

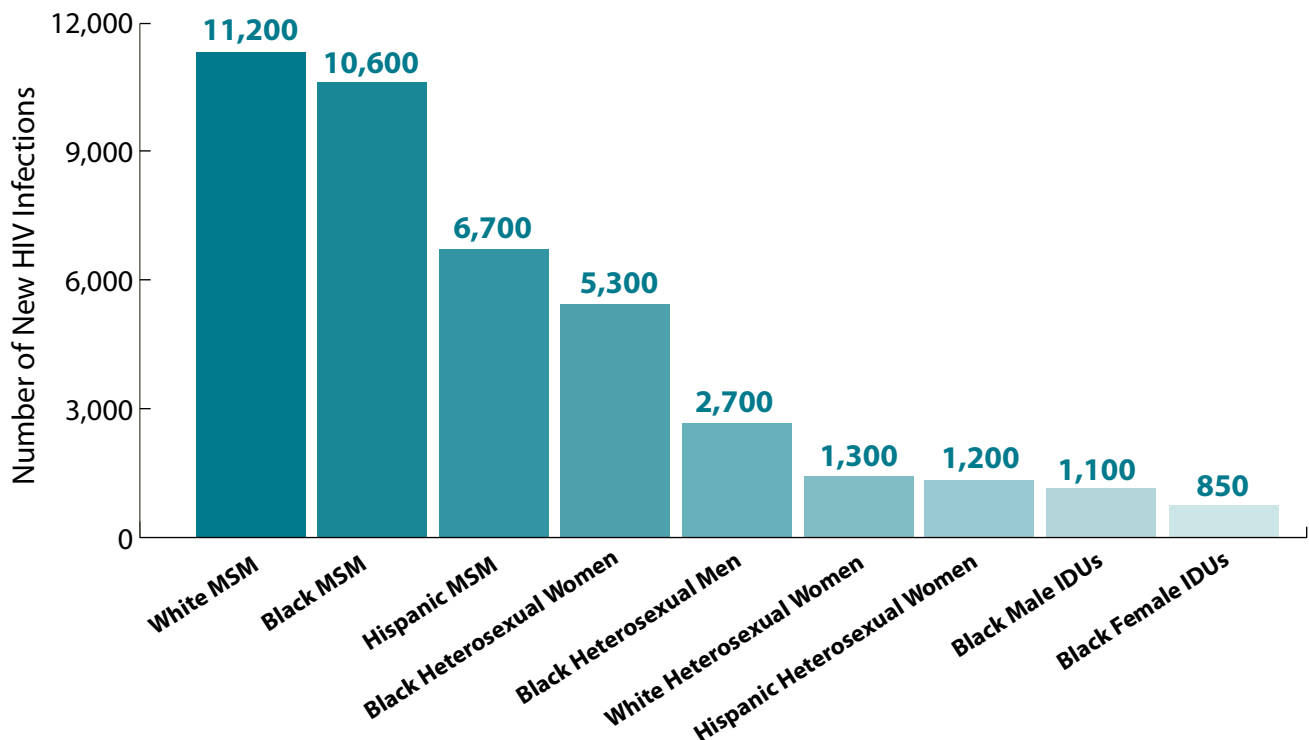
New HIV Infections in the United States

The latest CDC estimates of new HIV infections (HIV incidence) in the United States indicate that HIV remains a serious health problem, with an estimated 47,500 people becoming newly infected with the virus in the United States in 2010¹. The data are included in a new CDC report, *Estimated HIV incidence among adults and adolescents in the United States, 2007–2010**, which includes new HIV incidence estimates for 2010 and updates previously published estimates for 2007 through 2009².

HIV incidence has remained relatively stable at about 50,000 infections per year since the mid-1990s³. According to the new analysis, there were 53,200 infections in 2007; 47,500 in 2008; 45,000 in 2009; and 47,500 in 2010. Certain groups, including African Americans, Latinos, and gay and bisexual men of all races/ethnicities, continue to be disproportionately affected by HIV.

The new analysis also finds two noteworthy trends among heavily affected populations: early signs of an encouraging decrease in new HIV infections among black women (21 percent decrease between 2008 and 2010), and a troubling and continuing increase in new infections among young gay and bisexual men (22 percent increase over the same time period).**

Figure 1: Estimated New HIV Infections in the United States, 2010, for the Most-Affected Sub-Populations



* Available at <http://www.cdc.gov/hiv/topics/surveillance/resources/reports/#supplemental>.

** A four-year period (2007–2010) was chosen for this analysis, to maximize the number of HIV surveillance areas contributing data. However, four-year trends can be influenced by short-term changes in data, and should be interpreted within the context of longer-term trends. Because the estimated number of new HIV infections in 2007 was high relative to the preceding and following years, analyses of changes in incidence for this report are limited to comparison of 2008, 2009, and 2010 incidence estimates. Researchers caution that additional annual estimates will be needed to substantiate the short-term trends seen in this report.



HIV Infections by Route of Transmission

Men Who Have Sex with Men

Men who have sex with men (MSM) remain the group most heavily affected by HIV in the United States. CDC estimates that MSM represent approximately 4 percent of the male population in the United States⁴ but male-to-male sex accounted for more than three-fourths (78 percent) of new HIV infections among men and nearly two-thirds (63 percent) of all new infections in 2010 (29,800). White MSM continue to represent the largest number of new HIV infections among MSM (11,200), followed closely by black MSM (10,600) and Hispanic MSM (6,700).

The number of new infections among the youngest MSM (aged 13-24) increased 22 percent, from 7,200 infections in 2008 to 8,800 in 2010. Young black MSM continue to bear the heaviest burden, accounting for more than half (55 percent) of new infections among young MSM (4,800). In fact, young black MSM now account for more new infections than any other subgroup by race/ethnicity, age, and sex. There was a 12 percent increase in HIV incidence among MSM overall, from 26,700 in 2008 to 29,800 in 2010.

Although the analysis did not examine the factors driving the increases in young MSM, other studies indicate that individual risk behavior alone does not account for the disproportionate burden of HIV among young MSM. Other factors are likely at work, including: higher prevalence of HIV among MSM, which leads to a greater risk of HIV exposure with each sexual encounter; the high proportion of young MSM (especially young MSM of color) who are unaware of their infection, which increases the risk of unknowingly transmitting the virus to others; stigma and homophobia, which deter some from seeking HIV prevention services; barriers, such as lack of insurance and concerns about confidentiality, that result in less access to testing, care, and antiretroviral treatment; and high rates of some STDs, which can facilitate HIV transmission. Additionally, many young MSM may underestimate their personal risk for HIV.

Heterosexuals

Heterosexuals accounted for 25 percent of estimated new HIV infections in 2010 (12,100). About two-thirds (66 percent) of those infected through heterosexual sex were women. The number of new HIV infections among females attributed to heterosexual contact decreased by 18 percent, from 9,800 in 2008 to 8,000 in 2010, largely because of a drop in infections among black heterosexual women (see "Black Women" on page 3.) Comparing 2008 to 2010, there was no statistically significant change in overall HIV incidence among heterosexual males.

Injection Drug Users

Injection drug users (IDUs) represented 8 percent of estimated new HIV infections in 2010 (3,900). Comparing 2008 to 2010, there was no statistically significant change in overall HIV incidence among IDUs.

Figure 2: Estimated New HIV Infections, 2010, by Transmission Category

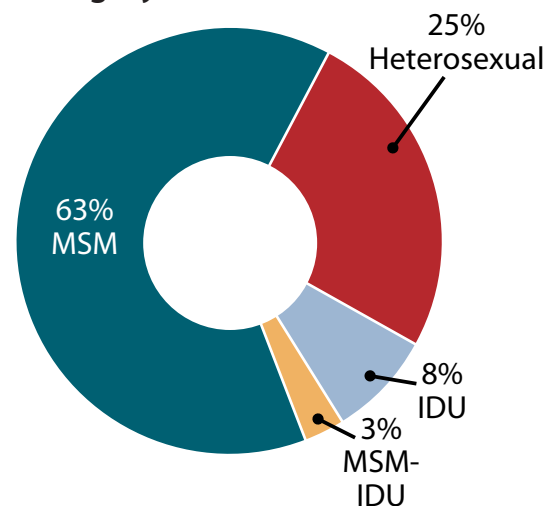


Figure 3: Estimated New HIV Infections among MSM Aged 13-24, 2008-2010

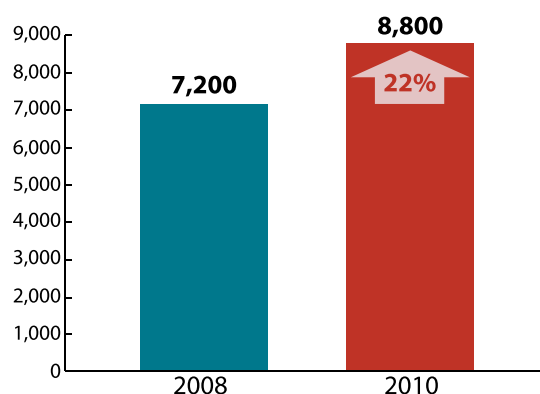
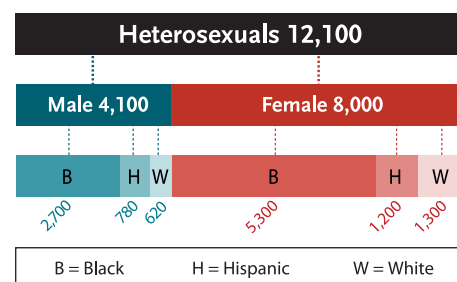


Figure 4: Estimated New HIV Infections among Heterosexuals, 2010, by Gender and Race/Ethnicity



HIV Infections by Race and Ethnicity

Blacks

Overall: CDC's new estimates show that African Americans, more than any other racial/ethnic group, continue to bear the greatest burden of HIV in the United States. While blacks represent approximately 14 percent of the total U.S. population, they accounted for almost half (44 percent) of all new HIV infections in 2010 (20,900). HIV incidence among blacks was almost eight times higher than that of whites (68.9 v. 8.7 per 100,000 of the population). Comparing 2008 to 2010, there was no statistically significant change in overall HIV incidence among blacks.

Black Men: Black men represented almost one-third (31 percent) of all new HIV infections in the United States in 2010 (14,700) and accounted for 70 percent of new HIV infections among blacks. The rate of new infections among black men was the highest of any group by race and sex — more than six times that of white men (103.6 v. 15.8 per 100,000). The vast majority (72 percent) of infections among black men were among MSM. By age, the largest percentage (38 percent) of new HIV infections among black males in 2010 occurred in those aged 13–24 years – much higher than the proportion of new infections among Hispanic (25 percent) and white (16 percent) males that occurred in the same age group.

Black Women: Black women accounted for 13 percent of all new HIV infections in the United States in 2010 and nearly two-thirds (64 percent) of all new infections among women. Most black women (87 percent) were infected through heterosexual sex. While new infections among black women remain high, for the first time this analysis found indications of an encouraging trend. Comparing 2008 to 2010, new HIV infections among black women decreased 21 percent, from 7,700 in 2008 to 6,100 in 2010. This decrease contributed to a 21 percent decline in new infections among women overall during the same time period. Additional years of data will be needed to determine if the decrease among black women is the beginning of a longer-term trend.

While the decline in HIV incidence is encouraging, the new data show that black women continue to be far more affected by HIV than women of other races/ethnicities. The rate of new HIV infections among black women in 2010 was 20 times that of white women and nearly 5 times that of Hispanic women (38.1 v. 1.9 and 8.0 per 100,000, respectively). This indicates an even greater disparity than shown in CDC's previous incidence analysis, in which the HIV infection rate among black women was 15 times that of white women and more than 3 times that of Hispanic women.

Hispanics

Hispanics represent approximately 16 percent of the total U.S. population, but accounted for 21 percent of all new HIV infections in 2010 (9,800). Hispanic men accounted for 87 percent of new HIV infections among Hispanics in 2010 (8,500), with the vast majority of these infections (79 percent) occurring among MSM. The HIV infection rate among Hispanic men was almost three times that of white men (45.5 v. 15.8 per 100,000). Hispanic women experienced an HIV infection rate more than four times that of white women (8.0 v. 1.9 per 100,000); most were infected through heterosexual sex (86 percent; 1,200). Comparing 2008 to 2010, there was no statistically significant difference in overall HIV incidence among Hispanics.

Figure 5: Estimated Rate of New HIV Infections, 2010

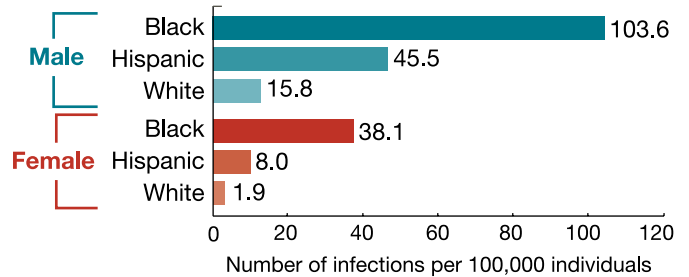
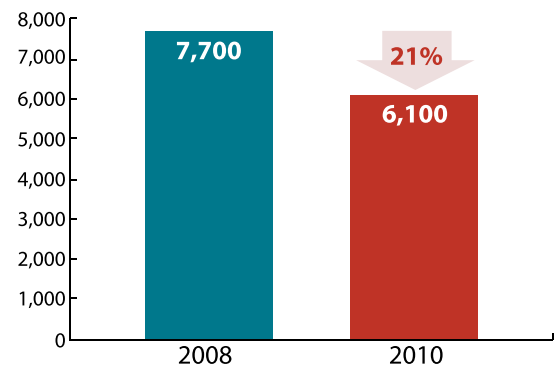


Figure 6: Estimated New HIV Infections among Black Women, 2008-2010



Whites

Whites accounted for nearly a third (31 percent) of all new HIV infections in 2010 (14,900), but had a substantially lower HIV infection rate (8.7 per 100,000) than African Americans or Hispanics. Men accounted for 89 percent of new HIV infections among whites (13,200). The vast majority of these infections (85 percent) occurred among MSM. White women continue to account for a much lower number of new infections (1,700) than white men, with most infections occurring through heterosexual contact (76 percent). Comparing 2008 to 2010, there was no statistically significant change in overall HIV incidence among whites.

Other Racial/Ethnic Groups

Asians accounted for 2 percent of new HIV infections (950) in 2010. American Indians/Alaska Natives (210), Native Hawaiians/Other Pacific Islanders (70), and individuals identifying as multiple races (710) each accounted for 1 percent or less of new infections. Given the relatively small number of new HIV infections in these populations, it was not possible to develop reliable estimates for these groups by route of transmission or sex. There was no statistically significant change in overall HIV incidence among Asians, American Indians/Alaska Natives, or Hawaiians/Other Pacific Islanders.

Factors Fueling Racial/Ethnic Disparities

HIV racial disparities are driven by a range of factors that disproportionately affect communities of color. One key factor is the higher HIV prevalence (proportion of people living with HIV) in many African American and Latino communities, which means individuals in those communities face a greater risk of infection with every sexual encounter. Other factors include: stigma and homophobia, which may prevent many from seeking HIV prevention; economic barriers and lack of insurance, which can limit access to health care including HIV testing and treatment; higher rates of incarceration among African American men, which may lead to concurrent relationships and fuel the spread of HIV; and higher levels of STDs, which can facilitate HIV transmission, in African American and Latino communities.

HIV Infections by Age

The largest percentage of new infections in 2010 occurred among people aged 25-34 (31 percent; 14,500), followed by those aged 13-24 (26 percent; 12,200), and those aged 35-44 (24 percent, 11,300). An additional 15 percent (7,100) occurred among people aged 45-54, and 5 percent (2,500) among those aged 55 and older. Comparing 2008 to 2010, the number of new HIV infections remained stable in every age group.

Methods for Estimating National HIV Incidence

CDC's HIV incidence surveillance methodology is based on an approach known as STARHS (Serologic Testing Algorithm for Recent HIV Seroconversion). STARHS uses a special test (the BED HIV-1 Capture Enzyme Immunoassay) that classifies newly diagnosed infections as either long-standing or recent (occurring within approximately the past five months).

Before this surveillance methodology was developed, HIV diagnosis data provided the best indication of recent trends in key populations. However, diagnosis data do not indicate when an individual was actually infected, because infection can occur many years before a diagnosis. For this analysis, CDC applied the STARHS technology to new HIV diagnoses in 18 states and two cities – a larger number of surveillance areas than had been available for previous analyses. CDC identified the number of new diagnoses in a given year that represented new infections and, using a complex statistical model, extrapolated these data to the general population to provide national estimates of HIV incidence.

Driving Down New HIV Infections: CDC's High-Impact Prevention Approach

Although persisting at far too high a level, HIV incidence has been reduced by more than two-thirds since the height of the U.S. HIV epidemic, and HIV prevention efforts are estimated to have averted more than 350,000 HIV infections in the United States to date⁵. Additionally, despite continued increases in the number of people living with HIV over the past decade⁶, new HIV infections have not increased, indicating that HIV testing, prevention, and treatment programs are effectively reducing the rate of transmission overall. New data indicating a decrease in HIV infections among black women need to be viewed cautiously and substantiated by additional years of data, but raise the hope that intensified education, prevention, and testing activities in this community may be producing meaningful results. At the same time, it is critical to reverse persistent racial disparities in HIV infection and increases in incidence among young men who have sex with men.

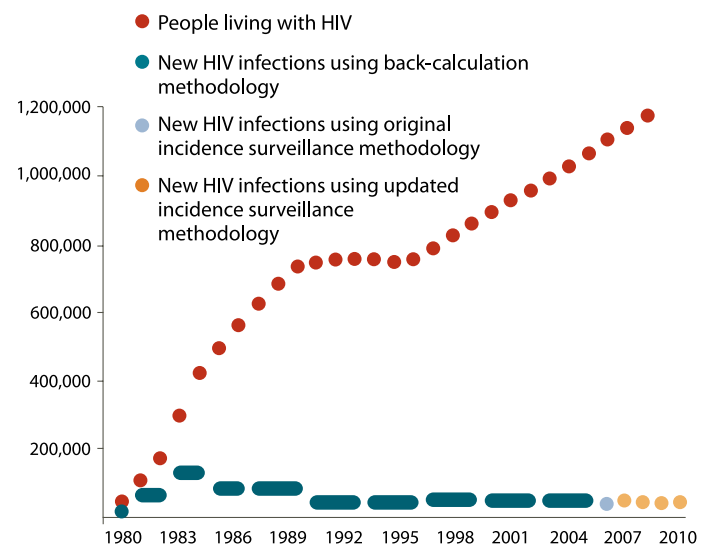
To achieve the goal of an AIDS-free generation in the United States, renewed energy and bold commitment are needed at all levels to drive down new infections. HIV incidence estimates provide important information about the course of the epidemic, which helps guide HIV prevention efforts. Through High-Impact Prevention, CDC is pursuing a new approach that focuses on implementing the most cost-effective and scalable interventions in the geographic areas and populations most heavily affected by HIV (see <http://www.cdc.gov/hiv/strategy/hihp/report/index.htm>). CDC's efforts are focused in five main areas: *supporting prevention programs* through \$415 million in current funding to health departments and community-based organizations; *tracking the epidemic* through comprehensive national surveillance systems; *supporting HIV prevention research* to develop new biomedical and behavioral prevention strategies; *raising awareness* through efforts like the "Act Against AIDS" communications campaign, which works to ensure that all Americans know the facts about HIV, are aware of their HIV status, and understand how to protect themselves; and *supporting structural interventions* by working with federal agencies and funding states and community organizations to address the structural barriers to HIV prevention.

In addition to CDC's efforts, ongoing and expanded involvement on the part of African American, Latino, gay, and other community leaders is needed to help achieve broader action to stop the spread of HIV. And all individuals can learn the facts about HIV, get tested, and take action to protect themselves and their partners.

References

- 1 Centers for Disease Control and Prevention. Estimated HIV incidence among adults and adolescents in the United States, 2007–2010. *HIV Surveillance Supplemental Report 2012*;17(No. 4). <http://www.cdc.gov/hiv/topics/surveillance/resources/reports/#supplemental>. Published December 2012.
- 2 Prejean J et al. Estimated HIV incidence in the United States, 2006–2009. *PLoS ONE* 2011;6(8):e17502.
- 3 Hall HI et al. Estimation of HIV incidence in the United States. *JAMA* 2008; 300 (5): 520-29.
- 4 Purcell D et al. Estimating the population size of men who have sex with men in the United States to obtain HIV and syphilis rates. *The Open AIDS Journal* 2012; 6(Suppl 1: M6): 114–123.
- 5 Farnham PG et al. Medical costs averted by HIV prevention efforts in the United States, 1991–2006. *J Acquir Immune Defic Syndr* 2010; 54:565–67.
- 6 CDC. Monitoring selected national HIV prevention and care objectives by using HIV surveillance data – United States and 6 U.S. dependent areas – 2010. *HIV Surveillance Supplemental Report 2012*;17(No. 3). Available at: <http://www.cdc.gov/hiv/topics/surveillance/resources/reports/>. Published June 2012.

Figure 7: HIV Prevalence and Incidence, 1980–2010



HIV: Protect Yourself

Be smart about HIV. Here's what you can do to reduce your risk of infection:

Get the facts — Arm yourself with basic information: Are you at risk? How is HIV spread? How can you protect yourself? (See <http://www.cdc.gov/hiv/topics/basic>)

Take control — You have the facts; now protect yourself and your loved ones. Effective strategies for reducing HIV risk include:

- **Abstinence:** The most reliable way to avoid infection is to abstain from sex (i.e., anal, vaginal or oral).
- **Mutual monogamy:** Mutual monogamy means that you agree to be sexually active with only one person, who has agreed to be sexually active only with you. Being in a long-term mutually monogamous relationship with an uninfected partner is one of the most reliable ways to avoid HIV infection
- **Reduced number of sex partners:** Reducing your number of sex partners can decrease your risk for HIV. It is still important that you get tested for HIV, and share your test results with your partner.
- **Condoms:** Correct and consistent use of the male latex condom is highly effective in reducing HIV transmission. Use a condom every time you have anal, vaginal or oral sex.
- **New, sterile needles:** HIV can be transmitted by injecting drugs through needles, syringes and other works if they are contaminated with the blood of someone who is HIV infected. It is vital that individuals who inject drugs use only new, sterile needles, syringes and other works — and never share them.

Put yourself to the test — Knowing your HIV status is a critical step toward stopping HIV transmission, because if you know you are infected, you can take steps to protect your partners. Also, if you are infected, the sooner you find out, the sooner you can receive life-extending treatment. In fact, CDC recommends that all adults and adolescents be tested at least once in their lifetime and those individuals who practice more risky behaviors be tested more frequently. Call 1-800-CDC-INFO or visit to find HIV and STD testing locations near you.

Start talking — Talk to everyone you know about HIV — friends and family, coworkers and neighbors, at work and at places of worship. Have ongoing and open discussions with your partners about HIV testing and risk behaviors. Talking openly about HIV can reduce the stigma that keeps too many from seeking testing, prevention and treatment services, and the support they need.

HIV does not have to become part of your life. Each of us can and must be part of the solution.

HIV/AIDS Information and Resources

- General information about HIV/AIDS: www.cdc.gov/HIV
- HIV/AIDS news: www.cdc.gov/nchhstp/newsroom
- Act Against AIDS campaign: www.actagainstaids.org
- National HIV/AIDS Strategy: www.whitehouse.gov/administration/eop/onap/nhas

