HIV and AIDS in the United States: A Picture of Today's Epidemic

CDC HIV/AIDS MEDIA FACTS — MARCH 2008

More than 25 years into the AIDS epidemic, HIV infection continues to exact a tremendous toll in the United States. Recent data indicate that African Americans and gay and bisexual men of all races continue to be most severely affected.

Estimates of HIV Prevalence

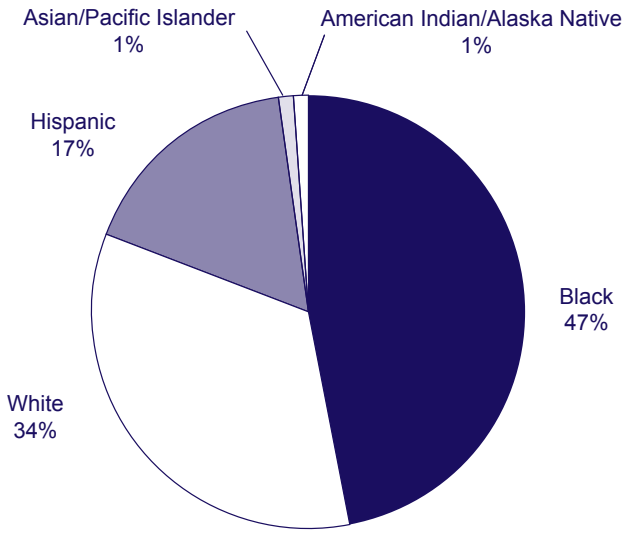
The latest estimates indicate that at the end of 2003, HIV prevalence— the total number of persons with HIV—was roughly 1 million (estimated range between 1,039,000–1,185,000) [1]. Approximately one-fourth (24% –27%) of HIV-infected persons are believed to be unaware of their infection, underscoring the need to expand opportunities for HIV testing.

An estimated 47% of the persons living with HIV were black, 34% were white, and 17% were Hispanic. Asians/Pacific Islanders and American Indians/Alaska Natives each represented roughly 1% of the HIV-infected population.

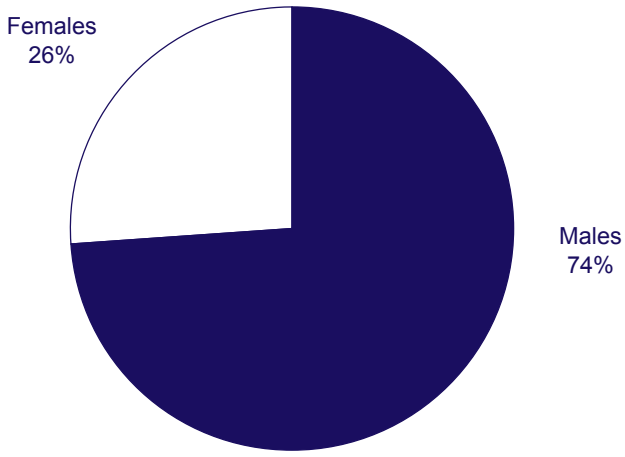
Males accounted for 74% of the population living with HIV.

The largest population living with HIV (45%) comprised men who have sex with men (MSM), followed by persons infected through high-risk heterosexual contact (27%), those infected through injection drug use (22%), and those who were exposed through both male-to-male sexual contact and injection drug use (5%).

Race/ethnicity of persons living with HIV, 2003



Sex of persons living with HIV, 2003



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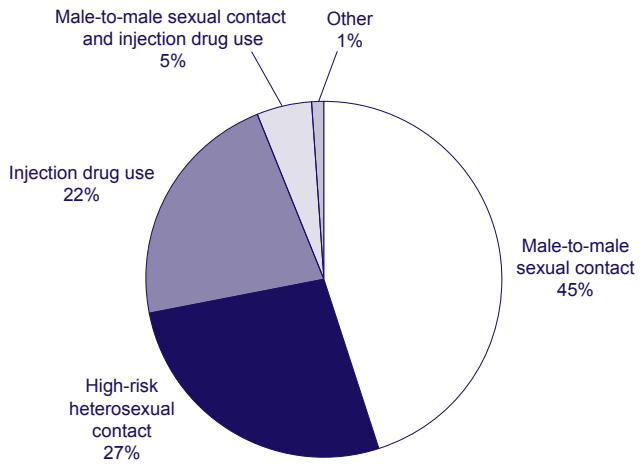
Transmission category for persons living with HIV, 2003



Researchers believe that these estimates point to an increased need for HIV testing, prevention, and treatment services to slow the US epidemic. As persons with HIV are now living longer than ever before, a growing population of HIV-infected men and women must be reached with testing and prevention services to help them protect others from infection. Additionally, increasing HIV prevalence means increased opportunities for transmission to HIV-negative persons who engage in risky behaviors. Efforts to reduce the number of new infections must therefore meet the needs of populations that are infected and populations that are not infected.

HIV prevalence differs from HIV incidence: incidence reflects the number of new HIV infections each year. CDC is working with states to implement the first national system for determining HIV incidence on the basis of direct measurement of new HIV infections. This new technology distinguishes recent HIV infections from long-standing infections and will provide a critical missing piece in tracking the US epidemic. In addition, it will provide the clearest picture to date of HIV infections in the United States and over time, will benefit the populations at highest risk by better focusing HIV prevention efforts and by measuring progress. The first estimates of HIV incidence from the system will be released when available.

In the interim, data on HIV diagnoses from areas with mature, integrated HIV and AIDS surveillance systems provide the best indication of the current impact of the epidemic.

Estimated Number of New HIV Diagnoses, 2006

CDC's analysis of HIV diagnoses includes all new HIV diagnoses, with or without an AIDS diagnosis, in the 33 states that have long-standing confidential, name-based HIV infection reporting systems.*

HIV diagnoses do not necessarily represent new infections: some persons with a new HIV diagnosis were infected recently; others were infected long ago, but their infection was detected only recently. Additionally, although the inclusion of New York State data since 2001 provides a sample of diagnoses that is more representative than the sample from earlier analyses, several high-morbidity areas (including California and Illinois) lack long-standing, name-based reporting and are still not included in this analysis.

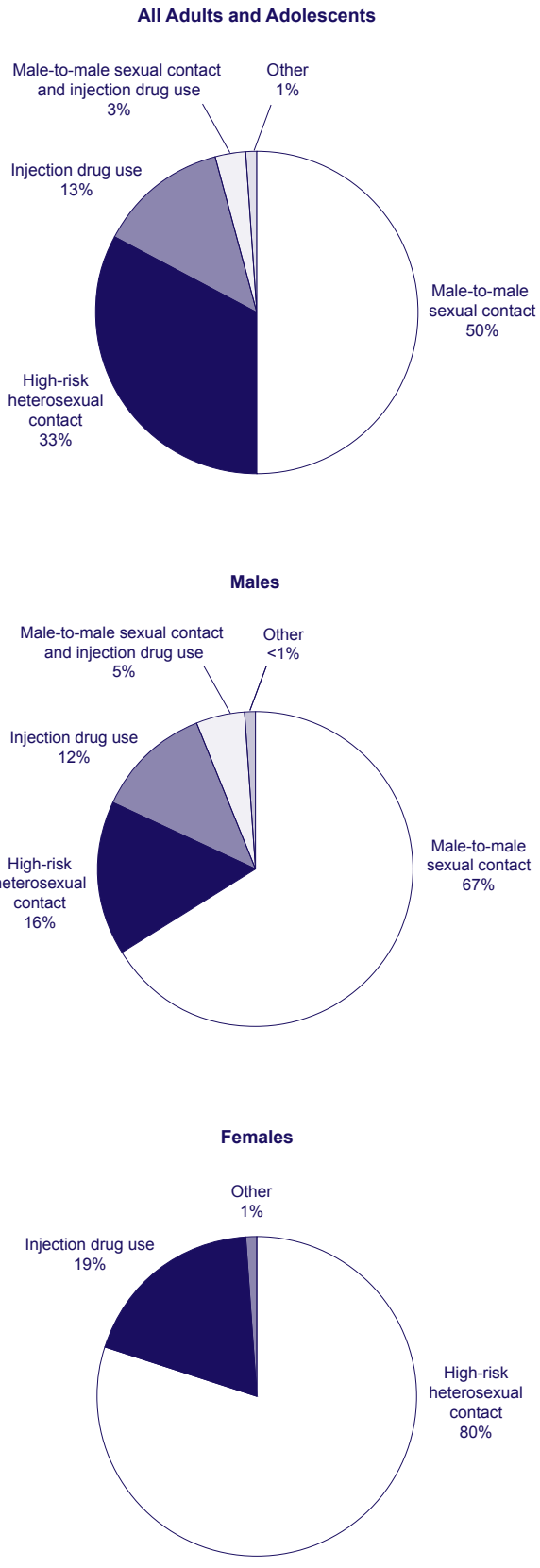
An analysis of persons with a diagnosis of HIV infection, by race/ethnicity and risk factor, underscores the disproportionate impact of HIV among communities of color and MSM of all races:

- By race/ethnicity, nearly half (49%) were black, although blacks made up only 13% of the population of the 33 states [2]. Whites accounted for 30% of diagnoses, and Hispanics accounted for 18%. Asians/Pacific Islanders and American Indians/Alaska Natives each accounted for 1% or less of diagnoses.
- By age, more than half (57%) were aged 25–44. Children younger than 13 years accounted for less than 1% of diagnoses.

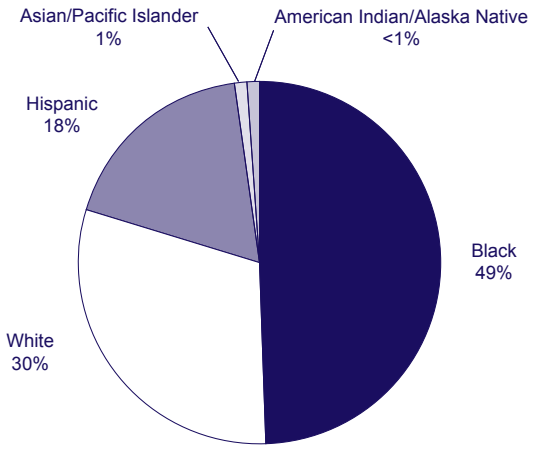
*These states are: Alabama, Alaska, Arizona, Arkansas, Colorado, Florida, Idaho, Indiana, Iowa, Kansas, Louisiana, Michigan, Minnesota, Mississippi, Missouri, Nebraska, Nevada, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, South Carolina, South Dakota, Tennessee, Texas, Utah, Virginia, West Virginia, Wisconsin and Wyoming.

- Among adults and adolescents:
  - By transmission category, MSM continued to account for the largest number of diagnoses overall, followed by males and females exposed through high-risk heterosexual contact and injection drug use.
  - By sex, males accounted for 73% of all new HIV diagnoses in 2006.
  - Among males, most diagnoses were for MSM. Although past analyses indicate this is true regardless of race, high-risk heterosexual contact also accounts for a considerable proportion of new HIV diagnoses among men of minority races/ethnicities [3, 4]
  - Among females, most diagnoses were for those exposed through high-risk heterosexual contact.

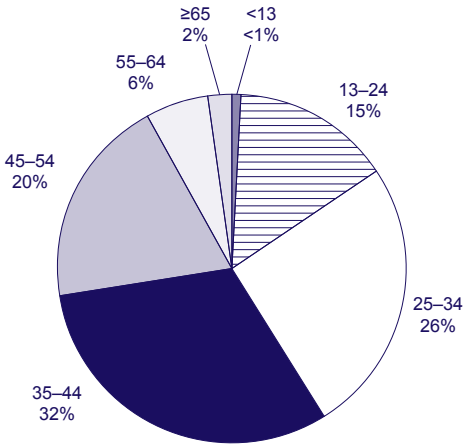
Transmission category for persons with a new HIV diagnosis in 2006



Race/ethnicity of persons with a new HIV diagnosis in 2006



Age groups of persons with a new HIV diagnosis in 2006



Estimated Rates of HIV Diagnosis, 2006

Disparities among Races/Ethnicities Persist

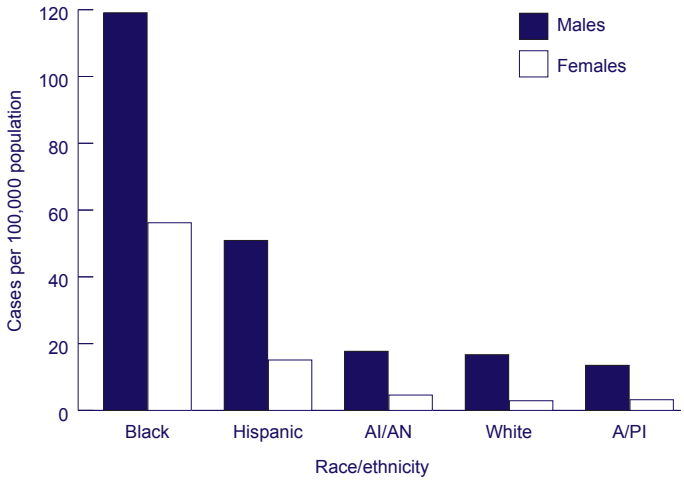
In 2006, the overall rate of HIV diagnosis (the number of diagnoses per 100,000 population) in the 33 states was 18.5 per 100,000 [2]. The rate for blacks was roughly 8 times the rate for whites (67.7 per 100,000 vs 8.2 per 100,000).

African American males continue to bear the greatest burden of HIV infection. In 2006, the HIV diagnosis rate for all black males in 33 states (119.1 per 100,000 population) was the highest of any group—more than 7 times that for white males (16.7), more than twice the rate for Hispanic males (50.9), and more than twice the rate for black females (56.2). The diagnosis rate for Hispanic males was approximately 3 times that for white males.

African American females are also severely and disproportionately affected by HIV infection. In 2006, the HIV diagnosis rate for black females (56.2) was more than 19 times the rate for white females (2.9). The rate for Hispanic women was 15.1, more than 5 times that for white females.

Among American Indians/Alaska Natives, the rate of HIV diagnosis for males (17.7) was slightly higher than the rate for white males, and the rate for females (4.6) was nearly twice the rate for white females. Among Asians/Pacific Islanders, the rate of HIV diagnosis for males was 13.5, and the rate for females was 3.2.

Rates of HIV Diagnosis, 2006



Multiple Challenges Place African Americans and Hispanics/Latinos at Increased Risk

Race and ethnicity are not, by themselves, risk factors for HIV infection. But studies show that African Americans and Hispanics/Latinos are more likely than their white counterparts to face multiple challenges associated with risk for HIV infection. These challenges include high rates of sexually transmitted diseases, which can facilitate HIV transmission [5, 6]; substance abuse, which may increase the risk for HIV infection through sexual or drug-related transmission [7]; and socioeconomic factors, such as limited access to high-quality health care [8]. Studies have also suggested that poverty may place African American women at increased risk because of the power imbalance created by financial dependence on men [9]. Among MSM of minority races/ethnicities, cultural barriers that may impede the acknowledgment of risk behaviors and the ability to access prevention services may result in increased risk [10–14]. For Hispanics/Latinos, language barriers may also affect the quality of care [15]. Additionally, because many Hispanics/Latinos or their parents have emigrated from diverse countries or regions, there is no single culture for persons of

REFERENCES

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Spanish origin in the United States. Research shows that Hispanics/Latinos born in different countries have different behavioral risk factors for HIV [2, 16].

AIDS Cases and Deaths

AIDS cases and deaths, reported from all US states and the District of Columbia, provide a valuable measure of the impact of the disease in various areas and populations. In the mid-to-late 1990s, advances in HIV treatments led to dramatic declines in AIDS deaths and slowed the progression from HIV infection to AIDS.

In general, the trend in the estimated number of AIDS cases and deaths remained stable from 2002 through 2005. Estimates for 2006 suggest that the number of AIDS cases remained stable and that the number of AIDS deaths decreased, but it is too early to determine whether these trends will hold. The decrease in estimated deaths is likely due to delays in the reporting of deaths; there is always greater uncertainty about the data estimates for the most recent year (estimates are refined as additional data are received).

Estimated numbers of AIDS cases and deaths of persons with AIDS 2002–2006

Year	Estimated Number of AIDS Cases	Estimated Number of Deaths Among Persons with AIDS
2006	36,828	14,016
2005	36,552	16,268
2004	37,726	16,395
2003	38,538	16,690
2002	38,132	16,948

By race/ethnicity, African Americans continue to be most severely affected by AIDS. In 2006, rates of AIDS cases were 47.6 per 100,000 for blacks, 15.6 for Hispanics, 6.2 for American Indians/Alaska Natives, 5.4 for whites, and 3.7 for Asians/Pacific Islanders. Among adults and adolescents, rates of AIDS cases were highest for black males (82.9 per 100,000), followed by black females (40.4) and Hispanic males (31.3). The AIDS rate for Hispanic females was 9.5 per 100,000. AIDS rates for white males and females were 11.2 and 1.9 per 100,000, respectively. AIDS rates for American Indian/Alaska Native males and females were 12.2 and 3.6 per 100,000, respectively, and AIDS rates among Asian/Pacific Islander males and females were 7.5 and 1.6 per 100,000, respectively.

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