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

Annual Report • 2011











Foreword

We hope you will enjoy reading this new, short edition of our National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention Annual Report. This is the fifth in our series of annual reports on NCHHSTP's activities. It contains brief highlights of the Center's key goals and some of our noteworthy accomplishments from 2011.

The epidemics of HIV and other STDs, viral hepatitis, and TB are large and complex, but we have made progress in the last year, including the following:



- Adopting guidelines for a new latent TB therapy that requires fewer doses, which will make it much easier for people to complete their therapy.
- Increasing the number of Americans who know their HIV status through the HIV Testing Initiative. Those who know they are HIV positive can seek earlier treatment and take steps to prevent transmission to others.
- Publishing and distributing new STD Treatment Guidelines, which update recommendations for treating these infections.
- Helping to develop a viral hepatitis action plan to attack the silent epidemic of viral hepatitis
 in the United States—a major cause of liver disease in this country.
- Promoting HIV testing as a routine part of medical care with the HIV Screening, Standard Care campaign, aimed at primary care physicians. Treating those who are infected with HIV is an important step toward reducing transmission of HIV.
- Developing Data Security and Confidentiality Guidelines for the collection, storage, sharing, and use of data across surveillance and program areas for NCHHSTP.
- Developing health equity and social determinants of health requirements to be included in NCHHSTP funding opportunity announcements.

The accomplishments highlighted are just some of the many strides NCHHSTP has made in championing public health and accelerating disease prevention and health protection activities to fight these diseases. These accomplishments would not be possible without our expert and exceptionally diverse staff of public health professionals, along with the collaboration of our many governmental, non-governmental, and private sector partners.

You can find more information about our programs at http://www.cdc.gov/nchhstp/. You can also follow our activities on Twitter, @CDC_DrFenton.

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he 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 saves money through its efforts aimed at 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 activities will focus on educating young people about the risk of HIV and other STDs.

These infectious diseases share similar or overlapping at-risk populations—including racial and ethnic minorities, men who have sex with men (MSM), 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 applies well-integrated, multidisciplinary programs of research, surveillance, risk-factor, and disease intervention and evaluation. The Center's established strategic plan guides its programs and research by outlining six key priorities for our work. Below are highlights and accomplishments from 2011 related to the Center's six priority areas.

Prevention Though Health Care—engaging the health care system to improve health through prevention. For example, NCHHSTP worked to encourage primary care physicians to make HIV testing a routine part of medical care, through its HIV Screening, Standard Care campaign. The campaign provides tools and resources to physicians for incorporating HIV testing into primary care settings, including a Web page, patient materials, and physician's guide. Other highlights of activities related to prevention through health care include:

- Convening a meeting of 100 public health professionals on "Health Care: Enhancing Health Departments' Preparedness and Response" to identify how changes in health care may affect health department services.
- Collaborating with the Centers for Medicare and Medicaid Services (CMS) to inform state health departments about a Medicaid option that allows them to extend Medicaid eligibility to low-income individuals infected with TB.
- Holding a discussion with CMS, facilitated by the Trust for America's Health, about options for reimbursement of perinatal hepatitis prevention program activities and for continuing care for liver disease among post-partum women and their infected contacts.



- Program Collaboration and Service Integration (PCSI)—promoting better collaboration between programs and supporting appropriate service integration at points of access. NCHHSTP is funding six jurisdictions to address syndemics through PCSI—New York City, North Carolina, Philadelphia, San Francisco, Texas, and Washington, D.C. Representatives from these jurisdictions shared best practices at a grantee meeting convened by NCHHSTP in 2011. For example, the San Francisco Department of Public Health (SFDPH) completed a detailed assessment of HIV/ AIDS, viral hepatitis, STD, and TB surveillance registries and established the first baseline syndemic report across these four registries. These data will be used by SFDPH to identify populations and communities that are affected by co-morbid conditions and to identify challenges in using the current surveillance systems to monitor and track co-morbid conditions. Other recent PCSI activities have included:
- Developing guidelines for data security and confidentiality, to establish standards to ensure appropriate collection, storage, sharing, and use of data across surveillance and program areas for NCHHSTP. These guidelines were released in December 2011.
- Consolidating scientific knowledge on PCSI in a literature review.
- Creating the NCHHSTP Atlas, a new tool that currently displays data on STDs and HIV at http://www.cdc.gov/nchhstp/atlas. The Atlas was launched in January 2012.



- Health Equity—reducing health disparities in HIV/AIDS, viral hepatitis, STDs and TB by promoting health equity. NCHHSTP published a special Public Health Reports supplement that focused on data systems and their use in addressing social determinants of health (SDH)—the underlying economic and social conditions that influence the health of individuals and communities. NCHHSTP also:
- Developed health equity and SDH requirements to be included in NCHHSTP funding opportunity announcements (FOAs). These requirements will ensure that every NCHHSTP-funded FOA seeks to address health equity and SDH.
- Hosted a Health Equity Symposium focusing on using data to monitor and improve health equity by promoting SDH. More than 300 staff members from across CDC attended the symposium.

- Conducted research and activities on sexual health, including developing a sexual health indicators inventory from existing data sources, conducting communication research on sexual health messages, and reviewing scientific literature on sexual health promotion.
- Increased the capacity of non-governmental organizations serving American Indian and Alaska Native adolescents to provide quality HIV prevention programming through Minority AIDS Initiative funding.
- Global Health Protection and Systems Strengthening—optimizing global collaborations to enhance the overall effectiveness of its international program development and public health research. For example, NCHHSTP collaborates with the World Health Organization (WHO) and other international partners working to eliminate congenital syphilis globally. NCHHSTP has worked with WHO to update estimates of the global burden of congenital syphilis. An estimated 2.1 million pregnant women worldwide were infected with syphilis in 2008, resulting in approximately 720,000 cases of congenital syphilis. Of these, an estimated 440,000 were stillbirths or infant deaths within the first month of life.

Partnerships—creating and strengthening mutually beneficial, strategic relationships with other individuals and organizations. For example, NCHHSTP partnered with the Magic Johnson Foundation and Black Entertainment Television to conduct the first-ever E.R.A.S.E. (Empowering and Reinforcing Awareness of Students through Education) HIV Youth Summit at Centennial High School in Compton, California on February 18, 2011. More than 1,000 students attended the summit. NCHHSTP also collaborated with the CDC Foundation to build the Viral Hepatitis Action Coalition (VHAC), a private/public partnership that supports several critical activities of the Division of Viral Hepatitis, including a national public education campaign on viral hepatitis. In 2011 VHAC added one new partner,

Bristol-Myers Squibb. Its steering committee is made up of 10 industry partners and one community organization.

Workforce Development and Capacity Building—working to attract, maintain, develop, and deploy NCHHSTP's professional workforce to effectively promote health and prevention activities. NCHHTP launched a Learn@Lunch Career Development Series in 2011 on topics related to career growth. More than 800 NCHHSTP staff members have attended the lunchtime sessions. NCHHSTP has also launched an individual career counseling program for staff. The sessions provide participants with the opportunity to discuss and refine personal career goals and objectives.



Saving Lives

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

Improving TB Drugs

Tuberculosis is one of the world's leading causes of death and has not yet been eliminated in the United States. More than 11 million people in the United States have latent TB, which means they have the TB bacteria in their body, but are not contagious and are not sick. About 5 to 10 percent of those with latent TB will become sick from reactivated infection that was not treated. Until now, the only treatment for latent TB infection consisted of a 9-month regimen of daily doses of isoniazid.

In December, CDC released new guidelines for providing a 12-dose therapy to treat latent TB. Results from a 10-year, NCHHSTP-sponsored clinical trial on TB preventive therapy were released in 2011, marking one of the most significant advances in TB research in decades. The study found that a supervised, onceweekly regimen of rifapentine and isoniazid taken for 3 months was just as effective as the standard treatment of a self-administered, 9-month daily regimen of isoniazid. The new regimen to treat latent TB reduced the doses required for treatment from 270 daily doses to 12 once-weekly doses, making it much easier for patients to take and to complete the therapy. Since approximately 75% of U.S. TB cases are caused by reactivated latent TB infection, full adoption of the new recommendation can have an important impact on eliminating TB in the United States.

Addressing Viral Hepatitis

Viral hepatitis, a silent epidemic of which most people are unaware, endangers the health of approximately 3.5 million to 5.3 million Americans living with chronic hepatitis. Nearly three-fourths of those with chronic hepatitis in the United States are unaware that they are infected and thus are not receiving care and treatment. Viral hepatitis, an inflammation of the liver, can lead to cirrhosis and liver cancer. In the next decade, more than 150,000 Americans are expected to die from viral hepatitis-associated liver cancer or endstage liver disease.

NCHHSTP, in collaboration with HHS (and direct involvement of the Assistant Secretary for Health) developed an action plan to combat viral hepatitis in the United States.

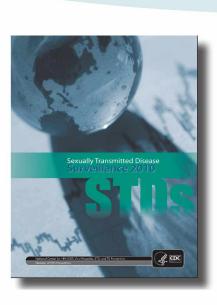
On May 12, 2011, HHS issued "Combating the Silent Epidemic of Viral Hepatitis: Action Plan for the Prevention, Care and Treatment of Viral Hepatitis." The Action Plan provides a roadmap for the nation's public health response to viral hepatitis, identifying actions and timelines for CDC and other HHS agencies and public and private partners. One primary goal is to improve viral hepatitis screening, so that those who are infected can be treated earlier.

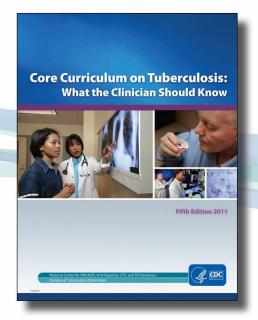
HIV Testing Initiative

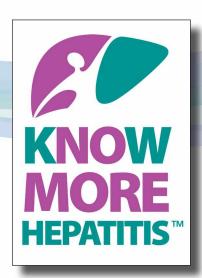
NCHHSTP released the results of the first 3 years of its HIV Testing Initiative, which conducted nearly 2.8 million HIV tests from October 2007 through September 2010. The initiative diagnosed 18,432 HIV-positive persons who were unaware of their infection. Among the 17,247 persons with new HIV diagnoses for whom follow-up data were available, 91% received their test results and 75% were linked to care.

Other NCHHSTP activities to help save lives:

- Added eight evidence-based interventions focusing on medication adherence to its compendium of evidence-based behavioral HIV prevention interventions. The medication adherence interventions aim to improve patients' skills at sticking to their medication schedule.
- Updated and published the Core Curriculum on Tuberculosis: What the Clinician Should Know to strengthen clinicians' knowledge of diagnosing and treating TB and latent TB.
- Collaborated with public health workers throughout the United States to stop TB transmission among children, elderly people, hospital workers, large family groups, and homeless people.
- Developed and presented scientific data supporting new recommendations for hepatitis B vaccination of persons with diabetes.
- Launched "Testing Makes Us Stronger," a campaign to promote HIV testing among black gay and bisexual men.
- Initiated planning for "Know More Hepatitis," a new national campaign to raise awareness about the silent epidemic of viral hepatitis.







Protecting People

NCHHSTP's programs aim to protect people's health through prevention. For example, NCHHSTP sponsors research to develop new prevention strategies and conducts health campaigns to help keep people healthy.

New Scientific Advances in Preventing HIV

Results of NCHHSTP's TDF2 Study in Botswana, released in July 2011, provided the first evidence that a daily oral dose of antiretroviral drugs used to treat HIV infection can reduce HIV acquisition by uninfected people exposed to the virus through heterosexual sex. NCHHSTP conducted the study of preexposure prophylaxis (PrEP) for heterosexuals in partnership with the Botswana Ministry of Health. Risk of acquiring HIV infection was reduced by 63 percent in the study population of uninfected heterosexual men and women. In a separate announcement, the University of Washington released the preliminary results of the Partners PrEP Study, which also found that daily PrEP reduced HIV transmission among heterosexual couples in Kenya and Uganda. CDC co-managed two of the nine sites.

These results followed the November 2010 findings of a National Institute of Health study, iPrEx clinical trial, which showed that PrEP reduced HIV transmission among MSM. NCHHSTP has published interim guidance for health care providers who may decide to provide PrEP for the prevention of HIV infection in adult patients who identify as MSM and who are at high risk for acquisition of HIV through sexual contact.

CDC also participated in the successful HPTN 052 study which found that early HIV treatment can dramatically reduce the risk that an HIV-positive person will transmit HIV to his or her heterosexual partner. CDC's research site in Kenya was one of the 13 trial sites.

Shortening the Time to Detect Drug-Resistant TB

NCHHSTP's TB laboratory is providing molecular detection of drug-resistant TB to state and local health departments, which has shortened the time for results from 42 days to 2 days. Shortening the wait time for test results means that TB patients can be treated sooner with the most appropriate drugs for their case. This service allows for rapid confirmation of multidrug- resistant TB through the identification of genetic mutations associated with rifampin and isoniazid resistance.



Raising Awareness of Gonorrhea's Declining Susceptibility to Some Antibiotics

Over time, *Neisseria gonorrhoeae* (gonorrhea) has become resistant to every antibiotic that has been used to treat it. During the 1970s and 1980s, resistance to penicillin and tetracycline increased significantly, leading CDC to stop recommending those antibiotics for therapy. Over the past decade, fluoroquinolone-resistant gonorrhea spread from the Far East and Western Pacific to the United States, leaving only one class of antibiotics still recommended for effective gonorrhea treatment—the cephalosporins.

NCHHSTP has been tracking closely the susceptibility of gonorrhea to cephalosporins—this last line of defense—and raising awareness about the dangerous possibility that this defense is weakening. In 2011, NCHHSTP authors published an article in *Morbidity and Mortality Weekly Report* that raised concerns that cephalosporins might become less effective against gonorrhea.

CDC is working with health care providers and state and local health care partners to increase the gonorrhea surveillance capacity so that emerging patterns of antibiotic resistance can be identified as they occur. CDC is also collaborating with the National Institutes of Health to test the efficacy of two-drug combinations of existing antibiotics as alternative treatments for gonorrhea.







Other NCHHSTP activities aimed at protecting people:

- A CDC evaluation of two of CDC's effective behavioral HIV interventions implemented by community-based organizations found that intervention participants reported fewer incidents of unprotected sex and fewer partners.
- CDC published new and updated STD Treatment Guidelines. Within 45 days after being released in December 2010, the Guidelines were downloaded more than 47,000 times, making it the second most popular download from http://cdc.gov. Alternative formats to the print and online MMWR were released in 2011 and include wall charts, pocket guides, a navigational Web version, as well as an e-book for the iPad®, iPhone® and iPod touch®.
- For the third year, CDC partnered with MTV and others on the youth-oriented STD awareness and testing campaign, "GYT: Get Yourself Tested." GYTNow. org is the central hub of the campaign, and shows young people how easy it is to get tested, offers tips on how to discuss STD testing with partners, parents and health care providers, and enables Web site visitors to locate nearby testing centers by simply entering their ZIP Code. Our partners reported 240 events with 1,250 youth volunteers, reaching 67,008 people, and testing over 124,900 men and women during the campaign month.
- CDC awarded funds to four organizations to implement demonstration projects to reduce STD disparities, promote sexual health, and advance community wellness.



- CDC provided funding to seven health departments to investigate increased heroin injection and hepatitis C infection in adolescents 18 to 25 years of age.
- CDC awarded funds to 34 community-based organizations in 19 states and Puerto Rico to expand community-led HIV prevention for young MSM and transgender youth of color, and their partners. Recognizing the need to address prevention among this disproportionately impacted population, CDC increased investment in this important program by \$10 million compared to the last funding cycle.

Saving Money

Making prevention dollars go further is especially crucial given the shrinking budgets and economic challenges of today. Federal funding is very tight. State and local health departments are strapped by declining budgets and staff reductions, with an estimated 45,000 public health jobs lost in the last 2 years. Changes are necessary to meet the challenges, and NCHHSTP strives to develop and provide cost-effective prevention strategies.

Promoting High-Impact Prevention

In line with the National HIV/AIDS Strategy. NCHHSTP is moving in a new direction to address HIV prevention. We are pursuing a high-impact prevention approach—using scalable interventions with demonstrated potential to reduce new infections, in the most vulnerable populations to yield a major impact on the HIV epidemic. An example of this approach is the recent health department funding opportunity announcement, which employs a new method of allocating resources to better match the geographic burden of the epidemic today and reallocates the \$359 million for health departments for HIV prevention. Resources are distributed based on the number of people living with HIV in each jurisdiction and better targets high impact prevention strategies. State and city health departments are also required to allocate at least 75% of their resources to four proven strategies, including HIV testing and comprehensive prevention with HIV-infected persons.

HIV Testing Offers Good Return on Investment

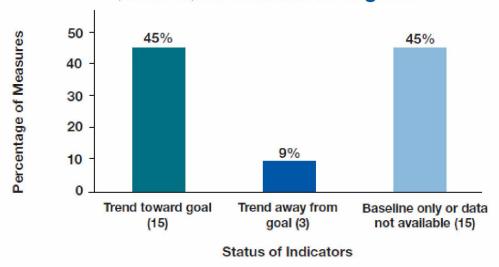
NCHHSTP staff calculated the return on the health system investment of the Expanded HIV Testing Initiative. Over the 3 years of the program, every dollar of health system investment in the program yielded a return of nearly twice that amount. From 2007 to 2010, NCHHSTP's efforts to expand HIV testing in disproportionately affected communities resulted in nearly 2.8 million people getting tested for HIV and more than 18,000 new diagnoses. Because those individuals took steps to protect the health of their partners, an estimated 3,381 new HIV infections were prevented and approximately \$1.2 billion in direct medical costs were averted. These results clearly indicate that large-scale HIV testing programs are beneficial from public health and economic standpoints.

Promoting Chlamydia Screening

Among 21 evidence-based clinical services recommended by the U.S. Preventive Service Task Force, chlamydia screening for young women was one of the most cost effective, but underutilized services. Chlamydia is the most frequently reported bacterial sexually transmitted disease in the United States, with more than 1.3 million chlamydia infections were reported in 2010. Chlamydia is greatly underreported because most people with chlamydia are unaware of their infection. An estimated 2.8 million infections occur annually in the United States. NCHHSTP is working to increase chlamydia screening through the National Chlamydia Coalition. The coalition strives to reduce the rates of chlamydia and its harmful effects among sexually active adolescents and young adults.

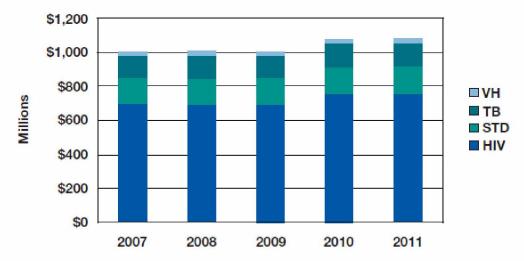


Figure 1: FY 2011 NCHHSTP Performance Indicators (33 total) All Divisions & Programs



NCHHSTP reports on 33 performance measures in its annual budget request to Congress. These measure 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.

Figure 2: NCHHSTP Domestic Program Budget FY 2007-2011*



^{*} FY 2010 HIV budget amount includes \$30 million from the Affordable Care Act's Prevention and Public Health Fund.

Except for domestic HIV/AIDS prevention and research, appropriations for NCHHSTP's programs have remained relatively stable over the past 5 years.







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