

CDC is America's Lead Agency in the Fight to Prevent New HIV Infections

CDC's investments in HIV prevention have yielded major successes, with HIV infections declining by 18 percent between 2008 and 2014 in the U.S. New infections decreased substantially in several states (e.g. Maryland, Pennsylvania, Georgia, New York, Illinois and Texas) and Washington, DC. During this period, approximately 33,000 HIV infections were prevented, saving \$14.9 billion in lifetime medical costs. While significant progress has been made, key populations and geographic areas are still disproportionately affected by HIV.

Through CDC's funding and sustained testing efforts, more than 3 million HIV tests are conducted each year and the proportion of Americans with HIV who know their status has reached 85 percent. There is more work to do. CDC continually strives to find remaining Americans unaware they are infected with HIV, so they can receive medical care, stay healthy, and not transmit HIV to others. People living with HIV are living longer, healthier lives due to better, life-prolonging treatments, however not enough are virally suppressed. While rates of viral suppression are improving each year, CDC estimates that only 58 percent of persons with diagnosed HIV are virally suppressed.

CDC knows better than ever before how to prevent HIV and preserve the health of those living with the virus. CDC's HIV prevention activities remain of utmost importance when striving to achieve the goal of no new HIV infections, especially as the number of persons living with HIV increases and HIV-related disparities persist. CDC prioritizes the following efforts to achieve national HIV prevention goals: increasing knowledge of HIV status; preventing new HIV infections; reducing transmission of HIV; building surveillance and response capacity; and reducing HIV-related health disparities.

CDC's High-Impact Prevention Approach Maximizes the Impact of HIV Prevention Efforts for All Americans at Risk for HIV Infection

CDC maximizes the effectiveness of HIV prevention efforts by implementing a high-impact prevention approach, which uses scientifically proven, cost-effective, and scalable interventions targeted to the right populations and geographic areas. CDC funds high-impact prevention interventions in all 50 states, the District of Columbia, and six territories. In FY 2016, CDC awarded over \$603 million to state and city health departments, community-based organizations, capacity-building assistance providers, and other prevention partners to conduct and support these HIV prevention activities. Health departments and community-based organizations focus prevention efforts in communities and local areas where HIV is most heavily concentrated. For example, the New York City Department of Health and Mental Hygiene works to ensure that anyone tested for HIV promptly receives appropriate HIV prevention and/or care services. This includes access to pre- and post-exposure prophylaxis, syringe service programs, HIV medical care, and patient navigators who help people access essential support services.



CDC Surveillance Activities Ensure that Resources are Targeted to the Most Need

CDC's national HIV surveillance systems play a critical role in understanding which people and regions in the U.S. are most affected by HIV. CDC funds surveillance activities in all 50 states, the District of Columbia, and six U.S. territories. Surveillance is essential to identifying and targeting prevention efforts towards populations at risk for acquiring and transmitting HIV. Use of molecular surveillance data allows CDC to identify active and growing clusters of recent and rapid HIV transmission, to intervene in the transmission of HIV in these clusters, and implement targeted prevention activities to stop further transmission. To address the Indiana HIV outbreak, CDC scientists used molecular surveillance to analyze viral genetic HIV sequences from each case to measure the speed of the outbreak and whether it was spreading. CDC scientists found that nearly all recent cases in the area had a highly similar genetic fingerprint, indicating that the virus was transmitted relatively quickly (within one year). By comparing the genetic fingerprint of the outbreak strain to other reported HIV cases in the surrounding region, CDC determined that the outbreak was limited to Scott County, enabling public health experts to focus limited resources among people at greatest risk and most in need of HIV testing and treatment services.

HIV Testing Ensures that People Living with HIV Get Treated and Stay Healthy

As the lead provider of HIV tests in the U.S., CDC and its partners often are the first point of engagement for someone who is newly diagnosed with HIV. Awareness is a critical first step in rapidly accessing care, staying healthy, becoming virally suppressed, and not transmitting HIV to others. Of the estimated 1.1 million people living with HIV in the United States, approximately one in seven are unaware of their infection. CDC works closely with state and local health departments and community based organizations to conduct over 3 million tests annually, targeting those persons who are most at risk of infection, and for people who test positive, promptly linking them to care. These activities include CDC's Expanded Testing Initiative, which aimed to increase the number of persons tested in jurisdictions with a high rate of HIV, preventing an estimated 3,380 HIV infections in its first three years and saved an estimated \$1.2 billion in direct medical costs. The Pennsylvania Department of Health (PADOH) continues to enhance testing program effectiveness through the integration of new testing technology to identify acute HIV infections in non- healthcare and healthcare settings. For example, testing programs in correctional settings transitioned from using oral swab testing technology to blood-based testing technology, which resulted in an 87 percent increase in testing activities.

Pre-Exposure Prophylaxis is a Powerful Prevention Tool

CDC is leading efforts to improve PrEP awareness and delivery. PrEP, used along with other prevention strategies, can help at-risk individuals protect themselves and reduce new HIV infections in the U.S. Taken as directed, daily PrEP can reduce the risk of HIV infection by up to 92 percent. CDC provides funding for PrEPline, a free national service for clinicians seeking advice and consultation on prescribing PrEP – utilization of this service is increasing with almost 1,400 calls through the end of 2016.

Comprehensive Community Opioid Prevention Services Programs Can Reduce the Risk of HIV Transmission

Comprehensive community opioid prevention services programs are one of many tools that communities can use to address injection drug use and prevent infectious disease at the same time, by

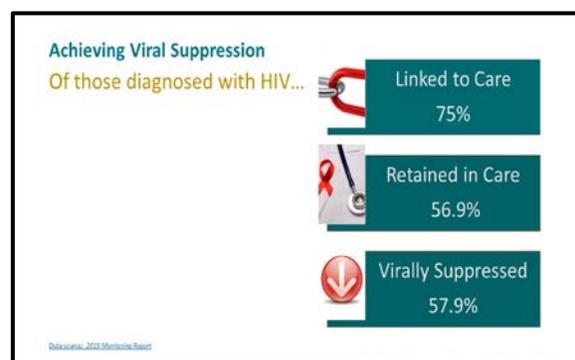
- supporting drug treatment and recovery services, including medication-assisted treatment, which can help people who inject drugs stop injecting, and
- providing a range of testing, treatment and prevention services for hepatitis C and other infectious diseases, including hepatitis B and HIV.

CDC identified tools and resources for health departments and local partners in developing, implementing, and monitoring comprehensive community opioid prevention services programs.

Achieving Viral Suppression Ensures that Americans Living with HIV Stay Healthy and Live Longer

People living with HIV who take antiretroviral therapy and are virally suppressed can reduce their risk of transmitting HIV to others by at least 96 percent. CDC focuses on critical steps that lead to viral suppression for all people living with HIV in the U.S. – testing people so that they know their HIV status, linking persons who test positive to care, and keeping them in HIV medical care.

Since 91 percent of HIV is transmitted by those not diagnosed or not in care, the greatest opportunities for increasing persons with a suppressed viral load are reducing undiagnosed HIV infections and increasing the percentage of persons living with HIV who are engaged in care. CDC works with state and local partners to improve outcomes at every stage of the care continuum.



CDC supports innovative ways for states and localities to use their surveillance data to help find persons who have fallen out of care and get them back into care – a program known as Data to Care. For example, Louisiana uses surveillance data to provide electronic, real-time alerts to clinicians that a patient with HIV may be unaware of their HIV status or out of care. This allows providers the opportunity to link patients who are not in care with the necessary resources and services for HIV treatment.