INTRODUCTION

The Minnesota HIV/AIDS Prevalence & Mortality Report, 2012 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 the 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, 2012 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.

**PERSONS LIVING WITH HIV/AIDS IN THE UNITED STATES**

According to the Centers for Disease Control & Prevention (CDC), as of February 2013 an estimated 1.15 million persons in the United States were living with HIV/AIDS, with 18.1% undiagnosed and unaware of their HIV infection\(^1\). The number of people specifically living with AIDS in the United States has been increasing in recent years: from approximately 290,400 in 1998 to approximately 498,704 at end of 2010.\(^2\)

**PERSONS LIVING WITH HIV/AIDS IN MINNESOTA**

**Overview of HIV/AIDS in Minnesota, 1990’s-2012**

Heavily attributed to the success of new treatments introduced in 1995 (protease inhibitors) and 1996 (highly active antiretroviral therapy or HAART), the number of persons assumed to be living with HIV/AIDS in Minnesota has been steadily increasing over time. While these treatments do not cure, they can delay progression to AIDS among persons with HIV (non-AIDS) infection and improve survival among those with AIDS. As of December 31, 2012, 7,516 persons known to be living with HIV/AIDS resided in Minnesota, a 5.4% increase from 2011. Following recent increases in the number of HIV (non-AIDS) diagnoses starting in the mid-2000’s, reaching a peak of 281 new HIV (non-AIDS) cases in 2009; decreases have been observed since then, with 236 new HIV (non-AIDS) cases in 2012. In addition, the number of newly diagnosed AIDS cases has begun to decline after a recent high of 247 cases in 2004, with 202 new AIDS cases diagnosed in 2012.


Living HIV/AIDS Cases, 2012

Among the estimated 7,516 prevalent cases in Minnesota, 3,974 are diagnosed with HIV (non-AIDS) and 3,542 are diagnosed with AIDS. The majority (85%) 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 93% of counties in Minnesota.

Gender & Race/Ethnicity

Seventy-seven percent (77%) of prevalent HIV/AIDS cases are males. Broken down by race/ethnicity, 59% of male cases are White, 20% African American, 9% Hispanic, 8% African-born, 1% American Indian, and 2% Asian/Pacific Islander. In total, 40% of males living with HIV/AIDS are non-White whereas only 17% of the general male population is Non-White. Among female cases, the distribution is even more skewed toward women of color: 25% White, 29% African American, 32% African-born, 6% Hispanic, 3% American Indian, and 2% Asian/Pacific Islander. Thus, 73% of prevalent female HIV/AIDS cases are non-White whereas only 17% of the general female population in Minnesota is non-White.

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 2012, the estimated rate of people living with HIV/AIDS among MSM was 4,568.5 per 100,000 population. This is more than 60 times higher than the rate among non-MSM men (73 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-nine percent (79%) of persons living with HIV/AIDS in 2012 are currently 35 years of age or older. As with new cases, there are differences by gender in the age of living cases. While males twenty-five to thirty-four account for 14% of male living cases, females of the same age account for 23% 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 2012, persons 50 and older accounted for 36%, or more than one in three persons living with HIV in Minnesota, compared to 16% in 2002. Within the next 5-years it is estimated that one in 2 Minnesotans living with HIV will be over the age of 50.

**Mode of Exposure**

In 2012, 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 94% of White male cases, it accounts for an estimated 68% of non-White male cases. The estimated percent of male cases that identified IDU as a risk factor was particularly high for African Americans (13%), American Indians (10%), and Hispanics (9%). and These percentages among Asian, White, and African-born males were estimated at 3%, 3%, and 1%, 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 (21%), followed by Whites with 17%, African Americans with 14% and Hispanics with 8%. Among Asian females,
heterosexual contact accounted for an estimated 89% of cases, and IDU for an estimated 3%. However, the number of prevalent cases among Asian/Pacific Islander females is quite small (n=40), so the results need to be interpreted very carefully. Finally, while African-born women make up the largest proportion (32%) of females living with HIV in Minnesota, they account for less than one percent of the IDU cases among HIV+ women.

While risk re-distribution was used to make better sense of mode of exposure information there are differences by race and gender on how many cases have unspecified risk. Among males, only 7% of White prevalent cases have unspecified risk, compared to 80% of African-born, 32% of Asian, and 23% and 18% for Hispanic and African American cases, respectively. Among women, the disparity between White females (8% unspecified) and women of color is not as striking, except for African-born (23% unspecified) females. See the *HIV/AIDS Prevalence & Mortality Technical Notes* for a detailed discussion of mode of exposure categories.

**Special Populations**

Between 1990 and 2012, 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 2012, the total number of foreign-born persons living with HIV/AIDS in Minnesota was 1,534, a 7% increase from 2011. 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 43% of foreign-born cases. This is especially noticeable among African-born cases, where women account for 56% of those living with HIV/AIDS in Minnesota. Among Asian-born cases, women account for 31% of cases. The gender distribution among cases born in Latin America/the Caribbean is similar to that of U.S.-born cases, where 16% of prevalent cases are among women.
Seven countries (Ethiopia, Mexico, Kenya, Liberia, Somalia, Cameroon, and Sudan) account for a majority (64%) of living foreign-born cases, however there are 90 additional countries represented among the 1,534 foreign-born persons living with HIV infection in Minnesota.

**HIV/AIDS MORTALITY IN MINNESOTA**

The number of deaths\(^3\) among Minnesota AIDS cases decreased between 1995 and 1997 and has remained relatively constant over the past decade. The largest declines in mortality were observed among White males in the mid 1990s. In recent years, the number of deaths among Minnesota AIDS cases has been comparable between White and non-White males and between White and non-White females. In 2012, a total of 52 deaths were reported among AIDS cases diagnosed in Minnesota. The total number of deaths\(^4\) reported in Minnesota for those living with HIV infection (HIV (non-AIDS) or AIDS) was 80 in 2012.

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\(^3\) Includes all deaths to cases diagnosed with AIDS in MN, regardless of location of death and cause of death.

\(^4\) Includes all deaths to people living with HIV infection in Minnesota, regardless of location of diagnosis and cause of death.