

**Centers for Disease Control and
Prevention**

**HIV Prevention
Strategic Plan
Through 2005**

January 2001



Preface

Since the beginning of the AIDS epidemic more than 20 years ago, the Centers for Disease Control and Prevention (CDC) has been at the forefront of prevention, working with a wide array of public- and private-sector partners across the United States and around the globe.

Over the last two decades, HIV/AIDS prevention and treatment science has advanced dramatically. Mother-to-child HIV transmission has been drastically reduced in the United States in recent years—from a high of 2,500 in 1992 to less than 400 perinatal HIV infections annually. Behavioral science has expanded the repertoire of targeted, effective prevention programs for populations at high risk for HIV infection, such as men who have sex with men, injection drug users, and women who engage in risky behaviors. Community capacity to design, deliver, and evaluate interventions has also grown steadily. In the last five years, with the advent of new drug combinations to treat HIV infection and delay the onset of AIDS, there is renewed hope and cautious optimism about further reducing transmission as infected people's viral loads are diminished and their potential infectiousness is possibly reduced.

But, even with these successes, CDC estimates that approximately 40,000 people per year in the United States continue to become infected with HIV, a number that has remained relatively stable—but *unacceptably high*—for much of the past decade. And although the number of new infections has been static, the epidemic itself has not. In addition to the groups that have been at highest risk since the beginning of the epidemic—men who have sex with men and injection drug users—new populations are increasingly at risk for HIV infection, particularly racial and ethnic minorities, women, and adolescents.

A new strategic plan for HIV prevention and control is timely and essential in guiding our efforts to more effectively address HIV infection and AIDS at home and abroad. CDC's *HIV Prevention Strategic Plan Through 2005* lays out the blueprint for those actions. CDC looks forward to working in a collegial way with our many partners to protect people's health by enhancing the effect of mutually conducted HIV/AIDS efforts throughout the Nation and the world.

Jeffrey P. Koplan, M.D., M.P.H.
Director

CDC's Goals for HIV Prevention

Overarching National Goal

Reduce the number of new HIV infections in the United States from an estimated 40,000 to 20,000 per year by 2005, focusing particularly on eliminating racial and ethnic disparities in new HIV infections.

1. By 2005, decrease by at least 50% the number of persons in the United States at high risk for acquiring or transmitting HIV infection by delivering targeted, sustained and evidence-based HIV prevention interventions.
2. By 2005, through voluntary counseling and testing, increase from the current estimated 70% to 95% the proportion of HIV-infected people in the United States who know they are infected.
3. By 2005, increase from the current estimated 50% to 80% the proportion of HIV-infected people in the United States who are linked to appropriate prevention, care and treatment services.
4. By 2005, strengthen the capacity nationwide to monitor the epidemic, develop and implement effective HIV prevention interventions and evaluate prevention programs.

International Goal

5. Assist in reducing HIV transmission and improving HIV/AIDS care and support in partnership with resource-constrained countries.

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How This Plan Will Be Used

CDC will use this HIV prevention strategic plan to

- ▶ *assess current CDC HIV budget allocations against the priorities in the plan and realign spending as needed;*
- ▶ *define unmet needs;*
- ▶ *allocate new resources, if they become available;*
- ▶ *direct prevention research activities at CDC;*
- ▶ *highlight opportunities to strengthen collaboration across federal agencies and with other partners;*
- ▶ *assess the annual performance of CDC and its grantees in meeting priority goals, objectives and strategies;*
- ▶ *serve as the basis of a yearly “report card” to the public on the activities of CDC and its grantees.*

Guiding Principles

CDC's guiding principles for all HIV prevention programs are

- ▶ ***Effectiveness*** – CDC evaluates its programs for effectiveness and requires grantees to do the same, in order to ensure that HIV prevention programs do the utmost to prevent HIV, given the resources provided.
- ▶ ***Accountability*** – CDC pledges to be accountable to the American people for conducting sound HIV/AIDS prevention activities.
- ▶ ***Transparency*** – CDC intends for its activities and funding to be clear to those outside the agency.
- ▶ ***Science-Based Activities*** – CDC bases prevention efforts on the best science currently available.
- ▶ ***Collaboration and Partnerships*** – CDC conducts HIV/AIDS prevention in conjunction with partners at all levels – federal, state and local – in the public sector, private sector and not-for-profit sector to address multiple local epidemics in the most efficient way possible.
- ▶ ***Comprehensiveness*** – CDC employs a multifaceted approach to HIV prevention that includes strategies to address individual, community, societal and structural level prevention needs.
- ▶ ***Leadership*** – CDC is the nation's prevention agency and provides leadership in prevention policy and practice.
- ▶ ***Respect for Human Rights*** – CDC places pre-eminent value on human rights in the development of its HIV prevention programs and expects grantees to do the same.

Acknowledgments

The Department of Health and Human Services is developing a comprehensive strategic framework for HIV/AIDS prevention that encompasses the efforts of all the Department's agencies that conduct HIV/AIDS activities. This draft strategic plan from CDC is one component of that broader framework. Other DHHS agencies that engage in HIV/AIDS activities (such as the National Institutes of Health and the Health Resources and Services Administration, among others) also have strategic plans, which are part of the Department's overall effort to combat HIV/AIDS.

CDC gratefully acknowledges the time, effort and expertise of these agencies as well as the other external consultants and internal CDC staff who composed the workgroups that drafted CDC's strategic plan for HIV prevention. The members of the workgroups are listed in Appendix D, page 68. This plan also benefited from the thoughtful recommendations of the individuals and members of organizations who attended public meetings and who provided written comments. The plan is better for their suggestions.

We also recognize the guidance of the federal Advisory Committee for HIV and STD Prevention, which was a catalyst for the development of this plan and whose members provided invaluable insights into its refinement. Members are listed in Appendix D, following the workgroup listings, on page 80.

Finally, we acknowledge the help of the staff of Management Assistance Corporation, who arranged meetings and travel, facilitated workgroup meetings and provided support in the development of this document.

Introduction to the HIV Prevention Strategic Plan

Why This Plan Is Required

Over the last two decades, HIV/AIDS prevention science has advanced dramatically. For example, in the United States, mother-to-child HIV transmission has been drastically reduced, from a high of 2,500 perinatal HIV infections in 1992 to an estimated 300 to 400 annual infections in recent years. This reduction is due to the widespread adoption of routine HIV counseling and voluntary testing for pregnant women and the availability of zidovudine (ZDV or, more commonly, AZT) and other drugs to interrupt transmission from the pregnant woman to her baby. And the risk of infection among many men who have sex with men, injection drug users and women has been reduced through strong community-level interventions and multifaceted behavioral prevention that addresses people's ability to make healthy decisions and sustain protective behaviors.

Change has accelerated in the last five years, with the advent of new drug combinations to treat HIV infection, delaying the onset of AIDS and offering the hope of reducing further transmission, as infected people's viral loads are diminished and their potential infectiousness possibly reduced. But the promise of treatment advances is not without pitfalls: Research shows that optimistic attitudes about treatment may be contributing to increased risk behavior among young MSM as well as among other groups at risk for HIV infection. And, without lifelong prevention support services to help them adopt and maintain healthy behaviors, the growing number of people living longer with HIV forms a wellspring of potential infection. Behavioral science continues to shed light on the best ways to motivate and support people to adopt and maintain safer behaviors, reducing their risk of acquiring HIV if they are seronegative or of transmitting HIV if they are already infected.

CDC estimates that approximately 40,000 people per year in America become infected with

HIV, a number that has remained relatively stable – ***but unacceptably high*** – for much of the past decade. The face of the epidemic has not been static, however – in addition to the groups who have been at highest risk since the beginning of the epidemic, MSM and injection drug users, other populations are also at risk. As shown in Figure 1 at left, more and more people of color, and especially women and successive waves of young people, are in harm's way. **At this point in the epidemic, a new strategic plan for HIV prevention is essential.**

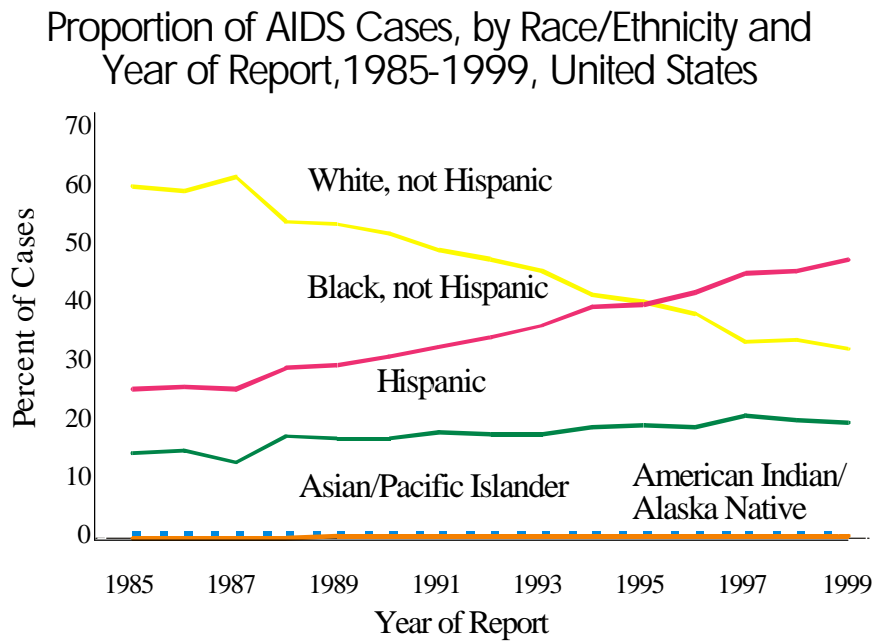


Fig. 1

Estimated Number of Persons Living with AIDS, 1993 -1998, by Region, United States

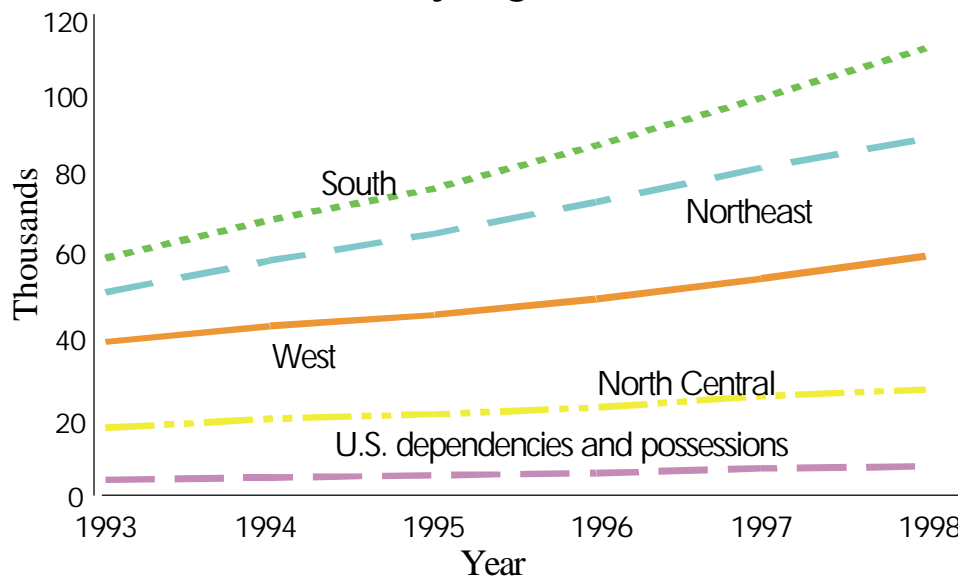


Fig. 2

The HIV/AIDS epidemic is not monolithic and varies considerably across the country, not only by region, but within regions and states, and even within communities. (See Figure 2, above.) The estimated number of people living with AIDS increased for each region between 1993 and 1998. The proportional distribution by region of people living with AIDS has changed slightly, with an increase in the South from 34% to 37% and a decrease in the West from 23% to 20%. Approximately 9,000 persons living with AIDS in the U.S. territories account for 3% of the overall total.

CDC's primary mechanism for supporting communities in the identification of local HIV prevention priorities is called HIV prevention community planning. Community planning empowers local communities across the United States to use epidemiologic and surveillance data, behavioral science and other scientific information to make informed decisions about where and how to target resources locally and is integral to CDC's five-year strategic plan.

This national plan in no way supersedes local planning and priority setting conducted by community planning groups in conjunction with state and local health departments. It is imperative that CDC have a plan based on surveillance and epidemiology to guide its efforts to fight the national HIV/AIDS epidemic, just as each community must have a plan that responds to its unique situation. The two efforts should complement and support each other, as CDC believes they do now and will continue to do.

Creating and Implementing This Plan

To develop this five-year strategic plan, CDC involved more than 100 experts from inside and outside the government: experts in behavioral science, epidemiology, medicine and the other disciplines required to address the HIV epidemic, including community-based HIV prevention providers, state and local health departments, members of infected and affected groups. These experts examined a situation analysis of the current epidemic, as well as a response analysis of CDC's current activities. They then divided into workgroups to develop prioritized objectives and strategies to address each of the goals. The goals, with their rank-ordered objectives and strategies, begin on page 26. Background information on the strategic plan development process is in Appendix B, beginning on page 62. A list of workgroup members is in Appendix D, page 68.

CDC funds others to carry out most HIV prevention work. State and local health and education departments, community planning groups, people living with HIV, community-based organizations, foundations, faith communities and others involved in HIV/AIDS prevention – as well as care, treatment and support – will make the goals, objectives and strategies of this plan a reality. ***Without their commitment, support and focused efforts, the domestic goals of this plan will not be realized.***

Likewise, implementing many elements of this plan will require close collaboration with other federal agencies – among them the Food and Drug Administration, the Health Care Financing Administration, the Health Resources and Services Administration, Indian Health Service, National Institutes of Health and the Substance Abuse and Mental Health Services Administration. These agencies are already working on many elements of this plan, as are our other partners, and are committed – as is CDC – to working synergistically to enhance the effect of mutually conducted HIV/AIDS efforts. Internationally, CDC works in partnership not only with host countries across the globe, but with other U.S. federal agencies, such as the U.S. Agency for International Development (USAID), HRSA and NIH, as well as with international agencies such as the World Health Organization (WHO), the Joint United Nations Programme on HIV/AIDS (UNAIDS), United Nations International Children's Emergency Fund (UNICEF), the World Bank, the private sector and with nongovernmental agencies including foundations, local and international relief groups and others.

While this is a CDC strategic plan, its success is dependent on the actions of many different organizations and agencies, each of which is integral to achieving the plan's goals, objectives and strategies.

In addition to the expertise of those directly involved in creating the plan through their participation in workgroups, this strategic plan benefits from the expertise of the staff of the Institute of Medicine and its Committee on HIV Prevention Strategies in the United States, as well as the reviewers of the IOM report, *No Time to Lose: Getting More from HIV Prevention*.

In 1999, CDC contracted with the IOM to conduct a comprehensive overview of current HIV prevention efforts in the United States, encompassing public, private and not-for-profit sectors. The IOM released its report in September 2000, in time for its recommendations to be considered in the development of this strategic plan.

CDC values the experience and expertise of the IOM committee members and staff and is pleased that many of the IOM's final recommendations and the goals and objectives of this strategic plan correlate so closely.

CDC is the federal agency charged with preventing HIV infection. But no one agency can do that alone; other entities are vital to prevention. To accomplish that mission, and to meet other national goals for public health, such as those in *Healthy People 2010*, CDC works with an array of domestic partners:

- Other federal agencies;
- State and local health and education departments;
- HIV prevention community planning groups;
- Community-based organizations;
- Academic institutions;
- The private sector;
- Faith-based groups and
- Foundations and not-for-profit groups.

It is CDC's intention to continue to work collaboratively with other agencies and organizations, to enhance the effect of our collective work and to avoid duplication of effort. Many of the elements of this plan are already being addressed by CDC and others involved in HIV/AIDS prevention. For example, state and local partners include CDC grantees, such as health and education departments and community-based organizations, and HIV prevention community planning groups; other partners include those not funded by the agency, such as professional organizations of health care providers, foundations and the private medical sector, all of whom are actively working to prevent HIV and AIDS. Within HHS:

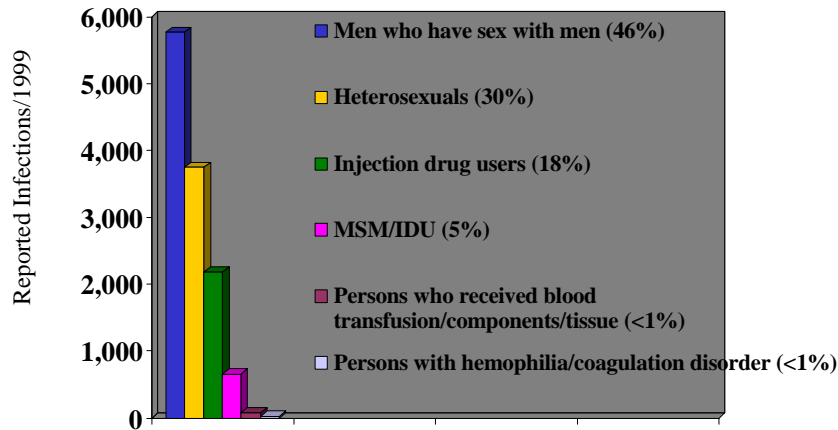
- AHRQ provides information on health care outcomes, quality, cost, use and access. FDA assures the safety and efficacy of pharmaceuticals, biological products and medical devices, including HIV tests.
- HCFA administers Medicare and Medicaid, which provide health insurance to America's poor, disabled and indigenous populations, and the States Children's Health Insurance Program (SCHIP), all of which include people with HIV/AIDS.
- HRSA provides health resources for medically underserved populations, working to reduce disparities in health status and outcomes; supports a nationwide network of community and migrant health centers, and primary care programs for the homeless and residents of public housing; oversees the national system that allocates organs, tissue and bone marrow for transplant; builds the health care workforce and provides AIDS training for health care providers through the AETCs (AIDS Education and Training Centers) throughout the United States; and provides services to people with AIDS through Ryan White CARE Act Programs.
- IHS provides services, including HIV/AIDS prevention, care and treatment, to nearly 1.5 million American Indians and Alaska Natives.
- NIH conducts domestic and international biomedical and behavioral research integral to many of the plan's objectives and strategies, such as research on the natural history of HIV infection; etiology and pathogenesis; therapeutics, including drugs and chemical barriers; vaccines; and behavioral and social factors and interventions.
- SAMHSA addresses substance abuse prevention, addiction treatment and mental health services.

Internationally, HRSA is working to address issues related to care and services for people living with HIV/AIDS and their families. USAID is working to reduce high risk sexual behavior through behavioral change interventions, including not only mass and interpersonal communication strategies, but also policy and legislative reforms that enhance communication strategies and campaigns; increase demand for and access to condoms, mainly through condom social marketing programs; and promote treatment and control of sexually transmitted diseases. NIH conducts a major portfolio of international biomedical and behavioral research on HIV and other diseases and conditions. Outside the U.S. government, the World Health Organization, UNAIDS, UNICEF, the World Bank, other nations and multinational organizations, foundations, faith-based institutions and other non-government organizations are actively working to prevent HIV and AIDS and to increase care and support for those infected. CDC will work collaboratively with all these partners to avoid unnecessary redundancy and duplication of effort and to make HIV/AIDS prevention as effective –and cost-effective –as possible.

Current Status of the HIV/AIDS Epidemic in the U.S.

How People Are Becoming Infected

Adult and Adolescent HIV Infections By Known Risk[^] Reported in 1999*



[^]Total reported N= 21,186. Graph excludes 8,726 whose risk was not identified at the time of report.

*From 32 areas with confidential adult and adolescent HIV reporting.

Fig. 3

In 1999, CDC received reports of 21,186 adult and adolescent HIV infections from 32 areas with adult and adolescent name-based HIV reporting (Fig. 3). The states reporting HIV infections did not include some of the areas hardest hit, such as California and New York – clearly, the total numbers reported would rise considerably if all states and territories conducted HIV reporting. And the proportions of cases reported in the chart above might also change. CDC estimates that 70% of all new HIV infections are among men, with MSM accounting for the majority – 60% – of those infections; heterosexual exposure accounting for another 15% and injection drug use for 25% of infections among men. Among women, who account for 30% of new infections, injection drug use also accounts for a quarter of new infections. But the majority of women – 75% – are infected sexually. (For more information, see the charts and discussion on page 12.)

The majority of cases reported in which the person's risk was known – 46% – were among men who have sex with men. Heterosexual transmission, mostly among women, represented the next largest category at 30%. Injecting drug use (IDU) accounted for 18% of the reported cases classified by a specific risk. A significant percentage of cases were reported without a risk noted at the time of the initial report of HIV infection. NIR or "no risk reported or identified" cases are people whose cases are currently under investigation by local health departments; people who have died, declined to be interviewed or were lost to follow-up; and people whose cases were investigated and no exposure could be identified. As NIR cases are investigated, people are reclassified into the proper exposure category if risk is determined.

An Ever-Changing Epidemic

The AIDS epidemic continues to evolve, making new inroads in vulnerable populations. Women and young people – particularly those of color – are increasingly at risk, joining the two groups historically hardest hit: men who have sex with men and injection drug users.

People of color are disproportionately at risk, as shown in the pie charts below.

- In 1997, HIV prevalence was higher among African Americans than among any other racial or ethnic group surveyed. As Figure 4 below shows, it is estimated that half the men becoming infected are African American and the majority (60%) are MSM.

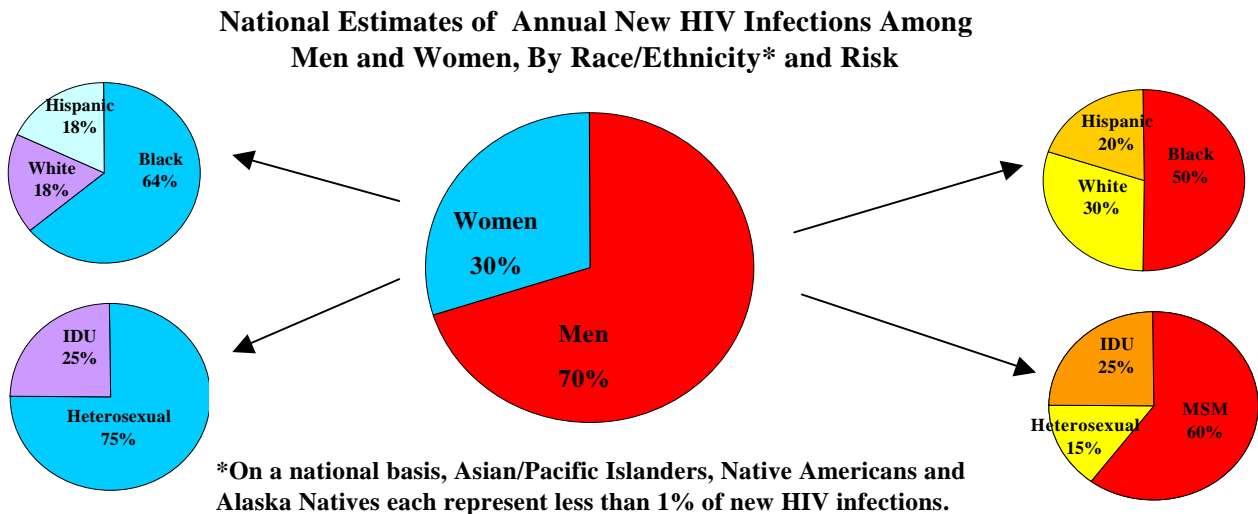


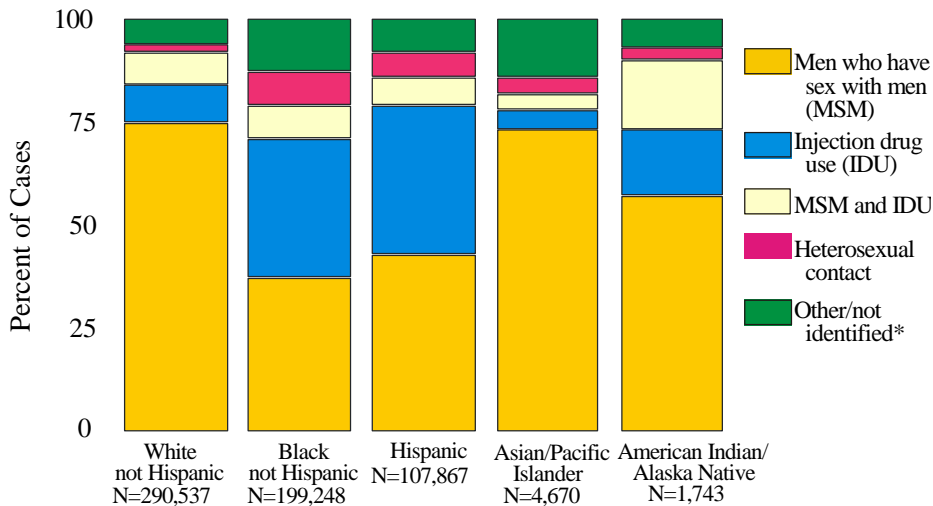
Fig. 4

- In 1999, more African Americans were reported with AIDS than any other racial/ethnic group. Approximately two-thirds (63%) of all women and 42% of all men reported with AIDS in 1999 were African American. African American children represented almost two-thirds of all reported pediatric AIDS cases. In addition to suffering disproportionately from AIDS, African American women are also disproportionately infected with HIV. As shown in Figure 4, above, it is estimated that African American women account for 64% of new HIV infections among women.
- In 1999, Hispanics represented 13% of the U.S. population, but accounted for 19% of the total number of new AIDS cases reported that year. Hispanic women represent 18% of estimated new HIV infections among women and Hispanic men represent 20% of estimated new infections among men (Figure 4).
- Although Asian Pacific Islanders, Native Americans and Alaska Natives represent a small portion of the total number of estimated new infections nationally, the rates of AIDS for those populations demonstrate that HIV/AIDS has made inroads. For example, in 1999, racial breakouts of AIDS incidence among MSM were as follows:

<u>New AIDS Diagnoses Among MSM, 1999</u>	
African American	55.5/100,000
Hispanic	26.8/100,000
Native American	10.9/100,000
White	10.9/100,000
Asian Pacific Islander	5.5/100,000

Men Who Have Sex With Men. Gay and bisexual men of all races remain at alarming risk for AIDS, as shown in Figure 5, below. In fact, risk may again be increasing in some communities, as evidenced by recent outbreaks of sexually transmitted diseases, particularly gonorrhea and syphilis, among MSM. (See Figure 6, next page, and Figures 8 and 9, pages 15 and 16.)

AIDS Cases in Adult/Adolescent Men, by Exposure Category and Race/Ethnicity, Reported through 1999, United States



*Includes patients with hemophilia or transfusion-related exposures and those whose medical record review is pending; patients who died, were lost to follow-up, or declined interview; and those with other or undetermined modes of exposure

Fig. 5

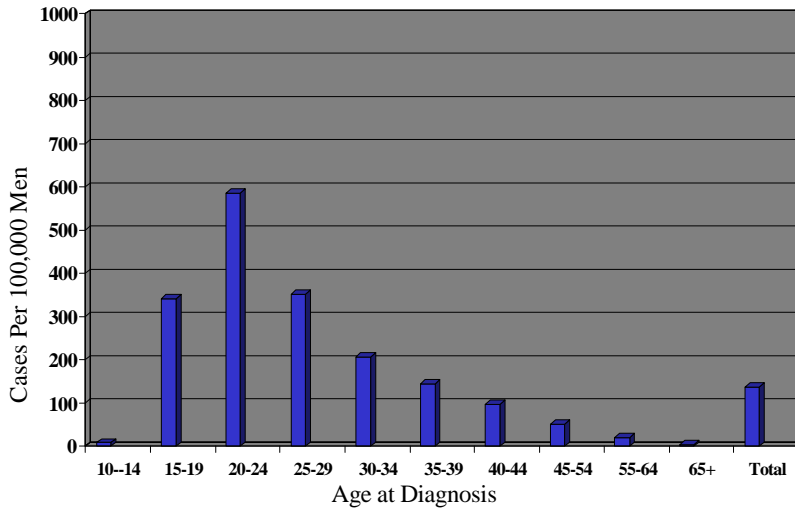
Prevention challenges include risk reduction burn-out among older MSM, mistaken beliefs that HIV is no longer a serious disease, a new generation of young gay and bisexual men who must be reached and the unique cultural issues MSM of color face regarding both their race/ethnicity as well as their sexual orientation. A study by CDC scientists of 1,942 HIV-infected gay and bisexual

men in 12 U.S. cities found that a growing percentage reported engaging in unprotected anal sex.* The proportion of gay and bisexual men who had unprotected anal sex during the previous 12 months rose from 13% in 1995-1996 to 19% in 1997-1998 – an increase of nearly 50%. HIV-infected MSM who had unprotected anal sex were more likely to have multiple partners, use injection drugs or crack cocaine and have fewer than 12 years of education.

* Denning PH, Nakashima AK, Wortley P. Increasing rates of unprotected anal intercourse among HIV-infected men who have sex with men in the United States. Oral presentation. 13th International AIDS Conference, Durban, South Africa. July 2000.

People with Other Sexually Transmitted Diseases From 1998 to 1999, the gonorrhea rate among all men in the U.S. increased by 2.5%, from 132.7 to 136.0 cases per 100,000men.

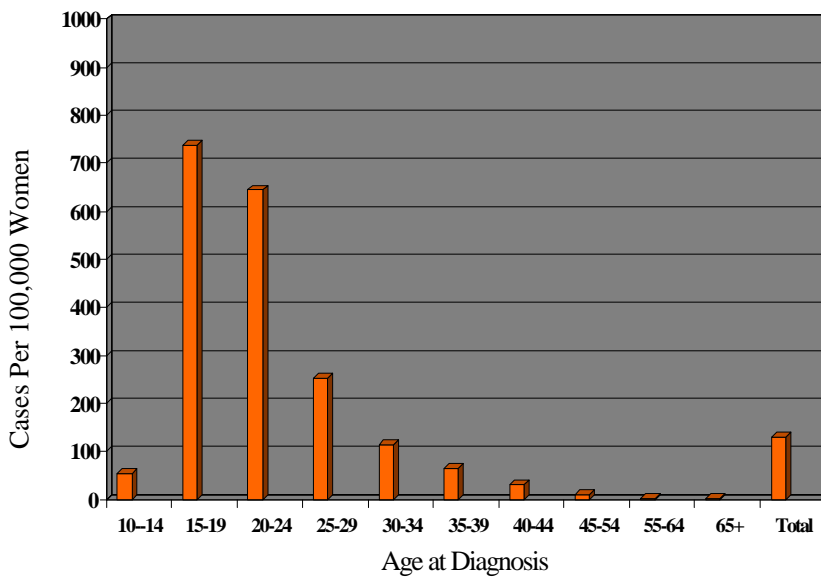
**Gonorrhea: Rates Per 100,000 by Age for Men
United States, 1999**



From: *Sexually Transmitted Disease Surveillance 1999*; Division of STD Prevention, NCHSTP, September 2000

Fig. 6

**Gonorrhea: Rates Per 100,000 by Age for Women
United States 1999**



From: *Sexually Transmitted Disease Surveillance 1999*; Division of STD Prevention, NCHSTP, September 2000

Fig. 7

Reported rates in 1999 (Figure 6) among men were greater than the rates set for Healthy People 2000 in 23 states. The highest rates – an indication of risk behaviors for HIV infection as well as other STDs – were among young men 20 to 24 years old (585.6 per 100,000), with 15- to 19-year-olds and 25- to 29-year-olds also posting high rates (341.1 per 100,000 and 352.3 per 100,000, respectively).

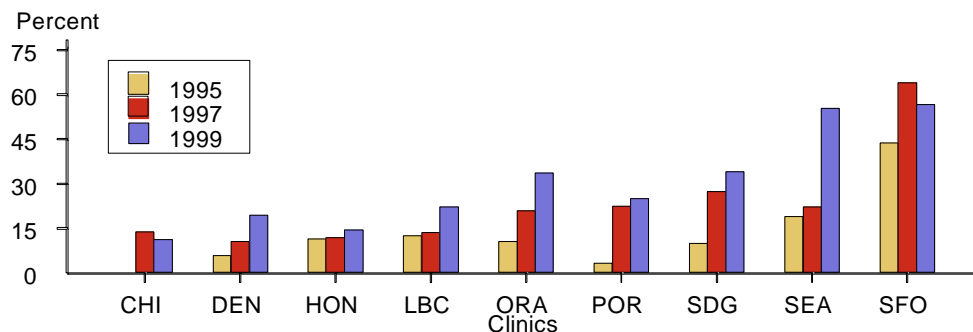
Overall, women’s gonorrhea rate is similar to men’s: 130 per 100,000 for women in 1999 (Figure 7) and 136.1 per 100,000 for men. However, among 15- to 19-year-olds, the rates differ significantly: In 1999, young women’s rate was 738.1 per 100,000 while young men’s was slightly under half that at 341.1 per 100,000. The disparity continued for young adults aged 20 to 24 years: Women’s rate was 644.9 and men’s 585.6 per 100,000. But beginning with young adults 25 and older, the rate of

gonorrhea among men increased to more than that among women: 352.3 to 251.7 per 100,000, respectively.

Women and infants disproportionately bear the long-term consequences of STDs. Women with gonorrhea or chlamydia can develop pelvic inflammatory disease (PID), which, in turn, may lead to adverse reproductive consequences and chronic pain. If not adequately treated, 20% to 40% of women infected with chlamydia and 10% to 40% of women infected with gonorrhea develop PID. Among women with PID, scarring will cause involuntary infertility in 20%, ectopic pregnancy in 9% and chronic pelvic pain in 18%. In women, approximately 70% of chlamydia infections and 50% of gonorrhea infections are asymptomatic. These infections are detected primarily through screening programs. Integrating STD prevention, screening and treatment into HIV programs – and vice versa – is important to women’s overall health and well-being as well as to reducing HIV risks and infections.

Antimicrobial resistance remains a continuing concern in treating gonorrhea. The Gonococcal Isolate Project (GISP) tests samples from 9 urban areas to determine antimicrobial resistance. Figure 8 shows the rising proportion of MSM who have gonorrhea that is resistant to antimicrobial treatment, corresponding to an absolute increase in gonorrhea cases among MSM, indicating ongoing risk for HIV infection as well as other STDs.

Gonococcal Isolate Surveillance Project (GISP) — Percent of *Neisseria gonorrhoeae* Isolates Obtained from MSM in STD Clinics in Nine Cities 1995, 1997 and 1999

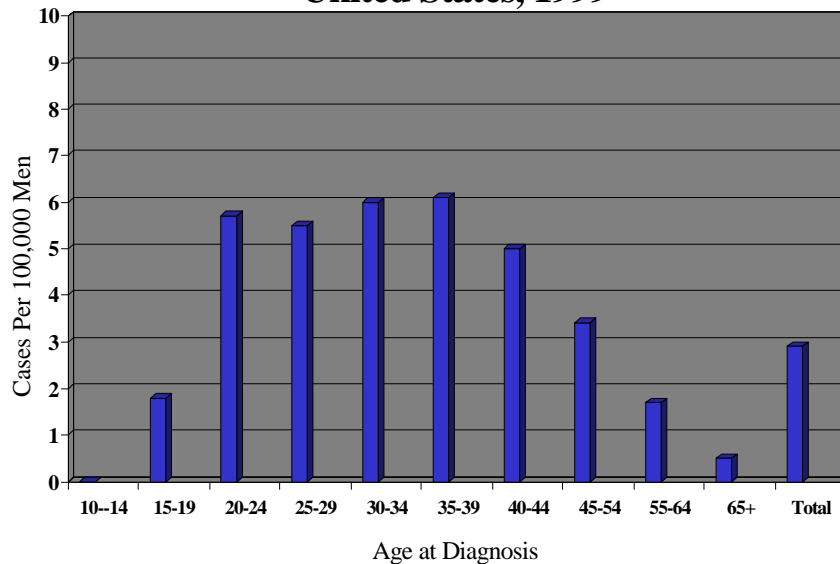


Note: In 1999, these nine clinics reported 83.4% (511/613) of GISP gonorrhea cases in men who have sex with men. Chicago first participated in 1996. Clinics include: CHI=Chicago, IL; DEN=Denver, CO; HON=Honolulu, HI; LBC=Long Beach, CA; ORA=Orange County, CA; POR=Portland, OR; SDG=San Diego, CA; SEA=Seattle, WA; and SFO=San Francisco, CA.

Fig. 8

In addition to gonorrhea, rates of syphilis among men also demonstrate ongoing risk behaviors. (See Figure 9, next page.) In 1999, the reported rate of primary and secondary syphilis among men (2.9 cases per 100,000 population) was 1.5 times greater than the rate among women (2.0 cases per 100,000). The male-to-female ratio of reported syphilis cases has increased since 1994 in all racial and ethnic groups except American Indians and Alaska Natives. The change in the male-to-female ratio was most notable among Hispanics: The 1994 male-to-female ratio was 1.8; in 1999 it was 2.9.

**Primary and Secondary Syphilis:
Rates Per 100,000 by Age for Men
United States, 1999**



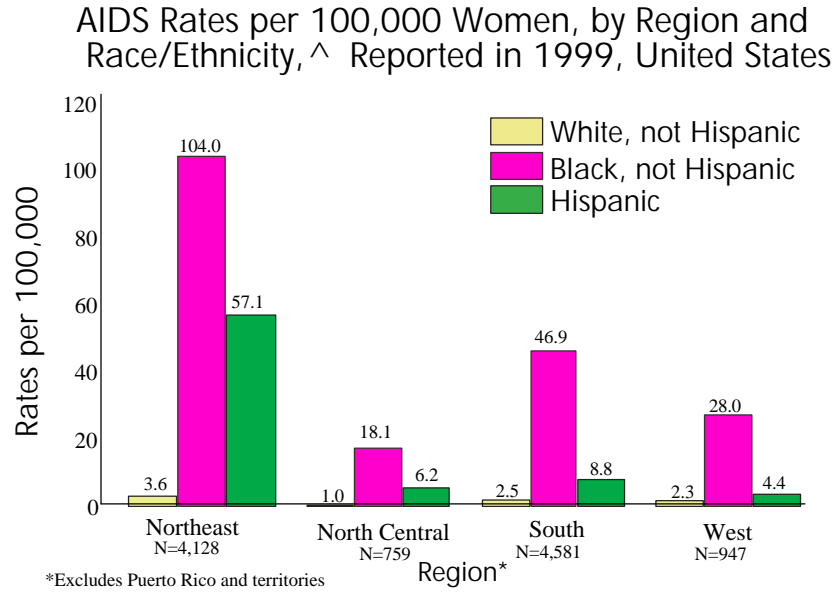
From: *Sexually Transmitted Disease Surveillance 1999*; Division of STD Prevention. NCHSTP.

Fig. 9

The rate of primary and secondary syphilis reported in the United States is at its lowest level since reporting began in 1941. However, syphilis remains a serious public health problem. Syphilis facilitates the transmission of HIV and may be particularly important in contributing to HIV transmission in those parts of the country, such as the South, where rates of both infections are high. Syphilis disproportionately affects persons of color, particularly African Americans. In 1999, the rate of primary and secondary syphilis reported in African Americans (both men and women) was 15.2 cases per 100,000 population – 30.4 times higher than the rate reported in Whites (0.5 cases per 100,000).

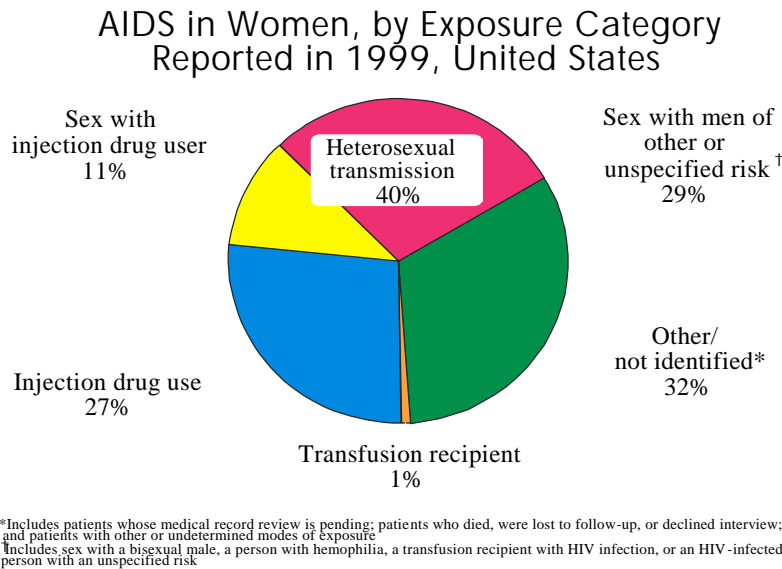
Because of the unprecedented low rates, and the concentration of syphilis cases in a small number of geographic areas (only 22 counties in the nation accounted for 50% of newly reported syphilis cases in 1999), as well as the disproportionate impact on populations of color, the National Plan to Eliminate Syphilis from the United States was developed in 1999. The success of that plan and of this plan to address HIV are interdependent. (For more information on the syphilis elimination plan, see http://www.cdc.gov/nchstp/dstd/Fact_Sheets/Syphilis_Facts.htm.)

Women. In 1992, women accounted for 13.8% of people living with AIDS. By the end of 1998, the proportion had grown to 20%. Figure 10 shows women’s AIDS rates in 1999 by region and by race/ethnicity. AIDS case rates are highest in the Northeast, followed by the South. CDC estimates that between 120,000 and 160,000 adult and adolescent women are now living with HIV infection, including those with AIDS.



^On a national basis, AIDS rates for Asian Pacific Islander, Native American and Alaska Native women are less than 1%.

Fig. 10



Women were typically infected through heterosexual transmission, as shown in the pie chart at left (Figure 11). Women’s injection drug use accounted for approximately a quarter of newly reported AIDS cases in 1999, and sex with an IDU for another 11%. In about a third of cases, the woman’s risk was not determined at the time of the initial AIDS

Fig. 11

report. As cases are investigated and risk is determined, they are reclassified into the proper category.

Young people. It is estimated that about half of all new HIV infections are among young people under age 25, and the majority are infected sexually. In 1999, 1,813 young people ages 13 to 24 were reported with AIDS. Although the overall number of new AIDS diagnoses is declining, due to prevention and to highly effective drug treatment, a CDC analysis of HIV cases diagnosed in 25 states reporting HIV infections from 1994 to 1997 found no comparable decline in newly diagnosed HIV infections among youth. Figures 12 and 13 show AIDS cases reported through December 1999 by gender and age group.

**AIDS Cases By Age and Sex
Reported Through December 1999, United States
13-19 Years**

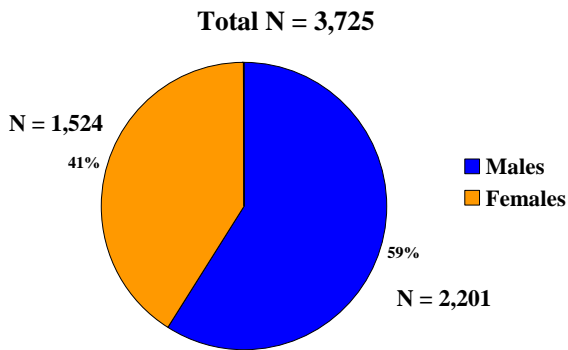


Fig. 12

**AIDS Cases By Age and Sex
Reported Through December 1999, United States
20-24 Years**

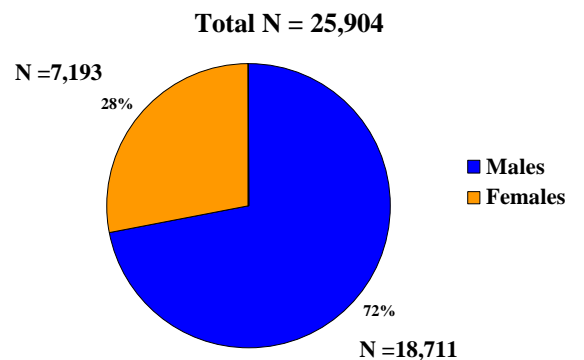


Fig. 13

Injection Drug

Users, their partners and their children account for at least 36% of all AIDS cases reported in the U.S. through 1999, and 31% of the cases reported for that year. As shown in Figure 14, right, most of the IDU-associated AIDS cases are among male injection drug users: 52% are among heterosexual male IDUs, another 13% are among men who have sex with men and inject drugs.

**IDU-Associated AIDS Cases By Exposure
Category Reported in 1999, United States
N = 13,833**

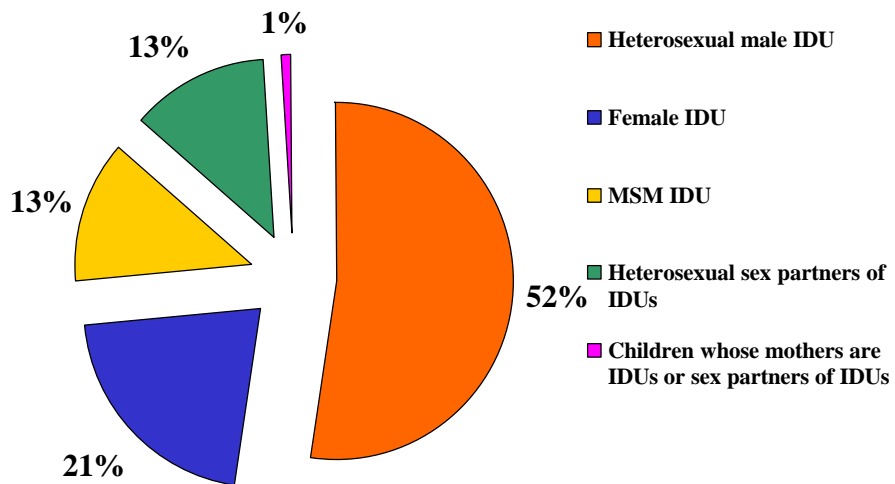
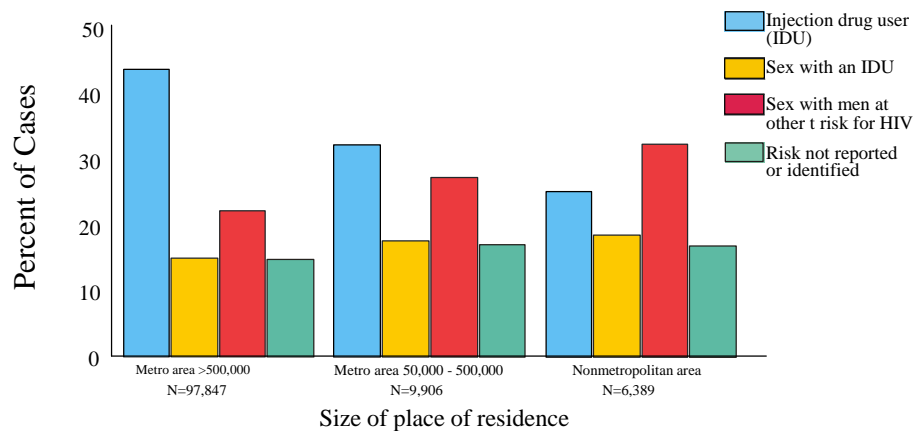


Fig. 14

Female IDUs account for 21% of reported cases. Thirteen percent of IDU-associated cases are among heterosexual partners of an IDU. An additional 1% of cases are in children infected through perinatal HIV transmission by their mothers who are IDUs or are sex partners of IDUs.

Although the HIV/AIDS epidemic among IDUs appears to have slowed in the northeast United States, there are several worrisome trends. An important factor in reducing HIV transmission among drug users has been the shift from injection to snorting heroin and cocaine. However, recent studies suggest an increase in the proportion of heroin users who inject, which would reverse a decade-long decline. This may be related to a possible substantial increase in heroin use among young people, particularly among suburban youth. The contribution that injection drug use makes to the HIV/AIDS epidemic varies by locality. For example, among women, IDU accounts for a larger percentage of AIDS cases in larger metropolitan areas than in rural areas, as shown in Figure 15, below. But sex with an IDU contributes a similar proportion of cases across regions.

Percent Distribution of AIDS Cases in Adult/Adolescent Women, by Size of Place of Residence* and Risk Exposure, Reported through 1999, United States#



*Based on reported residence at AIDS diagnosis; cases with unreported or other risk exposures are included in the totals.

#Data from Puerto Rico, US Virgin Islands and territories are not included in this table.

Fig. 15

HIV Prevention in the United States

HIV Prevention Works

The United States' HIV prevention investments have paid off. Prevention has helped slow the rate of new HIV infections in the United States from over 150,000 in the mid 1980s to around 40,000 per year now – a remarkable decline, but new infections are still unacceptably high. AIDS remains a crisis in the U.S.

Prevention's effectiveness has been proven scientifically. As detailed in CDC's *Compendium of HIV Prevention Interventions with Evidence of Effectiveness*, HIV prevention programs have been effective with a variety of populations: clinic patients, heterosexual men and women, youth at high risk, incarcerated populations, injection drug users and MSM. Interventions have been delivered to individuals, groups and communities, in settings ranging from storefronts to gay bars to health centers to public housing to schools.

For example, effective prevention helped ensure that –

- ◆ HIV seroprevalence among white MSM in the U.S. declined by 50% between 1988 and 1993.
- ◆ HIV seroprevalence among injection drug users in New York City dropped more than 40% during the 1990s.
- ◆ The estimated number of U.S. infants who acquired AIDS from mother-to-child transmission declined 75% from 1992 to 1998.

These prevention successes were accomplished by collaboration among the infected and affected communities, federal agencies, state and local agencies, the private sector, community-based organizations and others. They demonstrate the power of collective effort to stop HIV/AIDS.

But prevention's successes have not been as evident among the populations now at greatest risk, particularly people of color, younger MSM and women. The challenge now is to continue to develop targeted, effective, sustained prevention efforts that build community capacity to deliver ongoing, lifelong prevention programming for those at risk and those already infected.

Successful Prevention Works On a Continuum

Successful prevention efforts avert HIV infection. The most effective prevention works at multiple levels simultaneously – at individual, social network and community levels, as well as at the structural level – addressing the sometimes hidden societal barriers to effective prevention. Successful prevention provides support for healthy decision-making for people at risk for HIV infection and for those who are already infected, to help them avoid spreading the virus to others. (See *Elements of Successful HIV Prevention Programs*, next page.)

The domestic objectives and strategies that follow are designed to optimize the benefits of a continuum of HIV prevention and treatment, as reflected in the goals of the strategic plan. In this continuum:

Individuals use the full array of existing prevention interventions and services to adopt and maintain HIV risk reduction behaviors [Goal 1].



Individuals determine their HIV status through voluntary counseling and testing as early as possible after their exposure to HIV. [Goal 2]



If they test negative for HIV, they use the full array of existing prevention interventions and services to adopt and maintain HIV risk reduction [Goal 1].

If they test positive for HIV, they use quality prevention services and work to adopt and sustain lifelong protective behaviors to avoid transmitting the virus to others [Goals 1, 2 and 3].



If they are HIV-infected, they enter the care system as soon as possible to reap the benefits of ongoing care and treatment [Goal 3].



Once in the care system, they benefit from comprehensive, high quality services, including mental health and substance abuse treatment services; treatment for HIV infection; prevention, prophylaxis and treatment of opportunistic infections and other infections, such as STDs and TB [Goal 3].



In conjunction with their providers and support networks, they work to develop strategies to optimize adherence to their prescribed therapies [Goal 3].

Elements of Successful HIV Prevention Programs

To succeed, HIV prevention efforts must be comprehensive and science-based. The following elements are required for HIV prevention to work:

- ▶ A effective community planning process
- ▶ Epidemiologic and behavioral surveillance; compilation of other health and demographic data relevant to HIV risks, incidence or prevalence
- ▶ HIV counseling, testing and referral and partner counseling and referral, with strong linkages to medical care, treatment and needed prevention services
- ▶ Health education and risk reduction activities, including individual-, group- and community-level interventions
- ▶ Accessible diagnosis and treatment of other STDs
- ▶ Public information and education programs
- ▶ Comprehensive school health programs
- ▶ Training and quality assurance
- ▶ HIV prevention capacity-building activities
- ▶ An HIV prevention technical assistance assessment and plan
- ▶ Evaluation of major program activities, interventions and services

The goals, objectives and strategies of this strategic plan address each of these essential components of a comprehensive HIV prevention program.

Overarching HIV Prevention Issues

A number of issues crosscut all the goals, affecting HIV prevention at all levels. These issues are, in many instances, beyond the traditional purview of public health. However, for HIV/AIDS prevention to succeed, they must be addressed by a broad coalition of prevention partners, including public health, other social services agencies, faith communities, economic development agencies, health care purchasers, the justice system, the private sector and the so-called third sector, or not-for-profit organizations and foundations. Many of the issues that follow will be addressed in the action steps of this strategic plan; CDC will be developing the action steps in consultation with partners. Among the most pressing crosscutting issues are those that follow.

Stigma Hampers Prevention

Stigma associated with HIV/AIDS continues to profoundly affect prevention efforts, leading people to deny risk ... avoid testing ... delay treatment ... and suffer needlessly. While stigma's pernicious effects are perhaps most obvious in countries other than the U.S., where people may be shunned and physically harmed, stigma negatively affects Americans as well. It is found at the structural level, in the form of laws and regulations, as well as more explicitly at community and individual levels.

Homophobia continues to hamper prevention efforts at all levels: from the individual at risk or infected, who may deny his risk because of internal conflicts, to the broader culture, which delivers anti-gay messages, institutionalizes homophobia through structural mechanisms, such as laws that regulate intimate sexual behavior, and lags in its support of sensitive and honest prevention for gay and bisexual youth, young adults and older men.

Stigma associated with addiction and illicit drug use also results in laws and other restrictions on effective prevention. Likewise, persistent social and institutional racism and gender and economic inequities stifle effective HIV prevention. For each of these groups at risk, stigma, stereotyping and prejudice must be addressed for prevention to be most effective. Political leadership and will are necessary to address these underlying issues, so critical to prevention's success. For more on discrimination and stigma, see Appendix A, page 57.

Vulnerable Populations Have Multiple Needs

At home and abroad, HIV continues to stalk our most **vulnerable populations**, people who are marginalized because of race or ethnicity, socioeconomic status, sexual orientation, age or gender. For HIV/AIDS prevention to succeed, the **special needs** and life contexts of those populations must be sensitively addressed, by **culturally competent** programs and staff. Cultural competence must be demonstrated not only by intervention programs and staff, but also by surveillance staff, researchers (and their investigations), as well as by those delivering prevention services, care and treatment programs to those who are HIV-infected. For more on cultural competence, see Appendix A, page 57.

Training, Technical Assistance, Capacity Building Are Required

In addition to cultural competence, CDC must assure that the programs it funds are of **documented prevention effectiveness**. Before holding grantees to this standard, however, the agency must work to ensure that training and technical assistance are available to help grantees succeed in delivering interventions of the highest possible quality. A key component of any quality improvement program will be evaluation – which requires not only training and technical assistance, but also adequate funding – to assess the effectiveness of prevention programming in order to make adjustments as necessary to ensure high quality.

HIV and STD Prevention Must Be Integrated

To succeed, elements of the strategic plan for HIV prevention must be integrated with activities that are being conducted under the strategic plan for other STDs. The four goals of that plan are:

1. Prevent STD-related PID (pelvic inflammatory disease), infertility and ectopic pregnancy.
2. Prevent STD-related HIV transmission.
3. Prevent STD-caused adverse outcomes of pregnancy.
4. Prevent other viral STDs and their complications.

HIV infection and other STDs are linked not only by common behaviors, but also by biological mechanisms. Because other STDs increase both HIV infectiousness and susceptibility, STD prevention is a key HIV prevention strategy:

- Genital ulcer diseases may increase the risk of HIV transmission per sexual exposure 10 to 50 times for male-to-female transmission and 50 to 300 times for female-to-male transmission.
- Nonulcerative STDs (chlamydia and gonorrhea) have been shown to increase the risk of HIV transmission by two-fold to five-fold.
- Treatment of gonorrhea in HIV-infected men reduces the prevalence of HIV shedding in urethral secretions by approximately 50%.

HIV prevention must be integrated with STD prevention, particularly the national plan to eliminate syphilis, which remains a significant public health problem. Integrating HIV and STD prevention efforts is vital to the success of both endeavors. For more on the relationship between HIV and other STDs, see pages 14-17.

Infrastructure Supports Are Required

Finally, to succeed, this plan requires a number of structural supports, including:

- ***Better collaboration*** between and among the various federal agencies with responsibilities for HIV/AIDS, substance abuse and STD prevention, research, care and treatment, including FDA, HCFA, HRSA, IHS, NIH and SAMHSA, as well as among federal, state and local partners. The plan demands continuity of care for persons who are HIV-infected, moving seamlessly from testing and counseling to referral to care and treatment for HIV disease as well as other individual needs, such

as STD treatment, drug treatment and ongoing prevention services. Absent strong linkages between and among programs, this plan cannot succeed.

- ***Private-sector involvement.*** The majority of HIV tests – 80% – are performed in private medical settings rather than in public clinics or hospitals. Private providers also deliver a significant portion of HIV care and treatment. Likewise, almost 50% of STD care occurs in the private sector. Clearly, private-sector providers must integrate HIV and STD prevention into their practices.
- ***Capacity-building*** at all levels. No one knows more about a community than that community itself. CDC has always believed that, with the right kind of scientific support and technical assistance, communities are best able to identify their epidemics and how to fight them. Surveillance information must be refined to give a better local picture and, beyond that, community planning groups, grantees and others will need a more extensive program designed to build local capacity to best address HIV/AIDS prevention needs.
- ***Better measurement.*** Measurement activities will have to be increased to provide baseline data and ongoing evaluation of progress in meeting goals, objectives, strategies and action steps. As is evident in this plan, in many instances baseline data are not available so that explicitly measurable objectives and strategies could be created.
- ***Adequate resources,*** to address currently unmet gaps and needs. At CDC's current funding, the goals of this plan cannot be fully accomplished. (For more information on CDC's HIV budget, see Appendix C, page 65.)

Overarching National Goal

Reduce the number of new HIV infections in the United States from an estimated 40,000 to 20,000 per year by the year 2005, focusing particularly on eliminating racial and ethnic disparities in new HIV infections.

GOAL 1

By 2005, decrease by at least 50% the number of persons in the United States at high risk for acquiring or transmitting HIV by delivering targeted, sustained and evidence-based HIV prevention interventions.

Rationale

Decreasing new infections by half and reducing the number of those at high risk for HIV infection by half are ambitious goals – but they can be accomplished with sufficient resources to deploy interventions of proven effectiveness.

According to current estimates, between 4 million and 5 million people in the United States are at continued behavioral risk for HIV infection.* It is likely that this estimate is lower than the actual number of persons at behavioral risk, because of under-reporting among participants and the sample itself, which was a household survey and so excluded people in institutional settings including schools, prisons and the military.

To cut new infections in half, all the factors that affect an individual's ability to make healthy choices must be addressed. Communities must be better equipped with local data to know who is at risk; they must direct resources to those most at risk; they must have an array of effective interventions available and the capacity to implement and evaluate them at the local level; and they must be able not only to address barriers and deter risky behavior but promote healthy behavior, through a variety of individual and group interventions, community-level supports and structural level changes.

The goal of cutting new infections in half will not be achieved without significant progress in meeting all four of the domestic goals. Reducing the number of persons at behavioral risk is required. Ensuring that all those infected with HIV are aware of their status, in order to receive the benefits of improved HIV therapies as well as the benefits of counseling and support they need to reduce the risk of infecting others, is vital, as described in goal 2. (See page 34.) Additionally, HIV prevention must be integrated with other services, such as STD and TB screening and treatment, reproductive health services, mental health services and drug use prevention and treatment, as described in goal 3. (See page 39.) Those at risk for or living with HIV infection are often also at risk for other health problems. Integrating services, making it

* Anderson JE, Wilson RW, Barker P, Doll L, Jones TS and Holtgrave DR. Prevalence of sexual and drug-related HIV risk behaviors in U.S. adult population: Results of the 1996 National Household Survey on Drug Abuse. *Journal of Acquired Immune Deficiency Syndromes* 1999, 21, pp.148-156.

easier for people to seek and receive care and prevention interventions, will increase effectiveness as well as efficiency. Finally, developing and sustaining the necessary infrastructure – surveillance and the capacity to develop, implement and evaluate prevention programs – is integral to the success of all the domestic goals as well as the overarching goal. (See page 46.)

Notes:

1. **Objectives** are ranked from high (1) to lower (10) priority, based on their potential impact on the epidemic. Even lower priority objectives are considered important elements of comprehensive HIV prevention, and will not be eliminated from the array of CDC-sponsored activities. These priorities may change, based on the dynamics of the epidemic.
2. **Strategies** are rank-ordered from high to lower priority, based on their potential impact on achieving an objective. Detailed action steps will be added to the operational plan. For example, a strategy may call for research to achieve an objective. This does not mean that no research has been carried out in this area. Action steps will specify the additional research required to achieve the objective in question.

Objective 1: Among people living with HIV, increase the proportion who consistently engage in behaviors that reduce risk for HIV transmission or acquisition.

Strategies:

1. Research, develop, implement and evaluate community and structural interventions to reduce stigma, discrimination and domestic violence surrounding HIV infection, focusing particularly on communities of color, whose members may face stigma related to multiple factors including race/ethnicity, immigration status and/or socioeconomic status.
2. Research, develop, implement and evaluate HIV prevention interventions (e.g., individual, couples, groups, community, social marketing and structural level interventions) that address the diversity of individuals and populations living with HIV, as well as their partners, and their special needs, differentiating among those newly infected and those living with infection for more than 6 months.
3. Increase the percentage of infected persons who receive high quality partner counseling and referral services to ensure that partners potentially exposed to HIV receive counseling and testing and, if infected, are referred to appropriate early evaluation and care.
4. Through capacity building and technical assistance, increase the proportion of prevention providers funded by CDC who successfully provide demonstrably effective, culturally competent HIV prevention interventions for the diversity of people living with HIV, differentiating among those newly infected and those living with HIV for more than 6 months.

5. Improve screening, diagnosis and treatment of concomitant STDs, including hepatitis, and TB among persons with HIV infection, particularly those in the corrections system, and improve partner counseling and referral.
6. Research, develop, implement and evaluate evidence-based prevention programs for HIV-infected persons who use alcohol and other drugs (e.g., crack cocaine, crystal methamphetamine).

Objective 2: Among men who have sex with men (MSM), increase the proportion who consistently engage in behaviors that reduce risk for HIV acquisition or transmission.

Strategies:

1. Research, develop, implement and evaluate evidence-based behavioral HIV prevention programs for MSM (including the prevention of reversion to risky behavior by those currently practicing safer sex) – particularly for MSM of color, young MSM, MSM engaged in sex work and men housed in federal, state or local correction systems – as indicated by local HIV/STD epidemiologic data and available behavioral risk data.
2. Improve surveillance of HIV/STD risk behaviors among MSM (gay- and non-gay-identified), bisexual and transgendered/gender variant persons, particularly sex workers.
3. Through capacity building and technical assistance, increase the proportion of prevention providers funded by CDC who successfully provide demonstrably effective, culturally competent HIV prevention interventions for MSM.
4. Improve screening, diagnosis and treatment of STDs among MSM, including those within corrections systems.
5. Research, develop, implement and evaluate community and structural interventions to reduce stigma, discrimination associated with sexual orientation and gender variance.
6. Research, develop, implement and evaluate evidence-based HIV prevention programs for MSM at risk for HIV, including those within corrections systems, who use alcohol and other drugs (e.g., crack cocaine, crystal methamphetamine).
7. Based on local epidemiologic and behavioral data, research, develop, implement and evaluate evidence-based HIV prevention programs for male-to-female transgendered/gender variant male persons who have sex with men, particularly those who engage in sex work for money, drugs or survival.
8. Research, develop, implement and evaluate interventions to address structural-level barriers to effective HIV/STD prevention for MSM.
9. Research, develop, implement and evaluate biomedical HIV prevention programs for MSM, such as vaccines, rectal microbicides and postexposure prophylaxis.

Objective 3: Among adolescents, increase the proportion who consistently engage in behaviors that reduce risk for HIV acquisition or transmission.

Strategies:

1. Research, develop, implement and evaluate evidence-based, *community-based* HIV/STD prevention programs that help adolescents abstain from intercourse, delay intercourse and develop safer sexual practices – particularly for adolescents in high-risk situations, especially out-of-school youth, gay/lesbian/ bisexual/transgender and questioning youth, immigrant youth and youth with limited English proficiency, those who have been sexually abused, youth in detention and foster care, run-away youth, youth engaged in sex work and youth of color.
2. Research, develop, implement and evaluate evidence-based comprehensive *school-based* HIV/STD prevention programs that help all adolescents abstain from intercourse, delay intercourse and develop safer sexual practices, particularly youth of color and gay/lesbian/bisexual/ transgender and questioning youth.
3. Through capacity building and technical assistance, increase the proportion of prevention providers funded by CDC who successfully provide demonstrably effective, culturally competent HIV prevention interventions for the diversity of adolescents at risk.
4. Research, develop, implement and evaluate programs that help reduce adolescents' sexual risk-taking connected with substance use.
5. Improve screening, diagnosis and treatment of HIV and STDs among young people.
6. Integrate HIV/STD prevention into unplanned pregnancy prevention programs for young people.
7. Research, develop, implement and evaluate evidence-based programs for constructive family communication around sexual behavior.
8. Research, develop, implement and evaluate interventions to address structural-level barriers to HIV/STD prevention for youth.
9. Research, develop, implement and evaluate biomedical HIV prevention programs for youth, such as vaccines, topical microbicides (vaginal and rectal) and postexposure prophylaxis.

Objective 4: Among injecting drug users (IDUs), increase the proportion who abstain from drug use or, for those who do not abstain, use harm reduction strategies to reduce risk for HIV acquisition or transmission.

Strategies:

1. Research, develop, implement and evaluate culturally competent HIV prevention interventions targeting IDUs, particularly IDUs of color and those within corrections systems.
2. Through capacity building and technical assistance, increase the proportion of prevention providers funded by CDC who successfully provide demonstrably effective, culturally competent HIV prevention interventions for IDUs.
3. Increase comprehensive services for IDUs, including HIV/STD testing (including hepatitis), substance abuse treatment, methadone maintenance and harm reduction programs to promote non-sharing of injection equipment and use of sterile injection equipment.

4. Provide incarcerated individuals with HE/RR and linkages to HIV, STD and substance abuse prevention and treatment programs, mental health programs and other community-based services.
5. Conduct research and disseminate results on the effectiveness of syringe exchanges programs and other mechanisms for providing sterile syringes to active injectors (e.g., changes in prescription and possession laws).
6. Where syringe/needle exchange programs exist, encourage CDC grantees (who may interact with the same population using the exchange) to provide comprehensive HIV/STD education, HIV counseling and testing and referral to drug and mental health centers, if the syringe/needle exchanges do not.
7. Research, develop, implement and evaluate interventions to address structural-level barriers to effective HIV prevention for IDUs.
8. Research, develop, implement and evaluate biomedical HIV prevention programs for IDUs, such as vaccines, microbicides and postexposure prophylaxis.

Objective 5: Among at-risk sexually active women (including women who have sex with other women), and at-risk heterosexual men, increase the proportion who consistently engage in behaviors that reduce risk for HIV acquisition or transmission.

Strategies:

1. Research, develop, implement and evaluate evidence-based behavioral HIV prevention programs that strengthen the capacity of women, especially women of color and those engaged in sex work, to make and carry out decisions to reduce their sexual risk and increase their protective behaviors (e.g., correct, consistent and appropriate condom use, reductions in higher-risk sexual practices, early diagnosis and treatment of STDs).
2. Through capacity building and technical assistance, increase the proportion of prevention providers funded by CDC who successfully provide demonstrably effective, culturally competent HIV prevention interventions for sexually active women and heterosexual men.
3. Increase the availability and acceptability of female-controlled HIV/STD prevention technology (e.g., microbicides, female condoms, postexposure prophylaxis).
4. Research, develop, implement and evaluate evidence-based behavioral HIV prevention interventions in STD clinics, primary care and family planning settings, especially in communities of color.
5. Research, develop, implement and evaluate evidence-based behavioral HIV prevention programs for heterosexual men, especially men of color and those housed in corrections systems, as indicated by local HIV/STD epidemiologic data and available behavioral risk data.
6. Research, develop, implement and evaluate evidence-based HIV prevention programs for persons at increased risk for HIV who use alcohol and other drugs (e.g., crack cocaine, crystal methamphetamine).
7. Research, develop, implement and evaluate interventions to address structural-level barriers to effective HIV/STD prevention for women.
8. Research, develop, implement and evaluate interventions to address structural-level barriers to effective HIV/STD prevention for heterosexual men.

Objective 6: Increase the proportion of people at highest risk for HIV who are tested for STDs and treated appropriately.

Strategies:

1. Increase awareness among HIV prevention providers of how STDs increase risk of HIV transmission and how to appropriately test and care for patients with STDs, including hepatitis B and C.
2. Increase the proportion of primary care providers who perform routine and periodic testing and provide needed treatment for STDs for people at risk for HIV and living with HIV (including those in correctional facilities).
3. Increase awareness among people living with HIV and people at increased risk for HIV of how STDs increase risk of HIV transmission.
4. Increase access to STD clinical care for people at increased risk for HIV and STDs by expanding service delivery venues to community-based organizations and nontraditional venues.
5. Increase the number of public HIV counseling and testing sites offering voluntary STD screening.
6. Ensure that persons with other STDs receive counseling and voluntary testing for HIV.

Objective 7: Increase the proportion of HIV-infected pregnant women who routinely receive HIV counseling, accept HIV testing and choose to take antiretroviral medication to interrupt perinatal transmission of HIV.

Strategies:

1. Routinize voluntary HIV counseling and testing, with informed consent, for all pregnant women, including those with no prenatal care.
2. Increase HIV-infected women's and HIV-exposed infants' early access to appropriate prevention (including elective cesarean section) and treatment.
3. Through capacity building and technical assistance, increase the proportion of prevention providers funded by CDC who successfully provide demonstrably effective, culturally competent mother-to-child HIV prevention interventions.
4. Increase early and comprehensive prenatal care for all pregnant women, regardless of income, insurance or ability to pay.
5. Research, develop, implement and evaluate interventions to address barriers to the use of antiretroviral medications for perinatal HIV prevention by women at high risk.
6. Assess the acceptability, implementation and effects on testing rates of rapid HIV antibody screening among women in labor who had no prenatal care or who were not tested despite having had prenatal care.
7. Assess the effectiveness of ultrashort antiretroviral regimens for pregnant women who do not obtain care until labor and delivery.
8. Research, develop, implement and evaluate evidence-based mother-to-child transmission prevention programs for HIV-infected pregnant women who use injection drugs, alcohol and other drugs (e.g., crack cocaine, crystal methamphetamine).
9. Research, develop, implement and evaluate interventions to address structural-level barriers to effective mother-to-child transmission prevention.

Objective 8: Support HIV vaccine research.

Strategies:

1. Assist in developing confirmatory testing technology that can distinguish between vaccine-induced and actual HIV infection.
2. Provide investigators with technical assistance to ensure that vaccine trial participants receive the highest quality risk-reduction interventions.
3. Conduct ongoing cohort analyses to ensure that vaccine trial participants are not increasing their risk.
4. Educate communities about vaccine research.
5. Provide guidance and technical assistance to all HIV prevention community planning groups to enable them to assess the impact of vaccine research on the local situation and priorities.
6. Develop appropriate vaccine-related training for counseling, testing and partner notification programs (e.g., the effect of a possible vaccine on people's risk behavior, how to enroll in trials, etc.).
7. Research the effect of possible and actual multiple, large-scale vaccine trials on people's decision-making and risk behavior and develop appropriate prevention interventions.

Objective 9: Reduce the number of workers who are occupationally exposed to and infected with HIV.

Strategies:

1. Encourage the availability and use of effective engineering controls (e.g., engineered sharps injury prevention devices) and personal protective equipment (e.g., gloves) by health care workers.
2. Advocate for interventions in health care facilities (e.g., engineering controls, personal protective equipment, work practices, work organization and health communication strategies) that are effective in reducing exposure to blood and body fluids among health care workers.
3. Implement surveillance systems to track the distribution and determinants of bloodborne exposures (including the surveillance of effective interventions) and their trends over time among health care and other exposed workers in all settings.
4. Encourage the use of work practices that reduce exposures to blood and body fluids by workers and the modification of work organization factors (e.g. staffing and management commitment to safety) that impact exposures to blood in health care facilities.
5. Encourage the use of health communication strategies that convey effective techniques for reducing exposure to blood and body fluids workers.
6. Work with employers and insurers to provide information about postexposure prophylaxis and the importance of seeking appropriate and timely post-exposure counseling and testing, as well as needed treatment to workers (including emergency response workers) who are exposed to blood and body fluids.

Objective 10: Continue to monitor and support the safety of blood, tissue and organ supplies in the United States.

Strategy:

1. Participate in investigations of HIV transmission when it is suspected to have been caused by transfusion or transplantation, and monitor the residual risk of HIV from transfusion and transplantation.
2. Assist in educating at-risk populations on the reasons for self-deferral from donation.
3. Participate in epidemiologic studies on HIV risk factors, and population-based incidence and prevalence determinations to support donor deferral policies.
4. Participate in Department of Health and Human Services meetings, advisory committee meetings, scientific workshops and other venues to evaluate current scientific questions affecting HIV safety of the blood, organ and tissue supplies and develop appropriate guidelines.
5. Participate in defining testing strategies for donor screening.

GOAL 2

By 2005, through voluntary counseling and testing, increase from the current estimated 70% to 95% the proportion of HIV-infected people in the United States who know they are infected.

Rationale

For HIV-infected people to receive the benefits of improved HIV therapies and prophylaxis for opportunistic infections, as well as of client-centered counseling and other behavioral interventions to reduce the risk of infecting others, these individuals need to know their infection status. While all at-risk sexually active people should be encouraged to be counseled and tested for HIV, prevention resources for counseling and testing must be targeted to those whose behaviors place them at increased risk for infection. Because most HIV tests – 80% – are currently performed in the private health care sector (80%), collaborating with those providers is an essential element of this goal.

HIV counseling should not be a barrier to HIV testing, and testing should not be a barrier to counseling. Counseling and testing strategies for those who deny their risk, those who recognize their risk but have not been tested and those who underestimate or are unaware of their risk will all be different. Targeted approaches for each group are essential. Special emphasis should be placed on having youth at high risk learn their status early – and when HIV negative, to maintain that status through prevention.

To achieve the goal of increasing the proportion of HIV-infected Americans who learn their serostatus through high-quality, client-centered voluntary counseling and testing, several crosscutting strategies must be implemented or maintained:

- HIV counseling and testing must remain voluntary and confidential and be provided in ways that address the cultural variations of our nation's diverse communities to maximize the acceptance and delivery of testing services in at-risk communities.
- CDC programs designed to increase knowledge of HIV infection status must be developed in collaboration with national, state and local partners (both government and nongovernmental organizations) and with input from community leaders.
- New rapid testing technologies should be evaluated and adopted to enable testing in nontraditional settings – such as street outreach programs, social venues and public services sites (e.g., welfare offices) – and to provide screening test results during initial patient encounters so that clients do not have to return for test results.
- Partner notification services to identify at-risk individuals who should be offered testing should be increased.
- All public health jurisdictions should ensure the availability of anonymous HIV testing.

Notes:

- a. **Objectives** are ranked from high (1) to lower (4) priority, based on their potential impact on the epidemic. Even lower priority objectives are considered important elements of comprehensive HIV prevention, and will not be eliminated from the array of CDC-sponsored activities. These priorities may change, based on the dynamics of the epidemic.
- b. **Strategies** are rank-ordered from high to lower priority, based on their potential impact on achieving an objective. Detailed action steps will be added to the operational plan. For example, a strategy may call for research to achieve an objective. This does not mean that no research has been carried out in this area. Action steps will specify the additional research required to achieve the objective in question.

Objective 1: Increase the motivation of at-risk individuals to know their infection status and decrease real and perceived barriers to HIV testing.**Strategies:**

1. Research, develop, implement and evaluate strategies to address real and perceived barriers to testing – such as fears concerning being infected/testing positive, stigmatization, criminalization, parental/guardian notification, partner notification, violence, risk of deportation and confidentiality (including the impact of implementing HIV named reporting), concerns about the availability and benefits of care and treatment, as well as cultural and linguistic barriers – at individual, community, societal and structural levels.
2. Improve surveillance to assess specific populations' testing behaviors, differentiating among those who have never tested, those who are repeat testers and those who test frequently.
3. Research, develop, implement and evaluate strategies to address population-specific effects of risk-denial on individual motivation to be tested.
4. Research, develop, implement and evaluate marketing strategies to promote testing (including enhancing the at-risk public's knowledge of primary infection indicators and the benefits of testing) in at-risk groups, focusing particularly on populations of color and special-needs populations, and differentiating among those who have never tested, those who are repeat testers and those who test frequently.
5. Research, develop, implement and evaluate population-specific, culturally and linguistically competent models of voluntary, client-centered HIV counseling and testing, including couples testing, group-based approaches and alternative methods of providing results.
6. Research, develop, implement and evaluate population-specific, culturally and linguistically competent models of integrating STD and HIV counseling and testing.
7. Through capacity building and technical assistance, increase the proportion of HIV prevention community planning groups and CDC-funded HIV counseling and testing providers funded who can capably address barriers to testing among the diversity of people at risk for HIV and living with HIV, but focusing particularly

on communities of color and special-needs populations (e.g., deaf/hard of hearing, homeless, injection drug users, etc.).

8. Support the development and use of tests that do not require needles (e.g., tests of oral mucosal fluids and urine).
9. Increase patient-level interventions to encourage those at risk for HIV infection to request testing.

Objective 2: Improve access to voluntary, client-centered counseling and testing (VCT) in high seroprevalence communities and populations at risk, focusing particularly on populations with high rates of undiagnosed infection.

Strategies:

1. Increase access to anonymous and confidential testing, particularly in communities of color and communities with high HIV incidence or prevalence and/or high rates of other STDs.
2. Through capacity building and technical assistance, increase the proportion of prevention providers funded by CDC who successfully provide demonstrably effective, culturally competent, client-centered HIV counseling programs and voluntary testing programs.
3. Increase the proportion of persons with conditions (e.g., tuberculosis, sexually transmitted diseases and hepatitis C) and/or behaviors (such as unprotected sex and multiple partners, injection drug use) that indicate HIV risk who receive VCT.
4. Evaluate the effectiveness of various types of partner counseling and referral programs in order to increase the proportion of at-risk sexual or needle-sharing partners who are notified of their risk; receive counseling and voluntary testing; return for their test results; and, if infected, are referred to follow-up or, if negative, receive prevention services to reduce their risk.
5. Increase the availability of free or low-cost HIV testing at both clinical and non-clinical sites in high seroprevalence areas, including urgent care centers and emergency rooms, community-based organizations, STD clinics, substance abuse treatment centers and needle exchange programs, other street outreach programs, faith-based service centers, welfare offices and family planning clinics.
6. Support public health agencies in assisting state and local correctional facilities, including juvenile detention facilities and boot camps, as well as probation and parole systems, to provide HIV educational services, HIV counseling and voluntary testing.
7. Increase the proportion of sexually active youth and young adults who are routinely offered HIV counseling and voluntary testing.
8. Increase the proportion of persons with disability who are at risk for HIV infection who are offered HIV counseling and voluntary testing.
9. Improve surveillance to assess rates of testing, testing behaviors and knowledge of serostatus, particularly in communities of color and among special-needs populations.

Objective 3: Increase the number of providers who routinely provide VCT in health care settings (e.g., STD clinics, substance abuse treatment programs, family planning clinics, emergency rooms, community health centers), as well as in nonclinical venues (e.g., social venues, public assistance programs, street outreach).

Strategies:

1. Conduct studies to determine the effects of different pre-test counseling and consent approaches on provider willingness and ability to provide routine VCT.
2. Develop guidance on the health care settings and patient populations for which VCT should be considered a standard of care.
3. Research, develop, implement and evaluate education and training initiatives for physicians, nurses and other health care providers to promote and enhance culturally competent, client-centered, high-quality HIV/STD counseling and testing.
4. Promote VCT for appropriate Medicaid, Medicare and private-sector managed care plan enrollees.
5. Work with health departments and community planning groups to increase funding appropriately for needed VCT services, and promote adequate reimbursement to providers for prevention services.
6. Increase the proportion of providers who routinely provide VCT to patients with another STD.
7. Increase provider recognition of primary HIV infection and awareness of other medical conditions that may also be indicative of HIV disease in order to promote appropriate and timely testing.
8. Increase the proportion of providers who routinely provide VCT to all pregnant women.
9. Research, develop, implement and evaluate provider-level and systems-level interventions to increase HIV testing.
10. Increase the availability of urine-based and oral mucosal fluid HIV testing that can be easily coupled with STD testing using the same specimen.
11. Integrate VCT into CDC's syphilis elimination efforts.

Objective 4: Increase the percentage of people who know their results after testing.

Strategies:

1. Increase the availability and use of rapid tests to provide same-day screening results as well as other mechanisms to reduce turnaround time for results (e.g., oral mucosal fluids and urine tests).
2. Improve surveillance at CDC grantees' sites to assess return rates, attitudes and behaviors, particularly in communities of color and among special-needs populations.
3. Provide capacity building, training and technical assistance to CDC grantees to increase rates of return.
4. Research, develop, implement and evaluate patient incentives and other strategies to increase return rates.
5. Evaluate the impact of various forms of pretest counseling on client readiness to test, client satisfaction and return rates of seropositive persons; provide training and guidance regarding optimal counseling content, delivery, messenger and context in order to increase return rates.

6. Increase follow-up for seropositive individuals who do not return for their results, including pregnant women in prenatal care.

GOAL 3

By 2005, increase from the current estimated 50% to 80% the proportion of HIV-infected people in the United States who are linked to appropriate prevention, care and treatment services.

Rationale

All infected people – regardless of when in the course of their illness they become aware they have HIV – are included in the following objectives and strategies. Clearly, it is ideal for people to begin treatment as soon as possible after infection. But many individuals may be infected with HIV for some time before seeking treatment and prevention services. The tactics to reach those who are newly infected and those who have been living with infection but have been out of care are different and are described differently in the following objectives and strategies. *While tactics may differ, what remains constant is the universal requirement that CDC coordinate and collaborate with other public health agencies, such as the Health Resources Services Administration, Health Care Financing Administration and the Substance Abuse and Mental Health Services Administration, as well as other federal partners, and with the private medical sector, including professional organizations, to achieve the objectives and strategies for this goal.*

Goal 3 also seeks to address two complementary but distinct types of services for people infected with HIV – services directed toward supporting their efforts to prevent further transmission and services directed toward their care and treatment. CDC does not have responsibility for care for infected individuals. In the public sector, that responsibility belongs to HRSA and HCFA. CDC is responsible, however, for HIV prevention – and prevention programs for individuals who are already infected are an important way to avert further infections. Thus, many of the objectives and strategies that follow call for CDC to coordinate with other agencies whose chief responsibilities are care, in order to institute the ongoing counseling and prevention messages that are needed throughout care. Recent outbreaks of syphilis and gonorrhea among HIV-infected MSM and evidence that some HIV-infected patients on multi-drug therapy are reverting to unsafe sex practices attest to the importance of ongoing prevention for HIV-infected individuals and suggest that prevention is likely to be an efficient use of resources to prevent HIV transmission as well as to keep HIV-infected individuals healthy.

Effective prevention efforts must address the spectrum of needs of those who are infected. Care for HIV-infected individuals must be comprehensive and reflect the fact that counseling for mental health, substance abuse and social service needs and linkage to required services helps the prevention effort and is also the right thing to do.

Notes:

1. **Objectives** are ranked from high (1) to lower (10) priority, based on their potential impact on the epidemic. Even lower priority objectives are considered important elements of comprehensive HIV prevention, and will not be eliminated from the array of CDC-sponsored activities. These priorities may change, based on the dynamics of the epidemic.
2. **Strategies** are rank-ordered from high to lower priority, based on their potential impact on achieving an objective. Detailed action steps will be added to the operational plan. For example, a strategy may call for research to achieve an objective. This does not mean that no research has been carried out in this area. Action steps will specify the additional research required to achieve the objective in question.

Objective 1: Reduce the disparities in access to prevention and care services that are experienced by communities of color, women and special-needs populations.**Strategies:**

1. Develop and implement research, involving the HIV-infected populations to be studied, that identifies and addresses health-seeking, sociocultural, economic and service system barriers that impede linkages to prevention services, particularly for communities of color and special-needs populations.
2. Promote cultural and linguistic competence in CDC-funded prevention programs for HIV-positive persons.
3. Build the capacity of prevention providers serving HIV-infected persons of color to deliver culturally and linguistically competent prevention services.
4. Research, develop, implement and evaluate innovative strategies to enhance referral and comprehensive treatment programs for drug-using pregnant women.
5. Develop the capacity for persons of color, women and special-needs populations to submit proposals to CDC that address prevention service and applied research needs of HIV-infected minorities, women and others with special needs.

Objective 2: Integrate prevention services, including adherence to treatment, for persons diagnosed with HIV and AIDS into the delivery of patient care in both public and private sectors.**Strategies:**

1. Research, develop, implement and evaluate models for integrating ongoing prevention, care, treatment and other support services for HIV-infected persons.
2. Incorporate appropriate care elements into prevention planning and prevention elements into Ryan White Planning Councils.
3. Develop recommendations and a program for limited, targeted directly observed antiretroviral therapy (DOT) and DOT-friendly HAART plus OI prophylaxis regimens.

4. Develop epidemiologic tools that use HIV-related laboratory reporting for surveillance purposes, such as viral load, CD4+ count and HIV resistance testing, to analyze patterns of HIV care delivery and HIV resistance to help target outreach to providers and patients.
5. Build prevention interventions into the professional training curricula and activities of HRSA's AIDS Education and Training Centers.
6. Incorporate HIV prevention and treatment modules into medical and health sciences professional education.

Objective 3: Increase the proportion of persons who have been diagnosed with HIV who are successfully linked to culturally competent, science-based prevention services.

Strategies:

1. Conduct research and demonstration programs to develop, implement and evaluate models and best practices for conducting HIV needs assessment, including the need for ongoing integrated services such as mental health or substance abuse treatment and social services.
2. Develop policies and provide training, technical assistance and capacity building to assist HIV prevention community planning groups in identifying effective methods and best practices to successfully link HIV-infected persons to culturally and linguistically competent, science-based prevention services.
3. Provide training, technical assistance and capacity building in conducting HIV needs assessment and making needed referrals.
4. Ensure that HIV-infected persons tested in CDC-funded sites obtain a comprehensive needs assessment and referral to prevention case management as needed no later than 3 months after learning their HIV status.
5. Encourage the establishment and maintenance of prevention service components in public HIV/AIDS outpatient clinics.
6. Through technical assistance, increase the capacity of public and private HIV care providers (physicians, physician assistants, nurses in public and private settings) to provide brief behavioral prevention counseling to HIV-infected persons and to refer them to community-based organizations for further counseling as needed.
7. Develop approaches to monitoring HIV-infected patients' linkage to prevention services.
8. Integrate HIV prevention services into public and private health care systems that serve persons with HIV/AIDS, including the incorporation of performance measures into managed care contracts.
9. Increase the capacity of religious and other community-based organizations to provide HIV prevention and support services for people with HIV/AIDS.
10. Promote the benefits of and provide technical assistance to large employers and employee health benefit purchasing coalitions to include language on HIV prevention in their managed care contracts.
11. Encourage organizations that accredit and license hospitals, correctional facility medical units and other health care facilities to incorporate HIV prevention into their accreditation standards.

Objective 4: Promote the optimal level of medical services for patients diagnosed with HIV to benefit individual health and reduce the likelihood of further transmission of HIV.

Strategies:

1. Examine treatment patterns and characteristics of individuals receiving and providers offering differing levels of treatment; use this information to provide guidance to practitioners concerning best practices and to develop recommendations for implementing care among diverse populations to achieve maximum individual and public health benefits from science-based treatments.
2. Monitor and assess pretreatment antiretroviral drug resistance among persons linked to care.
3. Continue to assess the utility of highly active antiretroviral therapy (HAART) as a means of preventing transmission of HIV and provide recommendations as needed.

Objective 5: Increase the proportion of persons diagnosed with HIV who are successfully linked to medical care no later than 3 months after learning their HIV status or re-identified as being HIV-infected but out of care.

Strategies:

1. Publish guidelines for best practices for enhancing successful linkage from post-test counseling to care and patient use of recommended medical services.
2. Develop policies and provide training, technical assistance and capacity building to assist HIV prevention community planning groups in identifying effective methods and best practices to successfully link HIV-infected persons to care.
3. Conduct research to determine the extent to which newly diagnosed HIV-infected persons successfully receive initial medical evaluation – including screening, diagnosis and treatment of concomitant STDs, TB and pregnancy – and to identify methods of enhancing linkage to care.
4. Conduct research to determine why individuals who were previously diagnosed with HIV but who are currently out of care did not initially access or remain in medical care, and develop interventions to enhance referral and linkage to care.
5. Conduct surveillance to monitor the linkage of HIV-infected persons from CDC-funded counseling and testing sites into care as well as attitudes and behaviors of those who were not linked to care, those who were successfully linked to care and those who were linked but did not remain in care.

Objective 6: Increase the proportion of correctional facility detainees (incarcerated for at least 30 days) identified as HIV-infected who are provided HIV prevention, treatment and care services and who, upon release, are successfully linked to those services in the communities to which they return.

Strategies:

1. Promote comprehensive HIV needs assessments for HIV-infected detainees and promote the provision of services (including partner counseling and referral) that are indicated to prevent HIV and associated diseases such as other STDs, TB, hepatitis C and other communicable diseases.
2. Promote programs to provide culturally competent pre-release discharge planning and linkage to community-based organizations for follow-up and needed case management services.
3. Provide resources and support for public health agencies and/or directly funded community organizations to ensure that identified HIV-infected persons released from correctional facilities are successfully linked to ongoing prevention, care, mental health, substance abuse and community services within their communities.
4. Assist in ensuring that HIV-infected pregnant women who are incarcerated are offered care and treatment to prevent mother-to-child transmission of HIV.
5. Provide resources and/or support to public health and criminal justice agencies and CBOs to facilitate access to education, counseling, voluntary testing and early intervention services for identified HIV-infected individuals in alternative sanction programs (e.g., drug courts) and probation programs.
6. Increase support for HIV-related services and reduce structural impediments to effective prevention (e.g., condom bans) for inmates by demonstrating to key public health, criminal justice and community policy makers the economic, individual and public health benefits of preventing, identifying and treating HIV, STD and TB among incarcerated populations.
7. Evaluate the extent of provision of HIV prevention services to incarcerated persons and linkage of inmates to prevention and care services upon release.

Objective 7: Increase the proportion of HIV care providers offering routine, periodic STD screening and treatment to HIV-infected clients.

Strategies:

1. Increase awareness of HIV prevention providers of how STDs (including hepatitis B and C) increase the probability of HIV transmission and acquisition and how to appropriately test and care for patients with STDs.
2. Increase the proportion of primary care providers for people with HIV who perform initial as well as ongoing, periodic risk assessment and STD screening and ongoing treatment as part of routine clinical care for HIV-infected persons in public, private and correctional settings.
3. Increase the number of HIV counseling and testing sites offering voluntary STD screening.
4. Provide training, technical assistance and capacity building to assist HIV prevention community planning groups in identifying effective methods and best practices to

- successfully link HIV-infected persons to appropriate STD screening and treatment services.
5. Increase awareness among people living with HIV of how STDs increase the probability of HIV transmission and acquisition.
 6. Increase access to STD clinical care for people at increased risk for HIV and STDs by expanding service delivery venues to community-based organizations, substance abuse and mental health treatment centers and nontraditional venues.
 7. Better define the incidence of curable STDs in HIV-infected persons; assess extent to which current STD screening and treatment guidelines are being followed, and develop and issue recommendations on the frequency of screening HIV-infected persons for those STDs.
 8. Recommend that all CDC-funded clinics counsel or refer for prevention counseling and partner counseling and referral services all HIV-infected persons who are newly diagnosed with an STD.

Objective 8: Increase the proportion of HIV care providers offering routine, periodic TB screening and treatment to HIV-infected clients.

Strategies:

1. Increase awareness of HIV care providers of how TB impacts health of patients with HIV disease.
2. Increase the proportion of primary care providers for people with HIV who perform TB screening and ongoing treatment as part of routine clinical care for HIV-infected persons in public, private and correctional settings.
3. Increase awareness among people living with HIV of how TB impacts the health of people with HIV disease.

Objective 9: Increase the proportion of persons diagnosed with HIV, including pregnant women, and needing substance abuse treatment services who are successfully linked to those services.

Strategies:

1. Research, develop, implement and evaluate the effectiveness of different approaches for identifying needs and successfully linking HIV-infected persons to needed substance abuse treatment services.
2. Provide training, technical assistance and capacity building to ensure that HIV prevention community planning groups effectively identify and collaborate with state and local substance abuse agencies and with activities and programs related to SAMHSA's block grant programs to provide comprehensive integrated services to persons who need them.
3. Develop approaches to monitoring linkage to substance abuse treatment services.
4. Develop approaches to encourage women living with HIV who are pregnant and using illicit drugs to seek substance abuse treatment and prenatal care services.

5. Promote the use of best practices to involve drug users in the planning and implementation of programs designed for drug users, their sex partners and children.
6. Facilitate technical assistance for states and regions that need assistance in developing programs for clients who need substance abuse services as part of their HIV prevention portfolio.
7. Provide appropriate information to SAMHSA to assist in estimating the size of the treatment gap for substance users who are HIV-infected.

Objective 10: Increase the proportion of persons diagnosed with HIV and needing social and mental health services who are successfully linked to those services.

Strategies:

1. Provide capacity building, training and technical assistance to increase the ability of CDC-supported HIV prevention counselors to identify needs and link clients to culturally and linguistically competent social and mental health services.
2. Facilitate peer-to-peer technical assistance between states and regions that need assistance in developing programs for clients who need social and mental health services as part of their HIV prevention services.
3. Increase the number of community coalitions that work on mental health, HIV prevention, HIV care and substance abuse issues to develop systems for broadening and referring newly diagnosed HIV-infected persons into culturally and linguistically competent social or mental health services as needed.
4. Promote the availability of services to those within the purview of the justice system.
5. Increase the availability of prevention services within culturally and linguistically competent mental health services appropriate for age, gender, sexual orientation and education level for people with both HIV disease and mental health disorders.

GOAL 4

By 2005, strengthen the capacity nationwide to monitor the epidemic, develop and implement effective HIV prevention interventions and evaluate prevention programs.

Rationale

There are six essential public health mission areas:

1. Surveillance
2. Program service delivery
3. Evaluation
4. Research
5. Technical assistance
6. Policy development

The first three domestic goals in this plan deal in large part with program service delivery, policy development and research. However, to ensure that service delivery organizations have the capability to put effective interventions in the field, to target the interventions to where they are needed most and to continuously monitor and improve the quality of the programs, attention must be paid to the other three critical mission areas as well. Without capacity building, surveillance and program evaluation, we cannot ensure that programs can be delivered; we cannot ensure that programs and services are targeted to those who most need them; and we cannot assure that programs are as effective as they can possibly be.

CDC and its prevention partners already do a great deal of work in these three mission areas. But all of them need to be strengthened, updated and intensified.

This fourth goal lays out a vision for strengthening the public health infrastructure in these three critical areas. The goal does not contain a biologic outcome measure because it is fundamental to the achievement of the first three goals. Absent the success of the objectives in this goal, the other three domestic goals and the overarching goal will be difficult, if not impossible, to achieve.

Notes:

1. **Objectives** are ranked from high (1) to lower (3) priority, based on their potential impact on the epidemic. Even lower priority objectives are considered important elements of comprehensive HIV prevention, and will not be eliminated from the array of CDC-sponsored activities. These priorities may change, based on the dynamics of the epidemic.
2. **Strategies** are rank-ordered from high to lower priority, based on their potential impact on achieving an objective. Detailed action steps will be added to the operational plan. For example, a strategy may call for research to achieve an objective. This does not mean that no research has been carried out in this area. Action steps will specify the additional research required to achieve the objective in question.

Objective 1: Develop an integrated surveillance system to measure incidence of new infections, to track the prevalence of disease, to monitor behaviors that place people at risk for HIV infection and to provide locally relevant data for community planning.

Strategies:

1. Develop a monitoring system to estimate the number of new infections occurring each year in the U.S. (HIV incidence).
2. Develop a system to track disease, including prevalence of HIV, AIDS and other STDs, incidence of AIDS and STDs, HIV drug-resistance and care utilization.
3. Research, develop and implement measures of the prevalence of HIV and STD risk behaviors to help quantify progress in achieving the behavioral objectives presented in this plan.
4. Ensure that baseline data and ongoing monitoring data are collected to measure progress in meeting the goals, objectives, strategies and action steps of this strategic plan.
5. Develop guidelines and provide support for systems to assist state and local health departments and education departments to better assess risk factors and the social context of HIV/AIDS, STDs and behavioral risk information and to communicate these findings in useful ways to HIV prevention community planning groups, CBOs and other HIV prevention and care providers.
6. Provide technical assistance and resources to state and local health and education departments to assure high-quality incidence, prevalence and behavioral monitoring systems.
7. Conduct studies of HIV incidence in special populations, including populations at high risk for infection (e.g., young MSM, incarcerated persons); groups for whom surveillance data are lacking or incomplete (e.g., persons with disability; Asian and Pacific Islanders, Native Americans and Alaska Natives; transgendered persons); and other special-needs groups (e.g., pregnant women and teens).
8. Explore options for integrating HIV surveillance data with other relevant and important data systems, such as STD and TB surveillance.

Objective 2: Increase the number of evidence-based interventions and the proportion of prevention providers funded by CDC who successfully provide demonstrably effective HIV prevention interventions.

Strategies:

1. Promote a collaborative partnership model of sustained intervention research, to develop and test best interventions and disseminate them among prevention providers, affected populations, federal partners health departments, community planning groups, education departments and researchers.
2. Fund evaluations of field-based intervention programs with strong prevention reputations to identify additional effective interventions.
3. Conduct field efficacy trials of proven interventions implemented by non-researcher prevention programs.
4. Identify and address gaps and deficiencies in HIV prevention science, especially for target populations with fewer interventions of documented effectiveness, such as MSM of color and transgender persons.
5. Develop and support multiple mechanisms for identifying, evaluating and communicating best practices from the field (i.e., in nonresearch, service-provision settings) to community planning groups, directly funded CBOs and other prevention partners.
6. Fund intervention research projects with CBOs and health departments and require them to have a plan to sustain the interventions after the research projects end, whenever researched interventions are shown to be effective.
7. Institute evaluation and feedback to CDC on its technology transfer/diffusion, technical assistance and capacity-building initiatives.
8. Establish a mechanism(s) for ongoing dialogue and communication between CDC, CBOs, federal partners, health departments, community planning groups and researchers about technology transfer/diffusion.
9. Strengthen CDC grantees' organizational capacity to develop, implement and evaluate effective interventions.
10. Provide technical assistance to HIV prevention community planning groups on effective interventions.

Objective 3: Support realistic and feasible evaluation efforts to ensure the delivery of interventions of the highest possible quality.

Strategies:

1. Fund rigorous process, outcome and impact evaluation for HIV prevention programs and provide technical assistance to facilitate adoption of programs with proven effectiveness.
2. Work with other federal partners funding HIV prevention to standardize process and outcome evaluation protocols and institute minimum standard process evaluation measures consistent with evaluation requirements of other federal partners funding HIV prevention.

CDC's International HIV/AIDS Activities

Since the beginning of the worldwide AIDS pandemic, CDC has been involved in international research and prevention activities. Recently, to better address HIV/AIDS globally, the U.S. government joined the International Partnership Against HIV/AIDS in Africa (IPAA). A key component of U.S. participation in the IPAA is *Leadership and Investment in Fighting an Epidemic* (LIFE), a program that expands the U.S. government's response to the growing HIV/AIDS pandemic in Africa and India. For fiscal year 2000, the LIFE Initiative provided a \$100 million increase in U.S. support for HIV/AIDS prevention, care and treatment in 14 countries and three regional programs in India and in Sub-Saharan Africa in these countries: Botswana, Cote d'Ivoire, Ethiopia, Kenya, Malawi, Mozambique, Nigeria, Rwanda, Senegal, South Africa, Tanzania, Uganda, Zambia and Zimbabwe.

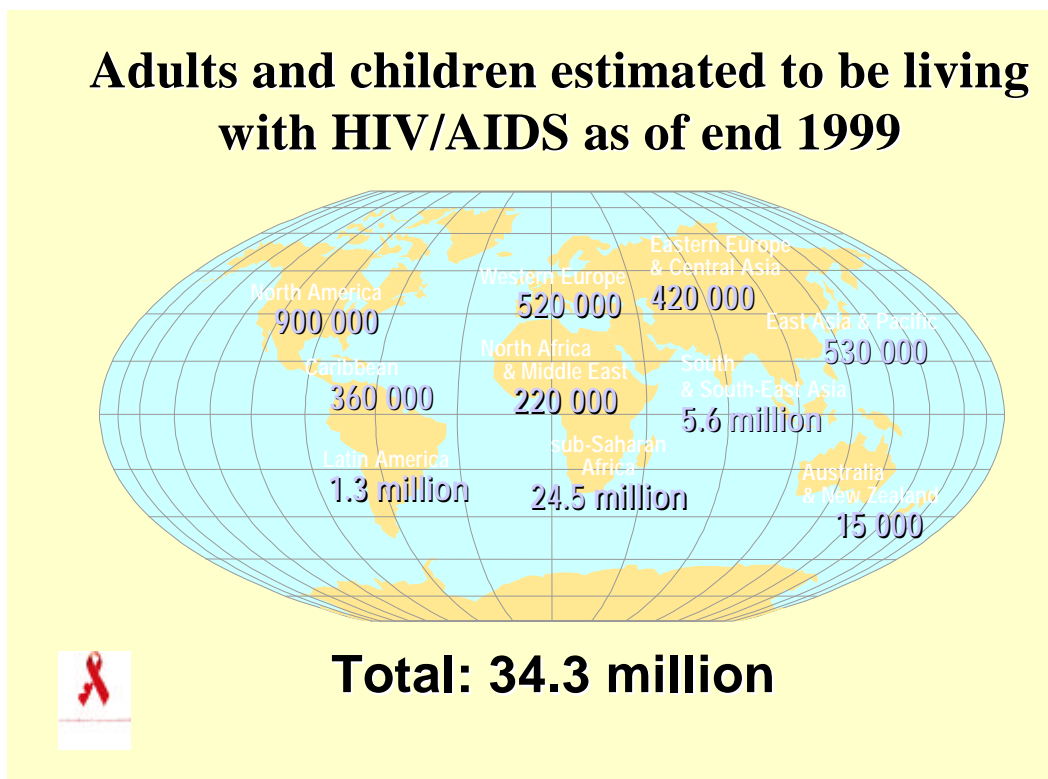


Fig. 16

The LIFE Initiative is a broad, multiagency effort that encompasses the U.S. Agency for International Development (USAID), the U.S. Department of Health and Human Services, the Department of Defense, the Department of Commerce and the Department of State. USAID takes the lead in facilitating and coordinating LIFE activities. USAID, providing development and humanitarian assistance worldwide, has since 1986 through its missions and regional programs, dedicated over \$1.4 billion to the prevention and mitigation of the AIDS epidemic in 46 countries. USAID provides technical and financial resources to government and NGO partners for locally appropriate services for prevention and treatment of HIV and sexually transmitted diseases.

Two DHHS agencies are currently involved in LIFE: CDC and HRSA. CDC, the U.S. agency charged with preventing disease, injury, and disability, has been at the forefront of the U.S. effort to determine how HIV is transmitted and to educate the American public on how to prevent HIV. CDC has a long history and an extensive network of international collaborators in disease prevention and control as well as experience partnering with USAID on health initiatives. HRSA has broad experience providing health and social services in the U.S. for vulnerable children and for individuals and families affected by HIV/AIDS.

Worldwide HIV/AIDS Goals

UNAIDS, in cooperation with USAID and other bilateral and multilateral partners, has laid out a series of international goals for the next five years. These goals represent the result of the total worldwide contribution of resources and effort. The United States seeks to support these goals through the LIFE initiative:

- The incidence of HIV infection will be reduced by 25% among persons 15 to 24 years old by 2005.
- At least 75% of HIV-infected persons will have access to basic care and support services at the home and community levels, including drugs for common opportunistic infections (TB, pneumonia and diarrhea).
- Orphans will have access to education and food on an equal basis with their nonorphaned peers.
- By 2002, domestic and external resources available for HIV/AIDS efforts in Africa will have doubled to \$300 million per year.
- By 2005, 50% of HIV-infected pregnant women will have access to interventions to reduce mother-to-child HIV transmission.

Host Country Ownership

A guiding principle of the LIFE initiative is the commitment of the host country and its ownership of LIFE activities. USAID and CDC will conduct only those prevention, care, and/or treatment activities that assist countries in their own national strategic plans for HIV/AIDS prevention, care and support. Specific LIFE activities and objectives are being delineated at the country level through consultation with country governments, NGOs and other donors, coordinated by the USAID mission and responsive to host country priorities and objectives. All activities will be carried out by local experts and stakeholders, including people living openly with HIV/AIDS. All activities are designed to strengthen existing efforts and institutions. USAID and CDC also expect this collaboration to provide a wealth of best practices and ideas that can then be exchanged and used as appropriate both in LIFE countries and in the U.S.

Other CDC International Activities

In addition to its work within the LIFE partnership, CDC continues to conduct collaborative research and prevention interventions with other host countries. Through collaborative agreements with governments of Côte d'Ivoire (Projet RETRO-CI), Thailand (HIV/AIDS Collaboration) and Uganda, as well as in multiple other settings, CDC supports

HIV/AIDS research field stations and participates in studies designed to increase our understanding of the epidemiology of HIV-1 and HIV-2 infections and to facilitate prevention and care efforts in the host countries and the United States. Specific research areas include the following:

- ***Reducing mother-to-child (perinatal) HIV transmission in developing countries*** around the world, where 1,600 babies are born with HIV or infected through breastfeeding each day. Collaborative research by CDC, the Thai Ministry of Public Health, and Mahidol University demonstrated that a short course of zidovudine (also known as AZT) given late in pregnancy and during delivery reduced the rate of HIV transmission to infants of infected mothers by half in the absence of breast-feeding and is safe for use in the developing world. A one-third reduction in early transmission was found with the same regimen in a breast-feeding population in Abidjan. The findings offer real hope to many developing nations that previously had no realistic options for preventing HIV-infected pregnant women from transmitting infection to their babies. CDC is now working with host countries and public health agencies worldwide (including UNICEF, UNAIDS, WHO) to help implement the short-course AZT regimen as widely as possible and to examine even newer interventions, such as single-dose treatment with nevirapine. Researchers also continue to study other factors of mother-to-child HIV transmission; for example, breastfeeding's role in HIV transmission in developing countries, where breastfeeding is an important source of nutrition for newborns, and the benefit and feasibility of replacement feeding or early weaning for infants of HIV-infected mothers in different settings.
- ***Developing effective interventions for high-risk populations*** in Côte d'Ivoire and Thailand. Researchers have collaborated with host countries to implement and evaluate HIV prevention interventions among injection drug users, female sex workers, and other populations at risk to provide them with the knowledge and support needed to protect themselves from HIV infection. Many of these interventions have proven effective, particularly programs to increase condom use and treat sexually transmitted diseases among female sex workers.
- ***Identifying possible factors that may confer immunity to HIV.*** Collaborating researchers from CDC and the Thai and Ivorian Ministries of Public Health are working to determine how certain groups of female sex workers have remained uninfected despite numerous exposures to HIV. Initial research looked at possible genetic characteristics that might lead to immunity in certain individuals, and current research focuses on the role the immune response to HIV may play in protection from infection. Researchers believe this research could have important implications for the future development of an HIV vaccine.
- ***Working to reduce the impact of HIV/AIDS in developing countries through practical treatment regimens.*** A joint study by CDC and Côte d'Ivoire's Ministry of Public Health found the first evidence that trimethoprim/sulfamethoxazole (TMP/SMX) (commonly referred to as cotrimoxazole, Bactrim, or Septra) can significantly reduce the rate of death among HIV-infected tuberculosis patients in Africa. Data from the study demonstrated a 48% reduction in mortality and a 44% reduction in hospitalizations among HIV-infected tuberculosis patients who took TMP/SMX in addition to TB medication. These findings offer a realistic option to help reduce deaths from HIV in the developing world.

- ***Conducting genetic analyses and collecting surveillance data*** on genetic variations and drug resistance of HIV strains in host countries. Because of the increasing spread of HIV subtypes across international borders, these data may have implications for developing HIV vaccines and for promptly detecting and treating different HIV strains worldwide.
- ***Gathering surveillance data on HIV/AIDS trends among sentinel groups*** such as female sex workers, pregnant women, STD patients, injection drug users, and children to use in targeting, developing and evaluating new interventions.
- ***Evaluating how to improve survival and quality of care for HIV-infected people***, thus diminishing the personal and societal costs of the epidemic.
- ***Investigating HIV-related diseases*** (for example, STDs and tuberculosis) to identify links between these illnesses and to develop effective prevention and treatment strategies that can be applied globally.
- ***Investigating factors associated with heterosexual transmission of HIV.*** Worldwide, more people have been infected through heterosexual contact than any other exposure; and in the United States, heterosexual transmission accounts for a growing percentage of both HIV infections and AIDS cases. Understanding the biomedical and behavioral aspects of heterosexual transmission is the key to containing HIV in the U.S. and around the world.
- ***Supporting an HIV vaccine trial in Thailand.*** CDC has two primary roles in an HIV vaccine trial being conducted among injection drug users in Thailand. First, through its longstanding research collaboration with Thailand, CDC has been working for several years to help Thai health officials prepare to implement vaccine studies. Since 1995, CDC has assisted in measuring the level of new infections in Thailand, identifying a group of individuals who are willing to participate in a trial and can be followed over time to evaluate risk behaviors and infection and working with the community to build the understanding and support necessary to implement the trial. Second, CDC has worked, and will continue to work, with Thai health officials and the U.S. developers of the vaccine, VaxGen, to ensure that individuals in the trial receive appropriate risk-reduction counseling and are fully educated about how the trial works, the potential risks and benefits of participation, and the need for maintaining good behavioral risk-reduction practices during the trial. (CDC also is providing support for a similar efficacy trial sponsored by VaxGen in the United States.)

GOAL 5

Assist in reducing HIV transmission and improving HIV/AIDS care and support in partnership with resource-constrained countries.

Rationale

The global AIDS epidemic is the moral, medical and political challenge of our time. Everyone, everywhere in the world, is affected by this crisis. And, while the epidemic is indeed global, it is composed of multiple, country-specific epidemics, which vary widely in their scope, their severity and their management. Each country's environment – the epidemiologic situation, health system characteristics, donor resources and state capacity – is uniquely its own. Therefore, each country's priorities will be uniquely its own. Likewise, intervention and research outcomes must be specific to country-level realities, so evaluation of outcomes and impacts will also be country-specific. Therefore, the objectives and strategies that follow are written broadly, to accommodate the unique needs of the various countries with which CDC and other governmental agencies and nongovernmental organizations partner.

CDC has a long history of working successfully around the globe to address pressing health concerns, including HIV. The objectives and strategies to guide CDC's involvement in addressing the global AIDS epidemic are defined by these basic guiding principles:

1. ***Host-country involvement:*** Each partner country must have local ownership of and leadership in collaborative projects; there must be serious CDC commitment to in-country capacity building; and partner countries must play an active role in the conceptualization, implementation and evaluation stages of research and prevention projects.
2. ***Destigmatization of HIV in society:*** The efficacy of the recommended research and prevention strategies will be severely limited unless implemented in the context of destigmatizing HIV in partner countries.
3. ***Designing research and programs with sensitivity to gender, culture and age:*** Women, youth and other critical groups must participate in defining their needs, priorities, program and in addressing barriers to their health and empowerment.
4. ***Consideration of human rights:*** It is essential that the principles outlined in the United Nations Declaration of Human Rights are observed for each of the suggested strategies. There must be an increased awareness of and response to the tremendous barriers that exist to accessing expensive technologies such as diagnostics, drugs and information.
5. ***Leadership:*** It is critical that leadership of partner countries, the United States and other donor countries continue to acknowledge the importance of the HIV epidemic and actively support HIV research and prevention activities.
6. ***Mutual learning:*** Involvement with other nations confers benefits to both the United States and host countries. Host countries benefit from CDC's experience in addressing HIV/AIDS in the United States and elsewhere; from expertise in surveillance, epidemiology and prevention; and from funding to support in-country efforts to curtail the local epidemic. And CDC gains important scientific information, applicable to fighting AIDS across the globe as well as an understanding and appreciation of the diverse cultures and social and economic circumstances of other nations.

Notes:

3. **Objectives** are ranked from high (1) to lower (10) priority, based on their potential impact on the epidemic. Even lower priority objectives are considered important elements of comprehensive HIV prevention, and will not be eliminated from the array of CDC-sponsored activities. These priorities may change, based on the dynamics of the epidemic.
4. **Strategies** are rank-ordered from high to lower priority, based on their potential impact on achieving an objective. Detailed action steps will be added to the operational plan. For example, a strategy may call for research to achieve an objective. This does not mean that no research has been carried out in this area. Action steps will specify the additional research required to achieve the objective in question.

Objective 1: Assist in decreasing sexually transmitted HIV infections.**Strategies:**

1. Assist in researching, developing, adapting, implementing, expanding and evaluating behavioral interventions to reduce the risk of acquiring or transmitting HIV and other STDs – particularly for women, sex workers and their clients, displaced populations, in- and out-of-school youth, men at risk, those in the workplace and for other locally relevant populations.
2. Help expand and evaluate voluntary counseling and testing for HIV as well as partner counseling and referral services.
3. Assist in researching, developing, implementing and evaluating the most effective intervention methods to address the role of STDs in HIV transmission and acquisition in a range of epidemiologic settings and to improve STD treatment services.
4. Assist in implementing HIV/STD prevention social marketing programs for the general population.
5. Assist in expanding and evaluating biomedical interventions for the prevention of sexually acquired HIV infections in both women and men, including MSM.

Objective 2: Assist in developing the capacity of partners in host countries for HIV prevention and care efforts.**Strategies:**

1. Work with partner country governments and communities to strengthen their capacity in the planning, implementation, evaluation and monitoring of HIV intervention programs.
2. Work with communities in partner countries to address key social and structural supports for HIV prevention, including reducing stigma.
3. Assist in building host countries' capacity to develop, review and implement research protocols according to internationally accepted bioethical precepts.
4. Assist in building the capacity of partner countries to expand the appropriate use of antiretroviral drugs and other HIV treatments.

5. Work with communities in host countries to prepare for trials of candidate HIV vaccines and microbicides.

Objective 3: Assist in expanding and strengthening HIV/STD/TB surveillance programs.

Strategies:

1. Strengthen HIV sentinel serosurveillance programs to monitor epidemic trends.
2. Strengthen the collection and use of behavioral data.
3. Strengthen laboratory testing for HIV, including the implementation of quality assurance programs.
4. Promote the use of surveillance data for public health decision-making.
5. Assess the quality of surveillance programs.
6. Strengthen STD, AIDS, TB and malaria surveillance.

Objective 4: Assist in improving basic scientific knowledge of HIV and the safety and efficacy of newly developed biomedical interventions.

Strategies:

1. Assist in evaluating the safety and efficacy of HIV vaccine candidates and vaginal microbicides.
2. Assist in HIV virologic research, focusing on the epidemiology, ecology and evolutionary biology of HIV infection and apply this knowledge in the field.
3. Assist in HIV vaccine and microbicide preparedness work, including the development of relevant cohorts.
4. Assist in evaluating new laboratory tests for HIV diagnostics.

Objective 5: Assist in decreasing HIV infections transmitted from mother to child.

Strategies:

1. Help expand access to VCT services for pregnant women during the prenatal period and/or at the time of delivery.
2. Conduct research on improving biomedical and behavioral methods to interrupt mother-to-child transmission in the prenatal, perinatal and postnatal periods; apply results to the field.
3. Help expand access to antiretroviral drugs for HIV-infected pregnant women, postpartum women and their newborns.
4. Assist in providing appropriate breastfeeding alternatives to HIV-infected women.
5. Study postnatal prophylactic and early weaning strategies to decrease breastfeeding transmission among HIV-infected women who choose to breastfeed.
6. Help strengthen family planning services to expand options for HIV-infected women.

Objective 6: Assist in increasing access to improved HIV care and support, including prevention and treatment of opportunistic infections.

Strategies:

1. Strengthen VCT programs to make critical linkages to care and support programs.
2. Work with communities to decrease stigma among HIV-infected persons.
3. Expand and strengthen programs that prevent and treat tuberculosis and other opportunistic infections in HIV-infected persons.
4. Assist in conducting and applying research on the clinical management of HIV, including the prevention and treatment of opportunistic infections and cancers, in hospital, home and community settings; evaluate syndromic approaches to treating disease in HIV-infected patients.
5. Assist in conducting and applying research on the psychological and social needs of people living with HIV/AIDS and people affected by AIDS.
6. Promote availability and affordability of technologies critical to preventing and controlling HIV/AIDS.
7. Assist in conducting and applying research on the safety and efficacy of antiretroviral therapy among specific populations.

Objective 7: Assist in decreasing parenterally transmitted HIV infections.

Strategies:

1. Help strengthen capacity of countries to provide sufficient safe blood for transfusion.
2. Assist in conducting and applying research on behavioral change methodologies, including targeted harm reduction programs, to prevent IDU-related transmission.
3. Help strengthen the capacity of health care workers to prevent parenteral HIV infection to themselves and to patients.

Appendix A

Explanation of Terms, Acronyms and Abbreviations

Terms Used in This Plan

Communities of Color, Populations of Color, Persons of Color. CDC uses the categories of race/ethnicity defined by the Office of Management and Budget and used in the 2000 Census: American Indian or Alaska Native, Asian, Native Hawaiian or Other Pacific Islander, Black or African American, Hispanic or Latino and White. In this plan, *communities of color*, *populations of color* or *persons of color* refer to all races and ethnicities except Whites.

Cultural Competence, Culturally Competent. Excerpted from *The Time to Act is Now!*, on We The People's website (<http://www.peoplewithaids.org>): "Providing culturally competent services means that clients perceive services as relevant to their problems, helpful in achieving the desired outcomes, and comfortable." According to We The People, providing culturally competent HIV/AIDS prevention and services requires:

- "assuring access to adequate financial, administrative and programmatic resources for competent, organized, indigenous efforts of the communities themselves to solve their problems;
- "understanding and addressing the impact of racism*, discrimination, and poverty on the consumer's life experience and ability to obtain needed services, and valuing the expertise of those who share the cultural realities and values of the consumer;
- "adapting services to differences in family structures, expectations, preferences, help-seeking behavior, world views and class backgrounds;
- "eliminating geographic, linguistic, and other barriers that restrict access to services by consumers of diverse ethnic and cultural backgrounds;
- "providing on-going cultural competence training for providers, in areas such as cultural identity development, dynamics of difference, culturally-specific interventions, socio-political issues, etc., and avoiding the tendency to superficial approaches which define cultural competence purely on the basis of skin color, ethnic origin, or religious belief of the provider."

*Also other "isms" and prejudices, such as stigma or discrimination associated with HIV/AIDS, gender, gender variance, sexual orientation, drug use, age, education, social class, etc.

Discrimination. HIV/AIDS-related *discrimination* is characterized by prejudiced or prejudicial outlook, action or treatment of people infected and affected by and at risk for the virus. See *Stigma*, below. Discrimination diminishes the effect of HIV prevention interventions.

Evidence-Based, Science-Based. Behavioral, social and policy interventions that are relevant and methodologically rigorous are evidence- or science-based. These interventions have been evaluated using behavioral or health outcomes; they report positive, negative or no change (null) findings; they use control/comparison groups (or pre-post data without a comparison group if a policy study); and they have no apparent bias when assigning persons to intervention or control groups or have adjusted for any apparent assignment bias. Successful interventions for one group (e.g., urban men who have sex with men – or MSM – of color) may not translate to success with another (e.g., rural white MSM), however, the steps used to develop the intervention – such as formative research, needs assessment, evaluation – are portable. CDC expects its grantees to deliver evidence-based HIV prevention interventions and provides technical assistance and capacity building to enable them to do so. CDC develops science-based interventions for populations for whom research is lacking or minimal.

Harm Reduction. This HIV prevention approach recognizes that abstinence from drug use is best but is not immediately achievable for all injection drug users, or IDUs. Therefore, harm reduction aims to reduce the potential harm associated with drug use among IDUs who cannot or will not stop using. Specific measures can include making bleach and water available for cleaning injection equipment, operating a syringe exchange program or changing prescription and paraphernalia laws to permit access to sterile injection equipment. Harm reduction techniques are also applied to reduce the potential harm associated with sexual transmission of HIV by encouraging fewer partners or changing sexual practices from high risk to lower risk activities.

Homophobia. The irrational fear of homosexuals or homosexuality, which hampers HIV prevention efforts, is homophobia. In HIV prevention, homophobia is associated with AIDS-related stigma and discrimination. According to the Institute of Medicine in *No Time To Lose*, “AIDS stigma is closely linked to other existing social prejudices, including prejudices against homosexuals and drug users. The initial identification of HIV/AIDS among these marginalized groups has had a lasting impact on the way in which the disease is perceived by the American public. . . . [A]lthough the epidemiology of HIV/AIDS has changed considerably, most heterosexual adults continue to associate AIDS with homosexuality or bisexuality.” See *Stigma and Discrimination*.

Linkage. According to CDC’s revised draft *Guidelines for HIV Counseling, Testing, and Referral* (2000), “For HIV-infected clients and those not infected but at increased risk for HIV, linkage with appropriate medical, prevention, and other supportive services increases the likelihood of maintaining health, enhancing longevity and quality of life, and reducing the risk of transmitting or acquiring HIV.” Clients should be referred to services “that are responsive to their priority needs and that are culturally, linguistically, gender-, and age-appropriate.” Service referrals include medical evaluation, care and treatment; partner counseling and referral; reproductive health services; drug or alcohol abuse prevention and treatment; prevention case management; mental health services; STD screening and care; screening and treatment for viral hepatitis; and other support services including assistance with housing, food, employment, transportation, child care, domestic violence and legal services.

Special-Needs Person(s), Population(s). Client-centered, culturally competent prevention strives to meet the needs of specific groups – for example, sex workers, homeless youth, transgendered individuals, gay men of Hispanic descent or female injection drug users. Each group at risk for HIV infection has its own social systems, language, knowledge, behaviors, beliefs and practices that make it unique and that must be taken into account for prevention to be successful. Some populations have additional special needs that must be addressed for prevention to succeed. Among those groups are individuals with limited English proficiency (LEP), whether because English is not their first language or because of literacy difficulties; individuals with cognitive disability or impairment; those who are deaf or hearing impaired; those who are undocumented; and individuals who are physically disabled. Effective prevention addresses the special needs of individuals and population groups.

Stigma Excerpted from *Fight AIDS - Not People With AIDS!* by Gregory M. Herek, Ph.D.: “AIDS-related stigma (or, more simply, AIDS stigma) refers to prejudice, discounting, discrediting, and discrimination directed at people perceived to have AIDS or HIV, and the individuals, groups, and communities with which they are associated. AIDS stigma is expressed around the world in a variety of ways, including: ostracism, rejection, and avoidance of people with AIDS (PWAs), discrimination against PWAs, compulsory HIV testing without prior consent or protection of confidentiality, violence against persons who are perceived to have AIDS or to be infected with HIV, quarantine of persons with HIV. AIDS stigma is effectively universal, but its form varies from one country to another, and the specific groups targeted for AIDS stigma vary considerably. Whatever its form, AIDS stigma inflicts suffering on people and interferes with attempts to fight the AIDS epidemic.”

Acronyms

AETC	AIDS Education and Training Center, funded by HRSA
AHRQ	Agency for Healthcare Research and Quality, a DHHS agency that provides information on health care outcomes, quality, cost, use and access
AIDS	Acquired Immunodeficiency Syndrome
AZT	Azidothymidine or zidovudine, a drug used to fight HIV disease; effective at interrupting mother-to-child HIV transmission
CBO	Community-Based Organization
CDC	Centers for Disease Control and Prevention, a DHHS agency that promotes health and quality of life by preventing and controlling disease, injury and disability through partnerships throughout the nation and the world to monitor health, detect and investigate health problems, conduct applied research to enhance prevention, develop and advocate sound public health policies, implement prevention strategies, promote healthy behaviors, foster safe and healthful environments and provide leadership and training
CIOs	The various Centers, Institute and Offices that make up CDC
CPG	Community Planning Group, a local council that determines HIV prevention priorities for state and local health departments funded by CDC
DHHS	Department of Health and Human Services, a U.S. government entity
DOT	Directly Observed Therapy
FDA	Food and Drug Administration, a DHHS agency, assures the safety of foods and cosmetics, and the safety and efficacy of pharmaceuticals, biological products and medical devices, including HIV tests
HAART	Highly Active Antiretroviral Treatment, multidrug treatment for HIV infection
HCFA	Health Care Financing Administration, a DHHS agency that administers the Medicare and Medicaid programs, which provide health insurance to America's aged, poor, disabled and indigenous populations, and the States Child Health Insurance Program (SCHIP), all of which include people with HIV/AIDS
HE/RR	Health Education/Risk Reduction, an essential component of HIV prevention programs

HIV	Human Immunodeficiency Virus, the virus that causes AIDS
HRSA	Health Resources and Services Administration, a DHHS agency that provides health resources for medically underserved populations; provides services to people with AIDS through the Ryan White CARE Act programs; supports a nationwide network of community and migrant health centers, and primary care programs for the homeless and residents of public housing; builds the health care workforce, maintains the National Health Service Corps, provides AIDS training for health care providers
IDU	Injection Drug Use
IHS	Indian Health Service, a DHHS agency, provides services to nearly 1.5 million American Indians and Alaska Natives of 557 federally recognized tribes
IOM	Institute of Medicine, part of the National Academy of Sciences
MSM	Men Who Have Sex with Men
NGO	Nongovernmental Organization
NIH	National Institutes of Health, the DHHS agency responsible for biomedical and behavioral research on diseases such as cancer, Alzheimer's, diabetes, arthritis, heart ailments and HIV/AIDS, as well as on human development and aging
OI	Opportunistic Infection, an infection associated with HIV/AIDS
PCM	Prevention Case Management
SAMHSA	Substance Abuse and Mental Health Services Administration, a DHHS agency that works to improve the quality and availability of substance abuse prevention, addiction treatment and mental health services
SCHIP	States Child Health Insurance Program, a program administered by HCFA that provides health coverage to children, including those with HIV/AIDS, whose parents are not eligible for Medicaid
STD	Sexually Transmitted Disease
TB	Tuberculosis
VCT	Voluntary Counseling and Testing for HIV infection

Appendix B

Background Information on the Strategic Planning Process

In November 1998, CDC initiated a detailed review of its HIV/AIDS prevention activities. The overall purpose of this review was to identify HIV prevention program gaps and shortfalls. The process was co-led by the National Center for HIV, STD, and TB Prevention (NCHSTP) and the Office of Program Planning and Evaluation (OPPE) within the CDC Director's Office. The process was internal until June 1999, when the internal review was augmented by the formation of an external work group, composed of members of NCHSTP's Advisory Committee for HIV and STD Prevention and other outside experts. One of the chief recommendations of this group was that CDC develop a national plan for HIV/AIDS prevention.

On February 2-3, 2000, the first meeting to develop a comprehensive national plan for HIV/AIDS prevention, spanning all centers and HIV planning activities of CDC, was convened in Atlanta. Participants consisted of external collaborative partners, expert academicians, clinicians and organizational representatives. The external consultants were aided by a diverse group of CDC staff from all CIOs (Centers, Institute and Offices) with HIV responsibilities and activities. A list of the planning workgroup members is in Appendix D, page 68.) Participants' areas of expertise included behavioral science, epidemiology, care and treatment and the other disciplines required to address the HIV epidemic, community-based HIV prevention providers, members of infected and affected groups. These experts examined a situation analysis of the current epidemic as well as a response analysis of CDC's current activities.

CDC presented the group with four draft goals – three domestic and one international – developed internally over the course of the previous year, based on CDC's assessment of the status of the epidemic, trends in the epidemic, program reach and effectiveness, cost-effectiveness and other economic analyses and likely funding to support prevention. External and internal participants broke into four workgroups, one for each of the three domestic goals and one for the international goal, and were charged with developing and prioritizing **objectives and strategies** to meet the draft goals. Each workgroup revised its draft goal somewhat, but the goals essentially remained as they were presented to the groups by CDC. In response to the public comment period, the goals were further refined, to sharpen the focus on communities of color and other special-needs populations.

The workgroups were not asked to develop specific **action steps** to implement proposed strategies. These will be developed by CDC, in consultation with partners and sister public health agencies. However, based on their wide-ranging expertise, several workgroups suggested action steps, which are currently under consideration.

Each workgroup was chaired by an external consultant and cochaired by a senior CDC staff person. Between February and April the workgroups held five face-to-face meetings and had 16 telephone conference calls to develop and refine their goals and to develop objectives and strategies to achieve the goals. An electronic bulletin board was established to share drafts of individual workgroup efforts, CDC guidance and other information pertinent to HIV and to strategic planning.

In April, CDC held meetings with each of the four workgroups to evaluate their draft work plans. Gaps, omissions, overlaps and ambiguities were identified and discussed. Groups were requested to revise their plans based on the CDC input. Groups were also requested to prioritize their objectives and strategies. The following criteria for prioritizing objectives and strategies were provided by CDC:

- Impact on HIV transmission and/or acquisition; that is, the activity's impact on reducing HIV infections.
- Impact on the current (and projected) state of the epidemic; that is, extent to which this activity addresses populations at risk for infection or already infected.
- Scientific currency of the activity; that is, the degree to which the activity reflects the most up-to-date behavioral, biomedical, communications or other science.

Groups were also provided three alternative methods for applying these criteria to prioritize objectives and strategies. The workgroups conducted numerous discussions concerning the ability to set measurable targets for objectives and strategies. Baseline data are lacking in most instances to set measurable targets at this time. However, the groups and CDC agreed that, as data become available, objectives and strategies should be revised to include measurable targets.

Following revisions, the workgroups met in Atlanta on May 2-3, 2000, to present their draft workplans to each other and to a broader CDC audience for feedback. Based on this feedback, final workgroup plans were developed. Each workgroup prioritized its objectives and strategies as described at the beginning of each section detailing objectives and strategies for each of the five goals.

In June 2000, the draft strategic plan was presented to the Advisory Committee for HIV and STD Prevention. The ACHSP recommended that the draft plan be edited for consistency of tone and thematic unity before it was sent out for public comment. Based on the committee members' recommendations, the draft plan was revised again before the public comment period.

The public comment period for the draft strategic plan ran from September 13 through October 23, 2000. Partners were notified of the public comment period, and the plan was available on CDC's homepage over the Internet. During the public comment period, CDC held a series of public meetings and smaller consultations with partners across the country. As a result of comments received at the public meetings and consultations, over the Internet and by email and regular mail, and as a result of internal review, the plan was again revised in November 2000. In December 2000, the revised version was presented again to the Advisory Committee for HIV and STD Prevention, and received the committee's endorsement, with suggested changes.

Meetings Held During the Public Comment Period

Public Meetings

September 19, 2000	Oakland, California
September 20, 2000	Houston, Texas
September 21, 2000	Chicago, Illinois
September 28, 2000	New York, New York

Consultations

September 13, 2000	Washington, DC
September 19, 2000	Oakland, California
September 22, 2000	Atlanta, Georgia
September 28, 2000	New York, New York

Appendix C

Information on CDC's HIV/AIDS Prevention Budget

HIV Prevention Pays

HIV prevention pays. Researchers estimate that the cost of lifetime treatment for a person with HIV now averages about \$155,000. Estimates are that 40,000 people are infected yearly, resulting in an annualized cost of more than \$6 billion. The cumulative cost of lifetime treatment increases by more than \$6 billion yearly if the number of infections stays steady, as it has over the last decade. In the last 5 years alone, an estimated 200,000 people have been infected with HIV. Treating them over the rest of their lives will cost the nation \$31 billion.

The cost of preventing HIV infection varies greatly, depending on the type of intervention. For example, researchers reported in 1996 on a five-session cognitive-behavioral intervention for women at high risk, focusing on skills training in condom use, problem solving, assertiveness in sexual situations, self-management and peer support. The cost of that intervention was \$269 per client, or just over \$2,000 for each "quality-adjusted life-year" (QALY) saved, and was cost-effective, considering direct and indirect costs measured against discounted medical treatment costs over a lifetime.

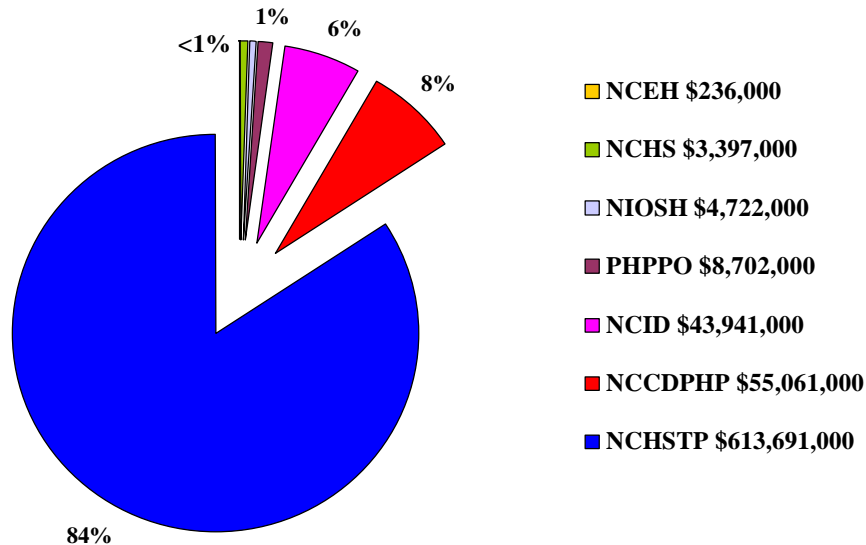
Providing sterile injection equipment to injecting drug users in the United States (through syringe exchange programs and pharmacy sales), along with the costs of syringe disposal to cover all illicit injections has been estimated to cost just over \$423 million per year. Compared with the status quo, this policy would cost an estimated \$34,278 per HIV infection averted, a figure well under the estimated lifetime costs of medical care for a person with HIV infection. Other figures for needle exchange only range from \$3,000 to \$50,000 per infection averted, according to the recent IOM report on HIV prevention, *No Time to Lose*.

The IOM estimates that preventing mother-to-child HIV transmission in the U.S. costs about \$33,000 per infection averted, again well under the costs of lifetime treatment and so cost-effective, even though the impact on the epidemic is not as great as with other forms of transmission. Injection drug users may account for up to 50% of new infections, the IOM notes, while perinatal transmission now accounts for just 1% of estimated new infections in the United States.

At CDC's current budget level, only 4,000 infections must be prevented annually to actually result in cost savings, and only 1,300 must be prevented for the investment to be cost-effective. Most researchers agree that the number of infections actually prevented every year far exceeds the cost-savings level.

CDC Funding By Organization, FY 2000

\$729,751,000



HIV-Related Responsibilities at CDC

National Center for HIV, STD, and TB Prevention (NCHSTP) provides leadership, science, and support to its public health partners domestically and abroad to prevent and control HIV infection through surveillance, capacity building and technical assistance, prevention research and by funding prevention programs conducted by state and local health departments, community-based organizations and other partners in the United States and internationally.

National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP) collaborates with national, state, and local partners to provide young people with the skills and information they need to avoid behaviors which put them at risk for HIV; studies the relationship between reproductive health and HIV prevention; conduct surveys of knowledge, attitudes, and behaviors related to HIV; and prevents HIV infection in dental health settings.

National Center for Infectious Diseases (NCID) provides laboratory support for ongoing prevention and epidemiologic studies that includes standard serologic techniques and innovative technology, such as monitoring HIV viral resistance mutations and evaluation of rapid serologic tests for HIV diagnosis. Multiple laboratory projects seek to detect all HIV variants, especially those that may escape detection by standard tests.

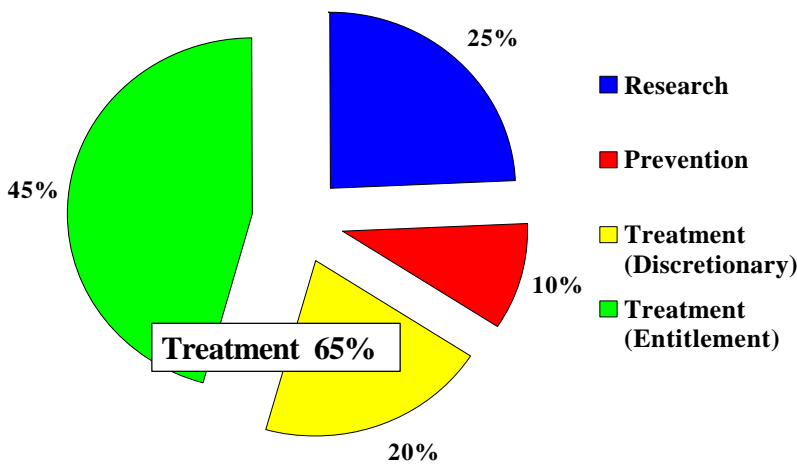
Public Health Practice Program Office (PHPPO) evaluates laboratories that perform retroviral and HIV-related testing; maintains a national training and communications system aimed at improving the performance of private and public health laboratories; and operates a nationwide, distance-learning network that delivers HIV/AIDS Prevention courses in seven programmatic areas.

National Institute for Occupational Safety and Health (NIOSH) works to prevent occupational transmission of HIV among health care workers and lessen the associated morbidity and mortality after exposure.

National Center for Health Statistics (NCHS) conducts surveys and maintains data systems to collect information necessary to track and monitor HIV prevalence, treatment and care, deaths, and related behaviors.

National Center for Environmental Health (NCEH) provides laboratory support.

**Department of Health and Human Services
HIV/AIDS Spending: FY 2000
Total \$8,488,259,000**



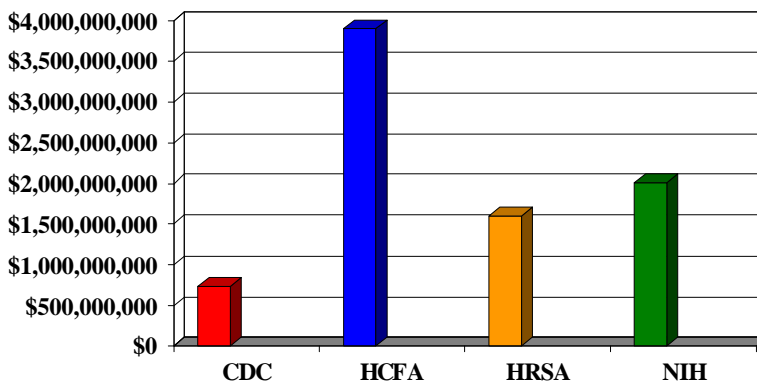
Source: Department of Health and Human Services

The Department of Health and Human Services reports prevention spending at 10% of the department's HIV/AIDS spending. Prevention accounted for \$820,000,000 of the total fiscal year 2000 department HIV/AIDS budget of \$8,488,259,000.

Treatment accounts for the lion's share of Department of Health and Human Services HIV/AIDS spending. Together, the Health Care Financing Administration, which funds Medicaid and Medicare, and the Health Resources Services Administration, which funds Ryan White, account for \$5,499,546,000 – 65% of the annual budget. The next largest item is NIH's research budget -- \$2,006,183,000, or roughly a quarter of the total department HIV/AIDS budget.

Clearly, prevention (and research) can contribute significantly to reducing the annual outlay for care and treatment. Prevention investments make sound fiscal sense.

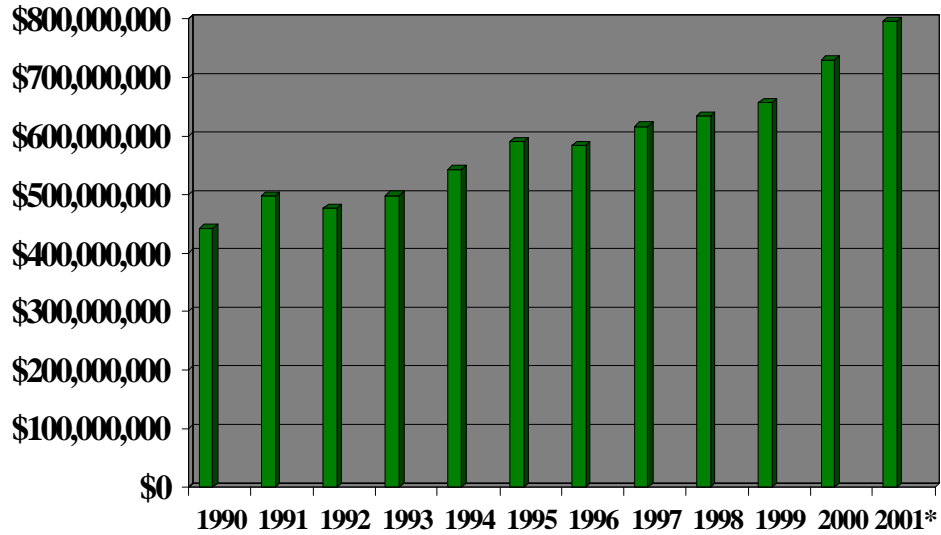
**Selected Agencies' HIV/AIDS Funding
FY 2000 Enacted Estimate**



ARHQ = \$2,700,000; FDA = \$70,400,000; IHS = \$3,770,000; SAMHSA = \$113,592,000

Source: Department of Health and Human Services

CDC's HIV Prevention Appropriations: 1990-2000



**President's Budget*

The bar chart above shows CDC's HIV prevention appropriations over the past decade. With some yearly variations, CDC's prevention budget has steadily grown – although it has not kept pace with inflation. In 1990, CDC's prevention budget was \$442,826,000. In 2000, it was \$729,751,000 – but only \$554,912,000 in real purchasing power (in 1990 dollars).

Appendix D

Workgroup Listings

Workgroup 1: Decrease New Infections

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