



Massachusetts HIV/AIDS Data Fact Sheet

Women at Risk of HIV Infection

Introduction

The proportion of HIV/AIDS cases among women in Massachusetts has increased over time. Currently, 26% of people recently diagnosed and reported with HIV infection and 29% of people known to be living with HIV/AIDS in Massachusetts are women.

General Statistics:

- Within the years 2007 to 2009, 480 women were diagnosed with HIV infection, accounting for 26% of all reported HIV diagnoses in Massachusetts.¹
- On December 31, 2010, there were 5,072 women living with HIV/AIDS, accounting for 29% of all people living with HIV/AIDS in Massachusetts.

Regional Distribution:

- Among Health Service Regions (HSRs),ⁱⁱ the Central and Northeast regions have the largest proportions of women among those diagnosed with HIV infection within the three-year period 2007 to 2009, at 38% and 35%, respectively. Among people living with HIV/AIDS, the Central and Western regions have the largest proportions of women, both at 38%.

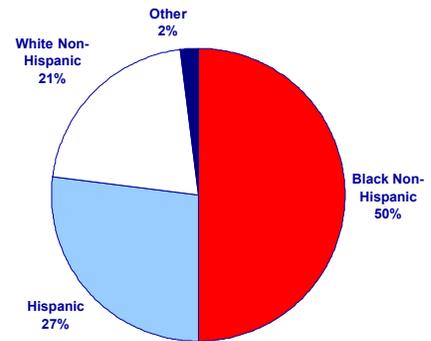
Among cities with over 20 people diagnosed with HIV infection within the three-year period 2007 to 2009, the following report that women represent at least 40% among those with HIV infection (*NOTE: N indicates number of women reported as diagnosed with HIV infection*):

- Lowell 47% (N=21)
- New Bedford 46% (N=19)
- Lawrence 45% (N=23)
- Holyoke 44% (N=10)
- Brockton 43% (N=25)
- Worcester 41% (N=37)

Race and Ethnicity:

- Among recent HIV infection diagnoses, 50% of women are black (non-Hispanic), compared to 26% of men; and 27% are Hispanic/Latina, compared to 23% of men. Similarly, among people living with HIV/AIDS, 43% of women are black (non-Hispanic), compared to 23% of men; and 28% are Hispanic/Latina, compared to 23% of men.

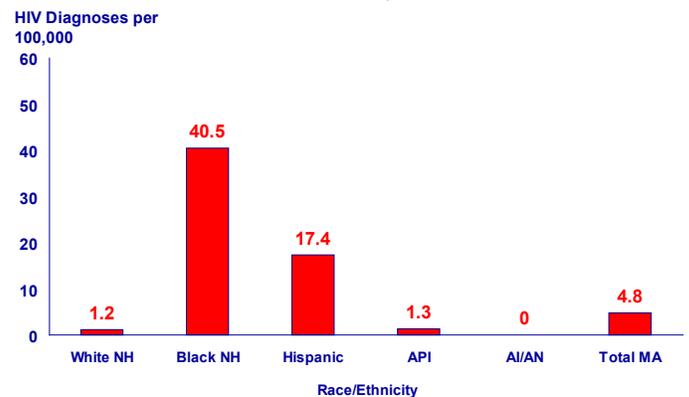
Figure 1. Females Diagnosed with HIV infection from 2007–2009 by Race/Ethnicity: Massachusetts



Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/11

Disparate Impact: The age-adjusted average annual rate of HIV diagnosis from 2007 to 2009 among black (non-Hispanic) women (40.5 per 100,000) is 34 times greater, and among Hispanic/Latina women (17.4 per 100,000) is 15 times greater than for white (non-Hispanic) women (1.2 per 100,000).

Figure 2. Age-Adjusted Rate of HIV Diagnosis per 100,000¹ Population Among Females by Race/Ethnicity: Average Annual Rate 2007–2009, Massachusetts



¹ Population sizes are from the Massachusetts Department of Public Health Modified Age, Race/Ethnicity, & Sex Estimates 2005; all rates are age-adjusted using the 2000 US standard population; NH= Non-Hispanic, API = Asian/Pacific Islander; AI/AN = American Indian/Alaska Native; Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/11

- Similarly, the age-adjusted prevalence of HIV/AIDS (living with HIV/AIDS) among black (non-Hispanic) women (1,150 per 100,000) is 24 times greater and among Hispanic/Latina women (671 per 100,000) is 14 times greater than for white (non-Hispanic) women (47 per 100,000).





Women at Risk of HIV Infection

Place of Birth:

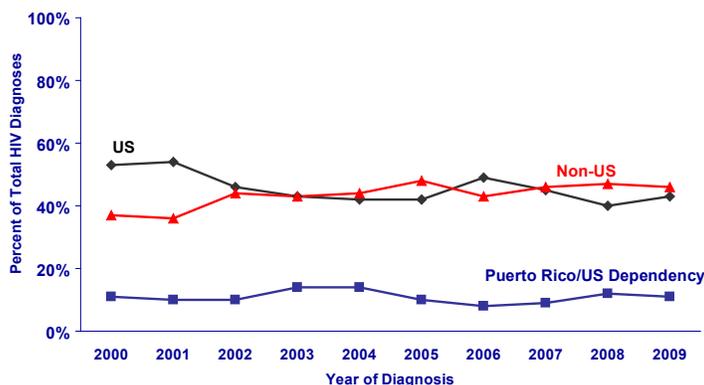
- Forty-six percent of females diagnosed with HIV infection within the three-year period 2007 to 2009 were born outside the US, compared to 25% of males. Similarly, 32% of females living with HIV/AIDS were born outside the US, compared to 18% of males.
- From 2000 to 2009, the proportion of females born outside the U.S. among females with HIV infection increased from 37% to 46%.

- 26% (N=1,300) injection drug use
- 4% (N=181) other modes (including blood or blood products and pediatric)
- 7% (N=360) no identified risk

Exposure Mode and Race/Ethnicity:

- Among **white (non-Hispanic) females**, injection drug use was the most frequently reported exposure mode, attributed as the HIV exposure mode in 33% of females recently diagnosed with HIV infection and 45% of females living with HIV/AIDS.
- Among **black (non-Hispanic) females**, presumed exposure through heterosexual sex with partners with unknown risk or HIV status (presumed heterosexual sex) was the predominant exposure mode, accounting for 53% of females recently diagnosed with HIV infection and 43% of females living with HIV/AIDS.
- Among **Hispanic/Latina females**, presumed exposure through heterosexual sex with partners with unknown risk or HIV status (presumed heterosexual sex) and heterosexual sex (with partners with known risk and/or HIV status) account for 36% and 29%, respectively, of exposures among females recently diagnosed with HIV infection. Among Hispanic/Latina females living with HIV/AIDS, heterosexual sex (with partners with known risk and/or HIV status) is the predominant exposure mode, accounting for 42% of exposures.

Figure 3. Percentage Distribution of Females Diagnosed with HIV Infection by Place of Birth and Year of Diagnosis: Massachusetts, 2000–2009



Data Source: MDPH HIV/AIDS Surveillance Program; Data as of 1/1/11

Exposure Mode:

- For women diagnosed with HIV infection within the three-year period 2007 to 2009, HIV exposure was reported in the following proportions:
 - 30% (N=144) heterosexual sex (with partners with known risk and/or HIV status)
 - 41% (N=196) presumed heterosexual sexⁱⁱⁱ
 - 13% (N=64) injection drug use
 - 1% (N=3) other modes (including blood or blood products and pediatric)
 - 15% (N=71) no identified risk
- For women living with HIV/AIDS on December 31, 2010, HIV exposure was reported in the following proportions:
 - 34% (N=1,741) heterosexual sex
 - 29% (N=1,490) presumed heterosexual sex

Age at HIV Diagnosis:

- The majority (59%) of females diagnosed with HIV infection within the three-year period 2007 to 2009 were between the ages of 30 and 49 years old.

Women at Risk of HIV Infection

Behavioral Risk Factors: According to behavioral surveys, females in Massachusetts are engaging in behaviors that put them at risk for HIV infection.

- Among 1,360 sexually active female respondents (age 18–64) to the 2009 Massachusetts Behavioral Risk Factor Surveillance Survey (BRFSS), 82% (N=1,109) reported that a condom was not used at their last sexual encounter. Of these women, the main reason reported for not using a condom was being in a monogamous relationship (69%), followed by using another form of birth control (15%).





Massachusetts HIV/AIDS Data Fact Sheet

Women at Risk of HIV Infection

- Among school-aged female respondents to the 2009 Massachusetts Youth Risk Behavior Survey (MYRBS), 45% reported ever having sexual intercourse, 3% reported having sexual intercourse before age 13, and 11% reported having 4 or more lifetime sexual partners. Among females who reported sexual intercourse in the three months before the survey, 51% reported condom use at last intercourse and 20% reported substance use at last intercourse.
- Between 1993 and 2009, the proportion of school-aged females reporting that they ever had sex has ranged from 41% to 46%.
- The proportion of school-aged female respondents to the MYRBS that reported condom use at last intercourse increased from 47% in 1993 to 59% in 2007, then decreased to 51% in 2009.

HIV-Related Morbidity and Mortality among Women:

AIDS Diagnoses: An AIDS diagnosis signifies disease progression and may be an indicator of treatment failure, limited access to medical care or delayed entry to medical care.

- From 2000 to 2009, the proportion of females among those diagnosed with AIDS fluctuated between 28% and 34%.

Mortality with AIDS:

- The proportion of female deaths among people diagnosed with AIDS fluctuated between 26% and 32% in the ten years from 2000 to 2009.

Data Sources:

HIV/AIDS Case Data: Massachusetts Department of Public Health (MDPH) HIV/AIDS Surveillance Program; data as of January 1, 2011

Behavioral Risk Factor Surveillance Survey Data: MDPH Bureau of Health Statistics, Research and Evaluation, Behavioral Risk Factor Surveillance System

Youth Risk Behavior Survey Data: Massachusetts Department of Elementary and Secondary Education, Youth Risk Behavior Survey

ⁱ Effective January 1, 2011, the Massachusetts Department of Public Health (MDPH), Bureau of Infectious Diseases, HIV/AIDS fact sheets, epidemiologic reports and other HIV data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts. As of January 1, 2011, this resulted in the removal of 2,297 HIV/AIDS cases, of which 739 have died and 1,558 were living. These persons living with HIV/AIDS may still continue to reside and receive care in the Commonwealth. The total number of persons living with HIV/AIDS, irrespective of location of diagnosis, is the basis for MDPH service planning. This change is partially a result of increased activities required by the Centers for Disease Control and Prevention (CDC) for de-duplication among states in an effort to identify cases that are counted multiple times in the national HIV/AIDS surveillance system. The cases are assigned to the state that reports the earliest date of AIDS diagnosis if available. If the case has not progressed to AIDS, the case is assigned to the state with the earliest HIV diagnosis date. Please note that all previous HIV/AIDS fact sheets, data reports and presentations include cases that may have been first diagnosed in another state.

ⁱⁱ HSRs are regions defined geographically to facilitate targeted health service planning. See Epidemiologic Profile General Appendices, Health Service Region Maps, available at http://www.mass.gov/dph/aids/research/profile2005/app5_hrs_maps.pdf for configuration of health service regions. Reflects the health service region of a person's residence at the time of report (not necessarily current residence).

ⁱⁱⁱ Effective January 1, 2011, the Massachusetts Department of Public Health (MDPH) HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to eliminate the presumed heterosexual exposure mode category for males; those cases have been reassigned to the no identified risk (NIR) exposure mode category. The presumed heterosexual exposure mode category was used with the intention of identifying HIV exposure mode for females when sex with males is the only reported risk factor, there is no evidence of current or past injection drug use (IDU), and behavioral risk and HIV status information about male sexual partners are unknown. Twenty-nine percent of females living with HIV/AIDS and 41% of recent female HIV diagnoses are reported in the presumed heterosexual exposure mode category. The application of the presumed heterosexual exposure mode category to males is overly inclusive in that female to male HIV transmission is biologically less efficient, and there are alternate exposure modes that are possible for males, including sex with other men (MSM) or IDU. The CDC reports males diagnosed with HIV/AIDS who report sex with females as their only risk factor, without corresponding partner risk or HIV status information, in the NIR exposure mode category. This revision to report presumed heterosexual male HIV/AIDS cases as NIR will bring Massachusetts HIV/AIDS cases among males in alignment with CDC standards. The MDPH maintains presumed heterosexual and heterosexual exposure mode categories for females.



For detailed data tables and technical notes see Appendix
Massachusetts Department of Public Health Office of HIV/AIDS
250 Washington St. 3rd Floor Boston, MA 02108
617-624-5300 FAX 617-624-5399 www.mass.gov/dph/aids

