



MMWR Analysis Provides New Details on HIV Incidence in U.S. Populations

On August 2, 2008, the Centers for Disease Control and Prevention (CDC) released a new estimate of the annual number of new HIV infections (HIV incidence) in the United States¹, revealing that the HIV epidemic is — and has been — worse than previously known. That estimate indicated that approximately 56,300 people were newly infected with HIV in the United States in 2006 (95% Confidence Interval: 48,200–64,500), which is higher than CDC's previous estimate of 40,000. The new estimate also confirmed that gay and bisexual men of all races, African Americans, and Latinos were most heavily affected by HIV.

Today, a new analysis published in CDC's *Morbidity and Mortality Weekly Report* (MMWR, September 12, 2008) provides a more in-depth look at HIV incidence in specific U.S. populations. For the first time, CDC is able to provide detailed breakdowns of new HIV infections by race/ethnicity², gender, route of transmission, and age. These findings will allow CDC and its partners to target HIV prevention efforts and to evaluate their impact with more precision than ever before.

The new analysis underscores the severe impact of HIV among gay and bisexual men of all races and ethnicities, African Americans, and Hispanics. It also shows us that, within these groups, the impact is most severe among young black gay and bisexual men, white gay and bisexual men in their 30s and 40s, and black women.

Key Findings of the New Analysis

Among Gay and Bisexual Men, Young African Americans and Whites in Their 30s and 40s Are Most Affected

CDC's August 2008 data showed that gay and bisexual men, referred to in CDC's surveillance systems as men who have sex with men (MSM)³, represented the majority of new infections in 2006 (53%, 28,720).

Now, in the more detailed analysis, CDC was able to further examine new infections among whites, blacks, and Hispanics. The findings reveal that the ages at which MSM become infected vary by race:

- ▶ **Young Black MSM:** Among MSM overall, there were more new HIV infections in young black MSM (aged 13–29) than any other age/racial group of MSM. The number of new infections among young black gay and bisexual men was roughly twice that of whites and of Hispanics (5,220 infections in blacks vs. 3,330 among whites and 2,300 among Hispanics).
- ▶ **White MSM in Their 30s and 40s:** Among MSM in the analysis, white MSM accounted for close to half (46%) of HIV incidence in 2006. Most new infections among white MSM occurred in those aged 30–39 (4,670), followed by those aged 40–49 (3,740).
- ▶ **Hispanic MSM:** Among Hispanic MSM, most new infections occurred in the youngest (13–29) age group (2,300), though a substantial number of new HIV infections were among those aged 30–39 (1,870).

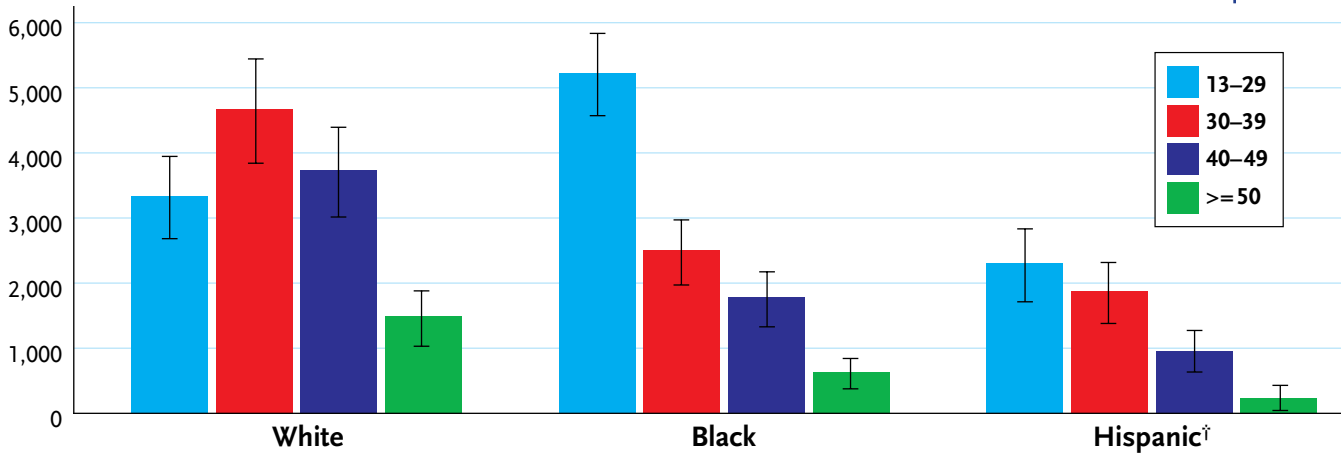
1 Hall HI, Ruiduang S, Rhodes P, et al. Estimation of HIV incidence in the United States. *JAMA*. 2008;300:520-529.

2 The new analysis estimates HIV incidence for sub-populations of whites, blacks, and Hispanics. It was not possible to provide reliable sub-population analyses for American Indians/Alaska Natives, Asians/Pacific Islanders, and other groups (e.g., hemophiliacs) due to the small number of overall new HIV infections in those populations.

3 The term men who have sex with men is used in CDC's surveillance systems because it indicates the behaviors that transmit HIV infection, rather than how individuals self-identify in terms of their sexuality.



Figure 1: Estimated Number* of New HIV Infections in Men Who Have Sex with Men, by Race/Ethnicity and Age Group, United States, 2006



* Incidence estimates are adjusted for reporting delays and reclassification of cases reported without a known risk factor for human immunodeficiency virus (HIV) but not for underreporting
 † Non-Hispanic whites and non-Hispanic blacks are referred to as white and black, respectively. Persons of Hispanic ethnicity might be of any race
 Note: The "I" bars denote the data range for each confidence interval

The alarming number of new infections among young black MSM underscores the need to ensure that each new generation has the knowledge and skills to prevent HIV infection beginning early in their lives. While the *MMWR* study did not examine the specific factors that account for the heavy burden among young black MSM, other data suggest a range of possible factors, including stigma, lack of access to effective HIV prevention services, underestimation of personal risk, not having personally experienced the severity of the early AIDS epidemic, and partnering with older black men (among whom HIV prevalence is high).

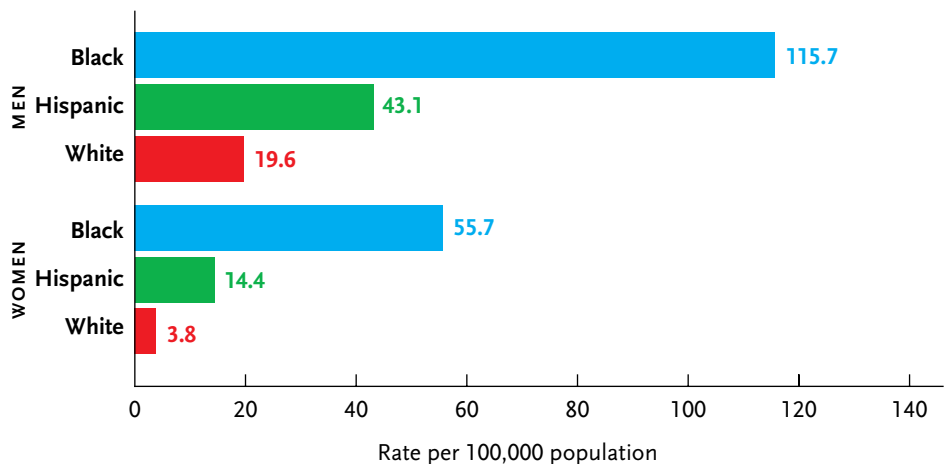
In addition, high HIV incidence among gay and bisexual men in the middle age groups (30–39 and 40–49) — especially white MSM — highlights the importance of programs that keep MSM HIV-free throughout the course of their lives. It is not safe to assume that men in these groups are no longer in need of HIV testing and prevention programs. A range of factors likely contribute to continued transmission in these age groups, including homophobia, substance abuse, higher HIV prevalence within this group, and the difficulty of consistently maintaining safer behaviors for decades.

Among Women, Black Women Bear Heaviest Burden

Previously, CDC’s broader incidence data had shown that the overall impact of HIV is greater among African Americans than any other racial or ethnic group. African Americans make up 12 percent of the total U.S. population, yet represented 45 percent of new HIV infections in the United States in 2006.

The new data provide new insight, and show the impact of HIV among men and women in different racial groups.

Figure 2: Estimated Rates of New HIV Infections, by Race/Ethnicity and Gender, 2006





- ▶ **Black Women:** While there were fewer new HIV infections among black women than black men in 2006 (8,810 vs. 16,120), CDC's new analysis finds that black women are far more affected by HIV than women of other races. The HIV incidence rate for black women was nearly 15 times as high as that of white women and nearly four times as high as that of Hispanic women (55.7 per 100,000 population among black women vs. 3.8 among white women and 14.4 among Hispanic women).
- ▶ **Black Men:** Men accounted for two-thirds of new infections (65%) among blacks in 2006. The HIV incidence rate for black men was about six times as high as that of white men and nearly three times that of Hispanic men (115.7 per 100,000 in black men vs. 19.6 among white men and 43.1 among Hispanic men). Among black men, the majority of new infections (63%) was among gay and bisexual men.

A range of issues may contribute to the disproportionate rates of HIV infection among African Americans in the United States, including poverty, stigma, limited access to health care, higher rates of other sexually transmitted diseases, higher HIV prevalence among African Americans, and drug use. Many black women face additional challenges, such as power imbalances with men in sexual relationships.

Among Latinos, Men Account for Majority of New HIV Infections

CDC's data show that Latinos are disproportionately affected by HIV, representing 18 percent of new HIV infections in 2006 among the racial/ethnic groups examined in the new analysis, while representing 15 percent of the total U.S. population.

CDC's new analysis also indicates that men made up three-quarters (76%) of new infections among Hispanics in 2006, the majority of which (72%) was MSM. The HIV incidence rate among Hispanic men was more than double that of white men (43.1 vs. 19.6 per 100,000).

While Hispanic women represented a quarter (24%) of new infections among Hispanics in 2006, their rate of HIV infection was nearly four times the rate of white women (14.4 vs. 3.8 per 100,000).

Many of the factors that place African Americans at elevated risk for HIV also contribute to disproportionate rates of infection among Latinos. However, some Latinos face additional unique challenges that place them at increased risk, including language barriers, cultural values that may impede acknowledgment of risk behaviors (e.g., machismo), and migration among those born outside the U.S. (e.g., long-term separation from main sexual partner resulting in new partners).

Implications of the HIV Incidence Estimates

While the incidence estimates illustrate the challenges of fighting HIV, there is significant evidence that prevention can — and does — work when we apply what we know. We have seen progress among certain populations, including heterosexuals and injection-drug users, as well as dramatic declines in mother-to-child transmission of HIV. But much more must be done. Accelerating progress in HIV prevention will require a collective response to ensure that effective prevention reaches those who need it.

CDC is focusing its HIV prevention activities in four key areas:

- ▶ Expanding HIV testing services to reach the one-quarter of HIV-infected people who CDC estimates are unaware of their infection
- ▶ Ensuring that proven HIV prevention programs exist and are available to those who need them, and are delivered by trained prevention workers
- ▶ Conducting research to develop new approaches to HIV prevention
- ▶ Enhancing HIV surveillance systems to provide the best possible data



This new, more detailed analysis of HIV incidence provides a clearer understanding of the impact of HIV among specific sub-populations than was previously possible. For the hardest-hit populations, CDC is currently working on a number of fronts to reduce HIV incidence:

- ▶ **MSM:** A 2006 CDC study of gay and bisexual men in 15 cities found that 80 percent had not been reached in the last year by the intensive HIV prevention interventions that are known to be most effective. To help address this gap in prevention, CDC is providing resources and other support to state and local health departments and community-based organizations to expand access to existing programs, especially those that address the needs of black MSM. CDC also is providing supplemental funding to health departments to reassess and strengthen their prevention efforts for MSM to ensure that local targeting is reaching those we know are at greatest risk. In addition, CDC is continuing its research to develop new HIV prevention interventions and to better understand barriers and opportunities for more effectively reaching gay and bisexual men with HIV prevention. CDC is also working to develop and widely implement a multi-million dollar social marketing campaign to increase HIV testing among MSM of all races.
- ▶ **African Americans:** CDC, its public health partners, and black community leaders have joined forces through the Heightened National Response to the HIV/AIDS Crisis among African Americans to expand the reach of HIV prevention services for African Americans and address the needs of those most at risk. The partnership is designed to build upon progress to date in four key areas: expanding HIV prevention services, increasing HIV testing, developing new HIV prevention interventions, and mobilizing broader community action.
- ▶ **Latinos:** CDC supports a broad-based, comprehensive approach to preventing HIV within diverse Latino/Hispanic populations. CDC conducts research to better understand the unique prevention needs of Latinos, and works with local community organizations to increase HIV testing, early diagnosis, and access to care for Latinos. CDC is also increasing training and technical assistance to local communities to expand access to existing HIV prevention programs for Latinos, as well as developing new interventions.

Examples of CDC-Supported HIV Prevention Programs for At-Risk Populations

Gay and Bisexual Men

- ▶ *Popular Opinion Leader:* Trains key opinion leaders to encourage safer sex norms and behaviors in their social networks of MSM
- ▶ *D-Up:* An adaptation of Popular Opinion Leader that trains community leaders to promote condom use and counter racial and sexual biases that are often directed toward black MSM
- ▶ *Many Men, Many Voices:* Reduces risk behavior and addresses cultural norms, sexual relationship dynamics, and the influences of racism and homophobia on African Americans' HIV risk behaviors
- ▶ *MPOWERment:* Designed to reach young gay and bisexual men of all races with HIV prevention, safer sex, and risk-reduction messages
- ▶ *Healthy Relationships:* Develops decision-making and problem-solving skills of HIV-positive individuals to increase safer sex behaviors and disclosure of their HIV status to partners; many of the participants in the original research were black MSM

African Americans

- In addition to the interventions listed above for African American MSM, such as Many Men, Many Voices and D-Up, interventions for African Americans include:
- ▶ *WiLLOW (Women Involved in Life Learning from Other Women):* Focuses specifically on the prevention needs of HIV-positive black women. Helps women reduce the risk of transmitting HIV to their partners and lower their own risk of acquiring other sexually transmitted diseases (STDs)
 - ▶ *Project Start:* Aimed at reducing the risk of HIV and other STDs among men soon to be released from correctional facilities
 - ▶ *SiHLE (Sisters Informing, Healing, Living, and Empowering):* Developed specifically for African American adolescent girls (aged 14–18) at risk for HIV infection. Promotes abstinence, risk-reduction strategies, and healthy relationships

Latinos

- ▶ *VOICES/VOCES (Video Opportunities for Innovative Condom Education & Safer Sex):* Video-based intervention to increase condom use among heterosexual Latino men and women who visit STD clinics
- ▶ *Project Connect:* Relationship-based intervention for high-risk heterosexual women. Designed to help women in relationships maintain safe, healthy behaviors that reduce HIV risk
- ▶ *MIP (Modelo de Intervención Psico-médica):* Developed entirely by and for Latino, Spanish-speaking populations. Reduces the risk of HIV infection among Latino injection drug users (IDUs) not currently in treatment by strengthening participants' ability to maintain safer behaviors and prevent relapse
- ▶ *¡Cuidate! (Take Care of Yourself):* Culturally based intervention for Latino youth that uses role playing, videos, music, and interactive games to increase knowledge of HIV and reduce sexual risk behaviors