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Companion Text for the Slide Set:
Minnesota HIV/AIDS Prevalence & Mortality Report, 2015

Overview

The *Minnesota HIV/AIDS Prevalence & Mortality Report, 2015* contains estimates of HIV/AIDS prevalence (the number of persons living with HIV or AIDS) and mortality in Minnesota. These estimates can be used to help educate, plan for HIV/AIDS services and develop policy.

Data Source

In Minnesota, laboratory-confirmed infections of human immunodeficiency virus (HIV) are monitored by the Minnesota Department of Health (MDH) through an active and passive surveillance system. State rules (Minnesota Rule 4605.7040) require both physicians and laboratories to report all cases of HIV infection (HIV or AIDS) directly to MDH (passive surveillance). In June 2011, an amendment to the communicable disease reporting rule was passed, requiring the report of all CD4 and viral load test results, improving the completeness of passive reporting in Minnesota, and better allowing for the monitoring of disease progression. Additionally, regular contact is maintained with several clinical sites to ensure completeness of reporting (active surveillance). MDH staff also performs routine death matches with state and national data as to ensure correct vital status in the surveillance system. All of the data presented in this report come from MDH HIV/AIDS Surveillance System.

Data Limitations

The prevalence estimate is calculated by totaling the number of HIV and AIDS cases diagnosed through December 31, 2015 who are not known to be deceased and whose most recently reported state of residence was Minnesota. It bears noting that persons who are HIV-infected but not yet tested are not included in this prevalence estimate. Migration (known HIV-infected persons moving in or out of the state) also

affects the estimate. Refer to the *HIV/AIDS Prevalence & Mortality Technical Notes* for a more detailed description of data inclusions and exclusions.

Factors that impact the completeness and accuracy of the available surveillance data on HIV/AIDS include the level of screening and compliance with case reporting. Thus, any changes in numbers of infections may be due to one of these factors, or due to actual changes in HIV/AIDS occurrence.

National Context

According to the Centers for Disease Control & Prevention (CDC), an estimated 1.2 million persons in the United States over the age of 13 were living with HIV/AIDS, with 14% undiagnosed and unaware of their HIV infection[1]. The number of people specifically living with diagnosed AIDS in the United States has been increasing steadily since 1985 and an estimated 509,845 were living with AIDS at end of 2012.[2]

Overview of HIV/AIDS in Minnesota, 1990's-2015

The annual number of new HIV and AIDS cases increased steadily from the beginning of the epidemic to the early 1990s. Beginning in 1996, both the number of newly diagnosed AIDS cases and the number of deaths among AIDS cases declined sharply, primarily due to the success of new antiretroviral therapies including protease inhibitors. These treatments do not cure, but can delay progression to AIDS among persons with HIV (non-AIDS) infection and improve survival among those with AIDS. These treatments have been shown to be effective at preventing transmission of HIV. Over the past decade, the number of HIV/AIDS cases diagnosed has remained relatively stable with an average of 319 cases diagnosed each year. By the end of 2015, an estimated 8,215 persons with HIV/AIDS were assumed to be living in Minnesota.[3]

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[1] Centers for Disease Control and Prevention. Monitoring selected national HIV prevention and care objectives by using HIV surveillance data—United States and 6 dependent areas—2012. HIV Surveillance Supplemental Report 2014;19(No. 3). http://www.cdc.gov/hiv/library/reports/ surveillance/. Published November 2014. Accessed April 20, 2015

[2]Centers for Disease Control and Prevention. *HIV Surveillance Report, 2013*; vol. 25. http://www.cdc.gov/hiv/library/reports/surveillance/. Published February 2015. Accessed April 20, 2015

[3] This number includes persons whose most recently reported state of residence was Minnesota, regardless of residence at time of diagnosis. This estimate does not include persons with undiagnosed HIV infection.

Persons Living with HIV/AIDS in Minnesota, 2015

Among the estimated 8,215 prevalent cases in Minnesota, 4,349 are diagnosed with HIV (non-AIDS) and 3,866 are diagnosed with AIDS. The majority (84%) of prevalent cases reside in the seven-county metropolitan area surrounding the Twin Cities of Minneapolis and St. Paul (Hennepin, Ramsey, Anoka, Carver, Dakota, Scott, and Washington counties). Although HIV infection is more common in communities with higher population densities and greater poverty, there are people living with HIV or AIDS in 98% of counties in Minnesota.

Gender & Race/Ethnicity

Seventy-six percent (76%) of prevalent HIV/AIDS cases are males. Broken down by race/ethnicity, 58% of male cases are white, 21% African American, 10% Hispanic, 3% black African-born, 1% American Indian, 2% Asian/Pacific Islander, and 3% are persons of multiple or unknown race. In total, 39% of males living with HIV/AIDS are among men of color whereas only 17% of the general male population comprised of people of color. Among female cases, the distribution is even more skewed toward women of color: 34% black African-born, 27% African American, 24% white, 7% Hispanic, 3% American Indian, 2% Asian/Pacific Islander, and 3% persons of multiple or unknown race. Thus, 73% of prevalent female HIV/AIDS cases are among women or color whereas only 17% of the general female population in Minnesota is comprised of women of color.

Please note that race is not considered a biological reason for disparities related to HIV/AIDS experienced by persons of color. Race, however, can be considered a marker for other personal and social characteristics that put a person at greater risk for HIV exposure. These characteristics may include, but are not limited to, lower socioeconomic status, less education, and less access to health care.

Beginning in 2012, MDH began estimating the number of MSM living in Minnesota. Men who have sex with Men have the highest rate of persons living with HIV/AIDS than any other sub-group. In 2015, the estimated rate of people living with HIV/AIDS among MSM was 4,891.8 per 100,000 population. This is more than 70 times

higher than the rate among non-MSM men (67.4 per 100,000 population). It's important to note that MSM contains cases from all racial/ethnic categories and therefore cannot be directly compared to the rates by race/ethnicity. For more information on how this was estimated, see the *HIV/AIDS Prevalence & Mortality Technical Notes*.

Age

Seventy percent (71%) of persons living with HIV/AIDS in 2015 are currently 40 years of age or older. As with new cases, there are differences by gender in the age of living cases. While males age 25 to 34 account for 14% of male living cases, females of the same age account for 18% of female living cases.

With the advent of therapies that delay progression to AIDS and death for those living with HIV infection the population of living cases has aged over time. In 2015, persons age 50 and older accounted for 44%, or more than one in three persons living with HIV in Minnesota, compared to 16% in 2002.

Mode of Exposure

In 2015, MDH used a risk re-distribution method to estimate the mode of exposure among cases with unknown risk. For additional details on how this was done please read the *HIV Prevalence and Mortality Technical Notes.* All mode of exposure numbers referred to in the text are based on the risk re-distribution.

The proportions of living cases attributable to particular modes of exposure differ among gender and race groups. While male-to-male sex (MSM or MSM/IDU) accounts for an estimated 96% of white male cases, it accounts for a smaller proportion of cases among men of color. For example, MSM and MSM/IDU account for 84%, 75%, and 12.5% of Hispanic, African American, and African-born males living with HIV in Minnesota, respectively. The estimated percent of male cases that identified IDU as a risk factor is higher for African Americans (12%), American Indians (14%), and Hispanics (8%). The percentage of cases with a risk of IDU among Asian, white, and African-born males are estimated at 3%, 2%, and 0.5%, respectively. Similar to the MSM category, IDU may be underreported due to social stigma.

Across all race/ethnicity groups, females most frequently report heterosexual contact as their mode of HIV exposure. However, IDU also accounts for a large percentage of female cases among most race/ethnicity groups. The largest estimated percentage of IDU cases are among American Indians (19%), followed by whites with 16%, African Americans with 13% and Hispanics with 8%. Among Asian females, heterosexual contact accounted for an estimated 82% of cases, and IDU for an estimated 2%. However, the number of prevalent cases among Asian/Pacific Islander females is quite small (n=48), so the results need to be interpreted very carefully. Finally, while African-born women make up the largest proportion (34%) of females living with HIV in Minnesota, they account for less than one percent of the IDU cases among HIV+ women.

Special Populations

Between 1990 and 2014, the number of foreign-born persons living with HIV/AIDS in Minnesota increased substantially, especially among the African-born population. In 1990, 50 foreign-born persons were reported to be living with HIV/AIDS in Minnesota, and by 2003 this number had increased twelve-fold to 692 persons. In 2015, the total number of foreign-born persons living with HIV/AIDS in Minnesota was 1,785, a 6% increase from 2014. This trend illustrates the growing diversity of the infected population in Minnesota and the need for culturally appropriate HIV care services and prevention efforts.

The characteristics of foreign-born persons living with HIV/AIDS in Minnesota differ from U.S.-born, especially in gender. While females account for 18% of cases among U.S.-born persons, they account for 44% of foreign-born cases. This is especially noticeable among African-born cases, where women account for 57% of those living with HIV/AIDS in Minnesota. The gender distribution among cases born in Latin America/the Caribbean is similar to that of U.S.-born cases, where 17% of prevalent cases are among women.

Seven countries (Ethiopia, Mexico, Liberia, Kenya, Somalia, Cameroon, and Sudan) account for a majority (64%) of living foreign-born cases, however there are 95 additional countries represented among the 1,748 foreign-born persons living with HIV infection in Minnesota.

HIV/AIDS Mortality in Minnesota

The number of deaths[4] among all people living with HIV infection in Minnesota decreased dramatically between 1995 and 1997 and has remained relatively constant over the past decade. In 2015, a total of 89 deaths were reported people living with HIV infection in Minnesota. The total number of deaths[5] reported in Minnesota for those living with AIDS was 66 (74% of all deaths) in 2015.

[4] Includes all deaths known to have occurred among all people living with HIV infection in Minnesota, regardless of location of diagnosis and cause of death.

[5] Number of deaths known to have occurred among people living with AIDS in Minnesota in a given calendar year, regardless of location of diagnosis and cause of death