

NCHHSTP

NATIONAL CENTER FOR HIV/AIDS, VIRAL HEPATITIS, STD, AND TB PREVENTION

ANNUAL REPORT 2014



Centers for Disease Control and Prevention
National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention

Foreword

I hope you will enjoy reading this edition of the National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention Annual Report 2014. It highlights some of the Center's key achievements from 2014.

Through our programs and collaborations with many partners—including state and local health departments, federal agencies, state and local education agencies, universities, and nonprofit community-based organizations—we are seeing positive results in many areas. These include:



- Some positive trends in the HIV epidemic in the United States. The proportion of persons living with HIV who know their HIV status is at the highest level ever—86% in 2011. And, the annual rate of new HIV diagnoses in the U.S. decreased 33% from 2002-2011, with declines in cases associated with several risk groups—injection drug users (70%), men who had heterosexual sex (35%) and women who had heterosexual sex (36%). Reducing HIV infection among men who had sex with men remains a major challenge and a focus for the Center.
- In 2013, 9,582 new TB cases were diagnosed in the United States—a 4% decrease from the previous year—and 96% of patients with active TB that was curable within 12 months completed therapy within a year.
- Chlamydia rates decreased 1.5% for 2013, the first decline in this rate since national reporting began.
- Data from CDC's Youth Risk Behavior Surveillance System indicate that the percentage of high school students who are currently sexually active declined from 38% in 1991 to 34% in 2013.
- U.S. Preventive Services Task Force issued guidelines consistent with CDC recommendations for hepatitis B screening for persons at high risk for infection.
- Several new CDC guidelines regarding HIV were issued in 2014 including: 1) "Preexposure Prophylaxis for the Prevention of HIV Infection in the United States;" 2) "Recommendations for HIV Prevention with Adults and Adolescents with HIV in the United States; and 3) "Laboratory Testing for Diagnosis of HIV Infection." In addition, CDC issued for public comment, draft guidance for health care providers on counseling about voluntary male circumcision for the prevention of HIV, STDs, and other health outcomes.

NCHHSTP implemented many successful activities in 2014 to reduce incidence, morbidity, mortality, and health inequity associated with our diseases. These activities and accomplishments were possible because of contributions of the expert and diverse staff of public health professionals in the Center and the collaboration and numerous activities of partners, for whom we are grateful. You can find more about our programs at <http://cdc.gov/nchhstp>.

Jonathan Mermin, MD, MPH

Director, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention

About NCHHSTP

The National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention (NCHHSTP) at the Centers for Disease Control and Prevention (CDC) saves lives, protects people, and reduces health disparities by preventing HIV, viral hepatitis, sexually transmitted diseases (STDs), and tuberculosis (TB).

The Center was established in 1994 to bring together most of CDC's HIV prevention activities into a single, organizational home alongside STD prevention and TB elimination programs. In 2006, CDC's Division of Viral Hepatitis joined the Center. In January 2012, the Division of Adolescent and School Health (DASH) officially joined NCHHSTP. DASH's mission is to prevent HIV, other STDs, and teen pregnancy and to promote lifelong health among youth.

The infectious diseases NCHHSTP focuses on share similar or overlapping 1) risk factors such as risky sexual activity and drug use; 2) disease interactions, such as HIV increasing risk for active TB; and 3) at-risk populations—including some racial and ethnic minorities, men who have sex with men (MSM), adolescents, and injection drug users. These diseases also share similar social determinants, including poor access to health care, stigma, discrimination, incarceration, homelessness, and poverty.

To address these overlapping health issues, NCHHSTP implements multidisciplinary programs, policy, research, surveillance, and evaluation.

This report provides some highlights of the Center's activities and accomplishments during 2014.

Using Data for Program Improvement

NCHHSTP uses data for program improvement to better target interventions to those at highest risk, prioritize use of funds and resources, and refine existing programs. In doing so, NCHHSTP uses surveillance data, other strategic data, modeling and results from research studies. Some examples of NCHHSTP activities that used data to improve programmatic efforts included:

- Published the first "State HIV Prevention Progress Reports," which show states' progress toward meeting key goals and objectives of the National HIV/AIDS Strategy (NHAS). The results showed that some states are doing better on certain indicators than others, but all states have room for improvement on at least one indicator. For example, of the 50 states and the District of Columbia, 15 have already met the 2015 NHAS goal for the percentage of persons ever tested for HIV. However, only two have met the goal for reducing the number of HIV cases diagnosed in late stages of the disease.
- Released the "Data to Care" toolkit in April 2014, at www.effectiveinterventions.org. "Data to Care" is a new public health strategy that uses HIV surveillance data to identify HIV-diagnosed individuals who are not in care and links them to care. The toolkit provides technical assistance to state and local public health jurisdictions that want to use their HIV surveillance data to support continuous, high-quality care for persons living with HIV.

- Expanded use of “Rapid Feedback Reports” for grantees, issuing reports for several HIV prevention programs in 2014, including the comprehensive HIV prevention program for health departments. The reports are intended to help health departments and community-based organizations that receive NCHHSTP funds determine how they can best improve their HIV prevention programs and to disseminate information about best practices in preventing HIV.

- Used TB surveillance data submitted by state, local, and territorial TB programs to monitor performance trends on key program objectives, and evaluate progress according to local and national targets. These data are supplied by the National TB Indicators Project, a web-based program monitoring system that provides performance reports to the local level to help TB programs improve their performance. Overall, U.S. TB programs perform well on key indicators. For example, in 2014 CDC reported that 95.7% of TB patients who had TB disease that was curable within 12 months completed their therapy within this timeframe. Completion of therapy is vital to curing TB patients, stopping TB transmission, and preventing the development of drug resistance. The United States also performs well in monitoring for TB drug resistance: 96.5% of all culture-positive cases were tested for drug susceptibility. Strong program performance is one of the underlying factors in the continued downward trend in TB cases (9,582 in 2013) while maintaining very low (about 1% of cases) incidence of drug resistance. To achieve the national goal of TB elimination, the United States will need to focus further on reducing latent TB infection.

- Provided some of the data reported in *the National HIV/AIDS Strategy Update of 2014 Federal Actions to Achieve National Goals and Improve Outcomes Along the HIV Continuum of Care* report, issued in December 2014. The data showed that from 2011 to 2012, the nation made further progress toward reaching a number of NHAS goals—including, increasing knowledge of HIV status among people with HIV, linkage to HIV medical care, and viral suppression among men who have sex with men, blacks and Latinos. NCHHSTP staff also presented data at several White House meetings in 2014 that focused on HIV issues.



Health officers meet with a TB patient.

- Distributed 100% of cooperative agreement funds to state and local health departments for TB programs using funding formulas developed with input from partners. The formula for distributing funds for prevention and control activities was based on the number of TB cases, and the formula for funding laboratory activities was based on lab workloads.
- Developed a web-based system for collecting, managing, analyzing, and reporting on program performance and process evaluation measures for grantees receiving school health program funding from NCHHSTP. Program evaluation data reported in the new system will be used to guide program improvements.

Scientific Discovery and Evaluation

Science is the key to prevention efforts and activities for HIV, STDs, viral hepatitis, and tuberculosis. NCHHSTP addresses critical scientific gaps by identifying, developing, and evaluating interventions, policies, and technologies. Some examples of using scientific discovery and evaluation include the following.

- Advanced Molecular Detection (AMD) is rapidly changing the practice of laboratory science by delivering a greater level of detailed information on infectious diseases. At NCHHSTP, AMD has been used to respond to the antimicrobial-resistant gonorrhea threat, discover hepatitis C outbreaks, accurately identify chains of transmission between individuals affected in large TB outbreaks, and integrate data into network investigations of NCHHSTP focus diseases.

USING WHOLE GENOME SEQUENCING TO IMPROVE TUBERCULOSIS OUTBREAK DETECTION AND INVESTIGATION EFFECTIVENESS

- As part of CDC's Advanced Molecular Detection Initiative, NCHHSTP scientists are using whole genome sequencing in some large TB outbreaks among highly vulnerable populations, such as persons experiencing homelessness. Sequencing data is helpful in identifying how strains of TB have been spread and which cases are linked, information which may not be readily apparent from normal epidemiologic surveillance methods.
- So far, health officials have used whole genome sequencing data to identify locations in which TB transmission is occurring and to preserve scarce resources by conducting more targeted contact investigations.



*NCHHSTP microbiologists operate a DNA sequencing instrument analyzing *Mycobacterium tuberculosis*.*

- NCHHSTP led the Preserving Effective TB Treatment Study, a large multi-year, multi-country study that compared TB programs approved by the Green Light Committee (GLC) to programs that were not GLC-approved to determine the incidence of acquired resistance to second-line drugs (SLDs) among multidrug resistant TB patients. The study found that acquired resistance to these drugs was lower in GLC-approved programs. GLC-approved projects also demonstrated higher cure rates, lower mortality, and lower treatment failure rates when compared with non-GLC approved projects. The GLC was established 15 years ago to promote access and prevent increasing resistance to high quality SLDs.
- NCHHSTP led the first ever cost-benefit analysis of school health services delivered by full-time registered nurses. The study found that school nurse services can be a cost-effective investment of public dollars and provide a crucial link between public health and primary care. The researchers used the Massachusetts State Essential School Health Services (ESHS) program in the 2009-2010 school year as a case study, comparing it to a “no school nursing service” scenario. Authors found the ESHS program, which cost \$79 million, prevented an estimated \$20 million in medical care costs, \$28 million in parents’ productivity loss, and \$129 million in teachers’ productivity loss, generating a net benefit of \$98 million to society. The results can help decision-makers to understand the economic value of school nursing services. The study was published in *JAMA Pediatrics* in July 2014.

- NCHHSTP conducted a rapid ethnographic assessment to obtain local views regarding factors contributing to increases in congenital syphilis among infants of African American women in Caddo Parish, Louisiana. Assessments are designed to provide timely information about issues that affect STD programs at the service delivery level, and to use systematic and scientific methods to enable programs to directly engage with people from affected communities. The state used the report and recommendations to develop an action plan that included increasing provider education, community awareness, and mobilization activities; expanding public health clinic access; and enhancing surveillance and partner services.
- NCHHSTP released the 2013 “Youth Risk Behavior Surveillance” report. The Youth Risk Behavior Surveillance System (YRBSS) monitors a wide range of priority health risk behaviors among representative samples of high school students at the national, state, and local levels. National, state, and large urban school district surveys are conducted every two years among high school students throughout the United States. The 2013 YRBSS report includes National YRBS data and data from surveys conducted in 42 states and 21 large urban school districts. Key findings from the 2013 YRBSS:
 - The percentage of high school students who are currently sexually active has declined from 38% in 1991 to 34% in 2013.
 - Among the high school students who are currently sexually active, condom use also has declined from 63% in 2003 to 59% in 2013.

Prevention Through Healthcare

As the nation’s healthcare system undergoes change, new opportunities are emerging for furthering the prevention of HIV, STDs, viral hepatitis, and tuberculosis. NCHHSTP is working to engage the healthcare system in areas such as screening for hepatitis C virus (HCV), HIV, and STDs; expanding reimbursement for preventive services; and implementing creative linkages between health departments and health care providers and clinics.

To help ensure our partners have support for changes in the healthcare system, NCHHSTP launched the Prevention Through Health Care website, an online resource available to state, local, and tribal public health agencies; community-based organizations; and other partners. The website is intended to increase awareness of key health system changes relevant to NCHHSTP programs, inform health departments and other partners about the implications of those changes for program operations, offer guidance and resources, and provide a platform for NCHHSTP to engage with health departments and other partners during this time of transition.

NCHHSTP’s efforts in promoting prevention through collaboration with the healthcare system were also furthered in 2014 through an innovative partnership with the Health Resources and Services Administration (HRSA) to enhance HIV services in HRSA’s community health centers. CDC and HRSA partnered to provide funds to 22 HRSA-funded health centers in Florida, Massachusetts, Maryland, and New

York to enable them to work with CDC-funded state health departments to expand the provision of HIV prevention, testing, care, and treatment services, especially among minorities. In 2014, the project helped an estimated 8,000 patients with HIV receive access to expanded HIV care and treatment services. The health departments in these states will develop and implement program models for collaboration between health departments and health centers.

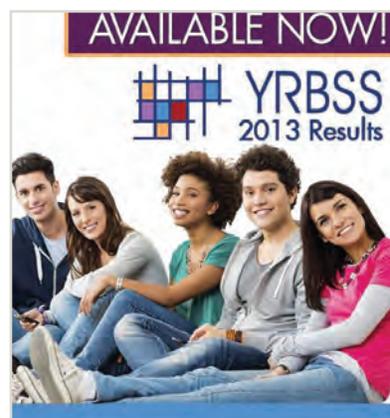
WHY IS PREVENTION THROUGH HEALTH CARE IMPORTANT?

One example of why Prevention through Health Care is an important strategy comes from an analysis NCHHSTP published in 2014 that found that only half (49.5%) of gay and bisexual men diagnosed with HIV in the United States are receiving treatment for their infection.

Overall, among gay and bisexual men diagnosed with HIV, three-quarters were linked to care within three months of diagnosis, but only half were retained in care. In large part because so many were not in care, fewer than half were prescribed antiretroviral therapy and only 42% achieved viral suppression, including only one-quarter of those 18 to 24 years of age.

Treatment of HIV is one of the most powerful tools for protecting people's health and preventing new HIV infections. The study signaled the need to better reach gay and bisexual men and link them to care and treatment, especially younger men, who are least likely to receive needed care.

In 2014, CDC published a recommendation in *Morbidity and Mortality Weekly Report* for a new approach for HIV testing in laboratories to improve diagnosis of acute infection, the earliest stage of HIV infection when people are most likely to transmit the virus. This recommendation capitalizes on the new technology that enables early identification. Identifying acute infections has long been one of the biggest HIV prevention challenges, since these infections eluded traditional testing technologies. But with consistent and widespread use of this new testing method, we can diagnose people several weeks earlier than before. CDC is supporting laboratories to adopt this new approach as quickly as possible.



CDC issued guidance for health care providers on "Preexposure Prophylaxis for the Prevention of HIV Infection in the United States" in May 2014. The new guidelines recommend that health care providers should consider advising the use of anti-HIV drugs by uninfected patients who are at substantial risk of infection. The guidelines say PrEP should be considered for HIV-uninfected patients with high-risk indications such as:

- Anyone who is in an ongoing sexual relationship with an HIV-infected partner.
- A gay or bisexual man who has had sex without a condom or has been diagnosed with a sexually transmitted infection within the past six months, and is not in a mutually monogamous relationship with a partner who recently tested HIV-negative.
- A heterosexual man or woman who does not always use condoms when having sex with partners known to be at risk for HIV (for example, injecting drug users or bisexual male partners of unknown HIV status), and is not in a mutually-monogamous relationship with a partner who recently tested HIV-negative.
- Anyone who has, within the past six months, injected illicit drugs and shared equipment or been in a treatment program for injection drug use.

NCHHSTP also issued new recommendations regarding screening tests to detect *Chlamydia trachomatis* and *Neisseria gonorrhoeae* infections. The new recommendations include information on optimal specimen types, the use of tests to detect rectal and oropharyngeal *C. trachomatis* and *N. gonorrhoeae* infections, and circumstances when supplemental testing is indicated. The recommendations are intended for use by clinical laboratory directors, laboratory staff, clinicians, and disease control personnel who must choose among the multiple available tests, establish standard operating procedures for collecting and processing specimens, interpret test results for laboratory reporting, and counsel and treat patients. The recommendations note that the performance of nucleic acid amplification tests (NAATs) are more sensitive and specific, and easier for specimen transport, than other tests available for the diagnosis of chlamydial and gonococcal infections.

In addition, NCHHSTP conducted the following activities to advance prevention through healthcare:

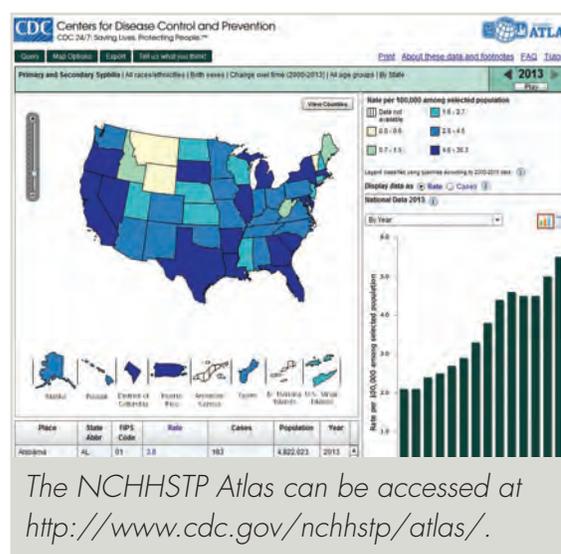
- Obtained public comments on draft recommendations for health care providers on counseling male patients and parents about voluntary male circumcision for the prevention of HIV, sexually transmitted diseases, and other health outcomes in the United States. The draft guidance states that all uncircumcised at-risk heterosexual male patients and parents of newborn males should receive comprehensive counseling on the risks and benefits of circumcision. In addition, the recommendations state that all uncircumcised heterosexually active adolescent and adult males should receive basic information on the key risks and benefits. Men who have sex with men should be informed that male circumcision has not been proven effective in reducing the risk for HIV or STIs during anal sex.
- Released revised *Self-Study Modules on Tuberculosis*. These educational modules provide TB programmatic information in a self-study format for health care workers, including outreach workers, nurses, physicians, and health educators. The Module series has served as an important resource in training new TB control workers and has been updated to ensure the best and most current information about TB control is available. This revision includes a new module on TB outbreak detection and response.

- Developed the *National STD Services Billing & Reimbursement Toolkit*, which is designed to help publicly-funded STD clinics and public health laboratories make decisions about whether to bill, and how to develop billing systems, manage revenue cycles, initiate contracts, and enhance coding capacity. The toolkit features step-by-step instructions and ready-to-use templates for forms, patient materials, and policies.
- Reported on the success of Project ECHO, which expanded the capacity of primary care providers to treat hepatitis C. This evidence-based model was conducted in two states. The project was described in an *MMWR*, available online at (<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6318a2.htm>). Project ECHO was designed to build primary care clinicians' capacity to treat chronic, common, and complex diseases through weekly "teleECHO" clinics in which primary care clinicians present their cases via videoconferencing to specialists who provide advice and clinical mentoring. In a study comparing care delivered by specialists in an HCV clinic at an academic medical center with HCV care and treatment delivered by primary care providers participating in teleECHO clinics, investigators found that care at both settings was equally safe and effective in achieving cure.

Program Collaboration and Service Integration (PCSI)

The *NCHHSTP Atlas*, a Program Collaboration and Service Integration (PCSI) project, continues as the flagship surveillance data release platform for NCHHSTP. It provides surveillance data on HIV, TB, viral hepatitis, and STDs in an easy-to-use tool. Having access to county data allows public health officials, community-based staff, and others working in prevention to better target their efforts on the local level. The Atlas allows users to see the burden of these diseases in their jurisdictions and create detailed reports and maps on trends at the state level, including trends related to race and ethnicity.

Over the past fiscal year, the *NCHHSTP Atlas* home page has had more than 48,400 unique visits, and it has had almost 140,000 unique visits since its release in January 2012. The Atlas data is updated four times per year, coordinated with the most recent surveillance report releases for our Center. In 2014, the Atlas won a 2014 Urban and Regional Information Systems Association (URISA) Exemplary Systems in Government (ESIG) Award. The ESIG awards recognize achievements in the use of geospatial information technology to improve government services at the federal, state, or local level.



A *Public Health Report* supplement on PCSI was released in January 2014. Edited by NCHHSTP staff, the supplement presented a selection of approaches, studies, and lessons learned from collaborative and service integration efforts to prevent and control HIV, viral hepatitis, STD, and TB in the United States. The 13 articles detailed innovative approaches to collaborative program design and integrated testing and screening services, and also demonstrated the benefits gained through data harmonization—particularly through registry and database matching—at the local, state, and federal levels.

In May 2014, NCHHSTP released a series of success stories from the 2010-2014 PCSI Demonstration Projects. These projects provided funds to six U.S. jurisdictions—New York City, North Carolina, Philadelphia, San Francisco, Texas, and Washington, D.C.—to plan, scale-up, and support the implementation of a syndemic approach to the prevention of HIV, viral hepatitis, STDs, and TB. These PCSI Success Stories showcased how awardees applied PCSI principles in their jurisdictions. The award-ees took various crosscutting approaches to implementing activities based on their local epidemiology data, resulting in more efficient and patient-centered services. The accomplishments and lessons learned provided valuable insight to help inform and guide future PCSI efforts.

For example, in Buncombe County, North Carolina, the county health department created an express STD clinic offering integrated services to better meet clients' needs. In its first year of operation, the clinic saw 809 clients; of those clients, 30 were diagnosed with chlamydia, 6 with gonorrhea, 24 with hepatitis C, 1 with HIV, and 3 with syphilis. The average visit-time for the Express STD Clinic was 47 minutes, about 40% of the average visit-time for routine STD clinic visits.

Organizational Excellence

Organizational excellence encompasses having an organization that supports efficient business, administrative and scientific systems; enhances skills of current staff; and develops the next generation of public health professionals.

Attracting a professional workforce and developing their capacity to promote health and prevention is a priority for NCHHSTP. NCHHSTP has piloted new ways to reach its staff with career development information, such as through speed mentoring and a career development blog. Highlights of these activities include:

- The NCHHSTP Learn@Lunch Career Development series, a monthly lunchtime series on career topics that has been attended by more than 6,500 participants over the past 3 years.
- NCHHSTP Ambassador Program, which provides guidance, support and information to new employees within their first 60 days on the job and assists with employees' transition into the Center workforce.

- NCHHSTP Laboratory Workforce Initiative is aimed at providing new training opportunities for lab staff as well as fostering greater understanding of laboratory science for NCHHSTP staff in non-laboratory positions.
- A new Employee Shadowing Program (ESP), a short-term professional development opportunity that pairs a mentor, with a “shadower” who shadows the mentor’s job for up to 3 days. Employees have an opportunity to shadow mentors who are performing jobs they have an interest in pursuing as a career goal.

Saving Lives

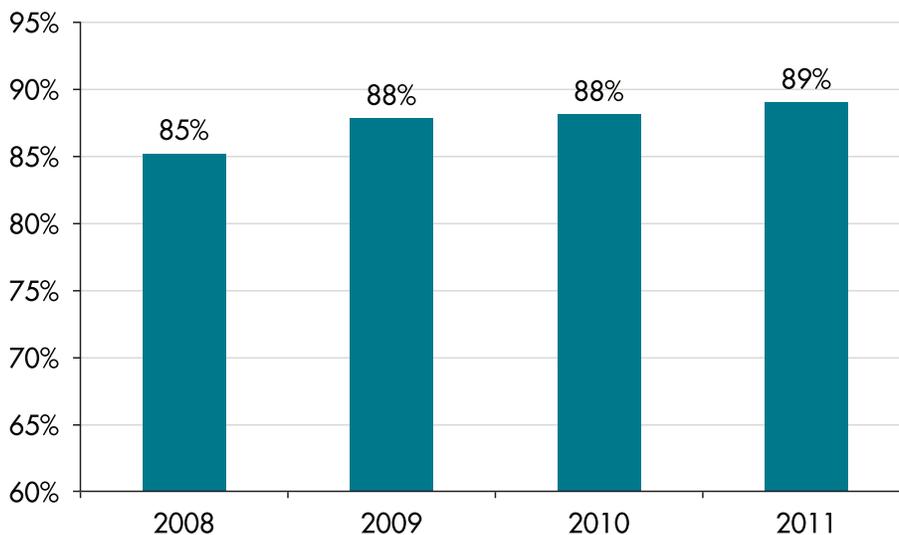
NCHHSTP is working to save lives every day through its public health prevention initiatives and programs.

Addressing TB Outbreaks in the United States

TB cases continue their downward trend. In 2013, for a second consecutive year, the number of new TB cases in the United States was below 10,000. There were 9,582 new TB cases in 2013, representing a 4% decrease from the previous year and the 21st consecutive year of declining TB rates.

As TB incidence declines in the United States, TB is increasingly found in hard-to-reach populations and locations. NCHHSTP provided assistance to state and local health jurisdictions in investigating outbreaks occurring among the homeless, persons in corrections institutions, and adults with mental illness.

PERCENTAGE OF PERSONS WITH ACTIVE TB WHO COMPLETE TREATMENT WITHIN 12 MONTHS



*Based on the National TB Indicators Project

NCHHSTP uses genotyping, a laboratory-based analysis of the genetic material of the bacteria that cause TB disease, to better track TB outbreaks. NCHHSTP's National Tuberculosis Genotyping Service began routinely genotyping isolates from culture-positive TB cases in 2004. Since then, the percentage of cases with a genotype result have increased from 53% in 2004 to 95% in 2013. Genotyping can be used to determine if cases of TB disease are related. Routine genotyping identified several outbreaks in 2013 that might not otherwise have been detected in transient, difficult-to-reach populations, such as the homeless. NCHHSTP's onsite investigation assistance provides health department staff the aid needed to address some of the most difficult TB outbreaks, including those in the homeless population and those involving drug resistant TB strains.

New Tools for Preventing HIV

In the United States today, more than 1.2 million people are estimated to be living with HIV, and nearly one out of seven are unaware that they are infected. Despite increases in the total number of people with HIV in the United States in recent years, the annual number of new infections has remained relatively stable at about 50,000 per year.

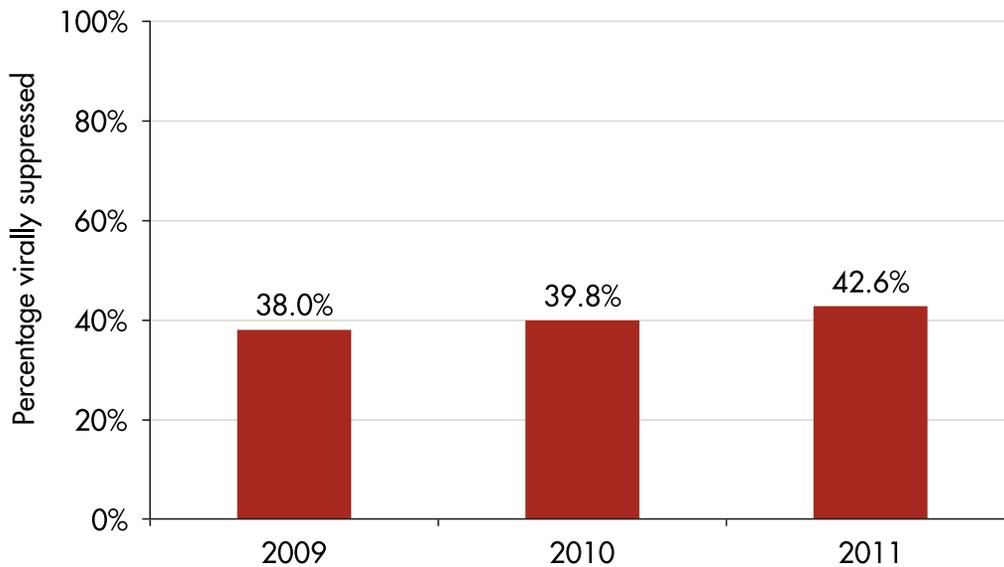
Although far too many infections still occur, HIV prevention efforts have helped to keep the number of new infections stable in recent years, down from roughly 130,000 a year at the height of the epidemic. However, continued growth in the number of people living with HIV ultimately may lead to more new infections if prevention, care, and treatment efforts are not targeted to those at greatest risk. To reduce new HIV infections, CDC is investing in proven interventions that will have the greatest possible impact on reducing the spread of HIV in the United States.

HIV PREVENTION WORKS!

Positive trends have emerged related to the HIV epidemic in the United States over the last few years.

- The HIV transmission rate, defined as the number of new HIV infections per person living with HIV, has declined 9% from 2006 to 2010
- The percentage of persons living with HIV who know their serostatus has steadily increased (from 83.5% in 2007 to 86% in 2011)
- There has been a decrease in late HIV diagnoses (from 25.9% in 2006 to 24.9% in 2011)
- New HIV infections decreased 15% among heterosexuals, 21% among African American women, and 22% among IDUs from 2008-2010.

PERCENTAGE OF HIV-DIAGNOSED PEOPLE WITH SUPPRESSED VIRAL LOAD (<200 COPIES/ML)



NCHHSTP is maximizing the impact of HIV prevention tools within the framework of high-impact prevention (HIP). Through HIP, the Center is working to advance NHAS goals and to help ensure that HIV prevention efforts have the greatest possible impact. HIP focuses on using the most cost-effective, scalable interventions.

For example, data indicate that diagnosing individuals living with HIV, engaging them in ongoing care and prevention services, and ensuring they can stay on treatment are among the most cost-effective ways to prevent new infections. Consequently, NCHHSTP is refocusing its prevention strategy to include an expanded focus on people living with HIV, while at the same time maximizing all available strategies for protecting HIV-negative individuals who are at high risk for infection, particularly gay and bisexual men. Specifically, NCHHSTP is working with health departments across the nation to use their surveillance data to identify and connect with those individuals diagnosed with HIV who have fallen out of care in order to re-engage and retain them in care. NCHHSTP is also funding community-based organizations across the nation to provide both peer-to-peer support and evidence-based interventions in order to help those diagnosed with HIV access and stay in care.

In December 2014, CDC, in collaboration with other governmental and nongovernmental organizations, published *Recommendations for HIV Prevention with Adults and Adolescents with HIV in the United States, 2014*. These recommendations, which update CDC's previous 2003 recommendations, comprise a comprehensive set of interventions for clinical providers, nonclinical providers, and staff of health departments and HIV planning groups who are focused on optimizing health outcomes for people with HIV and reducing their risk of exposing others to HIV.

The updated recommendations are derived from recent advances in biomedical, behavioral, and structural interventions and address ways to optimize health outcomes for people with HIV, including through linkage to care and retention in HIV medical care, adherence to antiretroviral treatment, screening for factors that increase risk of HIV transmission, and provision of STD preventive services.

The 2014 recommendations were developed in collaboration with HRSA, the National Institutes of Health, the American Academy of HIV Medicine, the Association of Nurses in AIDS Care, the International Association of Providers of AIDS Care, the National Minority AIDS Council, and the Urban Coalition for HIV/AIDS Prevention Services.

GAPS IN CARE AND TREATMENT OF HIV INFECTION

This year's HIV *Vital Signs* focused on gaps in the care and treatment of people living with HIV. The report found that only half of gay and bisexual men in the United States who have been diagnosed with HIV are receiving care and treatment for their infection, according to an NCHHSTP analysis. And just 42% have achieved viral suppression—meaning their virus is under control at a level that helps keep them healthy and also greatly reduces their risk of transmitting HIV to others. Among Latinos who have been diagnosed with HIV, the report found that 54% were retained in care, fewer than half (44%) were prescribed antiretroviral therapy, and just 37% had achieved viral suppression.

Developing Best Practices for Reaching Those Infected with Hepatitis B Virus or Hepatitis C Virus

Chronic viral hepatitis is the leading cause of liver cancer and the most common reason for liver transplantation in the United States. An estimated 3.5 million to 5.5 million Americans are living with chronic viral hepatitis, stemming from their infection with hepatitis B virus or HCV. Most people do not know they are infected. An estimated 2.7 million to 3.9 million Americans have chronic HCV. Baby boomers are 5 times more likely to have HCV than Americans of other ages. About 800,000 to 1.4 million Americans are living with HBV. Hepatitis B is common in many Asian and Pacific Island countries, and many people with chronic hepatitis B became infected as infants or young children.

Hepatitis B

Hepatitis B was the focus of an updated recommendation from the U.S. Preventive Services Task Force (USPSTF) in 2014. USPSTF recommended screening for hepatitis B virus infection in high-risk groups, which is in line with CDC's screening recommendation for hepatitis B. USPSTF gave the screening a "B" grade, which means it recommends that medical practices offer it and that health insurance cover the screening.

In 2014, NCHHSTP released the second phase of the national *Know Hepatitis B campaign*. This multilingual communication campaign promotes testing for hepatitis B among Asian Americans and Pacific Islanders by delivering culturally relevant messages through various multi-media channels. The campaign was created and launched last summer in partnership with Hep B United, a coalition of community groups around the country. Campaign materials are incorporated into community-level outreach and link people to needed hepatitis B testing and treatment. Since its launch, the campaign has had print, radio, TV and digital placements in English, Chinese, Korean, and Vietnamese media outlets and generated nearly 250 million impressions. For more information about the *Know Hepatitis B campaign*, please visit www.cdc.gov/KnowHepatitisB.

NCHHSTP published updated guidance for evaluating healthcare personnel for hepatitis B virus protection and for administering post-exposure management. Recommendations for hepatitis B vaccination early in life have resulted in a generation of students and employees entering the healthcare field who were vaccinated in infancy. Previous guidance for ensuring protection against healthcare-acquired hepatitis B infection addressed only recently vaccinated healthcare workers. The new CDC Guidance provides an approach to determine protection in this emerging group of healthcare personnel and how the results affect post-exposure prophylaxis.

NCHHSTP collaborated with four major commercial laboratories and other partners to report the pregnancy status of persons with confirmed hepatitis B surface antigen (HBsAg) positive tests in all state and public health jurisdictions they serve. This collaboration will help improve progress toward the goal of eliminating chronic hepatitis B infections in the United States resulting from perinatal transmission.

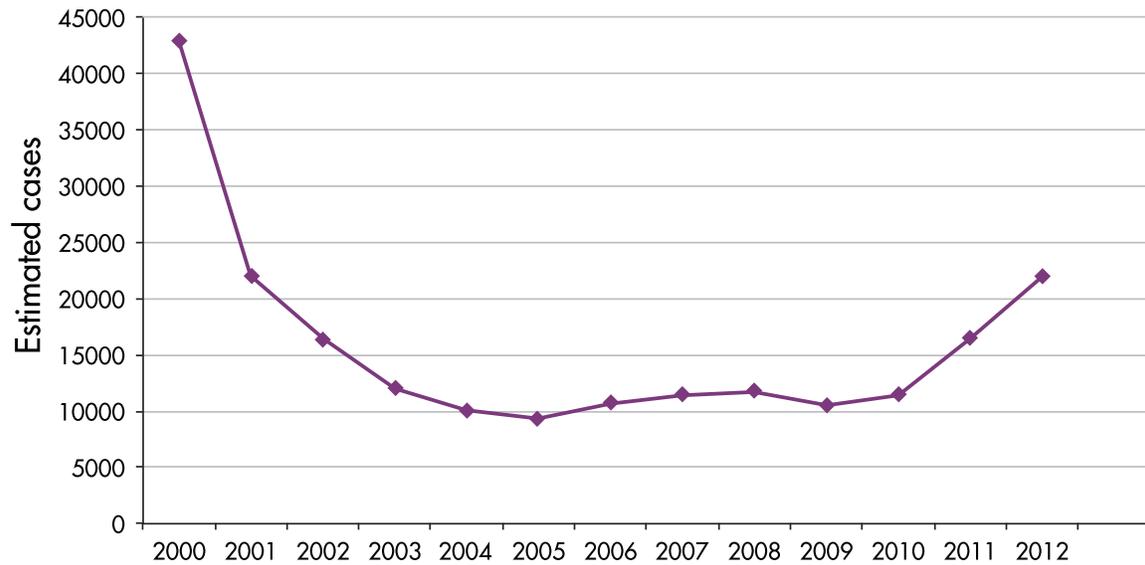


Know More Hepatitis poster on liver cancer.



Billboard featuring CDC recommendation on HCV screening.

ACUTE HEPATITIS C CASES IN THE UNITED STATES, 2000-2012



Hepatitis C

The year 2014 marked the 25th anniversary of the identification of hepatitis C virus (HCV) as a distinct virus by a study published in the journal *Science*. Many advances have been made in the testing and treatment of HCV since its discovery. However, with around 3 million adults living with HCV in the United States—most of whom are baby boomers—CDC continues to call attention to the virus and the need for prevention, testing, and linkage to care. To acknowledge the importance of the discovery of HCV, NCHHSTP presented a Public Health Grand Rounds focused on *The 25th Anniversary of the Discovery of the Hepatitis C Virus: Looking Back to Look Forward*, in June 2014. The Grand Rounds is available for viewing at <http://www.cdc.gov/cdcgrandrounds/archives/2014/june2014.htm>.

Of new cases of acute HCV infection reported to CDC, injection drug use represents the most commonly identified risk factor. An estimated 64% of people who inject drugs are chronically infected with HCV, and 2.7% to 11% are chronically infected with HBV. NCHHSTP published a study that identified the emerging U.S. epidemic of HCV infection among young non-urban persons of predominantly white race. This study confirmed that hepatitis C was primarily associated with injection drug use. And this is a continuing trend—the reported incidence in 2012 was higher than 2006 in at least 30 states, with the largest increases in nonurban counties east of the Mississippi River. Of 1,202 newly reported HCV-infected young persons, 52% were female and 85% were white. In 635 interviews, 75% of respondents reported injection drug use. Of respondents reporting drug use, 75% had abused prescription opioids, with first use on average 2.0 years before using heroin. The study supported CDC efforts to develop targeted interventions for young persons who inject drugs. The study was published in *Clinical Infectious Diseases*, on November 15, 2014.



An Ebola sign in Sierra Leone.



Suiting up in protective gear.



Taking temperature, Sierra Leone.



Pedestrians walk past a sign that says "Beware, EBOLA is real."

HELPING TO COMBAT EBOLA

A number of NCHHSTP staff members, including the Center Director, contributed to the effort to combat the Ebola outbreak—some by traveling to West Africa for 30-day deployments, others by serving details to the CDC's Emergency Operations Center in Atlanta, and still others by helping to investigate possible Ebola cases in the United States. In West Africa, NCHHSTP staff were involved in epidemiology and surveillance, infection control and prevention, laboratory services, health communication and health promotion, border health measures, informatics, logistics and operations, emergency management, monitoring and evaluation, and case management. As of December 2014, more than 125 NCHHSTP staff members had participated in the Ebola outbreak response, of whom about 40 had been deployed to West Africa.

Other Activities

NCHHSTP also conducted the following activities:

- Published a summary of the epidemiology of the human papilloma virus (HPV) and the recommendations of CDC's Advisory Committee on Immunization Practices (ACIP) regarding HPV in *MMWR Recommendations and Reports*, in August 2014. This compendium of all current recommendations provides a useful tool for clinicians, public health staff, and immunization programs to help ensure young people are protected against HPV. Persistent infection with certain types of HPV can cause cervical cancer in women as well as other anogenital and oral and throat cancers in women and men.
- Awarded funds for the Cooperative Re-Engagement Controlled Trial (CoRECT) study. Under CoRECT, health departments will evaluate an intervention to identify HIV-infected persons who are out-of-care and engage them in HIV care. The trial is intended to assess effectiveness strategies for getting more people who are HIV infected into care.

Protecting People

Working to Expand Available Treatments for Gonorrhea

Gonorrhea is one of the most common reportable diseases in the United States; more than 800,000 gonorrhea infections are estimated to occur each year. Yet *Neisseria gonorrhoeae* (the bacteria that causes gonorrhea) has become increasingly resistant to treatment. Drug-resistant *Neisseria gonorrhoeae* was listed as one of three microorganisms that were "urgent" public health threats in a report on antibiotic resistance CDC issued in 2013. If the last recommended antibiotics to treat gonorrhea stop working, the United States could once again face the health problems that the disease posed in the early 20th century—including blindness in newborns, infertility in women, and severe scarring in the urinary tract of men.

To fight this urgent public health threat, NCHHSTP is using the latest advances in genome sequencing techniques to unlock the DNA of the bacterium that causes gonorrhea. This information is critical to the development of new drugs to treat gonorrhea, as well as better tests to find out quickly if a patient's infection is resistant.

This cutting edge research, part of CDC's Advanced Molecular Detection Initiative, will tell how the bacteria is changing and help scientists find better ways to prevent gonorrhea. Using these new approaches, CDC hopes to keep untreatable gonorrhea from becoming a reality.

In addition, NCHHSTP laboratories are testing the effectiveness of various novel compounds against drug-resistant gonorrhea. This work is being done in collaboration with private-sector partners, including AstraZeneca and Melinta Therapeutics.

Fighting STDs

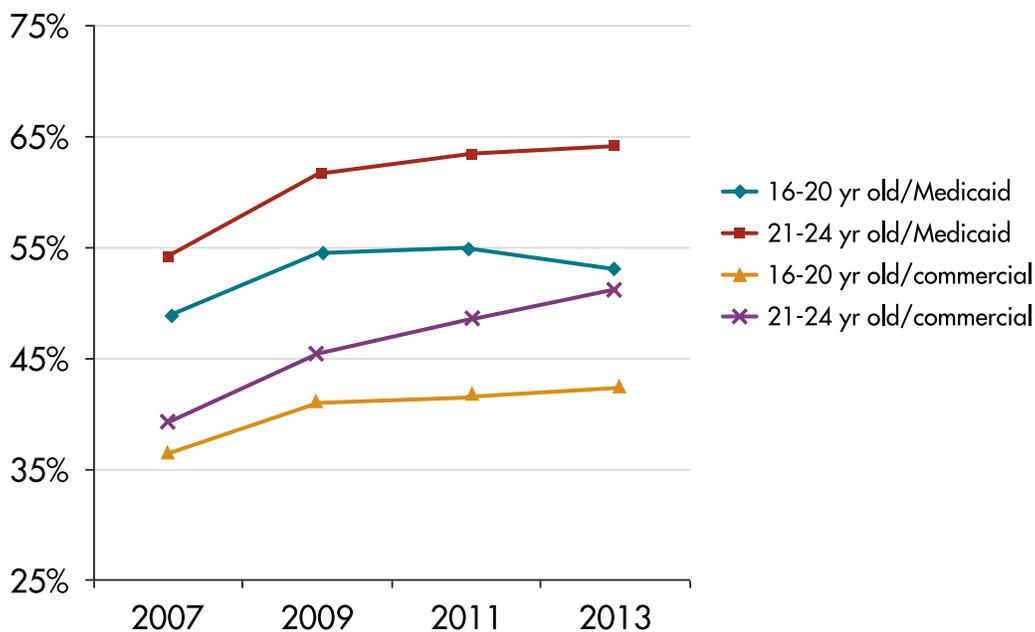
For the first time since nationwide reporting for chlamydia began, chlamydia rates declined in the United States in 2013, the *Sexually Transmitted Disease Surveillance 2013* report found. In 2013, a total of 1,401,906 cases of *Chlamydia trachomatis* infection were reported to the CDC. This case count corresponds to a rate of 446.6 cases per 100,000 population, a decrease of 1.5% compared with the rate in 2012. The surveillance report was published in December 2014.

In 2014, NCHHSTP implemented a new state and local cooperative agreement, “Improving Sexually Transmitted Disease Programs through Assessment, Assurance, Policy Development, and Prevention Strategies (STD AAPPs),” that offers health departments greater flexibility to direct resources to areas based on local needs. This cooperative agreement also continues the Gonococcal Isolate Surveillance Project, which provides critical information about drug resistance in gonorrhea.

During the first year of STD AAPPs, grantees strengthened and expanded partnerships to identify and develop ways to increase STD screening in high burden populations. For example, one southern state formed a new partnership with a healthcare provider that has clinics located in areas with disproportionately high STD rates. The goal is to work together to more effectively target preventive services to people who can benefit the most from them.

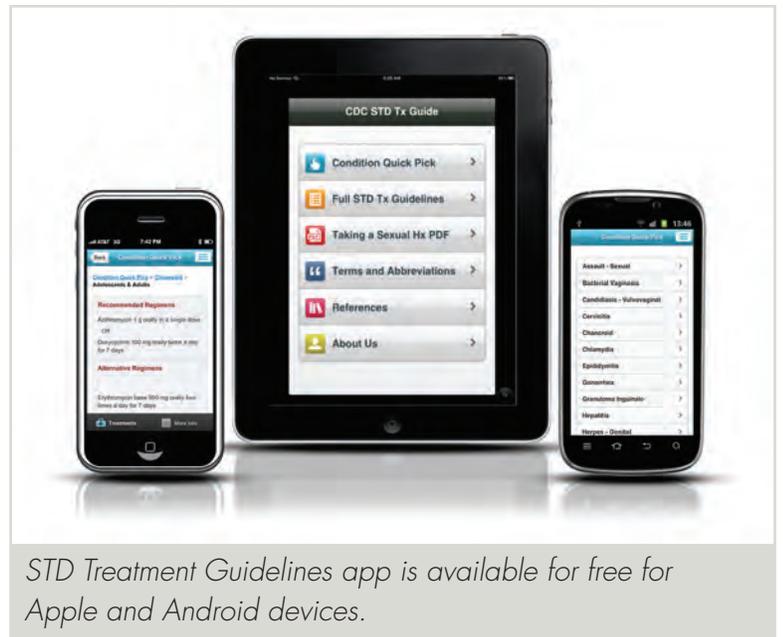
NCHHSTP is also working with grantees to finalize new meaningful and achievable program outcome measures. This effort also includes identifying other data that may be available in future years, which could both provide information that may be used to better target grantee activities, and further enhance reportable outcomes achieved by grantees and their partners.

PERCENTAGE OF SEXUALLY ACTIVE FEMALES WHO ARE SCREENED ANNUALLY FOR GENITAL CHLAMYDIA INFECTIONS



NCHHSTP also worked in 2014 to provide enhanced access to information about where to go to get tested for STDs and for HIV. NCHHSTP's new [GetTested](#) website brings the former HIVTest.org and FINDSTDtest.org sites together into a single resource accessible from any device. This site features

- A new testing and support module, *Find Free, Fast, and Confidential Testing Near You*, that helps users find local testing sites and can suggest testing options based upon factors such as age, gender, and sexual orientation.
- [Find Answers to Your Questions](#) FAQ page, which provides concise answers to common questions on testing, transmission, risks, and prevention.
- A rotating *Did You Know?* module that offers informational factoids with actionable messages.



Other Examples of NCHHSTP Activities to Protect People

NCHHSTP conducted the following activities:

- Made an easy-to-use app available to health care providers to identify and treat patients for STDs. The STD Treatment Guide app combines information from CDC's STD Treatment Guidelines and *MMWR* updates. The free app is available for Apple and Android electronic devices. Since its release mid-2013, the STD Treatment Guidelines app has been downloaded more than 830,000 times.
- Published data supporting the need for further evaluation of hepatitis A vaccine efficacy for post-exposure prophylaxis among adults ≥ 40 years in the United States. A recent foodborne outbreak of acute hepatitis A in seven states affected primarily adults, highlighting newly recognized adult susceptibility to hepatitis A. These findings suggest that additional study is needed to determine the role of hepatitis A vaccine for post-exposure prophylaxis of adults.

Working to Decrease Health Disparities

NCHHSTP strives to reduce health disparities in HIV/AIDS, viral hepatitis, STDs, and TB. Some of the greatest health disparities are by race and ethnicity. For example, African Americans are nine times and Latinos three times more likely to have HIV than whites. And, in 2012, the reported gonorrhea

rate for African Americans was 15 times that of whites. Asians and Pacific Islanders make up less than 5% of the total U.S. population, but account for more than 50% of Americans living with chronic hepatitis B. In 2012, Asians had the highest TB case rate, which was nearly 27 times higher than the case rate for whites and four times higher than the case rate for Hispanics.

Gay, bisexual, and other men who have sex with men (MSM) are disproportionately affected by HIV, as well as STDs. MSM account for 64% of newly diagnosed HIV infections and are the only group in which HIV incidence is rising. MSM are 44 times more likely to have HIV than other men.

Working to decrease health disparities is a key focus of NCHHSTP's prevention, policy, and research programs. Some examples of activities in 2014 that aimed to address health disparities are highlighted below.

New NCHHSTP HIV Communications Campaigns Launched

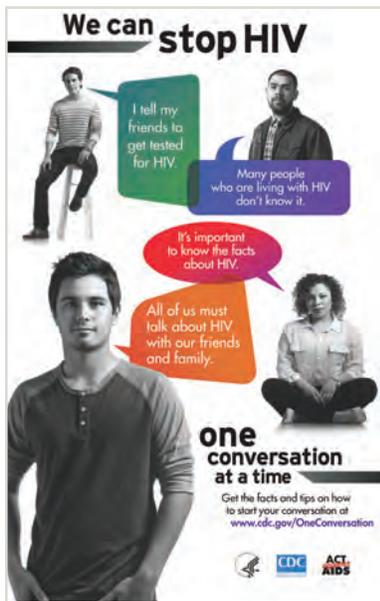
NCHHSTP launched three new HIV communications campaigns in 2014, as part of its continuing efforts to raise awareness of HIV in the United States. All three are part of CDC's Act Against AIDS initiative, a national communication campaign to combat complacency about HIV in the United States. Act Against Aids also advances the goals of the NHAS, which include decreasing the number of new infections, reducing stigma and discrimination against people living with HIV, and educating Americans about the threat of HIV and how to prevent it.

In September 2014, NCHHSTP launched the *HIV Treatment Works* campaign, which focused on helping people living with HIV get into care, start taking HIV medications, remain in care, and adhere to treatment. The campaign is the first of its kind by CDC and aims to get more Americans living with HIV to stay in care and take treatment. *HIV Treatment Works* generated more than 186 million media impressions in its first two weeks.

Treatment, especially for those starting antiretroviral drugs right after diagnosis, helps people with HIV live longer and healthier lives, and helps prevent the spread of HIV. Yet only 4 in 10 Americans with HIV are in HIV medical care and only 3 in 10 have an undetectable viral load, which means the virus is at a level that provides maximum health benefits and reduces the risk of transmitting the virus to others.

HIV Treatment Works was developed with the input of more than 100 HIV-positive men and women. The campaign shows how treatment and care empower people to lead full and healthier lives, and stop the spread of HIV. It includes personal stories about how the participants overcame barriers to care and treatment and provides advice for others living with HIV.





Components of the campaign include online, print, TV, and outdoor ads. Additionally, the campaign includes social media outreach and a dedicated website with information and resources for people living with HIV.

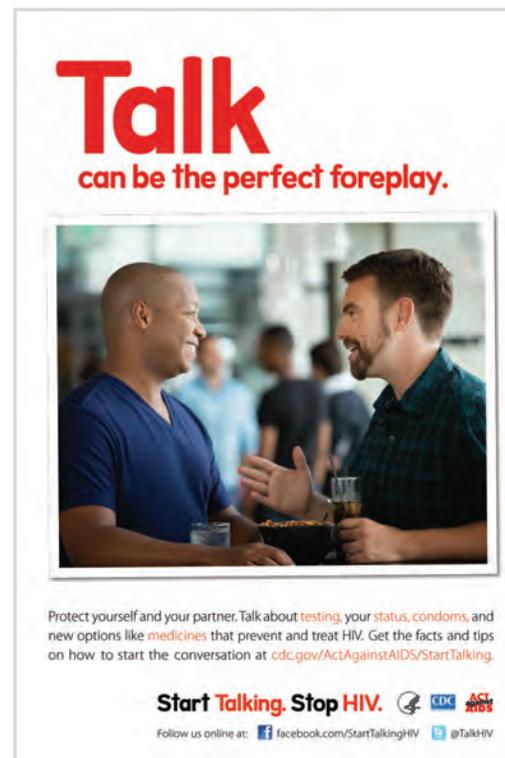
In August 2014, NCHHSTP launched a national HIV awareness campaign aimed at Latinos, *We Can Stop HIV One Conversation at a Time*. The campaign targets Latino families and communities to encourage increased communication about HIV. The new campaign generated more than 76 million media impressions in its first month.

Although more than 220,000 Latinos are living with the virus, studies have found that many in the community do not talk openly about HIV risk, prevention, or testing. Developed with input from Latinos across the country and key Latino community organizations, the English- and Spanish-language campaign materials feature a cul-

turally diverse group of men and women talking openly about a range of HIV-related topics, including the impact of the epidemic within the Latino community, risk factors, and the importance of HIV testing.

And in May 2014, NCHHSTP launched *Start Talking. Stop HIV.*, a new national communication campaign encouraging gay and bisexual men to talk openly with their sexual partners about HIV risk and prevention strategies. Although research suggests that open communication leads to behaviors that can help reduce risk, such as HIV testing and status disclosure, studies have found that important discussions about HIV do not occur within many relationships.

The *Start Talking. Stop HIV.* campaign was created in consultation with more than 500 gay and bisexual men. It is designed to reach gay and bisexual men of all races and ethnicities in all types of relationships, from casual to long-term. Featuring real-world individuals and couples, the campaign encourages gay and bisexual men to talk to their sexual partners about HIV testing and their HIV status; safer sex; medicines that can help prevent and or successfully treat HIV; and healthy relationships. The campaign includes online and print advertisements, as well as social media outreach and online videos.



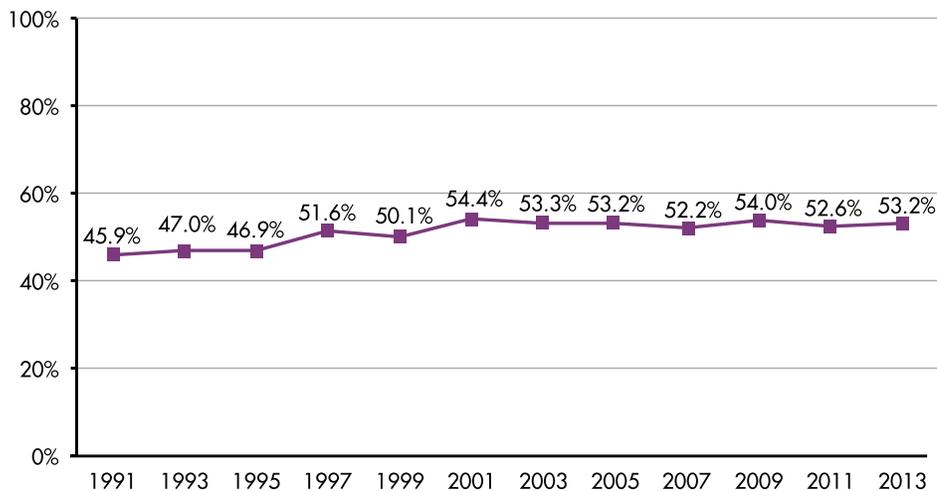
Promoting Adolescent Health Through Schools-Based Programs

During 2014, NCHHSTP oversaw the first year of a redesigned 5-year funding program for state and local education agencies. The program reaches the 19 states and 17 large cities that bear 62% of the burden of new HIV infections.

More than 90 NCHHSTP-funded partners attended the 2014 HHS Teen Pregnancy Prevention Grantee Conference, “Bridging the Gaps: Eliminating Disparities in Teen Pregnancy and Sexual Health,” which was held June 4 – 6, 2014, in Washington, DC. This conference was sponsored jointly by the Office of Adolescent Health (OAH), the Administration on Children and Families (ACF), the Division of Reproductive Health (DRH), and DASH. This year’s conference brought together for the first time more than 900 grantees, federal staff, program developers, and leading experts in the area of adolescent sexual risk reduction.

The conference offered opportunities to connect with federal staff, collaborate and network with other grantees, learn about new research and trends in teen pregnancy and sexual health, identify strategies for sustaining program funding, and enhance knowledge of best practices to implement and strengthen programs that target the elimination of health disparities in teen pregnancy and sexual health. The conference included 73 breakout sessions focused around five core tracks: 1) program delivery and improvement; 2) program capacity and infrastructure; 3) emerging trends; 4) evaluation; and 5) sustainability, partnerships, and collaboration. The evaluation data from the conference indicated that the objectives of the conference had been met with an average rating of 4.5 out of 5 for the 73 breakout sessions; grantees also reported an increase in connecting to other federally funded programs in their state with a plan to identify future opportunities to collaborate and leverage funding.

PERCENTAGE OF HIGH SCHOOL STUDENTS NATIONWIDE WHO HAVE NEVER HAD SEXUAL INTERCOURSE



Note: Increased 1991-2001, no change 2001-2013.
Source: CDC’s National Youth Risk Behavior Survey, 1991-2013.

NCHHSTP also provided funding and support through a five-year cooperative agreement to three local education agencies and a national non-profit organization to implement multi-component, school-centered HIV prevention activities for young men who have sex with men (YMSM) ages 13-19. Recipients of the competitive funding are: School Board of Broward County, Los Angeles Unified School District, San Francisco Unified School District, and Advocates for Youth. These four grantees are continuing the work that began in 2011 as a pilot program with the goal of reducing HIV and other STDs among black and Latino young YMSM through school and community-based partnerships. The goals of the project include:

- Increasing the number of teen YMSM who are tested and treated for HIV and other STDs
- Decreasing sexual risk behaviors among teen YMSM
- Reducing absenteeism and school drop-out among teen YMSM.

Only 22% of sexually experienced U.S. high school students have ever been tested for HIV, even though young people account for a disproportionate share of new infections, show data for 2013 from NCHHSTP's National Youth Risk Behavior Survey (YRBS). Female and black students were more likely to be tested than male students and other racial/ethnic groups, but HIV testing among all groups of adolescents remains low, the CDC analysis found. YRBS is a nationally representative biennial survey of public and private school students in grades 9–12.



Increasing Impact of HIV Prevention for Racial and Ethnic Minorities

The Care and Prevention in the United States (CAPUS) Demonstration Project, initiated in 2012, is a 3-year cross-agency demonstration project. The purpose of the project is to reduce HIV- and AIDS-related morbidity and mortality among racial and ethnic minorities living in the United States. CDC is the lead federal agency. NCHHSTP works closely with the Office of the Assistant Secretary for Health (Office of HIV/AIDS and Infectious Disease Policy, Office of Minority Health, Office on Women's Health), HRSA, and the Substance Abuse and Mental Health Services Administration (SAMHSA). Together, this federal partnership oversees all stages of the project.

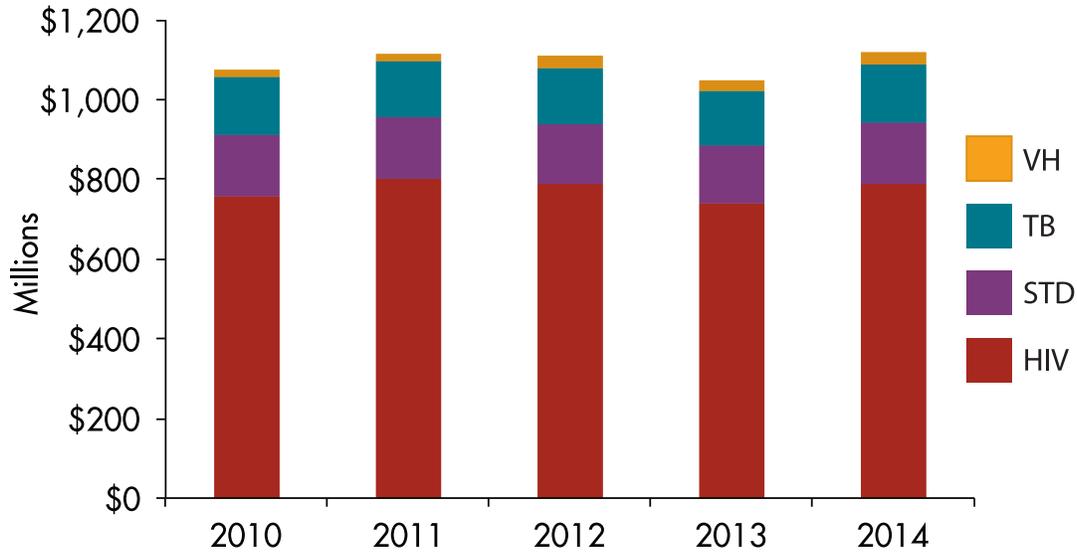
Eight states received funds to increase the proportion of racial and ethnic minorities with HIV who are diagnosed, linked to care, retained in care, receive ART, have a suppressed viral load, and gain the full benefits of treatment. Grantees used a variety of innovative approaches in 2014 to implement their project. Examples from grantees follow:

- The Tennessee Department of Health is implementing a social network HIV testing strategy with African American MSM. Preliminary numbers from the initial phase demonstrated a 7% positivity rate.
- The Illinois Department of Public Health is implementing co-located medical and social services in East St. Louis to promote access to comprehensive health care, HIV/STD testing and treatment, GED completion, and job placement for young MSM and transgender persons of color.
- The Georgia Department of Public Health is using surveillance data to create maps with HIV care continuum outcomes by county, zip code, and census tract to prioritize planning decisions about testing, linkage, and retention efforts. The Georgia Department of Health is also piloting a Rapid Response Team to help link people newly diagnosed with HIV to care.

NCHHSTP also conducted the following activities:

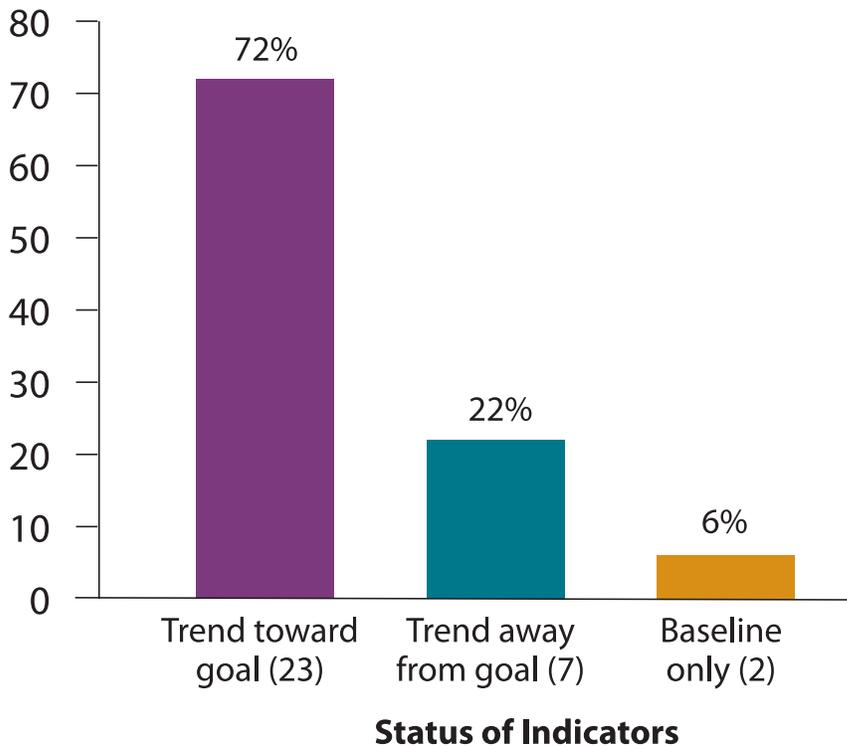
- Hosted a capacity-building workshop in Hawaii for public health officials from the United States Affiliated Pacific Islands (USAPI), in which participants developed country action plans for their public health activities under an NCHHSTP-funded cooperative agreement. Over 150 individuals attended this meeting, with representatives from each of the USAPI—American Samoa, Guam, the Commonwealth of the Northern Marianas Islands, the Federated States of Micronesia, the Republic of the Marshall Islands, and the Republic of Palau; as well as officials from Hawaii and other public health partners.
- NCHHSTP-funded Clinical and Laboratory Prevention Training Centers (PTCs) have expanded their training and training assistance activities for clinicians working in HIV care settings accessed by men who have sex with men. The goal was to help clinicians' improve their use of sexual risk behavior assessments, STD screening rates, and STD treatment, with a primary focus on increasing non-genital NAATs testing as recommended in the 2010 STD Treatment Guidelines. The PTCs worked with 31 clinics in 14 states on a variety of projects including creating self-testing programs and developing an algorithm for alerting clinicians when a patient is eligible for annual screening.

NCHHSTP BUDGET FY 2010-2014



Notes: FY 2010 HIV amount includes \$30 million from the Affordable Care Act's Prevention and Public Health Fund (ACA/PPHF). FY 2012 VH amount includes \$10 million from ACA/PPHF. FY 2011 through 2014 HIV amounts reflect the transfer of HIV school health funding to NCHHSTP.

FY 2014 NCHHSTP PERFORMANCE INDICATORS (32 TOTAL) ALL DIVISIONS & PROGRAMS



NCHHSTP reports on 32 performance measures in its annual budget request to Congress. These measures help CDC assess the extent to which our efforts in HIV/AIDS, viral hepatitis, STD, and TB prevention result in real changes in health. CDC anticipates reporting on a greater proportion of measures in the future.



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