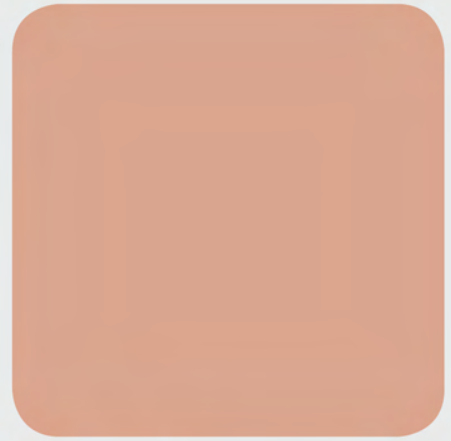
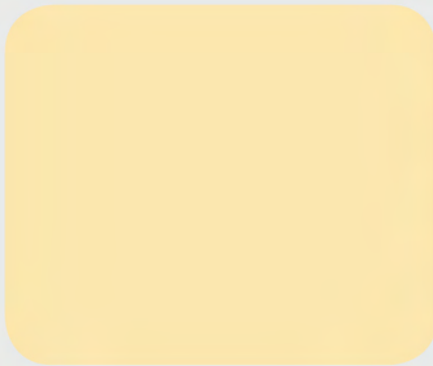
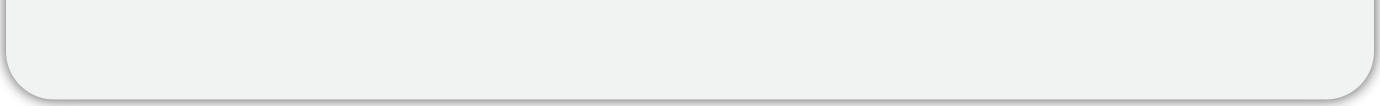




# National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention

Annual Report • Fiscal Year 2007





Welcome to this new report designed to provide our partners, policy makers, and the public with detailed information on CDC's programs at the National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention (NCHHSTP). This report aims to provide an overview of our work, our priorities, and activities, and how these contribute to improving health for the communities we serve. We have prepared this report in the interest of fulfilling our Center's commitment to improved transparency and accountability.

Fiscal Year 2007 was truly a new beginning for our Center. During this time, NCHHSTP was formally approved as a new organizational unit, with the addition of viral hepatitis prevention to our mission, as part of the reorganization of the CDC Coordinating Center for Infectious Diseases (CCID). We were particularly pleased to be rated as an effective program by the Office of Management and Budget PART process. Substantial gains were made in improving health and health impact in many arenas — whether implementing new guidelines on HIV testing in the United States; supporting HPV vaccine implementation in the United States; releasing new prevention guidelines for viral hepatitis; achieving further reductions in TB incidence; or supporting the successful implementation of the President's Emergency Plan for AIDS Relief (PEPFAR). In all domains, NCHHSTP staff and our partners continue to make a difference in the lives of many around the world.

NCHHSTP continues to evolve, and we are committed to ensuring that we not only actively support CDC and HHS priorities, but that we continue to listen and learn from those infected with, or affected by, HIV/AIDS, viral hepatitis, STDs, and tuberculosis. During Fiscal Year

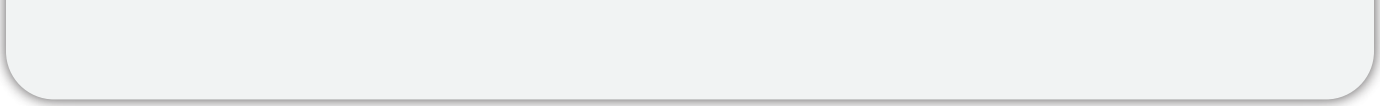
2007 the Center refocused its commitment to reducing health disparities, increasing program collaboration and service integration, and maximizing global synergies by ensuring better collaboration across programs and more holistic and comprehensive prevention services for those in need. This report highlights some of this evolution and how our investments and resources are contributing to achieving CDC's overarching health protection goals focused on creating healthy people, places, global health, and preparedness.

As always, a report such as this could not have been done without the work of many. We gratefully acknowledge the collaboration of our staff and partners, and other professionals working in the field of HIV, viral hepatitis, STD, and TB prevention. Thank you for your leadership, creativity, commitment, and continued support for our work and mission.

I hope that you enjoy reading this report about the center's new beginning in 2007. If you would like more information about NCHHSTP programs, please visit our Web site at <http://www.cdc.gov/nchhstp/>



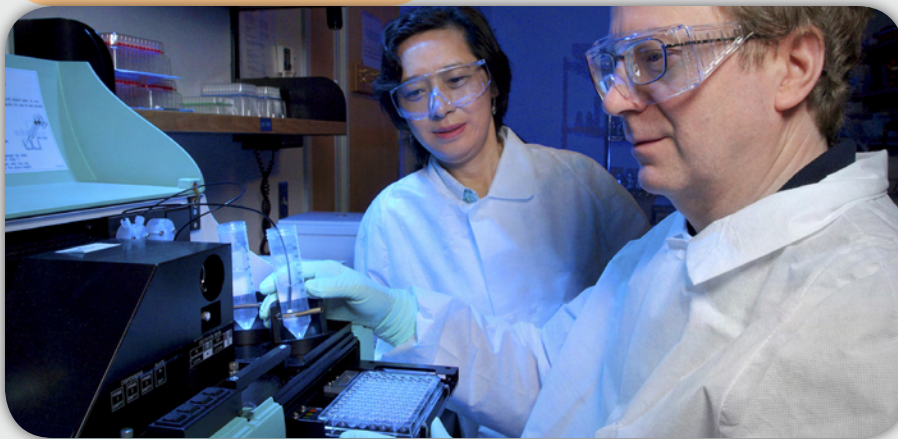
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# CONTENTS



About NCHHSTP .....	4
A Year in Review: Program Accomplishments .....	10
A Year in Review: Scientific Findings .....	18
NCHHSTP Budget .....	24
NCHHSTP Performance Indicators .....	26
Looking Forward .....	27
Appendix: Performance Measures for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention .....	29



## History

The National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention (NCHHSTP) is part of the Centers for Disease Control and Prevention (CDC), an agency of the U.S. Department of Health and Human Services (HHS). It is one of four national centers housed within CDC's Coordinating Center for Infectious Diseases (CCID).

The National Center for HIV, STD, and TB Prevention (NCHSTP) was established in 1994 to bring together most of CDC's HIV prevention activities under a single organizational home with its sexually transmitted disease (STD) prevention and tuberculosis (TB) elimination programs. In 2000, the Global AIDS Program (GAP) was added to NCHSTP in response to the global human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS) epidemic. In 2006, CDC's Division of Viral Hepatitis (DVH) was added, and the Center was renamed the National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention.

The diseases addressed by NCHHSTP share a number of commonalities. They have similar or overlapping at-risk populations—including

racial and ethnic minorities, men who have sex with men (MSM), and injection drug users (IDUs). These diseases also have important interactions. Those who are infected with certain STDs, such as syphilis or gonorrhea, are at greater risk for HIV infection. Likewise, those who are infected with HIV are far more susceptible to TB disease because their immune systems are weakened.

These diseases also share similar social determinants, including poor access to health care, stigma, discrimination, homophobia, and poverty. In the area of prevention and control, effective, science-based interventions exist to reduce the burden of TB, viral hepatitis, most STDs, and HIV.

## Mission

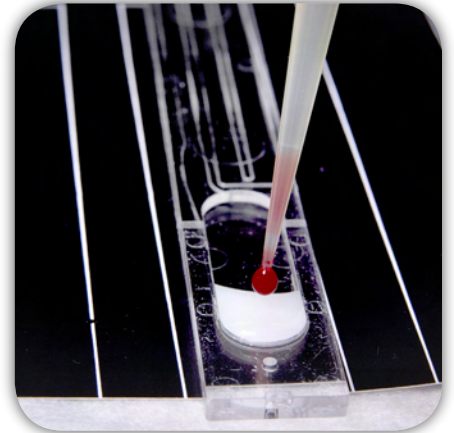
NCHHSTP maximizes public health and safety nationally and internationally through the elimination, prevention, and control of disease, disability, and death caused by HIV/AIDS, non-HIV retroviruses, viral hepatitis, other STDs, TB, and non-TB mycobacteria.

NCHHSTP achieves its mission by:

- Developing, implementing, and evaluating effective science-based prevention programs for HIV, viral hepatitis, STDs, and TB.
- Developing high-quality research and

translating relevant findings into a prevention policy and programs.

- Creating and strengthening strategic relationships and networks with individuals and organizations.
- Strengthening and promoting surveillance activities and findings for program planning, public health response, and evaluation.



## Who Are We?

As a leader in preventing and controlling HIV infection, viral hepatitis, STDs, and TB, NCHHSTP applies well-integrated, multidisciplinary programs of research, surveillance, risk factor and disease intervention, and evaluation.

NCHHSTP addresses domestic HIV/AIDS prevention through an array of public health activities, including monitoring the disease's impact, facilitating and supporting partnerships, implementing prevention programs, conducting intervention research and program evaluation, delivering technical assistance to build the capacity of organizations to offer prevention services, and developing policy and communications to support HIV prevention. These activities are conducted with a wide range of public- and private-sector partners, including state and local health departments,





community-based organizations (CBOs), and other nongovernmental organizations, universities, businesses, and the media.

NCHHSTP aims to prevent viral hepatitis infections and their acute and chronic liver disease consequences. CDC educates health care and public health professionals to improve identification of persons at risk for chronic hepatitis C infection, and ensures appropriate counseling, diagnosis, management, and treatment. NCHHSTP also conducts research and policy development to control hepatitis A and B, and supports surveillance to monitor who is getting infected with hepatitis B and to ensure appropriate counseling, testing, and medical management of infected persons.

To prevent STDs, NCHHSTP provides national leadership through research, surveillance, policy development, and assistance to states, territories, and local health departments. NCHHSTP also provides Federal support for a community-wide, science-based, interdisciplinary systems approach to STD prevention and conducts prevention research to improve the methods and delivery of prevention services as well as to develop and refine interventions. The Center's focus areas include preventing STD-related infertility in women, preventing adverse outcomes of pregnancy, preventing cancer related to sexually transmitted infections (STI), and preventing STI-related HIV transmission.

NCHHSTP provides leadership and assistance to domestic and international efforts to prevent, control, and eliminate TB. NCHHSTP provides grants to states and other entities for prevention and control services, researches the prevention and control of TB, funds demonstration projects, and sponsors public information and education programs. In addition, the Center supports education, training, and clinical skills improvement activities to prevent, control, and eliminate TB. NCHHSTP also manages the national TB surveillance system and provides laboratory support for TB control activities. Since more than half of the U.S. TB cases are among those born outside of the United States, one of the TB program's chief aims is to prevent and control TB among foreign-born persons.

NCHHSTP also includes GAP, which was initiated in 2000 to address the international HIV/AIDS epidemic by assisting resource-constrained countries. GAP assists these countries in



1) preventing HIV infection; 2) improving treatment, care, and support for people living with HIV; and 3) building vital capacity and infrastructure to address the global HIV/AIDS epidemic. GAP's highly trained physicians, epidemiologists, public health advisors, behavioral scientists, and laboratory scientists support the national HIV/AIDS strategies of more than 60 countries in Africa, Asia, Central and South America, and the Caribbean through

its country and regional offices. In 2003, when the President's Emergency Plan for AIDS Relief (PEPFAR) was announced, GAP joined this unified USG response to global HIV/AIDS.

## Where Are We?

NCHHSTP employs a cadre of dedicated staff to accomplish its domestic and international objectives. Almost 1,400 staff work in NCHHSTP's offices in Atlanta, Georgia. In addition, 285 staff are assigned to field offices in 29 states, the District of Columbia and Puerto Rico. NCHHSTP also employs approximately 1,200 direct hires, contractors, fellows, and locally employed staff working in international field offices in more than 30 countries.

## NCHHSTP Key Priorities

NCHHSTP has three key priorities that are guiding center-wide initiatives and focusing work group activities in 2007:

- Reducing health disparities
- Encouraging program collaboration and service integration
- Maximizing global synergies

These priorities support NCHHSTP's overall mission and programs. In 2007 NCHHSTP established eight internal workgroups to address these three key programmatic priorities. These workgroups are focusing on topics such as health issues in corrections facilities, surveillance and strategic information, and use of modeling and health results measures as tools to aid prevention efforts.

### *Reducing Health Disparities*

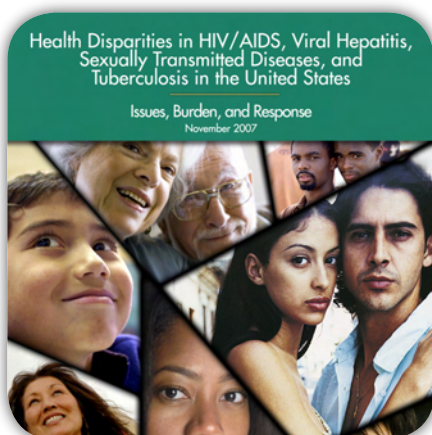
NCHHSTP aims to improve the health of populations disproportionately affected by HIV, viral hepatitis, STDs, TB, and other related

diseases and conditions and ultimately to help eliminate health disparities. The Center's Office of Health Disparities (OHD) leads this effort.

A health disparity is the difference that separates a group of interest from a reference group for an indicator of health that is measured in terms of a rate, proportion, mean, or some other quantitative measure. The ultimate aim of this priority is to improve the health of populations disproportionately affected by HIV/AIDS, viral hepatitis, STDs, TB, and other related diseases and conditions, and ultimately to help eliminate health disparities. Populations include racial and ethnic minorities, women, incarcerated persons, sexual minorities, and other persons disproportionately affected by these diseases and conditions.

OHD coordinates and tracks health disparity activities within the Center and provides leadership in support of research, surveillance, education, training, and program development to reduce health disparities. OHD also manages the Tuskegee Health Benefit Program and works with NCHHSTP leadership to promote a diverse public health workforce through internships, fellowships, training programs, and other activities.

Major accomplishments and activities in 2007 aimed at reducing health disparities include:



- *Health Disparities Report*—In 2007 NCHHSTP released *Health Disparities in HIV/AIDS, Viral Hepatitis, Sexually Transmitted Diseases, and Tuberculosis in the United States: Issues, Burden and Response* report. This retrospective review of CDC surveillance data for HIV/AIDS, viral hepatitis, STDs, and TB from 2000 to 2004 includes information on some of the CDC programmatic, educational, and research activities that have been implemented to address health disparities related to those diseases. This is the first integrated surveillance report of its kind for NCHHSTP.

- *Evaluation of the Tuskegee Health Benefit Program*—The Tuskegee Health Benefit Program is a congressionally mandated program that provides comprehensive lifetime medical and health benefits to the affected widows and offspring of study participants of the Tuskegee syphilis study. The evaluation of the benefit program was conducted using existing administrative, financial, and programmatic data to describe how the program operates and determine cost and service utilization for FY 2000 to 2006. Key evaluation findings include 1) a demographic shift from a relatively older population of study participants and their wives to a younger population of primarily female offspring; 2) medical care and nursing home costs that account for most of the expenditures; and 3) total expenditures declined over the period, with a trend toward increasing individual costs noted. The results will assist in strengthening the program and planning for the health needs of the current participants.

- *Consultations on Health Disparities Issues*—NCHHSTP held two consultations on addressing health disparities in minority communities during FY 2007. In June the Center's STD prevention division convened

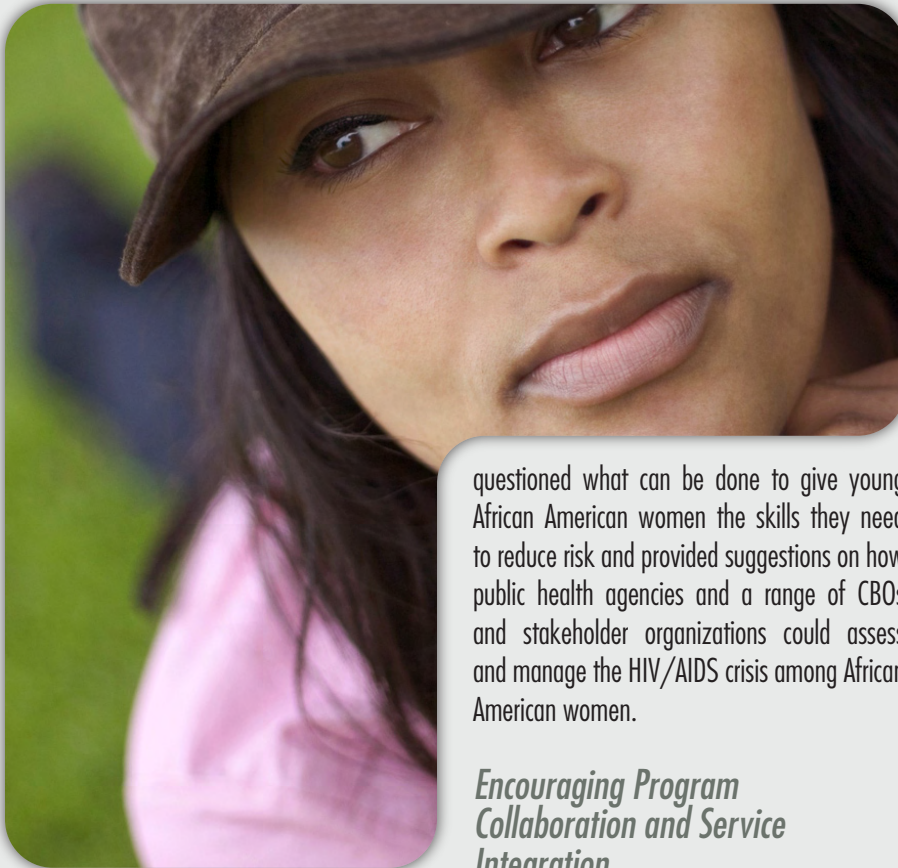


the Consultation to Address STD Disparities in African American Communities to bring together community leaders and other partners serving African American communities to help identify prevention and control efforts likely to be acceptable and effective in affected communities. Several key themes emerged, including the need to engage grassroots community members and the utility of framing STD disparities messages within broader sexual health or health disparities issues. Consultants identified a range of possible strategies, including improving access to available services, focusing interventions

### Other FY 2007 Accomplishments: Reducing Health Disparities

- Establishment of cross-NCHHSTP workgroup on health disparities, corrections, and MSM
- Launch of new Web pages on lesbian, gay, bisexual, and transgender health
- Work commenced on an NCHHSTP white paper on "Social Determinants of HIV/AIDS, Viral Hepatitis, STD, and TB Risk Among Ethnic/Racial and Sexual Minorities and Other Special Populations."





questioned what can be done to give young African American women the skills they need to reduce risk and provided suggestions on how public health agencies and a range of CBOs and stakeholder organizations could assess and manage the HIV/AIDS crisis among African American women.

### *Encouraging Program Collaboration and Service Integration*

Program collaboration and service integration (PCSI) is a major strategic priority for NCHHSTP. The Office of Program Collaboration and Service Integration was established in FY 2007 to analyze and develop policies, and to promote and oversee activities that foster PCSI.

In the context of NCHHSTP activities, PCSI is defined as “a mechanism of organizing and blending interrelated health issues, separate activities, and services in order to maximize public health impact through new and established linkages to facilitate the delivery of services.” Integration of prevention services is focused at the field or client level. PCSI’s goal is to provide prevention services that are holistic, evidence-based, comprehensive, and high quality to appropriate populations at every interaction with the health care system.

*Site Visits to State and Local Programs—* During FY 2007 NCHHSTP’s director and

staff continued the program of local site visits (initiated in 2006) by traveling to California and New York to learn more about what state and local health departments are doing to provide greater integration of HIV, viral hepatitis, STD, and TB services. The team visited a broad sampling of state, county, city, and community agencies and programs funded directly by CDC or indirectly through health departments, as well as with lesbian, gay, bisexual, transgender (LGBT) health centers, CBOs, STD clinics, and prisons. The site visits gave NCHHSTP staff an opportunity to examine how state and local public health agencies were providing integrated, client-centered programs in the field and to understand the challenges of PCSI efforts.

*External Consultation on PCSI—*NCHHSTP convened an External Consultation on Program Collaboration and Service Integration in Atlanta, Georgia, on August 21-22, 2007. The purpose of the consultation was to engage key NCHHSTP

on young men, and building coalitions. The meeting report is posted on the CDC Web site ( <http://www.cdc.gov/std/general/STDHealthDisparitiesConsultationJune2007.pdf> ), and the well-received background papers prepared for the consultation are to be published in a special issue of the journal *Sexually Transmitted Diseases*.

NCHHSTP also held a consultation on HIV/AIDS and African American women in June 2007. More than 50 participants, including government officials and staff from public health agencies and CBOs, attended to share their collective knowledge and skills and to generate suggestions for HIV prevention strategies for underserved African American women most affected by HIV/AIDS. Meeting participants identified a number of cross-cutting issues in African American women’s lives that place women at risk for HIV. They

### **Other FY 2007 Accomplishments:**

#### *Program Collaboration and Service Integration*

- Appointment of associate director for program integration
- Development of NCHHSTP PCSI Green Paper
- Internal organizational realignment for PCSI
- Leaders-to-Leaders meetings with other Federal Agencies

program stakeholders in developing and refining the National Center’s vision and objectives for PCSI and to plan and prioritize PCSI activities over the next 5 years. The more than 120 participants included a broad range of internal and external stakeholders—NCHHSTP leadership and staff and representatives from 40 state and local HIV, TB, STD, and hepatitis programs; other Federal agencies; national organizations; and CBOs funded by NCHHSTP.

Action steps resulting from the consultation included:

- Developing a policy framework to help facilitate dialogue on what works and what needs strengthening.
- Exploring funding opportunities for program collaboration and service integration efforts.
- Focusing our efforts in three priority areas: 1) integrated surveillance; 2) integrated funding guidance in program announcements; and 3) integrated staff training and skills development.

## Maximizing Global Synergies

NCHHSTP has an increasingly global focus, as evidenced by the rapid expansion of GAP and the mobilizing of activities focused on addressing drug resistance. In today's world, success in prevention requires interdependent relationships

### Other FY 2007 Accomplishments: Maximizing Global Synergies

- Leadership retreat identified infant mortality as focus area
- Established monthly NCHHSTP global coordination meeting
- Worked with partners to continue implementation of PEPFAR

that are global in nature. NCHHSTP's imperative to maximize global synergies promotes interdependent programmatic relationships between NCHHSTP divisions that have a global focus. The goal is to ensure active collaboration between these divisions to take full advantage of opportunities for leveraging NCHHSTP, CCID, and CDC resources, and to maximize health impact. With this imperative, NCHHSTP actively pursues and seeks input about international program



development and public health research, fosters robust internal and external partnerships, and commits to novel and participatory approaches for implementation and dissemination.

Following are some activities that support this priority:

- **NCHHSTP Global Perinatal Working Group**—The Center launched a Global Perinatal Workgroup in FY 2007, which draws on staff from across CDC to collaborate on this important issue. Perinatal diseases, such as perinatal AIDS and congenital syphilis, are a major concern, both globally and in the United States. The workgroup pulls together expertise from multiple CDC programs within three national centers—the National Center for Zoonotic, Vector-Borne, and Enteric Diseases (NCZVED), the National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP), and NCHHSTP. In partnership with existing coalitions, partners, and other USG agencies, this CDC group, chaired by GAP, aims to leverage infrastructure, skills, and expertise to advocate for, implement, and evaluate integrated services delivered during the perinatal period. The workgroup has been meeting biweekly since January 2007 to develop *Healthy Mothers/Healthy Babies—Integrating Services in the Perinatal Period*, an integrated package of services administered during the perinatal period in

developing countries.

- **Mobilization Against MDR TB and XDR TB**—The importance of maximizing global synergies was also evidenced in the global mobilization against the rise of multidrug-resistant (MDR) and extensively drug-resistant (XDR) TB. NCHHSTP's Division of Tuberculosis Elimination (DTBE) and GAP have been providing technical assistance in their efforts to address drug-resistant TB globally. Another example of the global efforts against drug resistance is the NCHHSTP's Division of STD Prevention (DSTDP) work providing support and technical assistance to international efforts to monitor antimicrobial-resistant gonorrhea.
- The links between domestic and international prevention efforts can also be seen in programs such as GAP's *HIV Prevention in Care and Treatment Settings*—an intervention for HIV-infected individuals in sub-Saharan Africa. The intervention was adapted from *Partnership for Health*, an evidence-based intervention used in the United States that produced a decrease in reported sexual risk behaviors among HIV-positive patients who received brief prevention messages from their health care providers. CDC, along with key partners, piloted this clinic-based, provider-delivered intervention in Kenya and is now rolling it out to countries throughout Africa. This 3- to

5-minute intervention gives providers the tools and skills to deliver targeted prevention messages to HIV-positive patients at the end of every routine clinic visit. Messages focus on disclosure of HIV status, partner testing, reduction of transmission to others, and prevention of other STIs.

## Partnerships

NCHHSTP works in collaboration with governmental and nongovernmental partners at community, state, national, and international levels. NCHHSTP funds prevention efforts, demonstration projects, capacity-building efforts, and surveillance activities in state, local, and territorial health departments, as well as CBOs and national organizations.

NCHHSTP provides leadership and strengthens related efforts of other Federal agencies without duplicating efforts. NCHHSTP coordinates its efforts with several other agencies within HHS. For example, the Health Resources and Services Administration (HRSA) is authorized under the Ryan White HIV/AIDS Treatment Modernization Act to support treatment programs for people living with HIV and AIDS, and HRSA uses data from NCHHSTP's surveillance systems to guide funding for these programs. NCHHSTP HIV/AIDS surveillance data are also used to guide funding for the U.S. Department of Housing and Urban

Development's (HUD's) Housing Opportunities for People with AIDS program.

NCHHSTP also reaches out to partners in business, media, and other groups. For example, NCHHSTP's director, in partnership with the Kaiser Family Foundation, met with Black Entertainment Television's (BET) news and public affairs staff on the issue of HIV/AIDS in the African American community. This meeting was a forum to provide real stories of those living with and working to eradicate HIV/AIDS in the Black community.

## Raising Awareness

NCHHSTP works to raise awareness about HIV/AIDS, viral hepatitis, STDs, and TB by providing information on prevention topics. In FY 2007, NCHHSTP made a number of enhancements to its Internet information offerings.

These include the following:

- Redesign of [www.hivtest.org](http://www.hivtest.org), along with activities promoting National HIV Testing Day resulted in a 31 percent increase in visits to the site for June 2007, compared to June 2006. In addition, the number of visits to the site in June 2007 (125,413) increased by 80 percent over the average number of monthly visits between January and May

2007. The Web site provides HIV testing locations to Web site visitors by zip code.

- Implementation of Google Maps on both [www.cdcnpin.org](http://www.cdcnpin.org) and [www.hivtest.org](http://www.hivtest.org) to facilitate finding the location of HIV, STD, and TB organizations as well as testing sites.
- Development of CDC's first Internet pages on LGBT Health [www.cdc.gov/lgbthealth/](http://www.cdc.gov/lgbthealth/), which includes content from across the agency. This has been widely viewed and praised by stakeholders. Since its launch in July 2007, the site has had nearly 20,000 visitors.
- Addition of more than a dozen new Web items from NCHHSTP on CDC.gov since the site's redesign launch in April 2007, including: HIV Testing during Pregnancy, Reducing STDs and Health Costs, Stop TB among African Americans, Tuskegee Syphilis Study, and Raising Awareness about Human Papillomavirus (HPV).



## A Year In Review: *Program Accomplishments*

To have the largest impact on the epidemics, NCHHSTP uses a comprehensive approach to prevention that incorporates surveillance, research, prevention interventions, and evaluation. NCHHSTP's surveillance and research activities help to better define and understand the epidemics across the nation, and inform the targeting and development of prevention strategies. The Center's prevention interventions and capacity-building efforts are based on behavioral, laboratory, and medical science, and work to contain the spread of HIV/AIDS, STDs, viral hepatitis, and TB. Program evaluation and policy research and development assess intervention effectiveness and refine prevention approaches.

NCHHSTP's comprehensive prevention programs have been evaluated externally and found to be effective. In an FY 2007 review of NCHHSTP's domestic programs by the Office of Management and Budget (OMB), NCHHSTP received the top rating of "Effective." Programs rated "Effective" set ambitious goals, achieve results, are well-managed, and improve efficiency. OMB rates all Federal programs with a standard questionnaire called the Program Assessment Rating Tool (PART). The PART program rating indicates how well a program is performing so the public can see how effectively tax dollars are being spent.

In 2005 CDC established Health Protection Goals for the nation. NCHHSTP's program areas are primarily included in three of CDC's four overarching Health Protection Goals—the goals focusing on healthy people in every stage of life, healthy people in a healthy world, and healthy people in healthy places. Following are

examples of NCHHSTP programmatic activities and accomplishments in FY 2007, by goal area.

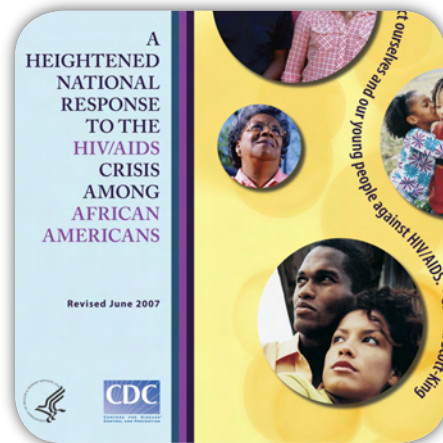
## Healthy People in Every Stage of Life

CDC's primary mission is to reduce health risks, at all stages of life, through the most efficient and effective means possible. CDC's healthy people in every stage of life goal is articulated as "all people, especially those at greater risk of health disparities, will achieve their optimal lifespan with the best possible quality of health in every stage of life." Some highlights follow of NCHHSTP's FY 2007 key accomplishments and activities related to this goal area.

### *The Heightened National Response to the HIV/AIDS Crisis Among African Americans*

HIV remains a persistent and pervasive threat to the health, well-being, and human potential of many African Americans. In 2005 blacks made up approximately 13 percent of the population, but accounted for nearly half (49 percent) of the new HIV diagnoses in the 33 states with long-term, confidential, name-based HIV surveillance.

To address this health disparity in FY 2007, NCHHSTP launched a "Heightened National Response to the HIV/AIDS Crisis among



African Americans." The response includes four key strategy areas: 1) expand the reach of prevention services; 2) increase opportunities for diagnosing and treating HIV; 3) develop new, effective prevention interventions; and 4) mobilize broader community action.

On March 8, 2007, CDC convened a partnership meeting of influential leaders from the African American community, CBO and faith-based organizations, entertainment, and public health. During the meeting, African American leaders were called on to build a "black AIDS mobilization" to end the debilitating stigma of HIV/AIDS in the African American community. African American leaders responded by sharing personal and organizational commitments to increase awareness, communicate more about HIV/AIDS, and encourage African Americans to seek early diagnosis and treatment.

The leaders represented such diverse organizations as The Links, Jack and Jill, Inc., the National Coalition of 100 Black Women, the National Urban League, and 100 Black Men of America, Inc. There were also representatives from historically black colleges and universities, megachurches, and large corporations, such as Aetna and UPS.

Of the 80 leaders who attended, the vast majority (84%) made commitments to develop and conduct a program to fight HIV/AIDS in



their communities. In the first 6 months, there has been progress in every sector, from arts and entertainment to business; from civic groups to elected officials; from faith leaders to media.

Following are examples of some of the accomplishments in the first 6 months:

- Numerous HIV testing events hosted by churches, African American TV and radio personalities, and civic groups at their national conferences
- Public service announcements by top entertainers to raise awareness about how African Americans can act against HIV
- A call to action to all of the presidents of historically black colleges and universities to take a more active leadership role in addressing HIV/AIDS on their campuses and in the surrounding communities
- Faith community events to provide HIV testing and HIV/AIDS support services for church members
- Increased coverage of HIV/AIDS among media outlets that reach African American communities
- Engagement of major health insurance plans in local community mobilization events

To support the national response, an article titled, "Racial/Ethnic Disparities in Diagnoses of HIV/AIDS—33 States, 2001-2005," was published in the *MMWR* ( <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5609a1.htm> ).

Information on the national response is also available on the NCHHSTP Web site ( <http://www.cdc.gov/hiv/topics/aa/resources/reports/pdf/heightenedresponse.pdf> ).

## ***New HIV Testing Program Initiated***

In September 2007 NCHHSTP awarded \$35 million to 23 state and local health departments to increase HIV testing opportunities among populations disproportionately affected by HIV, primarily African Americans. It is estimated that the program will test more than 1 million persons and identify more than 20,000 new infections. The funds will support expanded HIV screening, testing, and linkage to care in clinical settings, such as emergency departments,



community health centers, STD clinics, TB clinics, and correctional health facilities.

While approximately 10 percent of the tests will be administered in non-clinical settings, the main focus of the program is to implement routine, voluntary HIV testing in healthcare settings, where opportunities to screen patients for HIV are often missed. Another special emphasis of the program is integrating HIV testing activities

with screening and prevention activities for other infections, such as viral hepatitis, STDs, and TB. Because populations disproportionately affected by HIV are also disproportionately affected by these infections, integrating these services can significantly improve health.

The program will help put into practice the "Revised Recommendations for HIV Testing of Adults, Adolescents, and Pregnant Women in Healthcare Settings," and will support the Heightened National Response to the HIV/AIDS Crisis among African Americans initiative. The program is also consistent with CDC's goal to reduce the number of new HIV infections in the United States and addresses the Healthy People 2010 HIV prevention focus area.

## ***Implementation of HIV Screening Recommendations***

In September 2006, CDC published new recommendations for health care providers designed to make voluntary HIV screening a routine part of medical care for all patients aged 13 to 64. The recommendations aim to simplify the HIV testing process in health care settings and increase early HIV diagnosis among the estimated 250,000 HIV-positive Americans who are unaware of their infection. The recommendations, "Revised Recommendations for HIV Testing of Adults, Adolescents, and Pregnant Women in Healthcare Settings," were published in *MMWR* ( <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5514a1.htm> ).

Since publication of the recommendations, NCHHSTP has initiated a broad array of activities to facilitate their implementation, including a number of collaborations with various stakeholders. Some examples follow:

- NCHHSTP initiated a collaborative effort with a wide range of professional medical associations at a meeting convened by the American Academy of HIV Medicine in October 2006. The Academy now coordinates

six workgroups in conjunction with CDC to address various aspects of HIV screening, including reimbursement issues, linkage to care, and communications strategies.

- Regional workshops to promote HIV screening in emergency departments were held in FY 2007 and continue during FY 2008. The workshops are based on a model that was highly effective in promoting perinatal HIV screening. At the workshops, multidisciplinary teams from local hospitals conduct strategic planning to initiate HIV screening. Follow-up to monitor progress is conducted 6-9 months following the workshop.
- NCHHSTP has also collaborated with other Federal agencies to implement the testing

### HIV Screening Success:

#### *New York City Health and Hospital Corp.*

The New York City Health and Hospital Corp., the largest health care provider in New York City, embarked on an HIV Testing Expansion Initiative in 2006. After training clinicians and staff, the facilities adopted the use of rapid HIV tests; offered HIV testing in outpatient clinics, inpatient care, and emergency rooms; integrated testing into routine care; and urged physicians to offer the test. The stated goals were to increase HIV tests from 50,000 a year to 100,000 tests per year and to increase the number of patients who knew their HIV status. The initiative succeeded in increasing the number of HIV tests in FY 2006. More importantly, the number of persons diagnosed with HIV more than doubled, from 720 in FY 2005 to 1,514 in FY 2006.

recommendations. For example, NCHHSTP is collaborating with the Substance Abuse and Mental Health Services Administration (SAMHSA) on implementation plans for HIV screening in substance abuse programs. NCHHSTP also participated in a consultation with HRSA to discuss implications of HIV screening for HRSA grantees.

### **Expanding Evidence-based Prevention Interventions**

Given the challenges of further reducing HIV infection rates, it is critical to focus on behavioral prevention efforts that are based on the best available scientific evidence. Evidence-based prevention interventions are a cornerstone of CDC's HIV prevention program. NCHHSTP works to identify the most effective interventions, to package those interventions into toolkits for distribution to CBOs and health departments, and to offer training and assistance to ensure they are used effectively by a broad audience.

In January 2007 NCHHSTP published "Best Evidence Interventions: Findings from a Systematic Review of HIV Behavioral Interventions for U.S. Populations at High Risk, 2000-2004," in the *American Journal of Public Health* (Lyles, et al., 2007). NCHHSTP conducted a systematic review of the scientific literature published from 2000 through 2004 and identified 18 behavioral interventions with the best evidence of efficacy in reducing HIV risk (Lyles, et al., 2007). The article and other information about the 2000-2004 efficacy review are available on CDC's Web site (<http://www.cdc.gov/hiv/topics/research/prs/best-evidence-intervention.htm> ).

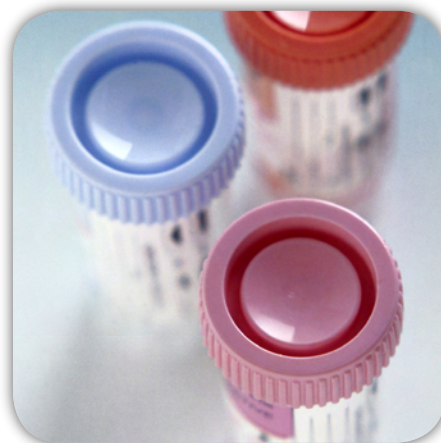
NCHHSTP has updated its review of the literature published from 1988 through 2005 and identified an additional 31 evidence-based interventions, bringing the total to 49 evidence-based HIV behavioral interventions. Some of these interventions will be packaged as

toolkits and disseminated for use by prevention agencies across the United States through NCHHSTP's Replicating Effective Programs (REP) projects and Diffusion of Effective Behavioral Interventions (DEBI) projects. To date, 7 of the 49 identified evidence-based interventions have been disseminated. An additional 16 are currently being packaged or are being prepared for dissemination in the near future.

NCHHSTP is working to increase the number of interventions that are culturally appropriate and that target specific high-risk groups. Of the 49 interventions, 28 were targeted or primarily tested among African Americans, and 10 were targeted or primarily tested among Hispanics.

### **Expedited Partner Therapy**

Expedited partner therapy (EPT) is the practice of providing treatment to partners of persons diagnosed with an STD without clinical



examination or encounter with those partners. With EPT, the patient delivers either medication or a prescription to the partner. In 2006 the CDC recommended EPT as a useful option for treatment of partners of patients diagnosed with chlamydia or gonorrhea.

NCHHSTP undertook policy initiatives to assist STD prevention programs with implementation of EPT. DSTDP assessed the legal barriers to

and facilitators of implementation of EPT at the state level. This legal research resulted in development of a Web-based tool for local public health practitioners interested in implementing EPT in their jurisdictions ( <http://www.cdc.gov/std/ept/legal/default.htm> ). Additional policy initiatives include collaboration with the American Medical Association, which supported the practice of EPT through passage of a resolution at its June 2006 House of Delegates meeting; collaboration with the Council of State Governments to develop materials to educate state legislators about EPT; and collaboration with other Federal agencies to address policy issues, such as the use of the 340B Drug Pricing Program for EPT. CDC is pursuing collaborations with other national professional organizations for endorsement of EPT.

### ***Monitoring the Impact of the HPV Vaccine***

NCHHSTP initiated activities to support the rollout of the new HPV vaccine during FY 2007. The vaccine protects against four HPV types, which together cause 70 percent of cervical cancers and 90 percent of genital warts.

The U.S. Food and Drug Administration (FDA) licensed the vaccine in 2007, and CDC's Advisory Committee on Immunization Practices recommended its use for routine immunization of 11- to 12-year-old girls, and of girls as young as 9. The vaccine is also recommended for 13- to 26-year-old girls/women who have not yet received or completed the vaccine series. While the vaccine has been shown in clinical trials to be safe and efficacious, monitoring the real-world effectiveness of the HPV vaccine is critical, as the overall effectiveness in the U.S. population may depend on several factors. These include whether the girls/women being vaccinated are similar to the clinical trial populations, whether the women at highest risk for cervical cancer are being reached with vaccination, and whether other HPV types fill the niche left by vaccine HPV types in causing cancer.

NCHHSTP undertook a number of surveillance activities to assess the impact of the HPV vaccine, including: 1) Monitoring cervical precancerous lesions by establishing a network of geographically diverse sentinel sites from well-defined populations; 2) Monitoring changes in anogenital warts; and 3) Monitoring the behavioral impact of the HPV vaccine (e.g., Pap testing and sexual behavior). NCHHSTP continues to collaborate with the National Center for Immunization and Respiratory Diseases and NCCDPHP on HPV vaccine implementation.

### ***Syphilis Elimination***

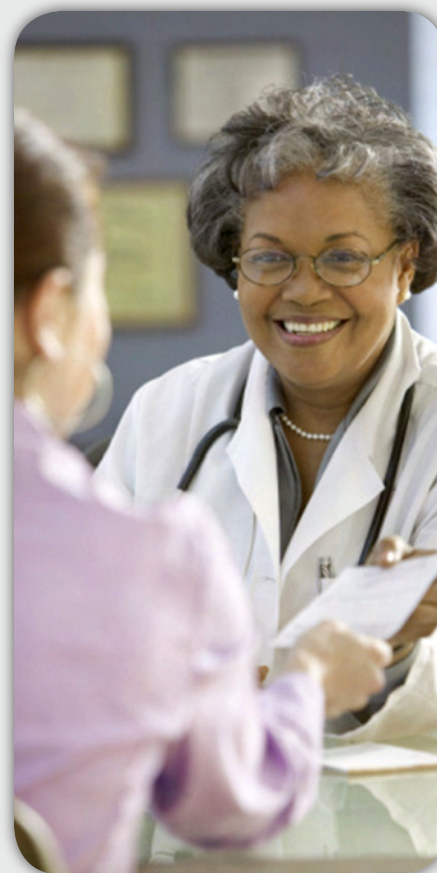
To continue the success of the Syphilis Elimination Effort (SE) initiated in 1999 to eliminate syphilis in the United States, NCHHSTP implemented several activities in FY 2007. NCHHSTP developed a new SE funding formula, which will be implemented in FY 2008. This was done to be more responsive to the evolving syphilis epidemic, wide variation in project area

#### **Reducing Health Disparities in Syphilis**

- In 1997, prior to the National Plan to Eliminate Syphilis, the Black: White syphilis rate ratio was 43:1.
- By 2005, rate ratio has dropped to 5.4:1.

funding, and overall level funding. The formula was changed to ensure funds are directed to areas with the highest morbidity. NCHHSTP also standardized the collection of behavioral data associated with STDs, including syphilis, to provide a clearer picture of the STD epidemic.

To improve monitoring of SE activities and progress toward meeting elimination objectives, NCHHSTP introduced guidance for Evidence-



Based Action Planning for Syphilis Elimination.

Beginning in FY 2008, SE programs will be required to use an evidence-based action plan to guide the collection of information on the target populations, interventions provided, resources allocated, and outcomes to facilitate program assessment, improve effectiveness, and inform decisions about future program development.

### ***Infertility Prevention***

One of NCHHSTP's key priorities for STD prevention is increasing chlamydia screening of young women in private health care facilities. Annual chlamydia screening of sexually-active women 25 years and younger is recommended by CDC and other professional organizations to detect and treat women before chlamydia progresses to pelvic inflammatory disease which can lead to infertility. The National Infertility Prevention Program, a collaboration between

CDC and the Office of Population Affairs, funds chlamydia screening and treatment services for low-income, sexually active women attending family planning, sexually transmitted diseases, and other women's healthcare clinics. However, a significant proportion of individuals screened or seeking medical care for STDs access services through the private sector. CDC set a priority to increase Chlamydia screening rates nationally and developed an initiative to engage partners in the private sector on this important reproductive health issue.

As part of this initiative, CDC collaborated in FY 2007 with the Partnership for Prevention on its study to estimate the health benefits to the U.S. population of increasing the use of preventive services from current rates to 90 percent. Chlamydia screening is one of the preventive services included. CDC also released a report of an external consultation that reviewed evidence on male chlamydia screening and made program recommendations ( <http://www.cdc.gov/std/chlamydia/ChlamydiaScreening-males.pdf> ). Finally, CDC collaborated with the Council of State Governments to produce materials to educate state-level policy makers about the importance of chlamydia screening.

### ***Continued Declines in Viral Hepatitis***

Since 1995, the reported incidence of hepatitis A, B, and C has declined by 75 percent or more; current national incidence of hepatitis A (1.5 cases/100,000), hepatitis B (1.8 cases/100,000) and hepatitis C (0.2 cases/100,000) are all very low. These data both confirm and inform the efficacy of public health interventions, including vaccination (for hepatitis A and B), screening of the blood supply, and other health interventions, such as decreasing injection drug use.

Declines in hepatitis B have placed the elimination of hepatitis B virus transmission in the United States within reach as a public health

goal. With an eye toward that goal, NCHSTP published an *MMWR RR*, December 8, 2006: "A Comprehensive Immunization Strategy to Eliminate Transmission of Hepatitis B Virus Infection in the United States: Recommendations of the Advisory Committee on Immunization Practices (ACIP) Part II: Immunization of Adults." This report outlines the strategy to eliminate hepatitis B virus transmission in the United States.

This strategy for eliminating hepatitis B transmission includes a call for immunizing adults who are at high risk for hepatitis B. Toward that end, NCHSTP developed a Hepatitis B Vaccine Initiative in FY 2007. Through this initiative, \$20 million in funds was awarded to 51 state and local health departments for purchase of hepatitis B vaccine to immunize high-risk adults. The goal of the initiative is to hasten elimination of hepatitis B disease by vaccinating high-risk adults in recommended public health venues, including HIV clinics, STD clinics, and correctional facilities.

### **Healthy People in a Healthy World**

CDC spearheads efforts to improve global health through medical technology, international coalitions, government interventions, and basic behavior changes. NCHSTP contributes to this



global effort via international research in HIV/AIDS, viral hepatitis, STDs and TB, through its GAP and through technical assistance in areas such as TB control.

### ***Global AIDS Program***

GAP is a proud partner in PEPFAR, a 5-year, \$15 billion, multifaceted approach to combating HIV/AIDS in more than 120 countries around the world.

As a PEPFAR implementing partner, GAP provides direct scientific and technical assistance to Ministries of Health, partner organizations, and other USG agencies. GAP develops cutting-edge science and translates it into public health practice and service delivery by strengthening Ministries of Health capacity to build self-reliant national public health systems.

### ***1.4 Million People on HIV/AIDS Treatment Globally***

As of September 2007, PEPFAR has supported life-saving antiretroviral treatment for approximately 1,445,000 men, women, and children through bilateral programs in sub-Saharan Africa, Asia, and the Caribbean. Before President Bush announced PEPFAR in 2003, it was estimated that only 50,000 people in sub-Saharan Africa were receiving antiretroviral treatment.



In collaboration with other USG agencies, GAP has made significant contributions to unprecedented HIV treatment expansion, and provided critical support in human-capacity building, drug procurement and management, rehabilitation of laboratory and clinic facilities, linkage of HIV program with other health services, and building program sustainability. Following are a few highlights of other FY 2007 accomplishments of GAP.

In addition, the CDC rapid HIV testing training package was distributed and customized for use in Botswana, Namibia, Kenya, Tanzania, Uganda, Zambia, and South Africa to accommodate country-specific policies and rapid testing algorithms. The customized training package is being used to train hundreds of counselors and nurses on proper procedures to perform and interpret HIV rapid testing for diagnosis.

discussed and offered in clinical settings.

GAP is taking a lead role in provider-initiated testing and counseling (PITC) in medical facilities through PITC trainings and training curriculum development; pediatric testing and counseling in clinical settings training; and, in collaboration with the World Health Organization (WHO), development of normative guidance on PITC. These activities have helped Ministries of Health around the world to ensure that persons in high prevalence countries have an opportunity to get an HIV test during all medical encounters.

TB is one of the most common opportunistic infections and the leading cause of death among people living with HIV/AIDS. The prevalence of HIV infection among patients in TB clinical settings is high—up to 80 percent in some countries. GAP, in collaboration with WHO, developed an implementation package for countries to scale up HIV testing in TB clinical settings, which includes a decision-making matrix, curriculum for training health providers, and job aides. This package was piloted and evaluated in three districts in Tanzania and has since been adapted and implemented in several other PEPFAR countries.

### ***Providing Tuberculosis Control Technical Assistance Internationally***

Because we live in a global economy and because most cases of TB in the United States are among foreign-born persons, it is critical for the United States to assist in TB control globally. NCHHSTP's DTBE and GAP provide leadership and technical assistance in infection control, epidemiology, surveillance (including drug resistance surveys), program and laboratory services development, monitoring and evaluation, operations research and training, improving diagnostic services, and identifying clinical factors important to TB outcomes. These efforts build on the successful program to control TB in the United States. CDC collaborates with U.S. partners to reduce TB in



### ***Building International Laboratory Capacity***

A good public health laboratory network is a cornerstone of a strong response to global HIV/AIDS. Without laboratory support, it is difficult to diagnose HIV infection and provide high-quality care and treatment for people living with HIV/AIDS. GAP is building capacity for high-quality laboratory services to assist with the rapid expansion of HIV treatment in resource-poor countries through PEPFAR, and the accompanying need for HIV diagnosis and associated care.

In 2007 the GAP laboratory in Atlanta became the first CDC Atlanta laboratory to receive the internationally recognized College of American Pathologists (CAP) accreditation. This accreditation will facilitate critical external quality controls and quality assurance programs for CDC's partner laboratories supporting PEPFAR throughout the world.

In Africa, the need for laboratory diagnostic services has outpaced capacity; in 2007 GAP intensified its capacity building efforts, providing the technical assistance to establish a Regional Integrated Laboratory Training Center in South Africa to build a well-trained workforce of laboratorians throughout Africa.

### ***Innovation and Expansion of HIV Testing***

Counseling and testing provides an entry point to treatment and care, as well as a crucial opportunity for prevention education. Surveys in sub-Saharan African countries with high burden of HIV have shown that only 12 percent of men and 10 percent of women in the general population have been tested for HIV and received their results. Many HIV-positive individuals in these countries encounter clinical settings due to illness. Findings from a growing number of studies indicate that uptake of HIV testing increases when testing is routinely



high-burden countries by developing guidelines, recommendations, and policies. Over the past 3 years, CDC has supported TB control efforts in more than 25 countries on 5 continents.

In addition to working closely with Ministries of Health in other countries, CDC works with multilateral organizations, such as WHO and the International Union Against TB and Lung Disease; foundations, including a Bill and Melinda Gates Foundation-funded collaboration and the Foundation for Innovative New Diagnostics; and nongovernmental organizations. CDC is a founding member of the Stop TB Partnership, a global effort of more than 500 governmental and nongovernmental organizations, housed by the WHO. Members of the Stop TB Partnership work toward achieving the 2006-2015 Millennium Development Goals of reducing global TB deaths by 50 percent and the number of persons suffering from TB by 50 percent.

NCHHSTP staff provide ongoing technical assistance to foreign countries with a high burden of TB and to those having a strategic interest for TB control efforts in the United States. At least 75 such technical assistance visits were made in FY 2007. Staff also travel to international settings to provide training in epidemiology and research. For example, a team of CDC epidemiologists and technical experts recently collaborated with WHO and the Hague-based KNCV Tuberculosis Foundation to conduct a TB/HIV Planning & Operational

Research Workshop in Kiev, Ukraine, in May 2007. Participants included epidemiologists and physicians from Russia, Belarus, Moldova, and Ukraine. The workshop promoted TB/HIV collaborative activities at the national and regional levels, including an opportunity for each country team to develop a TB/HIV operational research proposal focused on improving operations between TB and HIV programs. The CDC team taught applied epidemiology and provided mentoring to country teams.

## *Eliminating Congenital Syphilis*

Congenital syphilis is a serious public health problem globally, accounting for an estimated 1.5 million cases each year and resulting in up to 750,000 perinatal deaths, in addition to other significant perinatal morbidity. Congenital syphilis can be prevented by serological screening for syphilis during pregnancy with prompt treatment of those women found positive with intramuscular penicillin. However, fragmented antenatal health services, lack of appreciation of the burden and significant public health outcomes of congenital syphilis, as well as limited resources for screening have allowed this old disease to continue to cause substantial health problems in many developing countries.

In response to this situation, WHO launched an initiative calling for the global elimination of congenital syphilis. NCHHSTP is supporting WHO in this effort by helping to characterize the global disease burden and health outcomes, and to identify indicators that countries can use to monitor programs' progress and measure the impact of national and global activities directed toward SE. NCHHSTP is also supporting developing nations in building or sustaining laboratory infrastructure for reliable syphilis testing and developing and evaluating practical, inexpensive point-of-care tests to provide serological screening for syphilis as part of routine antenatal services in resource-poor settings in the developing world.

## *Global Viral Hepatitis Prevention*

An NCHHSTP medical officer is assigned to WHO's Expanded Programme on Immunisation (EPI) to act as the technical expert and focal point for viral hepatitis, with an emphasis on hepatitis B and hepatitis B-related activities. The medical officer plans, directs, and manages hepatitis B immunization activities, programs, and studies, and serves as expert consultant to WHO regional and country offices and Ministries of Health. Specific activities with which the medical officer has been involved include: 1) developing guidelines for introducing hepatitis B vaccine into routine childhood immunization programs; 2) coordinating technical support to WHO regions and countries for applications to the Global Fund for Childhood Vaccines (GFCV) for introduction of hepatitis B vaccine; 3) coordinating evaluations of the hepatitis B vaccine introduction process; and 4) organizing a meeting to develop recommendations for monitoring the impact of routine childhood hepatitis B vaccination programs. NCHHSTP's DVH also supports hepatitis prevention activities in China by supporting a WHO medical officer in WHO's China office.

## *Healthy People in Healthy Places*

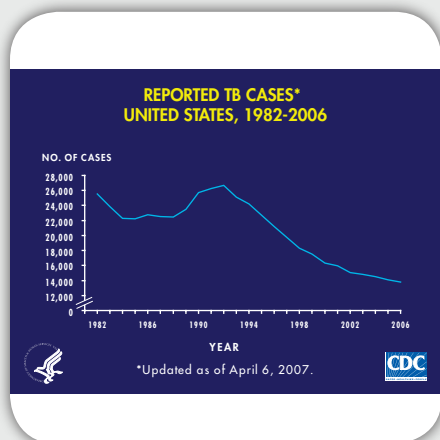
CDC is working hard to ensure the places we live, work, and play have safe, healthy



environments. Controlling TB in communities is one of the ways CDC addresses this goal.

### ***TB Morbidity at All-time Low***

TB morbidity was at an all-time low in the United States in 2006, with 13,779 new cases reported by NCHHSTP in a 2007 report. This represents a 2.1 percent decrease from the previous year and the 14th consecutive year of a decline in reported TB cases. Since the 1992 TB resurgence peak in the United States,



the number of TB cases reported annually has decreased by 48 percent. The latest data show that deaths are also decreasing—from 657 deaths in 2004 to 646 deaths in 2005—and that more than half of the states have low incidence of TB. In addition, the proportion of cases caused by organisms with primary multidrug resistance was less than 1 percent. While these are significant achievements, continued vigilance is warranted as the decreasing trend in the annual case rate has slowed from an annual average decline of 6.6 percent for 1993-2002 to an annual average decline of 3.1 percent for 2003-2006.

### ***Assisting State and Local Health Departments with TB Outbreaks and Laboratory Training***

In 2007 NCHHSTP provided assistance in six Epi-Aids (epidemiologic investigations) in Connecticut, Mississippi, Hawaii, Tennessee, and Michigan, and in multiple national and

international sites for an airline traveler with MDR TB. On-site technical assistance was also provided in New York City and Las Vegas. Of these eight on-site investigations, five involved TB outbreaks, and three involved contact investigations. Four of the eight investigations involved drug-resistant TB.

NCHHSTP also provided technical assistance to state TB control laboratories to help improve their capacity and effectiveness. The laboratory technical assistance consisted of: 1) conducting a training course for state public health laboratorians, 2) developing and disseminating performance indicators for TB laboratory services, and 3) developing tools and templates for TB laboratory service assessments.

### ***Improving Health in Correctional Settings***

The Bureau of Justice Statistics reported in 2005 that 2.2 million persons were incarcerated in the United States. Many persons in correctional settings have multiple risk factors for HIV, STD, viral hepatitis, and TB, and the prevalence for these diseases is higher than in the general population.

Using funds from the Bureau of Justice Statistics in partnership with the National Institute of Justice, NCHHSTP staff has taken the lead role in developing a passive surveillance system to track medical indicators associated with sexual violence in correctional facilities. Teams have visited several jails and prisons around the country to determine how medical and mental health complaints are processed. NCHHSTP staff members are now completing a surveillance form to be piloted in a number of facilities across the nation. Field testing is expected to start in early 2008.

### ***Housing and Health***

Homelessness and housing instability are significant public health issues that increase the risks of HIV acquisition and transmission, and adversely affect the health of people living



with HIV. NCHHSTP is exploring the impact of housing as a public health issue for people living with HIV in a collaborative effort with HUD. NCHHSTP is funding the Housing and Health Study, which is examining the impact of providing HUD-funded rental assistance for people living with HIV who are homeless or at risk for homelessness on their disease progression and their risks of transmitting HIV. Results from the study are expected in 2008. NCHHSTP is also working to address health issues related to homelessness through a newly formed workgroup made up of staff from across CDC.

## A Year In Review: *Scientific Findings*

**N**CHHSTP conducts extensive biomedical and behavioral research to better understand the complex factors that lead to epidemics. Research is an important part of CDC's comprehensive approach to prevention. Excellence in science is a strategic imperative at CDC. This imperative mandates that we practice evidence-based science grounded in sound, peer-reviewed research and that we ensure a strong science base for public health action.

NCHHSTP conducts or supports research in areas such as diagnostic tests, microbicides, vaccines, and behavioral research focused on eliminating health disparities. All extramural and intramural research activities conducted by or supported by



NCHHSTP are subject to external peer review, ensuring rigor and quality, and that research funds support the most meritorious research ideas and projects. External review improves our science. An external peer review can provide expert review of quality, productivity, science, and direction.

Five external peer review panels were convened in FY 2007 to review NCHHSTP programs, with

a program from each division being reviewed. These panels reviewed the portfolios of the HIV/AIDS Epidemiology Branch, the GAP Laboratory Branch, the TB Epidemiologic Studies Consortium, the Viral Hepatitis Laboratory Branch, and the DSTDP.

Further, research findings are published in peer-reviewed journals. NCHHSTP staff published or have in press more than 400 publications in 2007 (see <http://www.cdc.gov/nchhstp/>), including journal articles, book chapters, books, guidelines, and other publications.

NCHHSTP is also committed to mentoring young scientists interested in epidemiologic and prevention research. The extramural Minority HIV/AIDS Research Initiative (MARI), initiated in 2002, creates partnerships between CDC epidemiologists and researchers who are members of minority races and ethnicities and who work in communities of color. MARI funds epidemiologic and prevention studies of HIV in communities of color, and encourages the career development of young investigators. The Center also has a number of Epidemic Intelligence Service (EIS) officers, with 12 officers joining the Center in FY 2007. The EIS is the country's critical epidemiology training service, combating the causes of major epidemics.

## Healthy People in Every Stage of Life

### *Detecting Drug-Resistant HIV*

CDC's baseline HIV drug-resistant surveillance data from 11 states in 2007 revealed that about 10.4 percent of HIV-infected persons have HIV drug-resistant mutations. Primary HIV-1 drug resistance is a potentially significant clinical and public health concern because patients with drug resistance have an increased risk of treatment failure and may transmit drug-resistant HIV to others.

These data were collected through CDC's

Variant, Atypical, and Resistant HIV Surveillance (VARHS) system, which examines remnant HIV diagnostic specimens to detect drug resistance. VARHS uses remnant HIV diagnostic sera or plasma to amplify and sequence relevant genes, and it collects electronic amino acid sequence data from private laboratories performing genotyping to estimate the prevalence of HIV drug resistance and HIV-1 subtypes among persons newly diagnosed and reported with HIV. Previous surveys have been based on convenience samples; VARHS is the first large surveillance system in the United States with 22 funded areas, thus enabling CDC to determine trends over time. Data from VARHS were presented at the 14th Annual Conference on Retroviruses and Opportunistic Infections (CROI).

These data emphasize the importance of ongoing molecular HIV surveillance in the United States and will be useful for future evaluations of trends associated with the transmission of HIV drug-resistant mutations and subtype distribution. Ongoing data collection and analyses through routine surveillance also will inform HIV prevention and treatment program planning and vaccine development efforts, and alert CDC to the spread or clustering of atypical strains.

In addition, CDC is developing and testing more sensitive tests for detecting mutations associated with HIV drug resistance. This is important because up to one-third of transmitted drug-resistant HIV is not detected by conventional resistance testing, and this hidden resistance is strongly associated with poor virologic response to antiretroviral therapy (ART).

### *Project START Leads to HIV, STI Reduced Risk*

Data from Project START, a four-site intervention trial, demonstrated the efficacy of a sexual risk reduction intervention for young incarcerated

men that bridged incarceration and reentry back into the community.

The study compared the effects of an enhanced multi-session intervention with a single-session intervention on the sexual risk behavior of young men released from prison. In the CDC study, young men, 18 to 29 years of age, were recruited from prisons in four states and systematically assigned to either a single-session intervention conducted prior to release, or a multi-session enhanced intervention that was initiated in prison and continued after the participant was released. Both interventions addressed HIV, hepatitis, and other STIs; the enhanced intervention also addressed community reentry needs (e.g., housing, employment). Assessment data were collected before the intervention at 1, 12, and 24 weeks after the participant was released from prison.

Data from the 522 men who participated in the



trial showed that the enhanced intervention led to greater reductions in risk than did the standard intervention. Men in both groups reported similar rates of unprotected vaginal or anal sex during the 90 days prior to incarceration (85 percent of men in the enhanced intervention and 89 percent of men in the single-session intervention). At 24 weeks, 68 percent of men assigned to the enhanced intervention reported unprotected sex, compared to 78 percent of

those assigned to the single-session intervention (OR = 0.40; 95% CI, 0.18% to 0.88%).

The enhanced intervention was shown to significantly reduce unprotected sexual behaviors that are associated with the transmission of HIV and other STIs. In addition, this study has provided new data on the risk behaviors and experiences of incarcerated men during, before, and after incarceration that have implications for future prevention and research efforts. The enhanced intervention meets CDC's Prevention Research Synthesis Project's best evidence criteria of efficacy and is being packaged for national dissemination. Study results were published in the *Am J Public Health* 2006;96(10):1854-1861.

### ***The Collaborative Injection Drug Users Study III/Drug Users Intervention Trial (CIDUS III/DUIT)***

The Collaborative Injection Drug Users Study III/Drug Users Intervention Trial (CIDUS III/DUIT) is a collaborative, multi-site study funded by CDC to develop and evaluate a theory-based behavioral primary prevention intervention for young adult, HIV-seronegative and hepatitis C virus (HCV)-seronegative IDUs. This was the first study to test a behavioral intervention targeting young IDUs for primary HIV and HCV prevention.

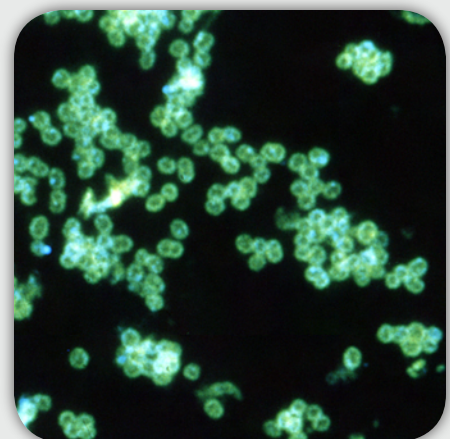
In the Peer Education Intervention, participants were trained to be peer educators and asked to talk with other young IDUs in their communities about HIV and HCV risk reduction as a means of affecting change in the participants' own risk behaviors. We also developed a control condition of equal duration involving health-related videos and facilitated discussion (Video and Discussion Intervention) to control for the possible effect of increased attention paid to participants in the study. The study sites included Baltimore, Chicago, Los Angeles, New York, and Seattle. The study found that a peer education

intervention produced a 29 percent greater decline in overall injection risk 6 months post-intervention relative to a video and discussion intervention, and the peer education intervention produced a 76 percent decrease relative to baseline. Decreases were also observed for sexual risk behaviors, but they did not differ by trial arm. Overall, HCV infection incidence (18.4/100 person-years) did not differ across trial arms. No HIV seroconversions were observed.

This study provides information about the injecting and sexual practices of young, recently initiated IDUs, which will help to focus prevention efforts on the behaviors occurring at the time of greatest risk. It showed that interventions providing information, enhancing risk reduction skills, and motivating behavior change through peer education training can reduce injection risk behaviors, although risk *elimination* might be necessary to prevent HCV transmission. Recruitment and retention of young adult IDUs for complex intervention trials is complicated, yet feasible. The study findings were published in *AIDS* 2007;21:1923-1932.

### ***Emergence of Quinolone Resistant Neisseria gonorrhoeae Prompts CDC to Change Recommendation***

The Gonococcal Isolate Surveillance Project (GISP) is a model national sentinel surveillance system that monitors antimicrobial resistance



to *Neisseria gonorrhoeae* in the United States. On the basis of data from GISP, in 2007 CDC revised its treatment guidelines and no longer recommends the use of fluoroquinolones for the treatment of gonococcal infections and associated conditions such as pelvic inflammatory disease (PID).

Annually, GISP collects approximately 6,000 urethral gonococcal isolates from males attending 26-30 STD clinics throughout the country and provides national data to guide treatment for gonococcal infections.

In 2005, 9.4 percent of the 6,199 isolates collected by GISP were resistant to ciprofloxacin, a fluoroquinolone. During January-June 2006, 13.3 percent of 3,005 isolates collected were resistant. Among heterosexual males during the same time period, the prevalence of fluoroquinolone-resistant *N. gonorrhoeae* increased from 3.8 percent in 2005 to 6.7 percent.

The revision was published in "Update to CDC's Sexually Transmitted Diseases Treatment Guidelines, 2006: Fluoroquinolones No Longer Recommended for Treatment of Gonococcal Infections" *MMWR*, 2007; 56:(14):332-336. In addition to publishing the new recommendations in *MMWR*, the information was disseminated widely to program partners and health care practitioners through a Dear

Colleague Letter, a national media telebriefing, and follow-up program recommendations to state and local health departments.

### Assessing STD prevalence: Results from Two CDC Studies

A study providing the first national estimate of prevalent HPV infection among females aged 14-59 years in the United States was published in *JAMA* in February 2007. The study was conducted by NCHHSTP and the National Center for Health Statistics as a part of the National Health and Nutrition Examination survey (NHANES) during 2003-2004. Participants in the study were asked to submit a self-collected vaginal swab, and the specimen was tested for HPV.

Overall, 26.8 percent of women 14-59 years of age had an HPV infection detected, corresponding to 24.9 million females in this age range with prevalent HPV infection. Risk

A second assessment surveyed chlamydia and gonorrhea among those 14-39 years of age in the United States. Sexual history information and urine specimens were collected in NHANES for the period 1999–2002. Prevalence of gonorrheal infection was 0.24 percent (95% CI, 0.16% to 0.38%). Prevalence of gonorrheal infection was higher among non-Hispanic black persons than among non-Hispanic white persons. Among those with gonorrheal infection, 46 percent also had chlamydial infection. Prevalence of chlamydial infection was 2.2 percent (CI, 1.8% to 2.8%) and was similar between males and females.

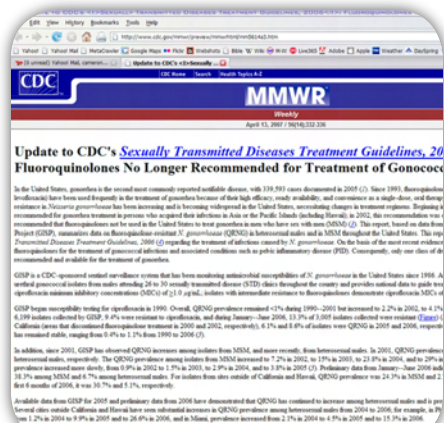
Among females, the highest prevalence was in those age 14-19 years of age; among males, it was highest among those 14-29 years of age. Prevalence was higher among non-Hispanic black persons than non-Hispanic white persons. The findings support current recommendations to screen sexually active females aged 25 years or younger for chlamydia, to retest infected females for chlamydial infection, and to co-treat individuals with gonorrhea for chlamydia. The article describing the study is "A Population-Based Survey of Chlamydia and Gonorrhea among Persons 14-39 Years of Age in the United States, National Health and Nutrition Examination Survey (NHANES) 1999-2002," *Annals of Internal Medicine* 2007;147:89-96.



### Oysters Linked to Multistate Outbreak of Hepatitis A

NCHHSTP collaborated with the FDA on an investigation of a multistate outbreak of hepatitis A in 2005, in what was the first large outbreak of hepatitis A associated with shellfish consumption in the United States in more than 15 years. The investigation confirmed that oysters harvested from Louisiana were the cause of the outbreak. Results of the investigation were published in the journal *Clinical Infectious Diseases* in February 2007. This was the first outbreak investigation in

factors for HPV detected in our analysis included sexual behavior and demographic variables, including young age and marital status. These data can provide a baseline estimate of HPV prevalence to guide models evaluating impact and cost-effectiveness of an HPV vaccine. The article describing the study is "Prevalence of HPV Infection Among Females in the United States," *JAMA* 2007; 297:813-819.



which an identical hepatitis A virus sequence was obtained from both the implicated food product and the patients. The study received a Leveraging Collaboration Award from the FDA for the collaborative efforts of NCHHSTP and FDA.

## Healthy People in a Healthy World

### ***Lower Early Mortality Rates Among Patients Receiving Antiretroviral Treatment at Clinics Offering Cotrimoxazole Prophylaxis in Malawi***

In developed countries, studies have clearly demonstrated the effectiveness of cotrimoxazole prophylaxis (a readily available combination of two antibiotics) at reducing morbidity and mortality in HIV-infected individuals, including those on ART. In various settings in Africa, cotrimoxazole is associated with a 25 to 46 percent reduction in mortality for HIV-infected individuals who are not on ART. Unique factors (e.g., prevalence and variety of opportunistic infections) in specific countries warrant continued evaluation of cotrimoxazole for HIV-infected individuals on ART.

The objective of this study was to determine whether patients attending ART clinics in Malawi that provide cotrimoxazole had lower early mortality rates, compared with patients attending clinics that do not provide the medication. Retrospective cohort data were collected from five treatment sites (clinics providing cotrimoxazole to all patients receiving ART) and six control sites (clinics similar to the treatment clinics, but not providing cotrimoxazole to patients receiving ART). The major finding was that ART patients at clinics offering cotrimoxazole had 40.7 percent lower mortality risk ( $p < 0.001$ ) during the first 6 months of ART, compared with ART patients at similar clinics not offering cotrimoxazole.

This finding builds on existing data demonstrating

the benefit of cotrimoxazole. Cotrimoxazole is widely available in sub-Saharan Africa; when purchased in bulk, it costs only \$6 per person per year, making it a very low-cost, low-tech, high-impact intervention. The article describing the study was published in *J Acquir Immun Defic Syndr* 46:56–61, July 19, 2007.

### ***Successful Introduction of Routine Opt-Out HIV Testing in Antenatal Care in Botswana***

An essential component of prevention of mother-to-child transmission (PMTCT) services is antenatal HIV testing. In 2001 CDC recommended making HIV testing a routine (opt-out) part of antenatal care, and most developed countries have adopted this testing strategy. However, in many developing countries, HIV tests for pregnant women are not routine and are treated differently from other medical tests, with counseling required before the decision to test is made.

Botswana implemented national PMTCT services (including opt-in HIV testing) in 1999. Despite wide availability of PMTCT and antiretroviral services throughout the country, HIV testing uptake was low in the first years of the program. In December 2003, the President of Botswana announced that HIV testing would be routine in health care facilities in an effort to increase the number of people receiving appropriate HIV services. In 2004 CDC implemented a project to support the systematic introduction of routine HIV testing in antenatal clinics and to compare HIV testing rates, PMTCT intervention rates, and antenatal clinic attendance before and after the introduction of routine HIV testing.

The shift to routine HIV testing resulted in a dramatic increase in testing and in PMTCT service delivery without measurable adverse effects. In clinics studied in the first months of the new policy, the percentage of all HIV-infected women who learned their HIV status increased

from 47 to 78 percent, and the percentage of women receiving PMTCT interventions increased from 29 to 56 percent. Routine HIV testing is now a standard practice in all antenatal clinics in Botswana, and >95 percent of all pregnant women in the country are tested for HIV. Efforts are underway to improve implementation of the routine testing policy for patients with TB and other medical conditions for which routine HIV testing is indicated. The article describing the study was published in *J Acquir Immune Defic Syndr* 45:102-107, May 1, 2007.

### ***Diagnosis of HIV-1 Infection in Infants and Young Children Using Dried Blood Spots and Real-Time Reverse Transcription/Polymerase Chain Reaction***

Because antiretroviral drugs are becoming more affordable, many resource-limited countries are expanding their programs to scale up PMTCT and treatment programs for infected infants. It is thus critical to identify HIV-infected infants early, so they can be linked to critical health services.

A simple diagnostic assay using dried blood spots (DBS) and real-time reverse transcription/polymerase chain reaction (PCR) was developed to detect HIV infection in infants and children born to HIV-positive mothers so that the children can be referred to treatment and care in a timely manner. In this study, this assay was validated using DBS samples from Uganda and Cameroon.



The mean age of the subjects from the studies was 34 weeks (range 8-80 weeks) in Uganda and 9.4 weeks (range 1 day to 46 weeks) in Cameroon. Simple, low-cost, and reliable assays such as this will be very useful for the implementation, monitoring, and evaluation of these PMTCT and infant treatment programs. The study was published in *J Virologic Methods*, 2007 144:109-114, 2007.

## Healthy People in Healthy Places

### **Detecting TB Infection**

NCHHSTP examined the performance of two interferon-gamma release assays, the QuantiFERON TB and QuantiFERON TB Gold (QFT-G) tests, which are blood tests for the detection of TB infection. The key findings are that QFT-G appeared to offer similar sensitivity to the traditional tuberculin skin test (TST), and improved specificity (because antigens used in QFT-G do not cross react with Bacille Calmette-Guerin (BCG), which is used as a vaccination against TB in many parts of the world or most non-tuberculous mycobacteria, which are commonly found in the environment). As a consequence, use of QFT-G may offer substantially improved efficiency in the effort to complete treatment of latent tuberculosis infection (LTBI) in those most at risk to progress to TB disease.

### **Understanding the Action of INH on a Highly INH-resistant TB strain**

In this study, the mechanism of isoniazid (INH) against a highly INH-resistant *M. tuberculosis* strain was explored, profiles of resistant and susceptible *M. tuberculosis* strains were compared, and how the resistant *M. tuberculosis* strain responds to INH at low and high concentrations was determined. The findings suggest that *M. tuberculosis* strains, which are resistant to low levels of INH, may be susceptible to high levels of INH, and that there may be benefit to treating INH-resistant bacteria

with INH at a higher level that is effective and safe. Because INH is a first-line drug for the treatment of TB and INH resistance is fairly common, the findings of this study may have implications for TB treatment.

### **Treating Latent Tuberculosis Infection**

A study at 19 U.S. and 2 Canadian sites concluded that treatment of LTBI can significantly decrease the TB burden in the United States. The study, conducted by CDC's Tuberculosis Epidemiologic Studies Consortium, examined the scope and impact of treatment of LTBI in the United States and Canada.

During 2002, an estimated 37,857 patients started LTBI treatment at 244 clinics surveyed. Based on these data, as well as on U.S. TB case rates and U.S. population data, CDC estimates that the total number of LTBI treatment starts in the United States was 291,000-433,000. Applying a 5 percent lifetime risk of TB without treatment and 20-60 percent treatment effectiveness using the total estimated LTBI patients, CDC further estimates that approximately 4,000-11,000 TB cases were prevented by treating LTBI.

## Highlighted NCHHSTP Publications FY 2007

### **Special journal issue: Moving Science Into Practice: The Role of Technology Exchange for HIV/STD Prevention. *AIDS Education and Prevention 18 (Suppl. A), Fall 2006.***

This special issue is a compilation of articles describing how evidence-based interventions are selected, adopted, adapted, and implemented in a wide array of community settings from health departments to CBOs. The purpose of this publication is to share lessons learned from health departments, CBOs and researchers on translating research to prevention practice, building national technology transfer systems, strategic planning for diffusing effective

interventions to communities, and how interventions are being adapted for new target populations and communities.

### **Special journal issue: Sexually Transmitted Disease Treatment Guidelines. *Clin Infect Dis 2007; 44 (Suppl 3):S73-76.***

In April 2007, a special issue of Clinical Infectious Diseases (CID) was published, which provided background documents, tables of evidence, and rationale for recommendations included in the 2006 STD Treatment Guidelines. The Guidelines is one of CDC's most widely used and referenced documents, and used throughout the United States and worldwide. It is the most widely referenced and authoritative source of information on STD treatment and prevention strategies for clinicians who provide care for persons with STDs or those at risk of STDs. However, if the Guidelines is to retain this level of acceptance and influence in the medical, academic, and public health communities,

### **NCHHSTP Award-Winning Authors Winner of 2007 Charles C. Shepard Award in Assessment and Epidemiology**

**Wolfgang Hladik, Sheila C. Dollard, Jonathan Mermin, Ashley L. Fowlkes, Robert Downing, Minaj M. Amin, Flora Banage, Esau Nzaro, Peter Kataaha, Timothy J. Dondero, Philip E. Pellett, and Eve M. Lackritz:** Transmission of human herpesvirus 8 by blood transfusion. *The New England Journal of Medicine* 2006; 355:1331-1338.

Synopsis: A study in Uganda provides strong evidence that HHV-8 is transmitted by blood transfusion and that risk may be diminished as the period of blood storage increases.



the basis for the recommendations must be clear and convincing. This special issue of CID provides such needed evidence.

**Aral SO, Douglas JM Jr, eds. Lipshutz JA, assoc. ed. *Behavioral Interventions for Prevention and Control of Sexually Transmitted Diseases*. New York: Springer Science+SBM; 2007.**

This 24-chapter volume is the most comprehensive review of the current literature in behavioral interventions for STDs ever published. This book contains chapters dealing with a broad range of topics, including types of interventions and interventions appropriate for critical target populations for STD prevention, and it is intended to serve as an up-to-date, comprehensive resource for students and practitioners of public health as they learn about and implement behavioral interventions for STDs.

## Publication of Guidelines or Recommendations

**Quadrivalent Human Papillomavirus Vaccine: Recommendations of the Advisory Committee on Immunization Practices (ACIP). *MMWR* 2007; 56(RR02); 1-24.**

CDC published recommendations for vaccine use in the United States in FY 2007. Genital HPV is the most common STI in the United States, with an estimated 6.2 million persons becoming newly infected every year. Persistent infection with oncogenic HPV types can cause cervical cancer in women. In 2006 it is estimated that over 9,000 new cases were diagnosed and approximately 4,000 women died from cervical cancer. HPV infection is also the cause of genital warts and is associated with other anogenital cancers. Two prophylactic HPV vaccines have been developed, and one was licensed for use in 2006.

In 2004 an HPV workgroup, including staff from NCHHSTP, was formed at CDC to coordinate efforts and to work with ACIP to develop recommendations for HPV vaccine use. ACIP voted to recommend routine use of HPV vaccine in females 11–12 years of age and catch-up vaccination of females 13–26 in June 2006. The HPV vaccine ACIP Statement was published in *MMWR* in March 2007. Development of recommendations for use of the HPV vaccine provided guidance for vaccine providers around the country and allowed a Vaccine for Children resolution to be passed, opening the way for vaccine to be purchased on the CDC Federal contract at a reduced cost.

**A Comprehensive Immunization Strategy to Eliminate Transmission of Hepatitis B Virus Infection in the United States: Recommendations of the Advisory**

**Part II: Immunization of Adults, *MMWR RR*, December 8, 2006.**

This report, the second of a two-part statement from ACIP, provides updated recommendations to increase hepatitis B vaccination of adults at risk for HBV infection. Hepatitis B vaccination is the most effective measure to prevent HBV infection and its consequences, including cirrhosis of the liver, liver cancer, liver failure, and death. In adults, ongoing HBV transmission occurs primarily among unvaccinated persons with behavioral risks for HBV transmission (e.g., heterosexuals with multiple sex partners, IDUs, and MSM) and among household contacts and sex partners of persons with chronic HBV infection.

### NCHHSTP Award-Winning Authors

*NCHHSTP Authors Win Award for Excellence in Behavior and Social Science Research in Public Health*

NCHHSTP authors of three journal articles won the Award for Excellence in Behavior and Social Science Research in Public Health in 2007. The award is sponsored by the CDC Behavioral and Social Science Working Group.

#### *The winners were:*

**Bartholow BN, Goli V, Ackers M, McLellan E, Gurwith M, Durham M, Greenberg AE.** Demographic and behavioral contextual risk groups among men who have sex with men participating in a Phase 3 HIV vaccine efficacy trial: Implications for HIV prevention and behavioral/biomedical intervention trials. *Journal of Acquired Immune Deficiency Syndromes* 2006;43:594–602.

**Bunnell R, Ekwaru JP, Solberg P, Wamai N, Bikaako-Kajura W, Were W, Coutinho A, Liechty C, Madraa E, Rutherford G, Mermin J.** Changes in sexual behavior and risk of HIV transmission after antiretroviral therapy and prevention interventions in rural Uganda. *AIDS* 2006 Jan 2; 20(1):85–92.

**Crepaz N, Lyles CM, Woliński RJ, Passin WF, Rama SM, Herbst JH, Purcell DW, Malow RM, Stall R** for the HIV/AIDS Prevention Research Synthesis (PRS) Team. Do prevention interventions reduce HIV risk behaviors among people living with HIV? A meta-analytic review of controlled trials. *AIDS* 2006 Jan 9;20(2):143-57.

## BUDGET

NCHHSTP receives funding from the Labor, HHS, and Education appropriation to support both its domestic and global programs. Most funding comes through the HIV/AIDS, Viral Hepatitis, STD and TB prevention budget activity, and the Global Health budget activity. In addition, NCHHSTP's Global AIDS Program receives significant support from the Global HIV/AIDS Initiative (GHAI) account. Other critical sources of support include the budget activities for CDC Leadership and Management, Emerging Infectious Disease, Food Safety (for hepatitis A), Health Marketing, and Health Informatics.

Funding for most domestic programs has remained level or declined slightly over the past 4 years (see figure 1). In 2007, additional funding of \$45 million was directed to the President's domestic HIV Testing Initiative.

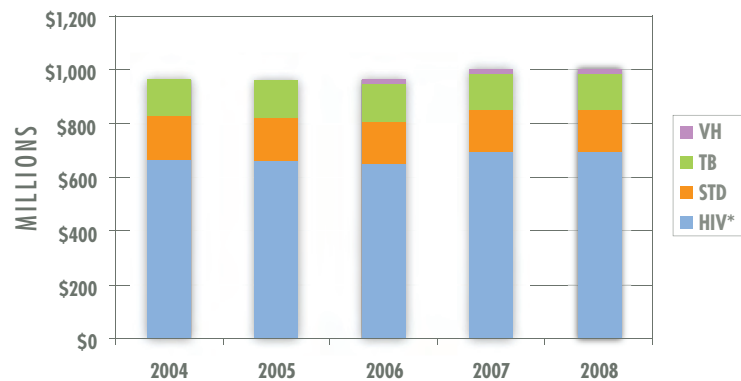
Of NCHHSTP's \$1 billion domestic budget, the majority of funds - nearly 70 percent - go to domestic HIV prevention programs, with the rest distributed to TB, STD and viral hepatitis prevention programs (see figure 2). The majority of the overall domestic budget funds, about 87 percent, was distributed extramurally to state and local health departments, nongovernmental agencies, universities and other partners (see figure 3).

Funding from the GHAI account for global activities of the Global AIDS Program has increased significantly to support the President's Emergency Plan for AIDS Relief (see figure 4). FY 2008 transfers from the GHAI account are not yet available but are expected to be above 2007 levels.

Other budget lines at CDC support the Center's health communications activities, health informatics activities, and leadership and management. Also, Emerging Infectious Disease (EID) funds support surveillance for vaccine-preventable STDs (Hepatitis B and HPV), and

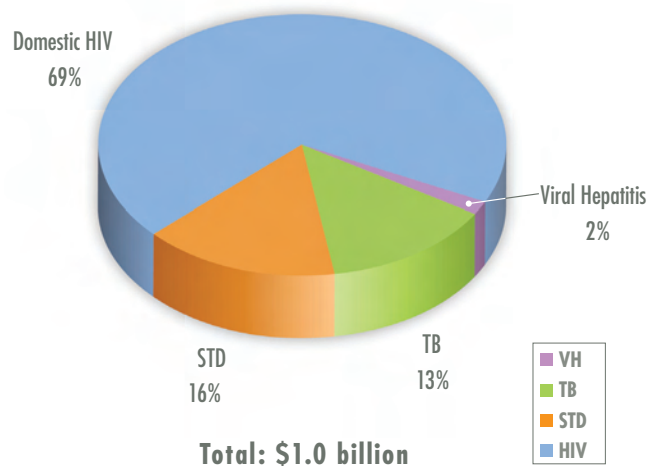
surveillance for drug resistant infections (e.g. gonorrhea and XDR-TB). In addition, some of NCHHSTP's activities to prevent hepatitis A are supported through the Food Safety Budget activity. (See table 1.)

Figure 1: NCHHSTP Domestic Program Budget FY 2004-2008

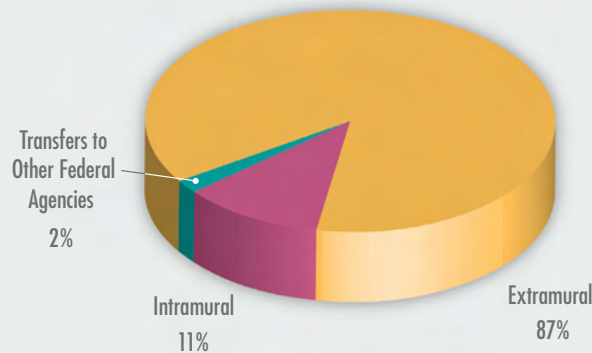


\* HIV amounts in FYs 2007 and 2008 reflect President's Initiative for HIV testing

Figure 2: Domestic HIV, Viral Hepatitis, STD, and TB Prevention Actual Funding, FY 2007



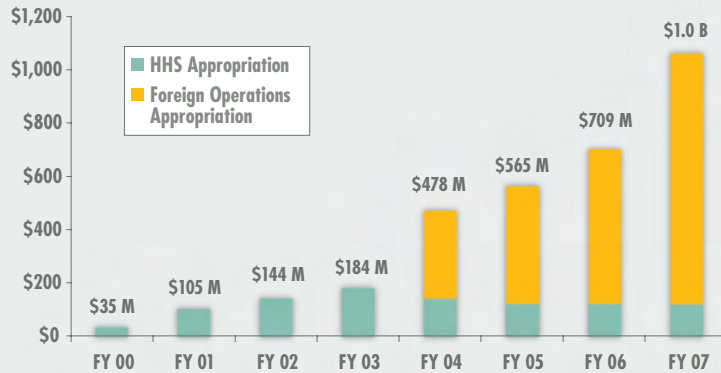
**Figure 3: Domestic HIV, Viral Hepatitis, STD, and TB Prevention Extramural and Intramural Obligations, FY 2007\***



**Total: \$987.4 million**

\*Excludes Gift Fund, Crada, Royalties and Reimbursable Funding.

**Figure 4: Global AIDS Program (GAP) Budget**



**TABLE 1: OTHER CRITICAL SUPPORT RECEIVED FY 2005-2007**

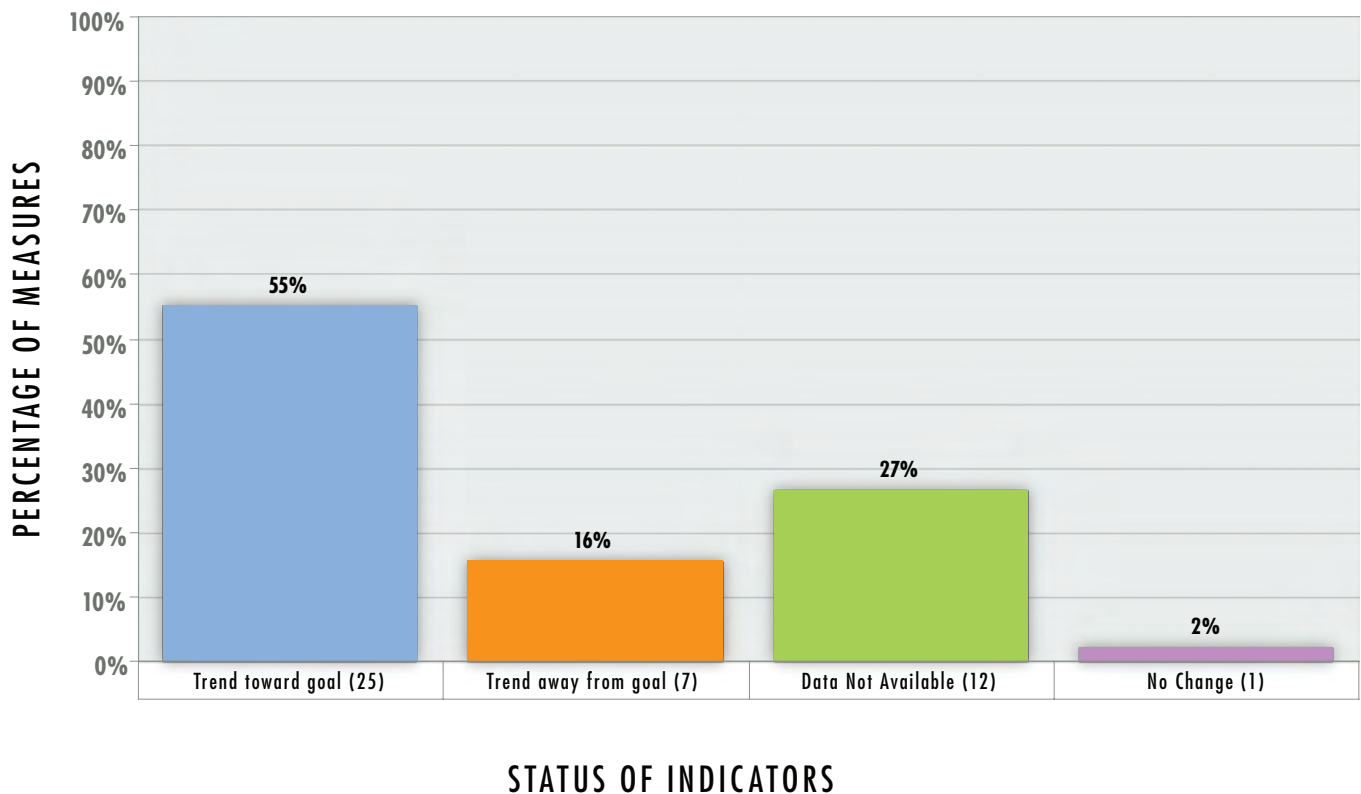
	2005	2006	2007*
Leadership & Management	\$ 9,078,000	\$ 6,925,000	\$ 3,304,000
Business Support Services	\$ 1,261,000	-	\$ 482,000
EID	-	-	\$ 8,363,000
Food Safety (HAV)	-	-	\$ 693,000
Health Marketing	\$ 11,806,000	\$ 11,290,000	\$ 1,194,000**
Health Informatics	\$ 5,908,000	\$ 5,320,000	-
HHS Minority AIDS Initiative	\$ 9,722,000	\$ 8,390,000	\$ 7,697,000
Congressional Projects	\$ 1,389,000	-	-

\*2007 amounts for food safety and emerging infectious diseases reflect the addition of the Division of Viral Hepatitis to the Center in 2007. EID funding also supports activities related to anti-microbial resistant STDs, MDR and XDR TB and monitoring related to vaccine-preventable diseases.

\*\*In 2007, funding for health marketing was reduced to reflect the transfer of funds for the National Prevention Information Network (formerly known as the AIDS Clearinghouse) back to the HIV prevention budget line.

NCHHSTP's domestic and international portfolios have been reviewed by the Office of Management and Budget (OMB) and found to be performing effectively. Results are available at [www.expectmore.gov](http://www.expectmore.gov). In collaboration with OMB, the Center has established 45 performance indicators to assess the extent to which our efforts result in real changes in health outcomes in the United States and abroad. These indicators reveal that positive progress is being made; data on 55% of the indicators have improved just since 2002. NCHHSTP is working to improve outcomes in those areas where progress has not been made and to establish data systems to assess performance in other areas.

## FY 2007 NCHHSTP Performance Indicators (45 total) All Divisions & Programs



*As we look toward FY 2008, there are a number of key domains in which NCHHSTP will prioritize resources and key activities.*

### **Advance HHS, CDC, and NCHHSTP Priorities**

NCHHSTP will continue to be an active contributor to the development and implementation of CDC's Health Protection Goals, and specifically will implement activities in support of key recommendations outlined in the recently published action plans. The CDC goals' action



plans highlight key cross-cutting priorities for improving health and provide a framework for investing to increase health impact. NCHHSTP will continue to align our investments and resources in support of relevant HHS priorities, and implement activities in support of the Center's priorities — reducing health disparities, program collaboration and service integration, and maximizing global synergies.

### **Strengthen and Promote Prevention Science**

Robust science and a strong and evolving evidence base for our prevention activities remain the cornerstone of NCHHSTP programs. We remain committed to critically examining research gaps, and to funding and supporting the best science to assist us and our partners to make informed decisions on health spending. Having reviewed our extramural research activities in FY 2007, NCHHSTP is poised to identify strategic priorities for investment, better target research spending,

and ensure that scarce resources are focused on the most important priorities. We commit to ensuring that our science is widely and quickly disseminated to a broad range of audiences, and that every opportunity for science to inform programmatic activities is used. In addition, NCHHSTP will continue to invest in training and mentoring junior scientists in cutting-edge scientific methodologies, up-to-date regulatory requirements, and dissemination of science, thereby ensuring that we continue to produce well-rounded scientists for the future.

### **Promote excellence, collaboration, and synergies in prevention programs**

Excellence in programs is especially important as this is where the bulk of our investments lie, as well as where we can best leverage our investments for greater health impact. Excellence in programs means working more closely with our partners in the field to understand how our prevention investments are being deployed and where new or refocused investments are likely to have greatest gain. Most importantly, we will be committed to ensuring greater collaboration and cross-fertilization between our epidemiological and programmatic activities so that our research priorities and activities may be more readily translated into programmatic gains, and lessons learned from program implementation may more readily influence our research funding decisions. NCHHSTP will also commit to developing activities in the field of program science, or operational research, so that we can learn—in real time—the best ways to improve the quality of our program activities.

### **Strengthen and leverage partnerships**

As we look to FY 2008, the Center will continue to build on our strong collaborations and partnerships so that we take full advantage of these relationships to accelerate the elimination of HIV/AIDS, viral hepatitis, STDs, and TB. Robust partnerships will also be a key strategy

as we move toward implementing more holistic, integrated, and comprehensive prevention models. NCHHSTP will continue to work with our traditional partners, as well as commit to expanding our reach, to involve nontraditional partners in the fight against HIV, viral hepatitis, STDs, and TB domestically and globally. A key component of our partnership strategy in FY 2008 will be to identify novel ways to engage partners and the public in the work that we do. This will involve taking new risks in public and partner engagement, committing to listen to feedback from stakeholders, and being increasingly transparent in our actions and decision-making.

### **Strengthen and develop public health leaders**

NCHHSTP will continue to invest in the next generation of public health leaders who are needed to continue the fight against these devastating diseases. By funding student



fellowships, welcoming new EIS Officers, recruiting the brightest and best talent, and developing our global and domestic workforce, NCHHSTP will continue to play an active role in ensuring that the new generation of public health workers understands and is committed to tackling our diseases. At the same time, we look forward to harnessing the enthusiasm and creativity of new leaders coming into our field and applying their expertise and insights to our

prevention activities. Leadership training and development will be particularly important for leaders throughout NCHHSTP, and opportunities for developing mentoring programs for staff and leaders will be actively sought and implemented.

### ***Maximize Health Impact***

Finally, as we look toward the new fiscal year, NCHHSTP will continue to build on our past successes in increasing health impact. Whether measured by increases in treatment and care for people living with HIV globally, increasing the prevalence of HIV and STD testing, further reducing the incidence of TB and other infectious diseases, or increasing access to safe and effective vaccines for HPV and Hepatitis A and B, NCHHSTP will continue to fund and prioritize cost-effective, evidence-based prevention interventions. However, equally important will be a focus on the quality of our prevention services, and developing and using measures that more accurately describe the holistic and integrated nature and form of our prevention services and activities.



As we work with our partners and the public in 2008, NCHHSTP hopes to rise to the challenges posed by the changing demography and epidemiology of HIV/AIDS, viral hepatitis, STD, and TB in the United States and around the world, and the evolving polity and policy contexts. We look forward to working with you in the development of prevention science and programs and in the design and implementation of effective public health policies and practice.

## Performance Measures for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention

### Domestic HIV/AIDS Prevention

GOAL 1: DECREASE THE ANNUAL HIV INCIDENCE RATE		
MEASURE	BASELINE	RESULT
1. Decrease the annual HIV incidence.	Not Available	Not Available
2. Decrease the number of pediatric AIDS cases.	118	68 (2005)
3. Reduce the black:white rate ratio of HIV/AIDS diagnoses.*	10.33:1	8.71:1 (2005)
4. Reduce the Hispanic:white rate ratio of HIV/AIDS diagnoses.*	4.1:1	3.5:1 (2005)
5. Increase the number of states with mature, name-based HIV surveillance systems.	29	33
6. Increase the percentage of HIV prevention program grantees using Program Evaluation and Monitoring System (PEMS) to monitor program implementation.	0 (2006)	Not Available
7. Increase the number of evidence-based prevention interventions that are packaged and available for use in the field by prevention program grantees.	7	14
8. Increase the number of agencies trained each year to implement Diffusion of Effective Behavior Interventions (DEBIs).	53	987
<p><b>Data Source:</b> Measure 1 - HIV/AIDS Incidence Surveillance in 34 states. Measures 2 - 5 - HIV/AIDS Reporting System (eHARS). Measure 6 - Program Evaluation and Monitoring System (PEMS). Measure 7 - Replicating Effective Programs (REP) Project data. Measure 8 - Diffusion of Effective Behavioral Interventions (DEBI) Tracking Database.</p>		

\* Data for these measures is derived from 33 states with mature, stable HIV case surveillance. These states are: Alabama, Alaska, Arizona, Arkansas, Colorado, Florida, Idaho, Iowa, Indiana, Kansas, Louisiana, Michigan, Minnesota, Mississippi, Missouri, Nebraska, Nevada, New Jersey, New York, New Mexico, North Carolina, North Dakota, Ohio, Oklahoma, South Carolina, South Dakota, Tennessee, Texas, Utah, Virginia, West Virginia, Wisconsin, and Wyoming.

- Baseline established for 2002, unless otherwise indicated
- Result established from 2006 data, unless otherwise indicated
- Progress reflects performance data available as of 11/9/2007

## GOAL 2: DECREASE THE RATE OF HIV TRANSMISSION BY HIV-INFECTED PERSONS

MEASURE	BASELINE	RESULT
1. Decrease the rate of HIV transmission by HIV-infected persons.	Not Available	Not Available
2. Decrease risky sexual and drug using behaviors among persons at risk for transmitting HIV.	Not Available	Not Available
<b>Data Source:</b> Measure 1 - Calculations of HIV incidence and prevalence, utilizing HIV/AIDS Incidence Surveillance System and special prevalence studies; Measure 2 - Medical Monitoring Project (MMP).		

## GOAL 3: DECREASE RISKY SEXUAL AND DRUG USING BEHAVIORS AMONG PERSONS AT RISK FOR ACQUIRING HIV

MEASURE	BASELINE	RESULT
1. Decrease risky sexual and drug-using behaviors among persons at risk for acquiring HIV.	MSM – 47% (2004)	Not Available
2. Increase the proportion of persons at risk for HIV who received HIV prevention interventions.	MSM – 18.9% (2004)	Not Available
<b>Data Source:</b> Measures 1 and 2 – National HIV Behavior Surveillance (NHBS) System.		

- Baseline established for 2002, unless otherwise indicated
- Result established from 2006 data, unless otherwise indicated
- Progress reflects performance data available as of 11/9/2007



## GOAL 4: INCREASE THE PROPORTION OF HIV-INFECTED PEOPLE IN THE U.S. WHO KNOW THEY ARE INFECTED

MEASURE	BASELINE	RESULT
1. Increase the proportion of HIV-infected people in the United States who know they are infected.	74.5% (2003)	Not Available
2. Increase the proportion of persons with HIV-positive test results from publicly funded counseling and testing sites who receive their test results.	81%	83% (2005)
3. Increase the proportion of people with HIV diagnosed before progression to AIDS.*	78.1%	76.5% (2005)

**Data Source:** Measure 1 – Special studies using eHARS. Measure 2 - Counseling, Testing, and Referral System (CTR) → Program Evaluation and Monitoring System (PEMS). Measure 3 - eHARS.

\* Data for these measures is derived from 33 states with mature, stable HIV case surveillance. These states are: Alabama, Alaska, Arizona, Arkansas, Colorado, Florida, Idaho, Iowa, Indiana, Kansas, Louisiana, Michigan, Minnesota, Mississippi, Missouri, Nebraska, Nevada, New Jersey, New York, New Mexico, North Carolina, North Dakota, Ohio, Oklahoma, South Carolina, South Dakota, Tennessee, Texas, Utah, Virginia, West Virginia, Wisconsin, and Wyoming.

## GOAL 5: INCREASE THE PROPORTION OF HIV-INFECTED PERSONS WHO ARE LINKED TO PREVENTION AND CARE SERVICES

MEASURE	BASELINE	RESULT
1. Increase the percentage of HIV-infected persons in publicly funded counseling and testing sites who were referred to Prevention Counseling and Referral Services (PCRS).	Not Available	Not Available
2. Increase the percentage of HIV-infected persons in publicly funded counseling and testing sites who were referred to medical care and attended their first appointment.	Not Available	Not Available
3. Increase the percentage of HIV-infected persons in publicly funded counseling and testing sites who were referred to HIV prevention services.	Not Available	Not Available
4. Increase the percentage of HIV-infected persons in medical care who initiated medical care within three months of diagnosis.	Not Available	Not Available

**Data Source:** Measures 1 - 3 – Program Evaluation and Monitoring System (PEMS). Measure 4 - Medical Monitoring Project (MMP).

- Baseline established for 2002, unless otherwise indicated
- Result established from 2006 data, unless otherwise indicated
- Progress reflects performance data available as of 11/9/2007

## Viral Hepatitis Prevention

### GOAL 6: REDUCE THE RATES OF VIRAL HEPATITIS IN THE UNITED STATES

MEASURE	BASELINE	RESULT
1. Reduce the rate of new cases of hepatitis A (per 100,000 population).	11.3/100,000 (1997)	1.2/100,000
2. Reduce the rate of new cases of hepatitis B (per 100,000 population).	2.6/100,000 (2003)	1.6/100,000
3. Increase the proportion of individuals knowing their hepatitis C virus infection status.	50% (2004)	Not Available
4. Increase the number of areas reporting chronic hepatitis C virus infections to CDC to 50 states and New York City and District of Columbia.	19 areas (2003)	36 areas
<p><b>Data Source:</b> Measures 1, 2, 4 – The National Notifiable Diseases Surveillance System (NNDSS); Measure 3 – The National Health and Nutrition Examination Survey (NHANES).</p>		

- Baseline established for 2002, unless otherwise indicated
- Result established from 2006 data, unless otherwise indicated
- Progress reflects performance data available as of 11/9/2007

## STD Prevention

### GOAL 7: REDUCE THE RATES OF NON-HIV SEXUALLY TRANSMITTED DISEASES (STDs) IN THE UNITED STATES

MEASURE	BASELINE	RESULT
1. Reduce pelvic inflammatory disease in the U.S.	197,000	106,000
2. Reduce the prevalence of chlamydia among high-risk women under age 25.	10.1%	13.1%
3. Reduce the prevalence of chlamydia among women under age 25, in publicly funded family planning clinics.	5.6%	6.7%
4. Reduce the incidence of gonorrhea in women aged 15 to 44 (per 100,000 population).	279/100,000	290/100,000
5. Eliminate syphilis in the U.S.	2.4/100,000	3.3/100,000
6.a) Reduce the incidence of P&S syphilis in men (per 100,000 population). *	5.7/100,000 (2006)	5.7/100,000
6.b) Reduce the incidence of P&S syphilis in women (per 100,000 population).	1.1/100,000	1.0/100,000
7. Reduce the incidence of congenital syphilis (per 100,000 live births).	10.2/100,000	8.5/100,000
8. Reduce the racial disparity of P&S syphilis (reported ratio is black:white).	8.1:1	5.9:1

**Data Source:** Measure 1 – The National Disease and Therapeutic Index (NDTI) (IMS Health). Measure 2 – The U.S. Department of Labor, National Job Training Program; CDC, IPP Chlamydia Prevalence Monitoring Project. Measure 3 – CDC, IPP Chlamydia Prevalence Monitoring Project. Measures 4 - 8 – STD Morbidity Surveillance System, CDC.

\* In FY 2002, the incidence of P&S syphilis in men was 3.8 per 100,000 (initial 2002 baseline). However, because an outbreak of syphilis among men who have sex with men that occurred after 2002 has driven up the male syphilis rates, CDC is reporting a new baseline for 2006.

- Baseline established for 2002, unless otherwise indicated
- Result established from 2006 data, unless otherwise indicated
- Progress reflects performance data available as of 11/9/2007

## TB Prevention

### GOAL 8: DECREASE THE RATE OF CASES OF TUBERCULOSIS AMONG U.S.-BORN PERSONS IN THE UNITED STATES

MEASURE	BASELINE	RESULT
1. Decrease the rate of cases of TB among U.S.-born persons (per 100,000 population).	2.9	2.3
2. Increase the percentage of TB patients who complete a course of curative TB treatment within 12 months of initiation of treatment (some patients require more than 12 months).	80.9%	82.3% (2004)
3. Increase the percentage of TB patients with initial positive cultures who also have drug susceptibility results.	93.0%	92.2%
4. Increase the percentage of infected contacts of infectious (Acid-Fast Bacillus (AFB) smear-positive) cases that are placed on treatment for latent TB infection and complete a treatment regimen.	41.0%	43.3% (2004)

**Data Source:** Measures 1 – 3 - The National TB Surveillance System. Measure 4 -The National TB Surveillance System and the national Aggregate Reports for TB Program Evaluation.

- Baseline established for 2002, unless otherwise indicated
- Result established from 2006 data, unless otherwise indicated
- Progress reflects performance data available as of 11/9/2007

## Global AIDS Program (GAP)

**GOAL 9: THE GLOBAL AIDS PROGRAM WILL HELP IMPLEMENT THE PRESIDENT'S EMERGENCY PLAN FOR AIDS RELIEF IN 15 FOCUS COUNTRIES BY PARTNERING WITH OTHER USG AGENCIES TO ACHIEVE THE GOALS OF TREATING 2 MILLION HIV-INFECTED PEOPLE AND CARING FOR 10 MILLION PEOPLE INFECTED WITH OR AFFECTED BY HIV/AIDS BY 2008, AND PREVENTING 7 MILLION NEW HIV INFECTIONS BY 2010**

Focus Country Performance Measures (Includes all USG activities)\*

MEASURE	BASELINE	RESULT
1. Number of people receiving HIV/AIDS treatment.	69,911 (2003)	1,358,375
2. Number of individuals provided with general HIV-related palliative care/basic health care and support during the reporting period, including TB.	854,800 (2004)	3,901,543
3. Number of pregnant women receiving PMTCT services, including counseling and testing during the reporting period.	1,271,300 (2004)	4,011,797
4. Number of individuals who received counseling and testing during the reporting period (counseling includes the provision of test results to clients).	1,791,900 (2004)	10,580,699

**Data Source:** Country Operational Plans (COPS) database.

\* Performance is reported for entire USG efforts by the OGAC. Data are through September 2007.

**GOAL 10: THE GLOBAL AIDS PROGRAM WILL HELP IMPLEMENT THE PRESIDENT'S EMERGENCY PLAN FOR AIDS RELIEF IN THE OTHER BILATERAL COUNTRIES BY PARTNERING WITH OTHER USG AGENCIES, INTERNATIONAL AND HOST COUNTRY ORGANIZATIONS TO ACHIEVE THE GOALS OF PREVENTING NEW HIV INFECTIONS, TREATING HIV-INFECTED PEOPLE, AND CARING FOR PEOPLE INFECTED WITH OR AFFECTED BY HIV/AIDS**

**Other Bilateral Countries Performance Measures (Includes all USG activities)\***

MEASURE	BASELINE	RESULT
1. Number of individuals receiving antiretroviral therapy at the end of the reporting period (includes PMTCT+ sites).	20,774 (2004)	276,965
2. Number of individuals trained to provide laboratory-related activities.	1,488 (2004)	3,988
3. Number of pregnant women who received HIV counseling and testing for PMTCT and received their test results.	145,133 (2004)	1,108,500
4. Number of individuals who received confidential counseling and testing during the reporting period.	773,649 (2004)	5,249,131

**Data Source:** GAP Planning and Reporting System and OGAC.

\* This data was generated before the other bilateral countries received any specific guidance on monitoring and evaluation from OGAC. Hence, indicator values for certain programmatic activities appear low or non-existent due to lack of available existing data. Indicators include data from CDC, USAID, Peace Corps, and Department of Defense (DoD) and are based on each agency's existing indicators for reporting which were mapped into PEPFAR indicators. The reported indicators are a subset of the full set of PEPFAR indicators, i.e., only those for which FY 2005 USG data is available. Data are through September 2007, with exception of measure 3, which is through March 2007.

## Overarching NCHHSTP Efficiency Measure

EFFICIENCY MEASURE	BASELINE	RESULT
1. Increase the efficiency of core domestic HIV/AIDS surveillance as measured by the cost per estimated case of HIV/AIDS diagnosed each year.	\$1,357 (2003)	\$887 (2005)

**Data Source:** Measure 1 - HIV/AIDS Reporting System (HARS) is used to collect state HIV and AIDS data; financial assistance information is drawn from administrative records and adjusted for inflation.

