



Massachusetts HIV/AIDS Data Fact Sheet

Adolescents and Young Adults

Introduction

The proportion of Massachusetts HIV infection diagnoses among adolescents and young adults 13–24 years old increased from 7% in 2000 to 12% in 2009.ⁱ However, the percentage of HIV infection diagnoses in adolescents in Massachusetts still remains below the national average. Eleven percent of people diagnosed and reported with HIV infection in Massachusetts between 2007 and 2009 were 13–24 years old compared to 18% nationally among 40 states with confidential name-based reporting.ⁱⁱ

Comparing adolescents and young adults to people who are older at the time of their diagnosis, differences are apparent in exposure mode, gender, and race/ethnicity. Male-to-male sex accounts for a greater proportion of recent diagnoses among male adolescents and young adults (76%) than among men 25 years and older (53%). Females account for 22% of adolescents and young adults recently diagnosed with HIV infection, compared to 27% of people diagnosed at age 25 years and above. A smaller proportion of adolescents and young adults recently diagnosed with HIV infection are white (non-Hispanic) compared to those diagnosed at older ages: 36% compared to 41%. The following describes adolescents and young adults recently diagnosed with HIV infection and known to be living with HIV/AIDS in Massachusetts.

General Statistics:

- Within the three-year period 2007 to 2009, 196 adolescents and young adults 13–24 years of age were diagnosed with HIV infection, accounting for 11% of all diagnoses reported in Massachusetts.
- On December 31, 2010, 500 (3%) people living with HIV/AIDS were 13–24 years old. Of people living with HIV/AIDS in Massachusetts, 1,716 (10%) were diagnosed with HIV infection between ages 13 and 24 years.

Regional Distribution:

- Thirteen percent of people in the Northeast Health Service Region (HSR)ⁱⁱⁱ and 12% of people in the Boston, Central and Metro West HSRs diagnosed with HIV infection within the three-year period 2007 to 2009 were diagnosed as adolescents and young adults, compared to 8% in the Southeast and Western regions.

- Within the three-year period 2007 to 2009, the city of Boston had the largest number of people diagnosed with HIV infection at ages 13–24 years (N=60, 11.7% of HIV infections diagnosed).

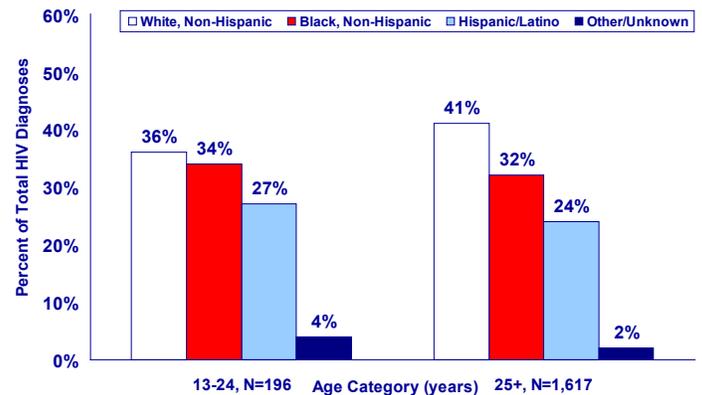
- Among cities with over 20 people diagnosed with HIV infection within the three-year period 2007 to 2009, the following have the highest proportions of new diagnoses among adolescents and young adults (N=number of adolescents diagnosed):

• Lynn	18.4%	(N=7)
• Waltham	17.9%	(N=5)
• Malden	16.7%	(N=5)
• Somerville	15.8%	(N=6)

Race and Ethnicity:

- Among adolescents and young adults diagnosed with HIV infection within the three-year period 2007 to 2009, 34% were black (non-Hispanic), compared to 32% of people diagnosed at age 25 years or above and 27% were Hispanic/Latino, compared to 24% of people diagnosed at age 25 years or above.

Figure 1. People Diagnosed with HIV Infection Within the Years 2007 to 2009 by Age at HIV Diagnosis and Race/Ethnicity: Massachusetts



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

- Among adolescents and young adults living with HIV/AIDS on December 31, 2010, 41% were black (non-Hispanic), compared to 29% of people diagnosed at age 25 years or above and 32% were Hispanic/Latino, compared to 24% of people diagnosed at age 25 years or above.





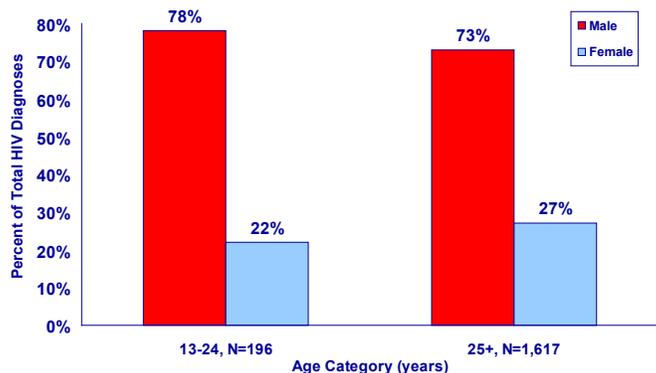
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Adolescents and Young Adults

Gender:

- Adolescents and young adults diagnosed with HIV infection within the three-year period 2007 to 2009 were 78% male and 22% female. In contrast, 73% of people diagnosed with HIV infection at age 25 years or above were male and 27% female.

Figure 2. People Diagnosed with HIV Infection Within the Years 2007 to 2009 by Age at HIV Diagnosis and Gender: Massachusetts



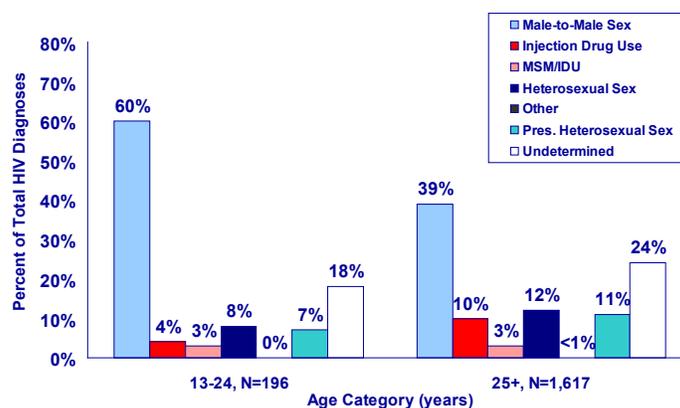
Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/11

- Among individuals living with HIV/AIDS who were 13–24 years old on December 31, 2010, 41% are female, compared to 28% of those age 25 years and older.

Exposure Mode:

- A greater proportion of adolescents and young adults, compared to adults 25 years or above, was recently diagnosed with HIV infection with exposure through male-to-male sex (60% vs. 39%). A smaller proportion had undetermined exposure mode (18% vs. 24%) or was exposed through injection drug use (4% vs. 10%) or through heterosexual sex with partners with known risk or HIV status (8% vs. 12%).
- Seventy-six percent of recently diagnosed adolescent and young adult males were exposed through male-to-male sex compared to 53% of recently diagnosed males aged 25 years or above.

Figure 3. People Diagnosed with HIV Infection Within the Years 2007 to 2009 by Age at HIV Diagnosis and Mode of Exposure: Massachusetts



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

- Among individuals living with HIV/AIDS who were 13–24 years old on December 31, 2010, smaller proportions were exposed through injection drug use (2% vs. 23%) and male-to-male sex (24% vs. 36%) than among those 25 years old and older. Fifty percent were born to infected mothers and exposed at or around birth.

Perinatal and Pediatric Exposure to HIV Infection Among Adolescents Living with HIV/AIDS:

- Among 325 individuals and young adults living with HIV/AIDS who were diagnosed with HIV infection before age 13, 77% (N=250) are currently age 13–24 years old.

Of these 250 individuals:

- Fifty-two percent are male and 48% are female.
- Forty-three percent are black (non-Hispanic), 34% are Hispanic/Latino, and 22% are white (non-Hispanic).

Exposure Mode and Gender:

- A higher proportion of adolescent and young adult males diagnosed with HIV infection within the three-year period 2007 to 2009 were exposed to HIV through male-to-male sex compared to men age 25 years old and older (76% vs. 53%). Conversely, a lower proportion was exposed through injection drug use (2% among 13–24 year olds vs. 9% among 25+ year olds).



For detailed data tables and technical notes see Appendix
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- A smaller proportion of adolescent and young adult females diagnosed with HIV infection within the three-year period 2007 to 2009 was exposed through injection drug use compared to women age 25 years old and older (9% vs. 14%). A smaller proportion was exposed to HIV through presumed heterosexual sex^{iv} (33% among 13-24 year olds vs. 42% among 25+ year olds).

Exposure Mode and Race/Ethnicity:

- Male-to-male sex is the predominant exposure mode for people of all race/ethnicities age 13–24 years diagnosed with HIV infection within the three-year period 2007 to 2009. During this time period male-to-male sex accounted for:
 - 66% of exposures among white (non-Hispanic) adolescents and young adults,
 - 55% of exposures among black (non-Hispanic) adolescents and young adults, and
 - 58% of exposures among Hispanic/Latino adolescents and young adults.
- Heterosexual sex accounted for 12% of recently diagnosed HIV exposures among Hispanic/Latino youth age 13-24 years, 8% among black (non-Hispanic) youth and 7% of exposures among white (non-Hispanic) youth.
- Presumed heterosexual sex accounted for 15% of recently diagnosed HIV exposures among black (non-Hispanic) youth, 6% among Hispanic/Latino youth and no exposures among white (non-Hispanic) youth.
- Injection drug use accounted for 10% of recently diagnosed HIV exposures among Hispanic/Latino youth age 13-24 years, 3% among white (non-Hispanic) youth and no exposures among black (non-Hispanic) youth.
- The largest proportion of recent HIV diagnoses with undetermined exposure was among black (non-Hispanic) youth at 23%, followed by white (non-Hispanic) youth at 18% and Hispanic/Latino youth at 12%.

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

- The percentage of sexually active MYRBS respondents reporting condom use at last intercourse increased from 57% in 2003 to 65% in 2005 then decreased to 58% in 2009.
- There have been small fluctuations in the following reported sexual behaviors between 2003 and 2009: ever had sexual intercourse (41% in 2003 and 46% in 2009), sexual intercourse before age 13 (5% in 2003 and in 2009), four or more lifetime sexual partners (10% in 2003 and 13% in 2009), sexual intercourse in the past three months (30% in 2003 and 35% in 2009), alcohol or drug use at last intercourse (25% in 2003 and 24% in 2009), ever been or gotten someone pregnant (4% in 2003 and 6% in 2009), and ever had sexual contact against their will (10% in 2003 and 11% in 2009).
- In addition to infection risks associated with sharing injection equipment, both injection and non-injection substance use has been documented to drive sexual risk for HIV infection. Among 2,707 high school-aged respondents to the 2009 Massachusetts Youth Risk Behavior Survey (MYRBS), 6% reported ever using cocaine, 2% reported ever using heroin and 2% reported ever using a needle to inject drugs.

State-Funded HIV Counseling and Testing:

- Of 60,550 HIV tests performed in 2009, 27% (N=16,229) were among 13–24 year olds, of which 0.5% were positive.

Data Sources:

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

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

HIV Counseling and Testing Data: MDPH Office of HIV/AIDS, Office of Research and Evaluation

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,



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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 Centers for Disease Control and Prevention. HIV Surveillance Report, 2009; vol. 21. <http://www.cdc.gov/hiv/topics/surveillance/resources/reports/>. Published February 2011. Accessed [6/14/11].

ⁱⁱⁱ 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).

^{iv} 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.



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