A HEIGHTENED NATIONAL RESPONSE TO THE HIV/AIDS CRISIS AMONG AFRICAN AMERICANS

March 2007

"It is time for all of us to take action to protect ourselves and our young people against HIV/AIDS." - Coretta Scott King

CDC
CDC is committed to meeting the public health needs of African Americans and reducing the burden of the HIV/AIDS epidemic in African American communities.

Kevin Fenton M.D., Ph.D, FFPH
Director
National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention

This report is not copyrighted and may be used and copied without permission. Citation of the source is, however, appreciated.

Suggested Citation
HIV/AIDS is a threat to the health and well-being of many communities in the United States, but for African Americans, HIV/AIDS is a major health crisis. Local, state, and federal efforts to combat HIV among African Americans have been increased over time, and many African American leaders and organizations across the United States have committed themselves to reducing the impact of the disease in their communities. These efforts, nevertheless, have been unsuccessful at decreasing the persistently high rates of HIV infection among blacks. A heightened national response, one that ignites focused, collaborative action among public health partners and community leaders, is vital at this time to reduce the toll of HIV/AIDS on blacks.

Such a heightened response must focus on 4 main areas: (1) expanding the reach of prevention services, (2) increasing opportunities for diagnosing and treating HIV, (3) developing new, effective prevention interventions, and (4) mobilizing broader community action.

In this document, CDC has outlined the agency’s plans to intensify its programs in these areas over the next three years. But, recognizing that these efforts alone are insufficient, CDC joins with African American leaders and their organizations, and the entire public health community to mobilize its resources in the same areas.

THE HIV/AIDS EPIDEMIC AMONG AFRICAN AMERICANS

Devastating Impact on Multiple Groups

The latest data demonstrate consistent and wide health disparities associated with HIV/AIDS in the United States. Although blacks make up less than 13% of the U.S. population, they accounted for 49% of new HIV/AIDS diagnoses in 2005. In 2005, blacks accounted for 18,510 (49%) of the estimated 38,096 new HIV/AIDS diagnoses in the United States. By comparison, Hispanics accounted for 18%, whites for 31%, Asians/Pacific Islanders for 1%, and American Indians/Alaska Natives accounted for less than 1% of HIV/AIDS diagnoses in that year [1]. As the following statistics show, HIV/AIDS is clearly a health crisis for blacks.

African American Men

Overall, black men are more affected by HIV/AIDS than are women; in 2005, men made up about 64% of HIV/AIDS cases among blacks in the 33 states with long-term, confidential name-based HIV infection reporting. Black males aged 13 and older accounted for 42% of HIV/AIDS diagnoses among all men. Of all black men living with HIV/AIDS, almost half (48%) of the cases among black men were related to male-to-male sexual contact, 23% were related to injection drug use, and 22% were linked to high-risk heterosexual contact [1].

Black men who have sex with men (MSM), whether they identify themselves as gay, bisexual, or heterosexual, are most severely affected by HIV/AIDS compared with other high-risk groups such as injection drug users, high-risk heterosexuals, and white and Latino MSM [1]. Recent data indicate that black MSM, whether they identify themselves as gay, bisexual, or heterosexual, are most severely affected by HIV/AIDS. Findings from a recent study of MSM participating in CDC’s National HIV Behavioral Surveillance project, conducted in 5 cities (Baltimore, Los Angeles, Miami, New York City, and San Francisco), show that 46% of black MSM were HIV infected, compared with 21% of whites and 17% of Hispanics [2]. And compared with all other groups of MSM, African American MSM are more likely to become infected at younger ages [2].

African American Women and Infants

Black women are also deeply affected by the HIV/AIDS epidemic. In 2005, black females aged 13 years and older accounted for 66% of the HIV/AIDS diagnoses among women [1]. The rate of HIV/AIDS diagnoses for black women was 20 times the rate for white women. Approximately three fourths of the HIV/AIDS cases diagnosed among black women during 2005 were related to high-risk heterosexual contact (i.e., with a person of the opposite sex at high risk for

I saw my first AIDS patient 25 years ago. It’s difficult to describe what that day was like—the depth of emotion was truly impressive.

I had been told that addressing HIV and AIDS is not rocket science. And it isn’t. It’s much more difficult.

Attendee at CDC Consultation to Address the Ongoing Crisis of HIV/AIDS among African Americans, January 2006
A HEIGHTENED NATIONAL RESPONSE TO THE HIV/AIDS CRISIS AMONG AFRICAN AMERICANS

HIV/AIDS, including MSM or injection drug users). Blacks who are at higher risk for HIV are those who are unaware of their partner’s risk factors, have other sexually transmitted diseases (STDs) (which affect blacks more than any other race/ethnicity), and have unprotected anal and vaginal intercourse [1].

HIV-infected women can pass HIV on to their babies during pregnancy, labor, delivery, or breastfeeding. As a result of effective interventions, mother-to-child transmission has declined dramatically during the past decade among all races and ethnicities.

However, in 2005, 39 of the 58 children under the age of 13 with a diagnosis of AIDS were black [1].

Complex Factors Influencing Transmission

Race and ethnicity, by themselves, are not risk factors for HIV infection. However, because of a complex set of historical, structural, environmental, and cultural factors—including racism and discrimination, poverty, denial, stigma, homophobia, and limited access to health care—African Americans are more vulnerable to HIV infection. Racism, homophobia, incarceration, and stigma associated with being HIV infected are all factors that make it hard to stop the HIV/AIDS epidemic in African American communities.

The incarceration of African American men is a significant issue for HIV risk. African American men’s history of incarceration is often linked to their involvement with drugs and high-risk sex, factors that place them and their female partners at greater risk. Higher rates of HIV among incarcerated populations may also serve as a link between HIV transmission among MSM and those men who have sex with both men and women.

In 2004, the U.S. Department of Justice found that the AIDS prevalence among U.S. prisoners was three times that of the general population [3]. Factors like tattooing, unsafe sex, and drug injection practices by some prison inmates, coupled with the sexual relationships and socioeconomic consequences faced by persons with histories of incarceration, make prisons a risk factor for HIV infection [3].

A history of racism, oppression, and lack of trust in governmental institutions make it more challenging for public health agencies to effectively reach African Americans. As in many communities, homophobia discourages black MSM from identifying themselves as gay or bisexual, and they may miss or not connect with public health messages designed for these groups [4]. Stigma related to an HIV diagnosis may cause people to avoid getting tested for HIV or to avoid medical care because their HIV infection may become known and lead to rejection by family members, friends, and coworkers.

In the early 1980s, most AIDS cases were among white gay men. Therefore, today, some African Americans may think that HIV/AIDS is not a concern for their community or that HIV/AIDS is still mostly a disease of gay white men. Talking openly about topics such as sexuality, homosexuality, sex outside marriage, drug use, and other sensitive and private issues is often taboo, and this silence makes raising awareness about HIV/AIDS a challenge. Denial about HIV might be a reason why a large percentage of blacks who are HIV infected do not get tested and thus do not know that they are HIV infected. Persons who do not know that they are HIV infected are more likely than those with a diagnosis to engage in risky behavior and to unintentionally transmit HIV to others. CDC studies show that undiagnosed HIV infection is responsible for over 50% of the new infections sexually transmitted each year [5].

Other factors also affect the HIV/AIDS epidemic among African Americans. In 2005, blacks had higher rates of gonorrhea, chlamydia, and syphilis than other racial groups [6]. The presence of certain STDs can increase the chances of contracting HIV, and a person who has both HIV and other STDs has a greater chance of spreading HIV to others [6]. Issues such as substance abuse (including injection drug use), mental health problems, childhood sexual abuse, and other psychological stressors may make it difficult for people to protect themselves and their partners [7]. These individual and social forces present major challenges as the public health and African American communities work together to address the HIV/AIDS epidemic.
A Heightened National Response to the HIV/AIDS Crisis Among African Americans

HIV/AIDS is a health crisis for African Americans. The toll this epidemic has taken on our community is alarming. We must work together for an increased and urgent community response.

Janet Cleveland
Deputy Director for Prevention Programs
CDC Division of HIV/AIDS Prevention

CDC’s HIV Prevention Programs for African Americans

Since the beginning of the HIV/AIDS epidemic, CDC’s mission has been to prevent HIV infections and reduce HIV-related illness and death. CDC currently funds programs that (1) help people learn their HIV status; (2) help high-risk HIV-negative persons avoid infection; (3) support prevention services for persons living with HIV infection and for their partners and link them to appropriate care and treatment services to reduce risk behaviors, prevent further transmission of new HIV infections, and decrease mother-to-child HIV transmission; and (4) help track the course of the epidemic and identify new and enhanced interventions. CDC addresses HIV/AIDS prevention through an array of public health activities including monitoring the disease’s impact, facilitating and supporting partnerships, implementing prevention programs, conducting intervention research and program evaluation, delivering technical assistance to build the capacity of organizations to offer prevention services, and developing policy and communications to support HIV prevention. These activities are conducted with a wide range of public- and private-sector partners, including state and local health departments, community-based organizations and other nongovernmental organizations, universities, businesses, and the media.

CDC’s HIV Prevention Strategic Plan was developed in 2001 to guide the agency’s efforts to more effectively address HIV infection and AIDS. A central focus of the plan is to reduce racial and ethnic disparities in HIV/AIDS. Experts from inside and outside the government, representatives from medicine and the behavioral sciences, community-based HIV prevention providers, state and local health departments, and members of infected and affected communities participated in developing a comprehensive plan to bolster the nation’s efforts in reducing HIV infections in the United States.

Although there have been signs of success in many areas, progress has not accelerated at the desired rate, and 2005 data show HIV rates that remain disproportionately high for certain groups of blacks, particularly MSM [2] and women [1].

Many of our local, state, and national public health partners focus their attention on the disproportionate impact of HIV/AIDS on black men, women, and children. For example, health departments in Florida, Maryland, Illinois, and North Carolina, using their CDC prevention dollars, have developed statewide HIV testing social marketing campaigns designed to encourage early diagnosis of HIV/AIDS among African Americans. Community planning groups in a number of cities and states with large numbers of African Americans have prioritized their interventions and funding resources to focus on the HIV prevention needs of African Americans.

Federal agency planning activities have also made reducing the impact of HIV/AIDS on blacks a high priority. For example, CDC has asked the CDC and Health Resources and Services Administration (HRSA) Advisory Committee on HIV and STD Prevention and Treatment (CHAC) for recommendations on updating the 2001 CDC HIV Prevention Strategic Plan. Specifically, CDC asked for recommendations about ways to reduce racial and ethnic disparities in HIV/AIDS. Those recommendations, along with input from multiple community consultations, will guide the development of the agency’s current strategies and this heightened response action plan.

CDC’s FY 2007 budget for domestic HIV prevention program activities is $652 million; almost half is directed to programs designed for African Americans. U.S. HIV prevention resources have decreased for several years (17% between 2001 and 2006, based on the Biomedical Research and Development Price Index). However, as resources become available through new funding or upon the conclusion of existing...
programs, CDC is directing the majority of these existing resources to intensified efforts among African Americans. For example, a total of $35.7 million in new funds were available in Fiscal Years 2006 and 2007. Approximately 63%, or $22.4 million, of these funds were directed to African American communities. In addition to continuing to expand prevention efforts for African Americans at risk, CDC anticipates significantly expanding HIV testing efforts to reach these communities with the $63 million domestic HIV prevention initiative proposed in the President’s FY 2008 budget.

Most of CDC’s resources for African Americans will be directed to the overarching strategies outlined in this document. In each area, new programs are being initiated to expand current activities, as we work with community partners to maximize our collective impact.

We have extraordinary leaders, extraordinary scientists, extraordinary will and a great deal of passion. Together, they are a good formula for future successes.

Julie Louise Gerberding, M.D., M.P.H.
Director
Centers for Disease Control and Prevention

ACTION STRATEGIES FOR A heightENED NATIONAL RESPONSE

Given that HIV/AIDS continues to affect blacks more than any other race/ethnicity population in the United States, CDC recently committed to reassessing, strengthening, and expanding its efforts to address the epidemic among African Americans. Acknowledging the seriousness of the problem in 2006, Dr. Julie Gerberding, CDC Director, wrote to CDC’s public health partners and constituents emphasizing CDC’s commitment to a heightened response to reduce the impact of HIV/AIDS among African Americans and urging the mobilization of local, state, and national resources toward that goal [8]. CDC recognizes that it cannot succeed without broader community input, support, and effort and that many stakeholders and leaders in the African American community share our desire for urgent attention to this crisis.

Recently, several national organizations have created “call to action” documents that focus on the need for new activities, expanded resources, and increased action at local, state, and national levels. The National Alliance of State and Territorial AIDS Directors (NASTAD) released its report, “A Turning Point: Confronting HIV/AIDS in African American Communities,” in November 2005 [9]. The document provides recommendations in the areas of (1) Strategic Prioritization/Resource Allocation, (2) Policy Education; (3) Research, (4) Strategic Collaboration, and (5) Coalition and Partnership Building. The Black AIDS Institute (BAI) released its call to action, “AIDS in Blackface: 25 Years of an Epidemic,” in June 2006 [10]. The report focuses on developing a comprehensive and coordinated effort to address the epidemic among African Americans. Its recommendations encompass issues such as stigma, the need for evidence-based programs, and efforts to educate and hold policymakers and other leaders accountable. In addition, the National Minority AIDS Council (NMAC) published its report, “African Americans, Health Disparities and HIV/AIDS,” in November 2006 [11]. The document stresses the importance of addressing underlying factors such as lack of housing, incarceration, and poverty that are associated with the HIV/AIDS epidemic among blacks. Many of the recommendations contained in these reports are consistent with the overarching strategies and specific activities of CDC’s heightened response action plan.

To guide CDC’s efforts, the agency established the African American HIV/AIDS Work Group, a multi-disciplinary internal body, to (1) examine existing strategies aimed at decreasing HIV infection among blacks, (2) explore opportunities to create new partnerships and strengthen existing partnerships, and (3) determine the effectiveness of interventions that aim to reduce HIV/AIDS in African American communities. In addition, CDC has continued to solicit feedback from members of affected communities about their perceptions of the HIV epidemic and the solutions they propose to address its causes and related factors. For example, CDC held four national consultations between late 2004 and early 2006 to discuss the epidemic in the African American community. Three consultations focused on specific groups: faith leaders, African American MSM, and transgender persons. Participants at the fourth consultation looked broadly at the impact
of the epidemic among African Americans. This consultation provided an opportunity for open dialogue among HIV prevention leaders and traditional and nontraditional stakeholders within African American communities. The input that CDC received at these consultations reinforced the importance of developing new, effective interventions to reduce risk behaviors and the need for strategies to address broader social and cultural factors (e.g., homophobia, racism, stigma, denial, and history of sexual abuse). These discussions have helped inform our current strategy and this action plan, which are designed to strengthen future HIV/AIDS prevention activities for African Americans.

We urge all Americans, and particularly African Americans, to join in a heightened, collaborative effort to achieve significant reductions in HIV/AIDS and to ultimately end this epidemic among African Americans. In order to make a significant impact on reducing high rates of HIV/AIDS among blacks, it is necessary that we work collaboratively to (1) focus on intensifying efforts to make sure that prevention services reach those most in need, (2) promote early diagnosis and treatment of HIV/AIDS, (3) ensure that we have effective risk-reduction interventions for African American populations, and (4) mobilize African American communities to become more aware of this health threat and how they can prevent infections and stay healthy.

Therefore, a heightened national response requires a focus on four main areas:

1. expanding the reach of prevention services
2. increasing opportunities for diagnosing and treating HIV
3. developing new, effective prevention interventions
4. mobilizing broader community action

Expanding the Reach of Prevention Services

Action Strategies

To achieve the goal of expanding the reach of effective HIV prevention services for African Americans, all health departments and other public health partners, community members and community organizations, and CDC should commit to:

- Building linkages with other organizations that provide related social and health services to African Americans (such as employment services, mental health, and housing) to make HIV prevention information and services more widely available
- Facilitating and strengthening collaborative efforts among health departments, AIDS service organizations, local businesses, media outlets, and faith-based organizations to disseminate appropriate HIV prevention information and resource materials to African Americans
- Sharing technical assistance resources to build the capacities of AIDS service organizations to develop sound infrastructures that support effective program services for African Americans
- Ensuring that all HIV prevention programs serving African Americans are more effective at delivering culturally appropriate interventions and services to reduce the risks of transmitting or acquiring HIV

CDC Plans

As part of this effort, CDC commits to:

- Expanding HIV prevention programs serving African Americans and enhancing culturally appropriate strategies for delivering services to this population
- Training providers in community-based medical facilities that serve large proportions of African Americans to deliver high quality, culturally appropriate HIV prevention services to their patients
- Expanding the availability of appropriate and targeted services to help prevent HIV infection in high-risk young MSM of color, transgender persons, and their sexual partners
• Providing funding and technical assistance to state and local health departments to enhance programs that aim to reduce mother-to-child transmission of HIV
• Developing training curricula and providing training in HIV prevention interventions for African American females to encourage them to adopt and maintain behaviors that reduce their risks of acquiring or transmitting HIV
• Working with the Department of Housing and Urban Development, the Department of Labor, HRSA, and the Substance Abuse and Mental Health Services Administration (SAMHSA) to make HIV prevention information and services more widely available to African American communities

Increasing Opportunities for Diagnosing and Treating HIV

Action Strategies
To achieve the goal of ensuring that every African American knows whether he or she is infected with HIV or AIDS, all health departments and other public health partners, community members and community organizations, and CDC should commit to

• Spreading the message where people live, work, play, and worship that knowing one’s HIV serostatus can help stop the spread of HIV/AIDS in African American communities
• Making sure that early HIV testing is a normal part of health care seeking and screenings for all African Americans
• Increasing access to HIV testing and treatment services by either offering these services or partnering with community organizations that offer these services to African Americans
• Working with organizations to make HIV testing services available to African Americans in all settings that are appropriate

CDC Plans
As part of this effort, CDC commits to

• Expanding investments and access to HIV testing for African Americans

• Conducting trainings for African American medical providers and other providers serving large proportions of African Americans to increase HIV screening and testing in high-prevalence areas
• Implementing HIV counseling and testing, STD screening and treatment, and hepatitis B vaccination in settings where African American gay men congregate
• Piloting separate campaigns that develop messages and promote HIV testing for men who have sex with men, women, youth, and heterosexual men as a major strategy in reducing the spread of AIDS in African American communities
• Working closely with HRSA and SAMHSA to ensure that HIV testing is integrated into a range of community-based services for vulnerable subpopulations of African American women, youth, children, and men who have sex with men

Developing New, Effective Prevention Interventions

Action Strategies
To achieve the goal of increasing the prevention tools available to programs serving African Americans, all health departments and other public health partners, community members and community organizations, academic institutions, and CDC should commit to

• Encouraging more participation of African American researchers (including behavioral scientists, anthropologists, psychologists, and sociologists) in developing HIV prevention interventions for African Americans
• Involving African American community stakeholders in developing and implementing research designs that address a range of issues related to accessing HIV prevention, treatment, and care
• Expanding the number of available risk-reduction interventions that meet the prevention needs of high-risk African American MSM, youth, women, and heterosexual men
• Working with prisons, jails, and detention centers to develop behavioral-, social-, and systems-level interventions to address the HIV prevention needs of incarcerated persons
**CDC Plans**

As part of this effort, CDC commits to

- Convening a major meeting with leading researchers from the African American community to assess research gaps and future directions for intervention research to reduce HIV transmission among blacks.
- Initiating new research projects to test newly developed, community-based, or adapted interventions for African Americans who are at increased risk for contracting or transmitting HIV.
- Expanding collaborations to evaluate innovative and potentially effective interventions developed by and for community-based organizations serving African Americans most at risk for acquiring or transmitting HIV.
- Initiating research projects to identify cost-effective strategies for improving the ability of CDC’s prevention partners to implement high-quality HIV prevention interventions and strategies for African Americans.
- Assessing the knowledge, attitudes, and behaviors of 1,600 African American students at historically black colleges and universities (HBCUs). The findings will be used to develop and implement interventions that will address HIV/AIDS among young African American adults on HBCU campuses.
- Investigating prevention needs and strategies for HIV-infected and uninfected African American male prison inmates during transitions into and out of prison, including HIV risk behaviors, access to HIV testing, access to prevention interventions, and access to HIV care and treatment services.
- Initiating a project to evaluate the effectiveness of prevention strategies for reaching and testing black MSM with previously undiagnosed HIV infection.
- Testing the feasibility of research techniques to reach bisexually active non-gay-identified African American MSM, to increase HIV testing, and to develop effective interventions to reduce their risky behaviors.
- Increasing the number of effective interventions used by CDC’s prevention partners by initiating the rapid dissemination of already proven and packaged interventions for African Americans who are at increased risk for acquiring or transmitting HIV.
- Directing funding so that effective HIV prevention interventions for African Americans can quickly be made available to AIDS service organizations.
- Conducting a demonstration project for the Parents Matter Program to identify ways to assist African American parents in communicating with their children about sexual risks. The project will assess the appropriateness of delivering the intervention to African American parents in a variety of community settings such as community-based organizations, community health centers, schools, faith-based organizations, and work settings.
- Working with the National Institutes of Health, SAMHSA, and HRSA to develop cross-agency plans to address research gaps, develop the number and range of new interventions, and facilitate more timely translation of known effective interventions through CDC’s Diffusion of Effective Behavioral Interventions pipeline.

**Mobilizing Broader Community Action**

**Action Strategies**

To achieve our collective goal of reducing the impact of HIV/AIDS among blacks, all health departments and other public health partners, community members, community organizations, and CDC should commit to

- Breaking the silence and increasing awareness of HIV/AIDS among friends, family, co-workers, and others within African American communities
- Developing partnerships with African American leaders to
  - change community perceptions about HIV/AIDS
• challenge the stigma associated with HIV/AIDS
• motivate people to seek early HIV diagnosis and treatment
• encourage healthy behaviors that prevent the spread of HIV

• Talking about HIV/AIDS in places where African Americans live, work, play, and worship
• Partnering with community organizations that serve African Americans to assist them in linking their customers and clients to relevant prevention programs and HIV testing services
• Creating community change by connecting HIV/AIDS prevention with efforts against racism, homophobia, joblessness, sexual violence, homelessness, substance use, mental illness, and poverty
• Working with AIDS service organizations, local businesses, and faith leaders to increase their organizations’ abilities to effectively discuss HIV-related issues with state and local elected officials
• Identifying health professionals to conduct culturally appropriate presentations on epidemiologic data and preventive action strategies to raise awareness of HIV/AIDS and to encourage coalitions of local health departments and African American community organizations to mobilize against HIV/AIDS

CDC Plans
As part of this effort, CDC commits to

• Encouraging public health partners to engage community leaders in conversations about ways to increase organizational and community awareness about HIV/AIDS and promote early diagnosis and treatment of HIV
• Developing new channels for communicating about the impact of HIV/AIDS on black families and communities, and the consequences of silence and stigma around HIV, in places where African Americans live, work, play, and worship
• Publishing and distributing information that identifies social factors contributing to the HIV epidemic among African Americans and effective interventions to address them
• Working with faith leaders on ways to talk about HIV/AIDS and encourage individual and community behavior change

• Developing prevention materials for the workplace that are relevant and appropriate for educating African Americans and others about HIV/AIDS
• Continuing conversations with African American and public health partners about our progress in reducing HIV transmission within this highly impacted population
• Working with the Department of Health and Human Services agencies such as HRSA and SAMHSA to scale up efforts to make HIV prevention, care, and treatment higher priorities for African American leaders, their organizations, and the communities that they serve
• Calling for a nationwide mobilization of African American and public health leaders to encourage people to be Aware, Communicate, and Test—ACT against HIV

MOVING FORWARD
As the nation’s public health agency, CDC will continue to provide strong national leadership through promoting partnerships and collaborations at federal, state, and local levels. CDC is committed to working with community members, health departments and other public health partners, private sector partners, community organizations, and other federal agencies toward a significant reduction in HIV/AIDS within African American communities. To achieve this goal, we must talk openly and honestly about the barriers to HIV prevention: why people don’t get tested; why treatment options are limited or absent; what social, cultural, and economic barriers exist; and how we can have more conversations about HIV/AIDS in African American communities. It is important that everyone knows his or her HIV status, and the HIV status of one’s sexual partners. We must make it easier to find out one’s status by normalizing HIV testing and by making it acceptable to talk about living with HIV. It is also important that everyone take steps to reduce risky behaviors. We must talk about practicing abstinence and being monogamous and using condoms during sexual activity.

Our partners’ leadership and involvement are vital components of a heightened response to the crisis of HIV/AIDS among African Americans. Together, we can stop the spread of HIV/AIDS.
REFERENCES


5. Marks G, Crepaz N, Janssen, RS. Estimating sexual transmission of HIV from persons aware and unaware that they are infected with the virus in the USA. AIDS 2006; 20:1447–1450.


