HIV and AIDS in the United States

A Picture of Today's Epidemic

More than 20 years into the AIDS epidemic, HIV 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 impacted.

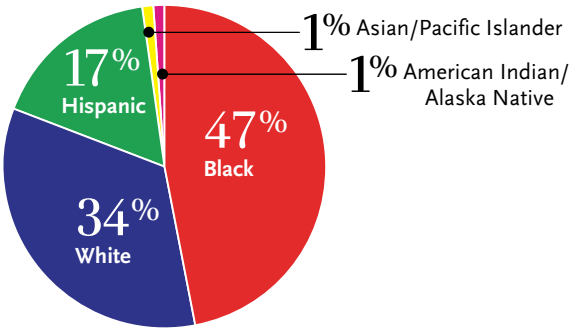
Estimates of HIV Prevalence, United States

The latest estimates indicate that HIV prevalence in the U.S.— the total number of people with HIV— was roughly one million at the end of 2003 (estimated range between 1,039,000 and 1,185,000).[1] Approximately one-fourth (24%–27%) of people with HIV are believed to be unaware of their infection, underscoring the need for increased efforts to reach at-risk communities with HIV testing services.

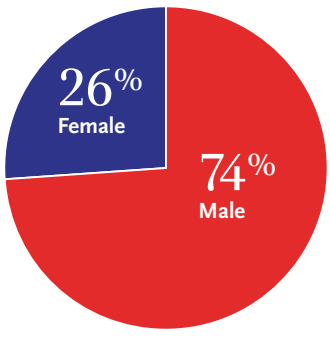
By race, 47 percent of people estimated to be living with HIV were black, 34 percent were white, and 17 percent were Hispanic. Asian/Pacific Islanders and American Indians/Alaska Natives each represented roughly 1 percent of the HIV-positive population.

By gender, males represented 74 percent of the population living with HIV.

People Living with HIV in the U.S. — Race/Ethnicity

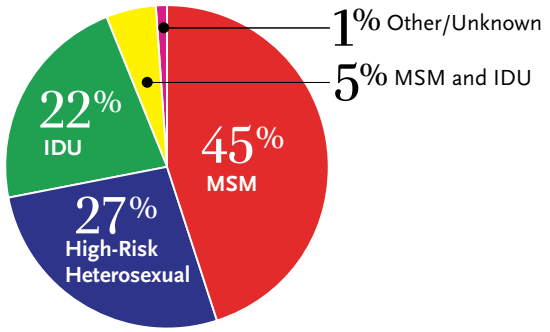


People Living with HIV in the U.S. — Gender



By risk group, men who have sex with men (MSM) represented the largest population living with HIV (45%), followed by individuals infected through high-risk heterosexual contact (27%), those infected through injection drug use (IDU) (22%), and individuals who were potentially exposed through both male-to-male sexual contact and injection drug use (5%).

People Living with HIV in the U.S. — Transmission Category



Estimates of HIV Incidence, United States

The most recent CDC estimate of the annual number of new HIV infections (HIV incidence) suggests that at least 40,000 individuals become infected with HIV each year in the U.S. The methods for deriving this estimate are not as precise as those utilized for HIV prevalence and therefore cannot provide estimates for subgroups of the population. CDC is working with states to develop a new system for monitoring HIV incidence more directly through the use of a testing method that distinguishes recent from longstanding infections. Data are expected from that system next year.

In the interim, data on HIV diagnoses from areas with mature, integrated HIV and AIDS surveillance systems provide the best indication of recent trends in the epidemic. Trends in HIV diagnoses reflect the combined influence of trends in HIV incidence and trends in HIV testing. This is because some individuals with new HIV diagnoses were infected recently, while others were infected long ago.

Estimated New HIV Diagnoses, Regardless of Stage of Disease, 33 States, 2001–2004

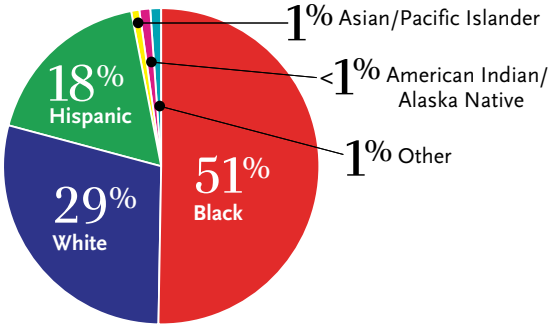
CDC's analysis of trends in HIV diagnoses includes all new HIV diagnoses, with or without an AIDS diagnosis, in the 33 states that have conducted confidential, name-based HIV case reporting for at least four years.* New York State was added to the national analysis for the first time in this report, and that state's HIV cases comprised over 20 percent of all new diagnoses reported during 2001–2004. The inclusion of the large number of cases from New York State provides a sample of diagnoses that is more representative of the U.S. epidemic. Because of the addition of data from New York State, the current analysis cannot be directly compared to earlier reports.

* HIV case reporting from these states is included in the analysis: 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.

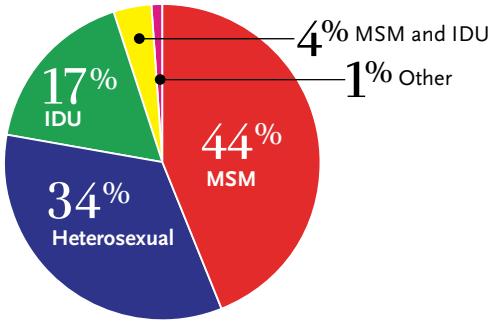
Overall, a total of 157,252 people were diagnosed with HIV in the 33 states that conducted confidential, name-based reporting from 2001 through 2004.[2] An analysis of the diagnoses by race and risk factor underscores the disproportionate impact of HIV among communities of color and MSM of all races:

- By race, more than half of diagnoses (51%) were among blacks, although they comprise only 13.5 percent of the population of the 33 states. Whites accounted for 29 percent of diagnoses, and Hispanics accounted for 18 percent. Asians/Pacific Islanders and American Indians/Alaska Natives each accounted for 1 percent or less of diagnoses.
- By transmission category, MSM continued to account for the largest number of diagnoses overall, followed by males and females exposed through heterosexual sex and IDU.
- By gender, males accounted for 71 percent of all new HIV diagnoses between 2001 and 2004.
- Among males, the majority of diagnoses occurred among MSM. However, the proportion of male diagnoses attributed to heterosexual exposure varied considerably by race, from a low of 6 percent among whites to a high of 25 percent among blacks.
- Among females, the majority of diagnoses occurred among those exposed through heterosexual contact, although the proportions varied somewhat by race.

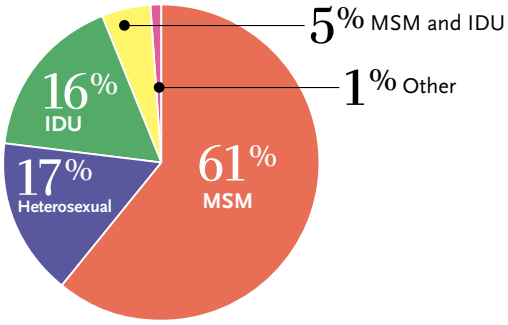
New HIV Diagnoses — Race/Ethnicity



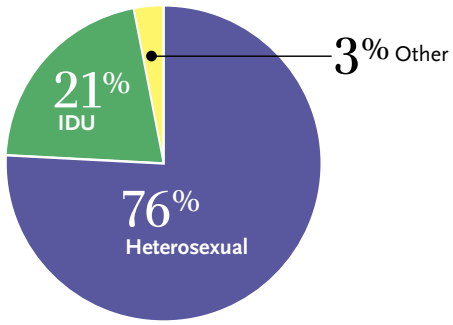
New HIV Diagnoses — Transmission Category



New HIV Diagnoses, Males — Transmission Category



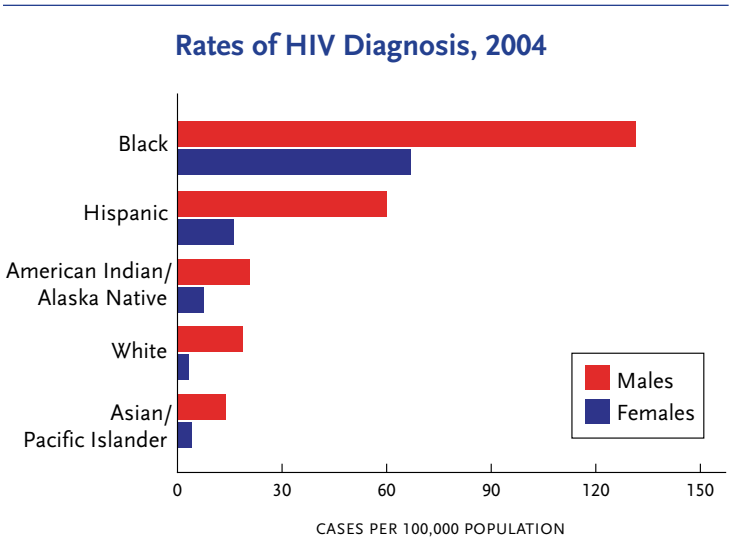
New HIV Diagnoses, Females — Transmission Category



Trends in Estimated HIV Diagnoses, Regardless of Stage of Disease, 33 States, 2001–2004

Despite 5 percent annual drop in rate of diagnosis among African Americans, racial disparities remain severe

Rates of HIV diagnosis (the number of diagnoses per 100,000 population) in the United States remained relatively stable overall during 2001–2004 (22.8 per 100,000 in 2001 and 20.7 per 100,000 in 2004), but declined by roughly 5 percent per year among blacks.[2] Despite the declines, the rate of HIV diagnosis among blacks in the United States remained 8.4 times higher than the rate among whites in 2004 (76.3 per 100,000 and 9.0 per 100,000, respectively).



In 2004, the highest rate of HIV diagnosis was among black males (131.6 per 100,000 population), with a rate more than 7 times that of white males (18.7) and more than twice the rate among Hispanic males (60.2).[3]

The rate of diagnosis among black females in 2004 (67.0 per 100,000 population) was more than 20 times higher than the rate among white females (3.2), and more than four times higher than among Hispanic females (16.3).

Among American Indians/Alaska Natives, the rate of HIV diagnosis among males (20.8) was slightly higher than the rate among white males, and the rate among females (7.7) was more than twice the rate among white females. Among Asians/Pacific Islanders, the rate of HIV diagnosis among males was 13.9 and the rate among females was 4.1.

HIV diagnoses decline among injection drug users and heterosexuals, partly due to influence of New York State data

From 2001 to 2004, overall diagnoses in these 33 states decreased slightly (from 41,207 to 38,685), but as with rates of HIV diagnosis, the change was not statistically significant.[2]

There was, however, a statistically significant decline of 9 percent per year in diagnoses among injection drug users, as well as a smaller decline of roughly 4 percent per year among those exposed through high-risk heterosexual contact. These trends were driven by declines in diagnoses in New York State during this four-year period, which may also have contributed to the declining rate of diagnosis among blacks overall.

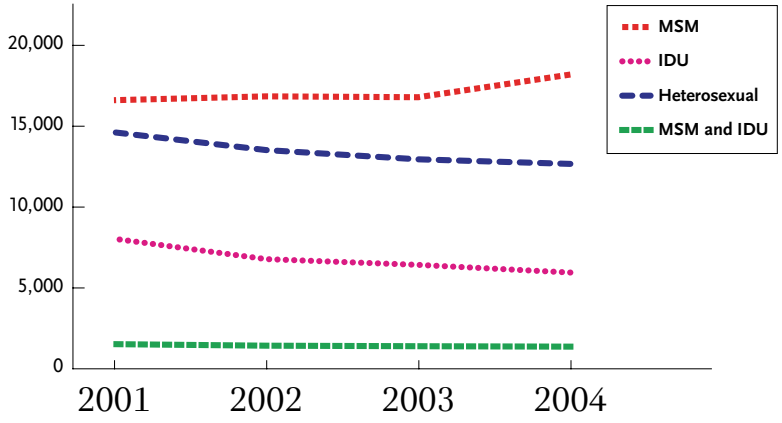
Because new HIV diagnoses are influenced by both underlying trends in new HIV infections and trends in HIV testing, it is difficult to interpret these emerging trends, particularly in an era marked by concerted efforts to increase HIV testing among high-risk populations. However, the declines in diagnoses among injection drug users are consistent with prior studies suggesting that prevention efforts have helped reduce new infections in this population.

Diagnoses among men who have sex with men increase slightly in most recent year: reasons unclear

Estimated diagnoses among MSM remained roughly stable for the first three years of this analysis, but increased 8 percent between 2003 and 2004. These trends were consistent for MSM of all races.

While the recent upturn in diagnoses among MSM may reflect increases in HIV incidence, consistent with reported increases in risk behaviors and syphilis, this may also reflect an increase in HIV testing among MSM.

Trends in Estimated New HIV Diagnoses — Transmission Category



As a result of recent efforts to expand HIV testing, CDC ultimately expects to see increases in HIV diagnoses, regardless of underlying trends in infection. However, data are not yet sufficient to determine the impact of these efforts in specific populations. Subsequent analyses will further examine the role of differences in testing among various groups, HIV incidence trends, and the influence of New York State's trends on these overall changes.

Improved tracking of the epidemic

While the inclusion of New York State provides a more representative sample of U.S. HIV diagnoses than prior analyses, a number of high-morbidity areas that lack long-standing name-based reporting, including California and Illinois, are still not included. To improve the nation's ability to monitor the HIV epidemic, CDC has recommended that all states and territories adopt confidential, name-based HIV reporting systems.

Trends in AIDS Cases and Deaths

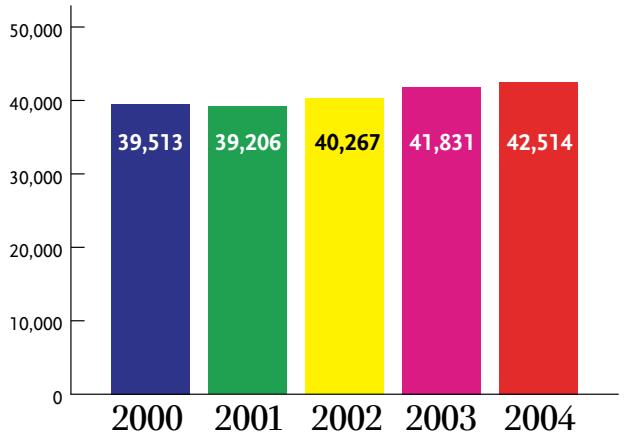
AIDS cases and deaths, reported from all U.S. states and territories, continue to provide a valuable measure of the impact of the disease in various areas and populations. In the mid-to-late 1990s, advances in HIV treatments led to dramatic declines in AIDS deaths and slowed progression from HIV to AIDS.

During 2000–2001, decreases in annual AIDS cases began to level, and after 2001, the estimated number of AIDS cases increased slightly each year.[3] The estimated number of AIDS deaths, however, decreased 8 percent between 2000 and 2004.

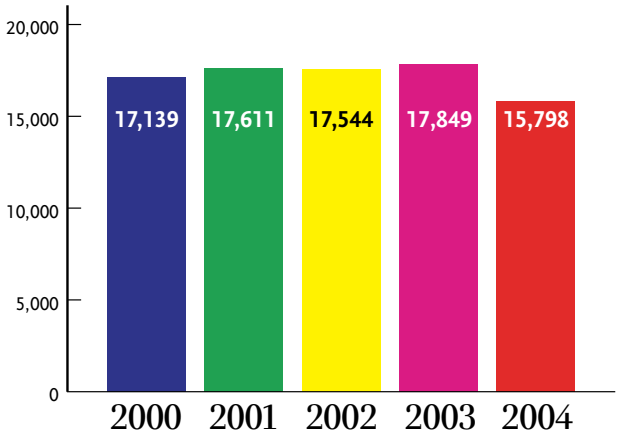
By race, African Americans continue to be most severely affected by AIDS. In 2004, rates of AIDS cases were 56.4 per 100,000 among blacks, 18.6 among Hispanics, 7.9 among American Indians/Alaska Natives, 6.0 among whites, and 3.7 among Asians/Pacific Islanders.

Among adults and adolescents, rates of AIDS cases in 2004 were highest among black males (99.4 per 100,000), followed by black females (48.2) and Hispanic males (37.9). The AIDS rate among Hispanic females was 11.1 per 100,000. AIDS rates among white males and females were 12.3 and 2.1 per 100,000, respectively. AIDS rates among American Indian/Alaska Native males and females were 13.5 and 6.4 per 100,000, respectively, and AIDS rates among Asian/Pacific Islander males and females were 7.5 and 1.6 per 100,000, respectively.

Estimated AIDS Cases



Estimated AIDS Deaths



References

1. Glynn M, et al. Estimated HIV prevalence in the United States at the end of 2003. 2005 National HIV Prevention Conference; June 12–15, 2005. Atlanta, GA. Abstract T1-B1101.

2. CDC. Trends in HIV/AIDS diagnoses — 33 states, 2001–2004. *MMWR* 2005;54:1149-1153.

3. CDC. *HIV/AIDS Surveillance Report, 2004* (Vol. 16). Atlanta: US Department of Health and Human Services, CDC;2005:1-46. Available at http://www.cdc.gov/dhap.htm