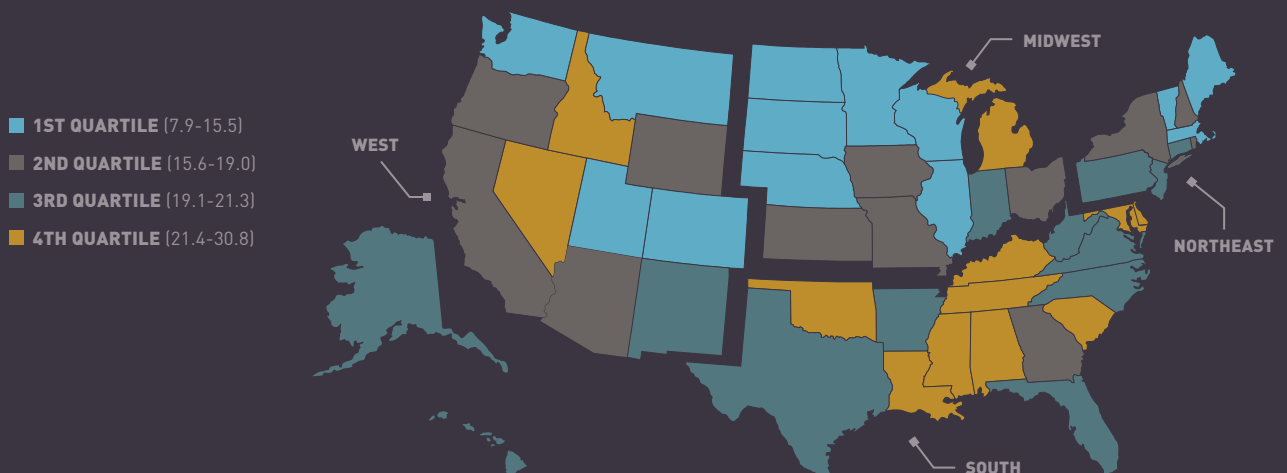


Fig 5: Death Rate Among People with Diagnosed HIV, Aged ≥13 Years, By State, 2012



2015 YEAR IN REVIEW



DELIVERING HIGH-IMPACT PREVENTION

For decades, DHAP has been a leader in the movement to advance HIV prevention by providing funding, technical assistance, and policy guidance to health departments, CBOs, and other partners throughout the United States. In 2015, the Division continued several major steps to deliver high-impact prevention to the populations and geographic areas in greatest need.



Innovative Funding to Deliver HIV Prevention Advances

CDC Renews Awards to Community-Based Organizations

CBOs have long been critical partners in HIV prevention. While relatively small in comparison to CDC's health department commitments, direct funding to CBOs is an important component of DHAP's prevention portfolio. In July 2015, the Division awarded \$43.2 million per year over five years to 90 CBOs and their clinical partners nationwide to deliver HIV prevention services to those at greatest risk, including people of color, MSM, transgender individuals, and people who inject drugs.

The awards reflect CDC's increased focus on delivering the latest high-impact prevention tools in combination. Most significantly, CBOs are now required to prioritize diagnosing infection among people living with HIV, linking them with care and treatment, and providing the support they need to stay in care. CBOs are also funded to help ensure that HIV-negative individuals at high risk have access to proven prevention tools including PrEP.

Each of the funded organizations has demonstrated experience and expertise working with the populations most affected by HIV. Of the 90 CBOs, 67 primarily serve African Americans and 15 primarily serve Hispanics; 64 primarily serve MSM. CDC provided extensive technical assistance to help CBOs apply for the funding and offers ongoing support to help ensure their success.

New Awards for Health Department Demonstration Projects Help Deliver Prevention Advances to Gay and Bisexual Men and Transgender People

In March 2015, DHAP announced plans to intensify prevention efforts for gay and bisexual men and transgender people, particularly people of color. In 2015, CDC directed over \$37 million to help state and local health departments fund demonstration projects to increase access to two powerful, but underutilized, HIV prevention tools: PrEP and Data to Care. The funding will drive wider adoption of these tools where they are urgently needed and provide lessons on how to expand their use nationwide.

→ **PrEP:** CDC estimates that 1 in 4 sexually active gay and bisexual men are at substantial risk for HIV and might benefit from PrEP (see page 24 for details). The new funding is helping 12 health departments ensure gay and bisexual men and transgender people are aware of PrEP and can find an appropriate PrEP provider in their community. Funded health departments will also ensure that more health care providers are informed about PrEP and know when and how to offer it.

→ **DATA TO CARE:** The new funding is also helping 5 health departments implement Data to Care, a CDC-developed approach that uses routinely collected HIV surveillance data to identify and follow up with people with diagnosed HIV who are not receiving care. Currently, only about 57 percent of gay and bisexual men diagnosed with HIV are engaged in ongoing medical care.

PARTNER PROFILE

ABOUNDING PROSPERITY, INC.

Abounding Prosperity is a community-based organization that addresses social and health disparities that affect black MSM, transgender individuals, and their families in Dallas County, Texas. The organization engages these communities in many ways, including the use of social media platforms such as Facebook, Twitter, Instagram, and mobile dating apps.

With CDC's support, Abounding Prosperity is working to expand access to HIV testing and improve linkage to care for people who test positive. In 2015, more than 50 percent of people who received HIV testing through its programs tested positive, indicating that these programs were successfully reaching communities with some of the highest rates of undiagnosed HIV and helping them obtain needed care and prevention. In fact, Abounding Prosperity also exceeded its goal for linking newly diagnosed HIV-positive individuals to medical care.



CDC Supports Comprehensive HIV Prevention Projects for Gay and Bisexual Men of Color

CDC also announced in March that it will lead a multi-agency initiative to launch demonstration projects that address the HIV prevention and care needs of gay and bisexual men of color. The initiative is designed to address many of the critical social determinants that influence health in these populations.

Up to \$60.5 million will be awarded over 4 years to help state and local health departments collaborate with local CBOs, clinics, and other service providers to:

- Deliver comprehensive HIV prevention services to those at high risk
- Provide linkage to a wide range of critical services such as substance abuse treatment, mental health care, housing, and job training
- Improve workforce capacity and cultural competency so that prevention efforts are tailored to the unique needs of gay and bisexual men of color

This effort is supported by the Department of Health and Human Services Secretary’s Minority AIDS Initiative Fund (SMAIF), which advances innovative approaches to addressing HIV in minority communities.

Enabling Prevention: Technical Assistance and Prevention Policy Guidance

New Toolkit Helps People with HIV Take “Every Dose, Every Day”

To ensure more people living with HIV achieve viral suppression, CDC has developed new interventions to improve linkage to medical care, retention in care, and adherence to medication regimens.

In September 2015, CDC launched the Every Dose, Every Day™ toolkit, a suite of medication adherence resources for health care providers and people living with HIV. The toolkit features flexible, evidence-based interventions to help health care providers assess and manage medication adherence, and work with patients

to overcome any barriers. It also includes a free, easy-to-use mobile app designed to help people living with HIV keep track of medications, appointments, and lab results. The app is available for download from iTunes and Google Play.

The toolkit is one of many effective prevention approaches included in CDC’s online compendium at <https://effectiveinterventions.cdc.gov/>. The site houses information on accessible, evidence-based HIV prevention programs to promote healthy behaviors among people at risk for transmitting or acquiring HIV, including best practices and online courses.

CDC Strengthens States' Outbreak Response and Preparation

For much of 2015, CDC supported the state of Indiana's response to an outbreak of HIV infections among people who inject drugs (PWID) in rural Scott County. The outbreak was a powerful reminder of the ever-present risk of a resurgence of HIV among PWID in the United States, particularly given evidence of increasing injection drug use in areas that have had relatively few HIV cases in the past.

At the request of Indiana health officials, CDC provided technical assistance and dispatched a team of disease intervention specialists and epidemiologists to augment the state's public health staff on the ground. Specifically, CDC personnel helped to reach affected individuals with HIV and viral hepatitis testing and linked those who tested positive to medical care. CDC also supported intensive work to identify and follow up with sexual and needle-sharing partners of those who had been diagnosed with HIV.

Since the factors driving the outbreak were not unique to Scott County, CDC also issued a Health Advisory in April 2015 to alert public health departments and providers nationwide of the increase in hepatitis C infections and the possibility of current or future HIV outbreaks among PWID. The advisory provided guidance on how to identify and prevent such outbreaks. CDC continues to provide states with information that can help them identify potential outbreaks and respond to them early.

Understanding State & Local Responses to HIV Policy Changes

Since 2010, CDC's health department and CBO partners have encountered major changes in national health care policy, from the National HIV/AIDS Strategy to the Affordable Care Act. In 2015, DHAP conducted in-depth interviews and consultations with 27 partners in 21 jurisdictions (19 from health departments and eight from CBOs), to understand how they have adapted. The results will help DHAP make well-informed decisions on how best to monitor HIV infections and the impact of prevention programs, improve partners' capacities, and support effective public health policies.

The discussions indicated that partners are not only adapting, but are strengthening their programs in response to policy changes. Health departments, in particular, reported significant advances in program integration and service delivery, and said they are increasingly focusing their activities and local funding allocations on the most urgent needs. CBO representatives reported that their work has been complicated by the need to integrate new policies, and acknowledged that strong collaborations with federal, health department, and clinical partners are now critical to their success. Since last year, CDC has placed greater emphasis on including such formal collaborations in its direct funding agreements with CBOs, and has provided ongoing technical assistance to help them adapt.



→ CDC'S ONGOING PARTNERSHIPS WITH STATE AND LOCAL HEALTH DEPARTMENTS

CDC's largest investment in HIV prevention, by far, continues to be its funding for state, territorial, and local health departments.

The launch of the current funding cycle (2012-2016) was a major step toward the implementation of CDC's High-Impact Prevention approach. To ensure prevention resources are focused where they are needed most, funds are allocated based on the number of people diagnosed with HIV in each state, territory, or city. While health departments use funds differently based on local epidemiology and needs, priority is given to CDC's priority strategies outlined on page 7.

With CDC's support, for example, the **New York City Department of Health and Mental Hygiene** continues to enhance its portfolio of high-impact prevention programs with innovative approaches that target HIV-negative people at high risk and HIV-positive people who are not engaged in care. Using an "HIV neutral continuum of care" model – meaning that both positive and negative HIV tests should prompt linkages to prevention – the department is increasing access to pre- and post-exposure prophylaxis, syringe service programs, HIV medical care, and patient navigators who help people access essential support services. The Department also plays a vital role in New York State's "Ending the Epidemic" initiative, which is expanding HIV prevention activities with the goal of ending the HIV/AIDS epidemic in New York State by 2020.

PARTNER PROFILE

POSITIVE IMPACT HEALTH CENTERS

Over the past 20 years, Positive Impact Health Centers has been a leading provider of HIV testing and prevention services in Atlanta, Georgia, working with one of the most-affected populations in the metro area – young African American MSM. With CDC's support, Positive Impact's HIV testing program identified 44 people with newly diagnosed HIV infections from July through December 2015 and successfully linked more than 90 percent of these individuals to medical care. Of the HIV tests funded directly by CDC, 75 percent were walk-ins (based on word-of-mouth referrals), while the remaining tests were conducted through field outreach. Positive Impact attributes its success not only to its reputation in the community and partnerships developed over the past 20 years, but also to its culturally sensitive, non-judgmental approach toward the people it serves.

UNDERSTANDING THE IMPACT OF HIV

DHAP coordinates national surveillance systems to track HIV infections, risk behaviors, and use of health care and prevention services. In 2015, DHAP issued several important analyses and reports that assessed key trends in HIV indicators and identified where additional efforts are most needed.



CDC Analysis of HIV Diagnoses Shows Encouraging, but Uneven, Progress

In a plenary address at the National HIV Prevention Conference in December (see page 23), Dr. Eugene McCray announced the results of a DHAP analysis of short- and long-term HIV diagnosis trends in the United States.

Overall, the analysis suggests that national HIV prevention efforts are having a substantial impact, although progress is uneven. From 2005 to 2014, annual HIV diagnoses fell 19 percent, driven by dramatic declines among heterosexuals, people who inject drugs, and African American women and heterosexual men – with the steepest declines among black women. However, the same level of success was not seen among all gay and bisexual men, signaling urgent needs for intensified prevention among young, African American and Latino MSM in communities nationwide.

State and National Reports Reveal Progress, Challenges, and Disparities

In December 2015, DHAP released a pair of reports that provide new insights on national and state-level progress against HIV. Both reports track important indicators that align with the original National HIV/AIDS Strategy (through 2015) and with DHAP's 2011–2015 Strategic Plan.

The *National HIV Prevention Progress Report* describes progress toward 15 critical indicators. Results show that annual targets were met for nine of 15 indicators, including increasing the overall percentage of people living with HIV who are diagnosed, linked to medical care, and virally suppressed. However, targets were not yet met for other indicators, such as increasing viral suppression among Hispanics/Latinos with diagnosed HIV.

CDC's *State HIV Prevention Progress Report* provides insights on regional disparities that play a role in driving HIV infections in the nation. It reveals striking gaps between southern states and the rest of the country on two key indicators –

death rates among people with diagnosed HIV, and knowledge of HIV-positive status. Since fewer people living with HIV in the South are aware of their infection than in any other region, fewer people in the South who are living with HIV receive timely medical care or treatment, fewer have their virus suppressed, and a disproportionate number are missing out on the opportunity to preserve their health and avoid transmitting HIV. Mortality remains alarmingly high as a result – people living with HIV in some southern states have death rates that are three times higher than people living with HIV in some other states.

Even with recent increases in federal funding for HIV prevention in the South, success ultimately depends on a variety of prevention partners, including policymakers, at the state, county, and municipal levels. CDC called on states to consider aggressive steps to improve prevention and care outcomes and make more rapid progress toward goals established by the National HIV/AIDS Strategy. These steps were described in a new [DHAP Issue Brief](#), issued in December 2015.

Study Reinforces Prevention Benefits of Improved Testing, Treatment, and Care

In February 2015, DHAP researchers published a study in *JAMA Internal Medicine* showing that nine in 10 new HIV infections in the United States could be averted by diagnosing people living with HIV and ensuring they receive prompt, ongoing care and treatment.

Researchers estimated that 91.5 percent of new HIV infections in 2009 were attributable to HIV-positive persons who were not in medical care, including those who didn't know they were infected. By comparison, less than six percent of new infections could be attributed to persons with HIV who were in care and receiving antiretroviral therapy. The study provides a strong case for investing in efforts to diagnose people living with HIV, engage them in ongoing care, and help them adhere to medication regimens.

Many States Positioned to Meet National HIV Testing Goal, Analysis Finds

Thanks to expanded testing efforts, most Americans living with HIV are aware of their infection. CDC estimates that the proportion of HIV-positive people who have been diagnosed increased from 81 percent in 2006 to 87 percent in 2012. If this progress continues, the nation will soon reach a key target of the National HIV/AIDS Strategy: increasing the percentage of people living with HIV who know their serostatus to at least 90 percent.

To help monitor progress towards this target, DHAP researchers used surveillance data to estimate the prevalence of diagnosed and undiagnosed HIV in each state. Their analysis showed uneven progress: the proportion of

people with HIV who were diagnosed ranged from 77 percent in Louisiana to 90 percent or more in Colorado, Connecticut, Delaware, Hawaii, and New York.

To ensure more states reach the 90 percent target, the study authors recommended increased efforts to implement routine HIV screening in health care settings and targeted testing in non-health care settings in hard-hit communities.

Study Shows Death Rate Down Among African Americans with HIV

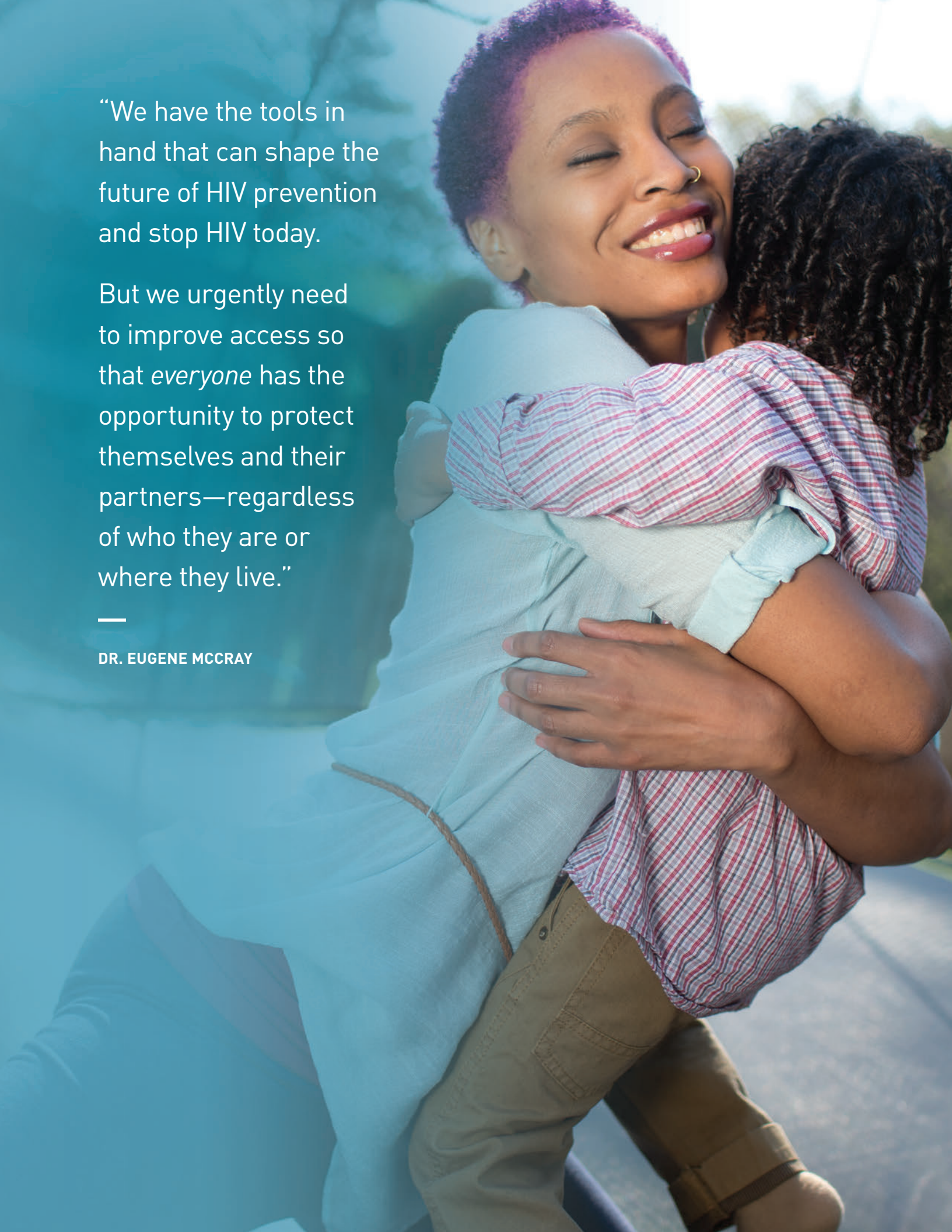
On National Black HIV/AIDS Awareness Day (February 7), CDC researchers published a study showing important signs of progress in the fight against HIV among African Americans. The analysis, based on data from CDC's National HIV Surveillance System, showed that from 2008 to 2012, the death rate declined 22 percent among all HIV-positive Americans, and fell by even more – 28 percent – among those who were African American. Despite this progress, however, racial disparities persist: the death rate for African Americans living with HIV in 2012 was 13 percent higher than the rate for whites and 47 percent higher than the rate for Hispanics. The study authors emphasized that despite progress on death rates and in other areas, HIV continues to have a disproportionate impact in many African American communities, and requires sustained commitment to using the best available prevention tools and strategies.

“We have the tools in hand that can shape the future of HIV prevention and stop HIV today.

But we urgently need to improve access so that *everyone* has the opportunity to protect themselves and their partners—regardless of who they are or where they live.”

—

DR. EUGENE MCCRAY



ADVANCING HIV PREVENTION RESEARCH

DHAP conducts and supports biomedical, behavioral, and other research to develop new prevention strategies and improve existing programs across the country. The past year included several key DHAP-led advances.



DHAP Hosts Signature U.S. Conference on HIV Prevention

In December, DHAP welcomed more than 3,000 researchers, public health professionals, community leaders, and advocates to the 2015 National HIV Prevention Conference in Atlanta. The meeting, organized by CDC in partnership with 29 federal, state, and community organizations, is the only conference dedicated solely to HIV prevention efforts in the United States. In fact, the 2015 conference was the first major gathering of the nation's HIV prevention community since landmark scientific advances altered the prevention landscape early in the decade. It was a critical opportunity for the field to share lessons on the effective implementation of today's HIV prevention tools.

Results from more than 750 scientific studies were presented. Many were conducted by DHAP researchers, including:

- A 20-city study finding that PWID who live in cities with syringe service programs (SSPs) are less likely to report high-risk injection behaviors (e.g., injecting with used syringes) than those who live in cities with no large-scale SSPs. The study provides important real-world evidence of the prevention benefits of SSPs, which, for the first time in many years, can now be supported with CDC and other federal funds.
- An analysis that used HIV nucleotide sequence data collected through molecular surveillance to identify transmission networks and predict the growth of HIV transmission clusters. These types of analyses may offer an effective way to help target HIV prevention resources and interrupt transmission.
- Research that examined HIV testing and linkage to care among transgender people at CDC-funded HIV testing sites, revealing important differences in demographic characteristics, risk behaviors, and HIV status between transgender subgroups, which may help strengthen prevention strategies.



MORE THAN **750 SCIENTIFIC STUDIES** WERE PRESENTED AT THE 2015 NATIONAL HIV PREVENTION CONFERENCE IN ATLANTA.

PrEP Implementation Gets Smarter with New CDC Research

While PrEP has generated great interest and enthusiasm in the HIV prevention community, there are many unanswered questions about how to deliver PrEP to everyone who can benefit. In 2015, DHAP researchers delivered insights to the field on a range of critical PrEP implementation issues. For example:

→ CDC’s December 2015 “Vital Signs” reported that PrEP has the potential to benefit many Americans who are at risk for HIV, and that PrEP scale-up efforts should be accelerated. The report estimated that 25 percent of sexually active gay and bisexual men, nearly 20 percent of adults who inject drugs, and less than one percent of heterosexually active adults are at substantial risk for HIV infection and should be counseled about PrEP. DHAP continues to make PrEP a central focus of its prevention programs for these populations.

→ At the National HIV Prevention Conference, DHAP researchers revealed data showing a substantial increase in awareness of PrEP and willingness to either use or prescribe it. For example, an online survey of more than 3,000 gay and bisexual men found that 71 percent were aware of PrEP, although only seven percent had ever used it. Another study, based on a national survey of primary care clinicians, found that awareness of PrEP increased from 24 percent in 2009 to 64 percent in 2015, and that clinicians were more likely to prescribe PrEP once they received accurate information about it.



CDC’S DECEMBER 2015 “VITAL SIGNS” ESTIMATED THAT **25 PERCENT** OF SEXUALLY ACTIVE GAY AND BISEXUAL MEN, NEARLY **20 PERCENT** OF ADULTS WHO INJECT DRUGS, AND **LESS THAN ONE PERCENT** OF HETEROSEXUALLY ACTIVE ADULTS ARE AT SUBSTANTIAL RISK FOR HIV INFECTION AND SHOULD BE COUNSELED ABOUT PREP.



Keeping Pace with New HIV Tests through Project DETECT

Three decades after the first HIV tests came onto the scene, testing technologies continue to evolve quickly. These advances bring new opportunities to diagnose HIV early in the course of infection, but also raise new questions about which technologies to use, for whom, and when.

DHAP's Project DETECT (**D**agnostic **E**valuation **T**o **E**xpand **C**ritical **T**esting Technologies) kicked off in 2015 to provide answers. Through DETECT, researchers are assessing differences in the ability of new tests to diagnose HIV infection in its earliest, "acute" stage. The project, which is being conducted through a grant to the University of Washington, will help CDC update HIV testing guidance for physicians and other HIV test providers. It is also expected to provide new insights on the characteristics of acute HIV infections in the United States.

RAISING AWARENESS, ENGAGING COMMUNITIES

DHAP develops communication campaigns and partnerships to ensure that all Americans know the facts about HIV, are aware of their status, and have access to tailored information and HIV prevention interventions to protect themselves and their partners. In 2015, the Division launched new awareness and education efforts to achieve these goals.



New Online Tool Helps Users Weigh HIV Risks and Prevention Options

As prevention science evolves and new options such as PrEP become available, it is important to help people choose the best strategies to protect themselves and their partners from HIV.

At the National HIV Prevention Conference, DHAP launched the beta version of an online HIV Risk Reduction Tool (www.cdc.gov/hivrisk), which can help individuals understand and reduce their risk of acquiring or transmitting HIV. The tool includes an interactive personal risk estimator, allowing users to compare the risk of different sexual activities and to see how various prevention methods and risk factors – alone or in combination – could change their level of protection or risk. DHAP plans to update and refine the HIV Risk Reduction Tool over time, based on user feedback and research among people likely to use the tool.



“Doing It” Campaign Promotes HIV Testing

DHAP works to strengthen public HIV awareness through *Act Against AIDS*, a national communications initiative to combat complacency about HIV in the United States.



In December 2015, DHAP launched a new *Act Against AIDS* campaign: *Doing It*, which is designed to motivate Americans to get tested for HIV and know their status. The *Doing It* campaign features everyday people, community leaders, and celebrities emphasizing that HIV testing is a smart choice to stay healthy and protect themselves and their partners. The campaign, which includes social media outreach, online resources, and national ads, highlights individuals from a spectrum of communities, including gay, bisexual, transgender, heterosexual, and people of different races and ethnic backgrounds.

In just the three weeks after its launch at the National HIV Prevention Conference, *Doing It* garnered more than 66 million impressions from billboards, airport advertising, and media coverage. The campaign homepage was viewed more than 30,000 times. In 2016, the campaign will continue with national-level digital, traditional, and social media activities, and will include partner-led HIV testing events and engagement efforts in communities across the country.

Campaigns Expand Focus to Address Communities' Needs

To enhance national HIV awareness and mobilization efforts, DHAP launched *Partnering and Communicating Together to Act Against AIDS* (PACT), a network of 15 national organizations representing the populations hardest hit by HIV, including African Americans, Latinos, gay and bisexual men, and transgender people. DHAP funding will help each organization implement large-scale HIV awareness efforts with their existing constituencies and disseminate *Act Against AIDS* campaign messages (see sidebar, next page).

Also in 2015, the Division conducted a range of communications-focused research to identify additional strategies for reaching transgender individuals. Three *Act Against AIDS* campaigns now include transgender-specific materials featuring a total of eight transgender women in posters, palm cards, pop up banners, and digital stories, and DHAP aims to continue strengthening its awareness efforts for this population.



“While much has changed over the course of the epidemic, the HIV test — a scientific breakthrough achieved three decades ago — is now more essential than ever.”

PACT PARTNER HIGHLIGHTS: 2015

MIAMI, FLORIDA
OCTOBER

National Hispanic Medical Association holds panel discussion and national Twitter chat for National Latino Aids Awareness Day (NLAAD), including White House speakers; promotes *Act Against AIDS* materials to 55,000 Hispanic healthcare providers

ONLINE
OCTOBER

ASPIRA Association, an organization focused on developing the educational and leadership capacity of Hispanic youth, uses social media to announce NLAAD and drive young people's awareness of HIV testing and prevention

WASHINGTON, DC
OCTOBER

National Black Justice Coalition (NBJC) provides *Act Against AIDS* materials and educational sessions at its summit of students and administrators from 13 Historically Black Colleges and Universities

WASHINGTON, DC
NOVEMBER

National Medical Association disseminates *Act Against AIDS* campaign materials at the 6th Annual International Conference on Stigma at Howard University

NATIONWIDE
DECEMBER

AIDS United partners with Campus Pride to develop a series of World AIDS Day (Dec. 1) blog posts at universities throughout the United States

TUSKEGEE, ALABAMA
DECEMBER

Southern Christian Leadership Foundation (SCLF) hosts a county-wide World AIDS Day Health Fair, featuring *Act Against AIDS* materials and HIV testing through partnerships with local health departments

DALLAS, TEXAS
DECEMBER

Dallas Rainbow Council of the **League of United Latin American Citizens** (LULAC) joins with several partners to host a World AIDS Day Event with free and confidential bilingual HIV testing, a film screening, and entertainment

ONLINE
DECEMBER

NBJC World AIDS Day blog post is featured on the front page of Huffington Post Black Voices

Molecular Surveillance: A Powerful Tool for Understanding HIV Transmission

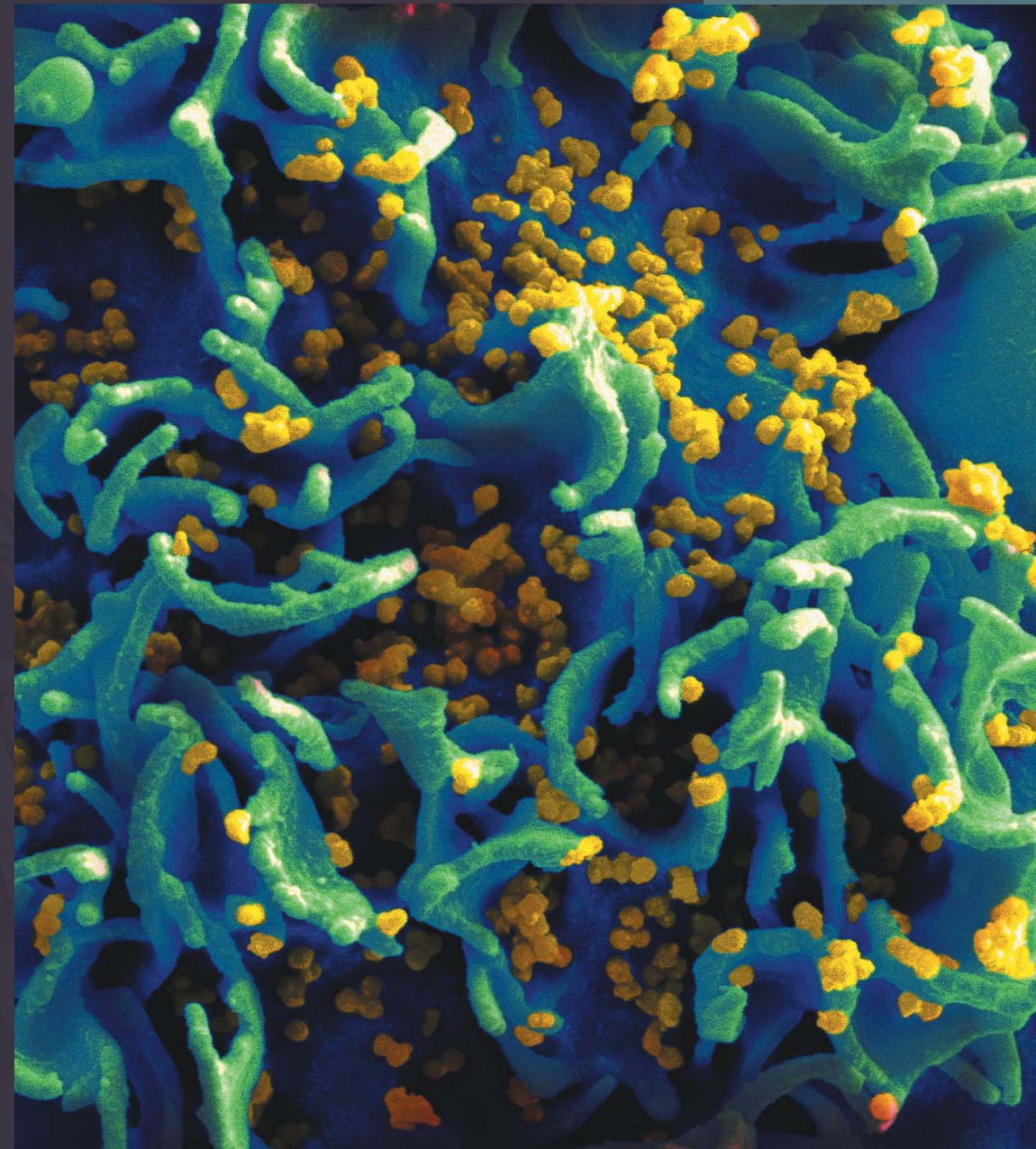
DHAP is using cutting-edge technologies like molecular surveillance to transform how our nation detects and responds to HIV. A key example is CDC's Advanced Molecular Detection (AMD) Initiative, which supports the use of genetic science to help identify and characterize emerging HIV outbreaks and develop targeted prevention measures.

When a person is diagnosed with HIV, they receive testing for drug resistance as a standard part of their medical care. That testing generates information about the genetic code of HIV, which is collected by state and local health departments and reported to CDC as molecular HIV surveillance data. With the support of the AMD Initiative, CDC scientists use advanced computing techniques to process and analyze massive amounts of this genetic data and identify hidden connections or trends.

On a national level, the AMD Initiative is helping DHAP monitor for early warning signs of bursts in HIV transmission and to identify trends in resistance to anti-HIV drugs. At the state and local levels, it can be used to define groups of people who are in greatest need of prevention interventions and linkage to care, as well as communities experiencing rapid HIV transmission that should be targeted with testing and prevention efforts. Molecular surveillance can also help public health experts predict how fast a specific HIV transmission cluster might grow and how large it could become, making it easier to know whether HIV prevention efforts are effectively slowing an outbreak.

In 2015, the AMD Initiative demonstrated its value when CDC was called upon to assist the Indiana State Department of Health to investigate an HIV outbreak linked to injection drug use in rural Scott County. From November 2014 to November 2015, 181 people were found to have been infected with HIV, and over 90 percent of them were also infected with hepatitis C virus (HCV). To control the outbreak, DHAP scientists used the time-tested methods of comparing laboratory and demographic data to find connections between infected people.

Advanced molecular detection (AMD) technology helped investigators trace connections between cases of HIV infection in a rural Indiana outbreak.



Scanning electron micrograph of HIV particles infecting a human T cell.



For the first time, DHAP scientists also used molecular surveillance to rapidly analyze viral genetic HIV sequences from each case to see how fast the outbreak happened and whether it was spreading. They found that nearly all recent cases in the area had a highly similar genetic fingerprint, indicating that the virus had been transmitted relatively quickly (within one year). By comparing the genetic fingerprint of the outbreak strain to other reported HIV cases in the surrounding region, DHAP scientists were also able to confirm that the outbreak had not spread geographically. By determining that the outbreak was limited to Scott County, DHAP's analysis enabled public health workers to focus limited resources among people at greatest risk and most in need of HIV testing, linkage to care, and PrEP.

Indiana's outbreak is just one example of the power of molecular surveillance to strengthen HIV prevention efforts in partnership with health departments nationwide. The approach helped CDC and its Indiana state partners to better understand the drivers of the outbreak and quickly rule out the possibility that it had spread to other areas of the region. DHAP and its health department partners will continue to apply AMD methods for HIV prevention, using them to help identify early warning signs of potential outbreaks that might otherwise go unrecognized.

CDC Funding: A Deeper Dive

In FY 2015, CDC received \$754.7 million for HIV prevention, and additional funds of \$19.2 million from HHS’s Secretary’s Minority AIDS Initiative Funding. 89 percent of this funding was used for directly or indirectly supported programs focused on HIV prevention. The remaining 11 percent was used to satisfy agency mandatory costs such as Public Health Service evaluation and to fund projects focused on cross-cutting topics and other related infections—for example, sexually transmitted diseases, tuberculosis, and viral hepatitis.

Fig 6: DHAP FY 2015 Expenditures: \$675 Million*

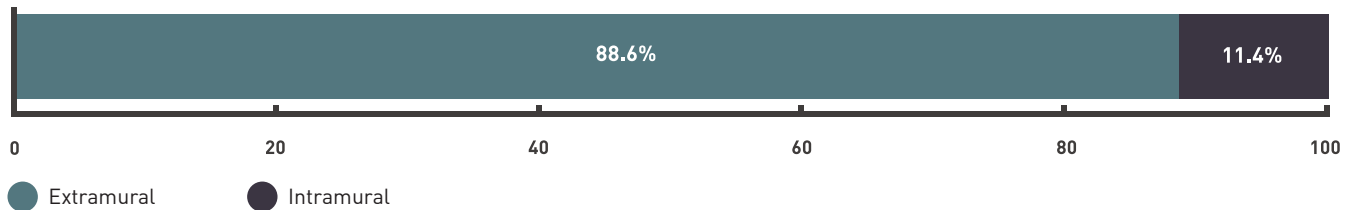


Fig 7: Extramural Projects by Mission Category: \$598 Million

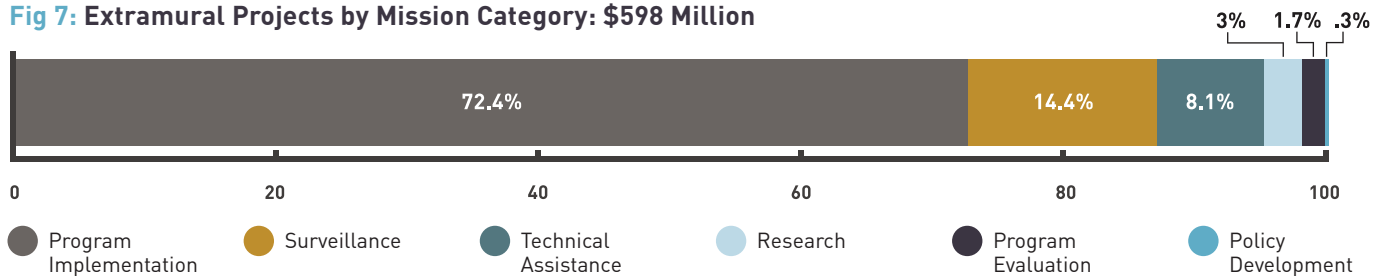


Fig 8: Extramural Budget by Race/Ethnicity**

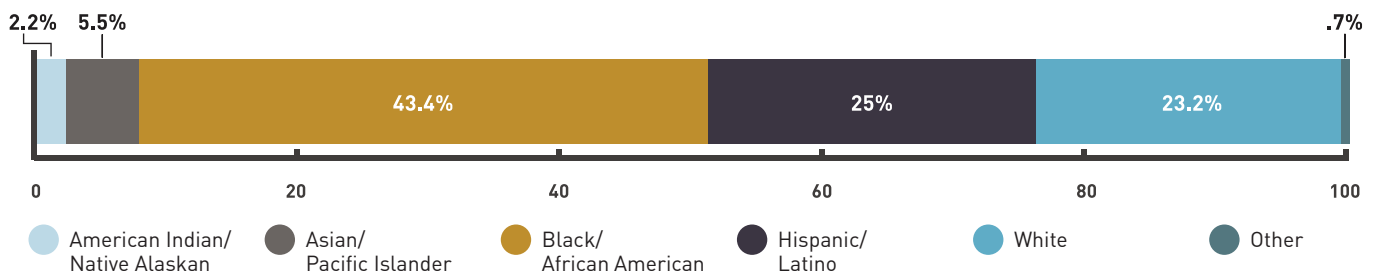
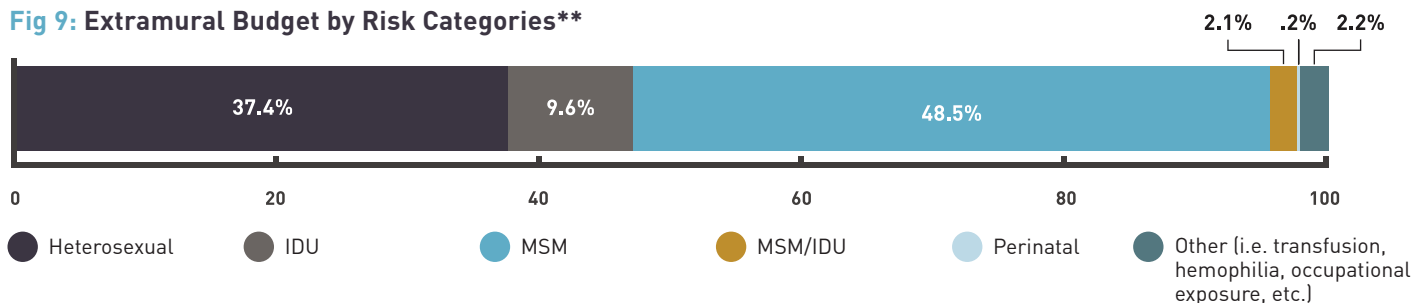


Fig 9: Extramural Budget by Risk Categories**



*Includes \$18.9M from the Secretary’s Minority AIDS Initiative discretionary funds.

**Funds not targeted or directed to a specific risk category or not reported to CDC (25% of extramural funding) were excluded from these tables.

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Chief, Behavioral and Clinical Surveillance Branch

Taraz Samandari

Chief, Epidemiology Branch

CDC Division of HIV/AIDS Prevention

→ www.cdc.gov/hiv

Comprehensive information on the U.S. HIV epidemic and on DHAP–supported prevention activities.

Act Against AIDS

→ www.cdc.gov/actagainstaids

CDC’s communications campaign to combat complacency about HIV and AIDS in the United States. Recently updated through the December 2015 launch of the “Doing It” campaign, to encourage more Americans to get tested for HIV.

Effective HIV Prevention Interventions

→ <https://effectiveinterventions.cdc.gov>

CDC information on accessible, evidence-based programs to promote healthy behaviors among those at risk for transmitting or acquiring HIV, including best practices and online courses.

Gay and Bisexual Men’s Health

→ www.cdc.gov/msmhealth

A CDC resource for men who have sex with men, with information on how gay and bisexual men can protect their health through all stages of life.

National Prevention Information Network

→ <https://npin.cdc.gov>

The U.S. reference and referral service for information on HIV/AIDS, viral hepatitis, sexually transmitted diseases, and tuberculosis. NPIN collects and disseminates data and materials to support the work of HIV/AIDS, viral hepatitis, STD, and TB prevention organizations and workers in international, national, state, and local settings.





WWW.CDC.GOV/HIV

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