

Review of the HIV/AIDS Epidemic in Michigan, 2000

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Michigan Department of Community Health

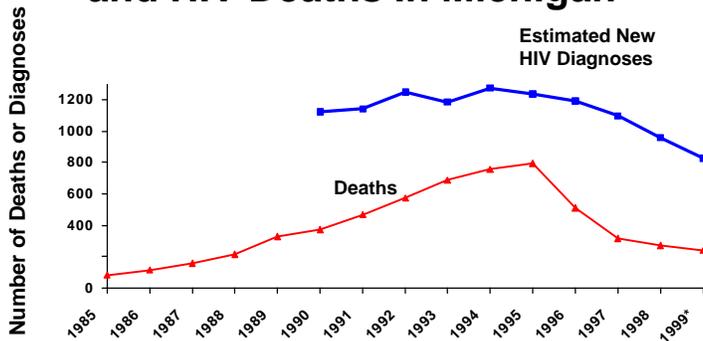
Global and National Overview

An estimated 5.3 million new HIV infections and 3.0 million HIV deaths occurred during 2000, bringing the worldwide total persons infected with HIV to 36 million. There have been a cumulative total of 22 million deaths since the beginning of the epidemic. About three-quarters of new cases and deaths were in south and central Africa, where transmission is predominately heterosexual (1).

In the United States the number of new infections remains at about 40,000 persons each year, while the number of deaths declined to about 16,000 in 1999. More than 440,000 persons have died from this epidemic since 1980. The number of deaths has declined because of new treatments that prolong life. As a result the total number of persons living in the U.S. with HIV infection has increased to more than 850,000 persons (2,3).

Michigan Deaths Continue to Decline, But New HIV Diagnoses Remain High

New Diagnoses of HIV Infection and HIV Deaths In Michigan



* 1999 death data based on ICD-10 coding. Provisional comparability difference from ICD-9 codes is 6 percent

The number of HIV-related deaths declined two-thirds between 1995 and 1999 in Michigan and nationwide. The decline was marked among all groups, but was significantly greater among white males (79 percent) compared with black males (66 percent), and females (57 percent). All deaths declined sharply in 1996 and 1997, but very little in 1998 and 1999. The decline in deaths is due to effective treatments that prolong life but do not eliminate HIV infection.

The number of persons newly diagnosed with HIV infection was roughly level between 1990 and 1997, but has decreased since that time. These new diagnoses include persons who learn of their HIV infection status after developing symptoms of AIDS. Each year, there are more new diagnoses of HIV infection than deaths. Therefore, the reported number of persons living with HIV/AIDS in Michigan is increasing. MDCH now estimates that 13,500 residents are living with HIV infection in Michigan.

The number of persons newly diagnosed with HIV infection was roughly level

Trends in new AIDS diagnoses in Michigan, 1995-1999

In addition to reducing the number of deaths, medical treatments also delay the development of immune system changes and disease that mark a diagnosis of AIDS. The number of new AIDS diagnoses declined from about 1,100 cases in 1995 to 600 cases in 1999. This decline followed a similar pattern as the decline in deaths, with a sharp 36% drop in 1996 and 1997, and a smaller drop of 9% in 1998 and 1999. About one-quarter of persons with AIDS currently are diagnosed with HIV at the same time as their AIDS symptoms appeared. In order to further decrease the number of new AIDS cases, we need to continue efforts to get at-risk persons tested and into care early. In addition treatments will need to become more effective and work for longer periods.

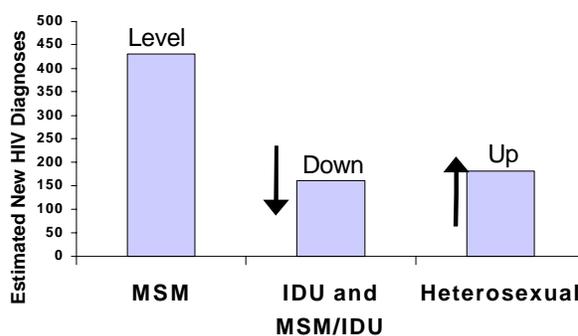
Trends in New Diagnoses of HIV Infection in Michigan, 1995-1999

Methods: In order to evaluate trends over time, we estimated the number of persons newly diagnosed with HIV infection each year and determined if there was a statistically significant change between 1995 and 1999. The date of new HIV *diagnosis* does not tell us when persons were first *infected*, because their HIV diagnosis may take place months or years after infection. However, this is the best current measure of how fast the epidemic is spreading among different populations. The Centers for Disease Control and Prevention estimate that 70% of persons in the U.S. are currently aware of their HIV infection status; a concerted effort is underway to increase that proportion to 95 percent or higher (4).

Overall: The total number of persons diagnosed with HIV infection was about 1,200 persons annually 1990 through 1996, then declined to about 825 persons diagnosed in 1999. The profile of persons with newly diagnosed HIV-infection changed significantly between 1995 and 1999. The proportion increased among black females, persons infected heterosexually, and persons over age 45 at the time of initial diagnosis, while the proportion decreased among white males, injection drug users, and persons age 25-34 at the time of diagnosis. There were no changes in the number of persons among other groups.

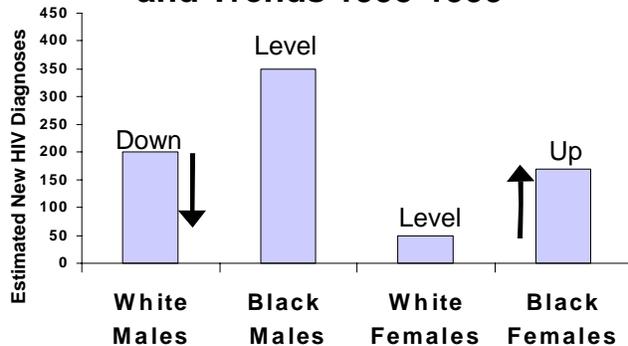
Risk Behavior for HIV Infection, 1995-99: Among persons with a known transmission risk for HIV infection, the proportion infected heterosexually increased from 16 percent to 23 percent of the total. This includes a large number of persons whose heterosexual partner was an injecting drug user (IDU). Meanwhile, new diagnoses decreased from 28 percent to 21 percent among IDUs, including men who have sex with men (MSM) who also inject drugs. The proportion of new diagnoses among men who have sex with men who do not inject drugs remained at 54 percent of the total. In addition, fewer than 1 percent of new diagnoses were among persons who first acquired infection from blood products received either before 1985 in the U.S. or in other countries. About 1 percent of new diagnoses were among infants born to HIV-infected mothers.

Number of New HIV Diagnoses in 1999, and Trends 1995-1999



Race and Sex 1995-99: The proportion of persons diagnosed with HIV infection shifted by race and sex between 1995 and 1999. The proportion who are black females increased from 16 percent

Number of New HIV Diagnoses in 1999, and Trends 1995-1999



to 21 percent of the total; white males decreased from 30 percent to 26 percent; black males remained stable at 44 percent of the total; and white females were unchanged at 5 percent of the total. The disproportionate impact of this epidemic among blacks is evident from these numbers. Black females and black males each make up just 7 percent of the general population of Michigan but make up a much greater proportion of persons living with HIV infection.

Age 1995-99: The age of persons newly diagnosed with HIV infection is rising. Fewer than ten children age 0-12, and ten adolescents age 13-19, were diagnosed annually. Eight percent of new diagnoses were among young adults age 20-24. The proportion who were age 25-34 declined from 35 percent to 31 percent of the total, the proportion age 35-44 remained level at 35 percent of the total, and the proportion age 45 and over increased from 19 percent to 24 percent of the total.

Residence 1995-99: The number of new HIV diagnoses is unchanged across different geographic areas of Michigan. About two-thirds of new diagnoses each year are among residents of southeast Michigan (Wayne, Oakland, and Macomb counties). One third are diagnosed among residents of the rest of the state.

Conclusions

HIV mortality has dropped markedly over the past five years. However, the total number of persons living with HIV infection is increasing because annually there are more new diagnoses than deaths. Recently, the number of new diagnoses of HIV infection has declined. This may be in part because prevention efforts have reduced the number of people who are infected.

Michigan residents with HIV infection continue to be predominately men who have sex with men, persons age 25-44, and/or residents of Southeast Michigan. The proportion with heterosexually acquired infection has increased and is now equal to the number infected through injection drug use. New diagnoses of HIV infection have increased over the past few years among black women and among persons diagnosed at age 45 or older. New diagnoses have declined among white males, and persons age 25-34. New diagnoses are stable among MSM, black males, white females, persons age 35-44, and residents of various geographic areas of Michigan.

References:

1. Joint United Nations Programme on HIV/AIDS. *AIDS epidemic update: December 2000*. For a complete copy of the report including graphics, visit: http://www.unaids.org/epidemic_update/report_dec00/index_dec.html
2. Centers for Disease Control and Prevention, *HIV/AIDS Surveillance Report*, Volume 12 (1), June 30, 2000. Available at <http://www.cdc.gov/hiv/stats/hasrlinc.htm>
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4. Centers for Disease Control and Prevention. HIV Prevention Strategic Plan Through 2005. January 2001. Available at <http://www.cdc.gov/nchstp/od/news/prevention.pdf>