

Advancing HIV Prevention: New CDC Strategies for a Changing Epidemic

A REPORT FROM THE U.S. CENTERS FOR DISEASE CONTROL,
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IN SEVERAL U.S. CITIES, RECENT OUTBREAKS OF PRIMARY AND SECONDARY syphilis among men who have sex with men (MSM) (CDC, 2002), along with increases in newly diagnosed HIV infections among MSM and heterosexuals, have created concern that HIV incidence might be increasing. In addition, declines in HIV morbidity and mortality during the late 1990s attributable to HAART appear to have ended. Until now, the U.S. Centers for Disease Control and Prevention (CDC) has mainly targeted its prevention efforts at persons at risk for becoming infected with HIV by providing funding to state and local health departments and non-governmental community-based organizations (CBOs) for programs aimed at reducing sexual and drug-using risk behavior. Some recent programs have focused on prevention efforts for persons living with HIV (Janssen, 2001).

Funding HIV-prevention programs for communities heavily affected by HIV has promoted community support for prevention activities. At the same time, these communities recognize the need for new strategies for combating the epidemic. In addition, the recent approval of a simple, rapid HIV test in the United States creates an opportunity to overcome some of the traditional barriers to early diagnosis and treatment of infected persons. Therefore, CDC, in partnership with other U.S. Department of Health and Human Services agencies and other government agencies and nongovernment agencies will launch a new initiative in 2003: Advancing HIV Prevention: New Strategies for a Changing Epidemic (CDC, 2003).

Trends in HIV/AIDS Morbidity and Mortality

THE FIRST CASES OF AIDS WERE REPORTED IN THE UNITED STATES IN June 1981, and the number of cases and deaths among persons with AIDS increased rapidly during the 1980s. During 1981 to 2001, an estimated 1.3 to 1.4 million persons in the United States were infected with HIV (Fleming, 2002), and 816,149 cases of AIDS and 467,910 deaths were reported to CDC (CDC, 2001). During the late 1990s, after the introduction of HAART, the numbers of new AIDS cases and deaths among adults and adolescents declined substantially. From 1995 to 1998, the annual number of incident AIDS cases declined 38% from 69,242 to 42,832, and deaths from AIDS declined 63%, from 51,670 to 18,823. The annual numbers of incident AIDS cases and deaths have remained stable since 1998, at approximately 40,000 and 16,000, respectively (CDC, 2001). The number of children diagnosed with AIDS attributed to perinatal HIV transmission peaked in 1992 at 954 and declined 89% to 101 in 2001 (CDC, 2001).

Since the early 1990s, an estimated 40,000 new HIV infections have occurred annually in the United States. Between 1991 and 2001, in the 25 states that had HIV reporting since 1994, the number of persons who had newly diagnosed HIV infection increased 14% among MSM and 10% among heterosexuals. The number of persons in the United States living with HIV continues to increase, and of an estimated 850,000 to 950,000 persons living with HIV, an estimated 180,000 to 280,000 (25%) persons are unaware of their serostatus (Fleming, 2002).

HIV Testing

MANY HIV-INFECTED PERSONS DO NOT GET TESTED UNTIL LATE IN THEIR infection, and many persons who are tested do not return to learn their test results. In 2000, of an estimated two million CDC-funded tests for HIV, approximately 18,000 tests represented new HIV diagnoses. During 2000, of persons with positive tests for HIV, 31% did not return to learn their test results (CDC, unpublished data, 2000). Of 573 HIV-infected young MSM who were studied in six U.S. cities, 77% were unaware that they were infected (MacKellar, 2002). Between 1994 and 1999, of 104,780 persons in whom HIV was diagnosed, AIDS was diagnosed in 43,089 (41%) persons within one year after their positive HIV test (Neal, 2002).

Reasons for HIV testing vary. In a study of 7,236 persons in whom HIV was newly diagnosed, the reason given most frequently (42%) for seeking the test was illness. Only 10% of HIV-infected men and 17% of HIV-infected women reported that they were tested primarily because the test was offered or recommended by a health-care facility or provider (CDC, unpublished data, 2002).

Many persons who learn that they are HIV infected adopt behaviors that might reduce the risk for transmitting HIV (CDC, 2000). In a study of 1,363 HIV-infected men and women, among the 69% who were sexually active during the preceding 12 months, between 78% and 96% used a condom at most recent anal or vaginal intercourse with a known HIV-negative partner, and 52% to 86% reported condom use with a partner of unknown serostatus (CDC, unpublished data, 2002).

The development of new tests for HIV creates new prospects for expanding HIV testing to identify and treat HIV-infected persons earlier. The OraQuick HIV rapid test, developed and manufactured by OraSure Technologies, Inc., was approved by the U.S. Food and Drug Administration in November 2002 and categorized as a waived test under the Clinical Laboratory Improvement Amendments in January 2003. This simple, rapid test provides HIV results in 20 minutes, can be stored at room temperature, requires no special equipment, and can be performed outside clinical settings. Although the use of the blood-based OraQuick test facilitates receipt of test results, HIV-positive test results will require confirmation by Western Blot or immunofluorescence assays.

The New CDC Initiative

THE NEW INITIATIVE, ADVANCING HIV PREVENTION: NEW STRATEGIES FOR a Changing Epidemic, is aimed at reducing barriers to early diagnosis of HIV infection and increasing access to quality medical care, treatment, and ongoing prevention services. The HIV initiative emphasizes the use of proven public health approaches to reducing the incidence and spread of disease. As with other sexually transmitted diseases (STDs) or any other public health problem, principles commonly applied to prevent disease and its spread will be used, including appropriate routine screening, identification of new cases, partner notification, and increased availability of sustained treatment and prevention services for those infected.

Stable HIV-associated morbidity and mortality, concerns about possible increases in HIV incidence, and the recent availability of a simple, rapid HIV test combined with strong prevention collaborations among communities heavily affected by HIV support the need to reassess and refocus some of CDC's HIV-prevention activities. An emphasis on greater access to testing and on providing prevention and care services for persons infected with HIV can reduce new infections and lead to reductions in HIV-associated morbidity and mortality (Janssen, 2001; Institute of Medicine, 2001). In addition, simplifying prenatal and other testing procedures can lead to more effective use of resources that CDC provides to prevent perinatal and other HIV transmission.

The initiative consists of four key strategies:

Make HIV testing a routine part of medical care. CDC will work with professional medical associations and other partners to ensure that all health-care providers include HIV testing, when indicated, as part of routine medical care on the same voluntary basis as other diagnostic and screening tests. Previously, CDC has recommended that patients be offered HIV testing in high HIV-prevalence acute care hospitals (CDC, 1993) and in clinical settings serving populations at increased risk (e.g., clinics that treat persons with STDs). This initiative adds to those recommendations to include offering HIV testing to all patients in all high HIV-prevalence clinical settings and to those with risks for HIV in low HIV-prevalence clinical settings (CDC, 2001a). Because prevention counseling, although recommended for all persons at risk for HIV, should not be a barrier to testing, CDC will promote adoption of simplified HIV-testing procedures in medical settings that do not require prevention counseling before testing. In 2003, CDC will support state and local health departments in conducting demonstration projects offering HIV testing to all patients in high HIV-prevalence health-care settings and referral into care, treatment, and prevention services, and will assess the outcomes of these projects.


Implement new models for diagnosing HIV infections outside medical settings. In 2003, CDC will fund new demonstration projects using OraQuick to increase access to early diagnosis and referral for treatment and prevention services in high-HIV prevalence settings, including correctional facilities. In addition, community-based organizations (CBOs) will pilot new models, particularly in nonmedical settings, for diagnosis and referring persons for treatment and prevention services. Also, because 8% to 39% of partners tested in studies of partner counseling and referral services (PCRS) were found to have previously undiagnosed HIV infection (Golden, 2002), CDC will increase emphasis on PCRS. In 2004, CDC will implement these new models through health departments and CBOs.

Prevent new infections by working with persons diagnosed with HIV and their partners. Although many persons with HIV modify their behavior to reduce their risk for transmitting HIV after learning they are infected, some persons might require ongoing prevention services to change their risk behavior or to maintain the change. In 2003, CDC, in collaboration with the Health Resources and Services Administration (HRSA), the National Institutes of Health, and the HIV Medical Association of the Infectious Diseases Society of America, will publish *Recommendations for Incorporating HIV Prevention into the Medical Care of Persons with HIV Infection*. CDC will work with professional associations to disseminate the new guidelines to primary care providers and infectious disease specialists and to assess their integration into medical practice. CDC will work closely with HRSA and other partners to reach persons in whom HIV infection has been diagnosed but who are not in ongoing medical or pre-

ventive care. CDC also will conduct demonstration projects through state and local health departments to provide prevention case management for persons living with HIV to reduce HIV transmission. Finally, CDC will increase emphasis on partner notification and also will support new models of partner notification, including offering rapid HIV testing to partners and using peers to conduct partner prevention counseling and referral. In 2004, acting through health departments and CBOs, CDC will implement these prevention services for persons living with HIV. CDC also will require grantees to employ standardized procedures for prevention interventions and evaluation activities.

Further decrease perinatal HIV transmission. CDC will promote recommendations for routine HIV testing of all pregnant women, and, as a safety net, for the routine screening of any infant whose mother was not screened. CDC will work with prevention partners, including the American College of Obstetricians and Gynecologists, the American Academy of Pediatrics, the American Academy of Family Physicians, and the American College of Nurse-Midwives, to disseminate the recommendations and support their implementation. CDC also will develop guidance for using rapid tests during labor and delivery, or postpartum if the mother was not screened prenatally, and provide training for health departments and providers in conducting prenatal testing. In 2003, CDC will expand its activities to monitor the integration of routine prenatal testing into medical practice.

Reporting of HIV infections to public health authorities is now required in 49 states. In 2002, CDC initiated a pilot system to monitor HIV incidence. To track the impact of the new initiative, beginning in 2003, CDC is expanding this surveillance system by implementing a national behavioral surveillance system. In addition, CDC will monitor the implementation of these new activities through several systems, including new performance indicators for state and local health departments and CBOs.

Stable HIV morbidity and mortality, increased numbers of syphilis and HIV cases, and growing concern about increasing HIV incidence in some communities require new strategies to control the spread of HIV in the United States. Through *Advancing HIV Prevention: New Strategies for a Changing Epidemic*, every HIV-infected person should have the opportunity to be tested and have access to state-of-the-art medical care and to the prevention services needed to prevent HIV transmission. 

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