



Massachusetts HIV/AIDS Data Fact Sheet

Men Who Have Sex with Men

Introduction

The HIV/AIDS epidemic was first recognized among men who have sex with men (MSM). Male-to-male sex remains the predominant reported mode of exposure in Massachusetts, with the proportion of HIV diagnoses attributed to male-to-male sex increasing over time. Overall, from 2001 to 2010, the proportion of all HIV infection diagnoses with male-to-male sex as an exposure mode increased from 31% to 36%. Among males, the proportion of HIV infection diagnoses with male-to-male sex as the reported exposure mode increased from 44% in 2001 to 51% in 2010.

From 2001 to 2006, while the overall number of HIV diagnoses in Massachusetts declined by 20%, the number of HIV diagnoses attributed annually to male-to-male sex remained stable at around 300 to 330 cases per year.ⁱ

General Statistics:

- Within the three-year period 2008 to 2010, 789 of the individuals diagnosed with HIV infection in Massachusetts were exposed through male-to-male sex, accounting for 40% of all cases and 54% of HIV infections among men. An additional 56 men were reported to have been exposed through male-to-male sex and injection drug use (MSM/IDU), accounting for 3% of all cases and 4% of HIV infections among men.
- On December 31, 2011, there were 6,498 men living with HIV/AIDS in whom HIV infection was attributed to male-to-male sex, representing 36% of all people living with HIV/AIDS in Massachusetts and 50% of men living with HIV/AIDS. An additional 605 MSM living with HIV/AIDS were reported to have also used injection drugs, accounting for 3% of all people living with HIV/AIDS and 5% of men.

Regional Distribution:

- Male-to-male sex was the most frequently reported exposure mode in all Health Service Regionsⁱⁱ among people diagnosed with HIV infection within the years 2008 to 2010, accounting for 45% of exposures in the Boston HSR, 27% in the Central HSR, 46% in the Metro West HSR, 34% in the Northeast HSR, 42% in the Southeast HSR, and 39% in the Western HSR. This marks the second time in recent years that male-to-male sex is the predominant exposure mode in each Health Service Region of the Commonwealth (the first was within the years 2007 to 2009).

- Among those living with HIV/AIDS, MSM was the most frequently reported mode of exposure in the Boston (47%), Metro West (39%), Northeast (31%) and Southeast (39%) Health Service Regions.

Among cities with over 20 people diagnosed with HIV infection within the three-year period 2008 to 2010, the following have the highest proportions of persons whose HIV infection was attributed to male-to-male sex (N=number of HIV-infected men reported in the MSM exposure mode, not including those with a history of injection drug use):

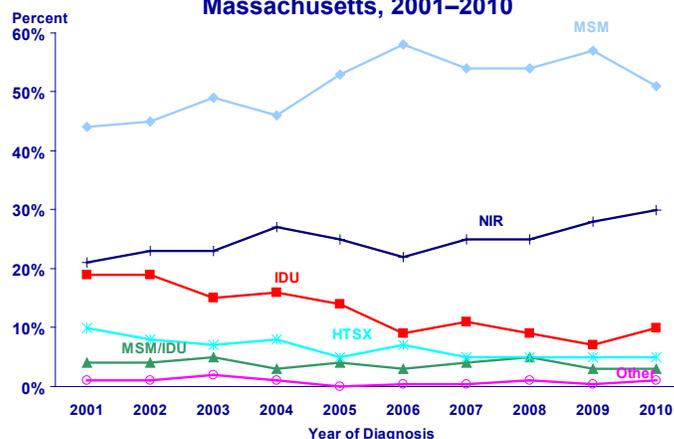
• Provincetown	94.4%	(N=34)
• Everett	50.0%	(N=12)
• Somerville	48.5%	(N=16)
• Cambridge	48.1%	(N=25)
• Quincy	47.6%	(N=10)
• Boston	45.5%	(N=244)
• Lynn	31.0%	(N=13)
• Springfield	29.9%	(N=29)
• Malden	29.4%	(N=10)
• Waltham	27.0%	(N=10)

Diagnosis of HIV Infection over Time:

- The proportion of men diagnosed with HIV infection who were reported with an exposure mode of male-to-male sex increased from 44% in 2001 to 51% in 2010.ⁱⁱⁱ

Race/Ethnicity:

Figure 1. Percentage Distribution of Males Diagnosed with HIV Infection by Exposure Mode and Year of Diagnosis: Massachusetts, 2001–2010



Data Source: MDPH HIV/AIDS Surveillance Program; Data as of 1/1/12





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Men Who Have Sex with Men

- The distribution of race/ethnicity among MSM diagnosed with HIV infection within the three-year period 2008 to 2010 was:
 - 63% white (non-Hispanic)
 - 15% black (non-Hispanic)
 - 18% Hispanic/Latino
 - 4% other
- The distribution of race/ethnicity among MSM living with HIV/AIDS is similar to that among MSM recently diagnosed with HIV infection: 71% percent are white (non-Hispanic), 13% are black (non-Hispanic), 14% are Hispanic/Latino and 2% are of other race/ethnicity.

Age at HIV Diagnosis:

- Among males diagnosed with HIV infection during adolescence and young adulthood (13–24 years) within the three-year period 2008 to 2010, male-to-male sex was the most frequently reported mode of exposure at 75% (N=123). MSM/IDU accounted for an additional 4% (N=7) of exposures in this age group.
- The proportion of adolescent males recently diagnosed with HIV infection who were reported with male-to-male sex exposure mode varies by race/ethnicity, with 86% (N=51) of white (non-Hispanic), 69% (N=36) of black (non-Hispanic), and 68% (N=32) of Hispanic/Latino adolescent males reported with HIV diagnoses attributed to male-to-male sex.
- Three percent of MSM recently diagnosed with HIV infection were between the ages of 13 and 19 years. An additional 27% were diagnosed in their 20's, 25% in their 30s, 31% in their 40s, 11% in their 50s, and 3% were 60 years or older.

Place of Birth:

- The distribution of place of birth of MSM diagnosed with HIV infection within the three-year period 2008 to 2010 was:
 - 80% United States
 - 4% Puerto Rico or another US dependency
 - 17% Outside the US and territories

- The distribution of place of birth among MSM living with HIV/AIDS was similar to that among MSM recently diagnosed with HIV infection: 84% percent were born in the US, 3% were born in Puerto Rico or another US dependency and 13% were born outside of the US.
- The distribution of place of birth varies by race/ethnicity among MSM diagnosed with HIV infection. Forty-one percent of Hispanic/Latino MSM diagnosed with HIV infection within the three-year period 2008 to 2010 were born outside the US and 19% were born in Puerto Rico or another US Dependency, compared to 16% and 1% of black (non-Hispanic) MSM, and 7% and <1% of white (non-Hispanic) MSM, respectively.

Risk of HIV Infection:

Behavioral Risk: According to behavioral surveys, MSM in Massachusetts engage in behaviors that place them at risk for HIV infection.

- From 2001 to 2010, the proportion of male respondents to the Massachusetts Behavioral Risk Factor Surveillance System (BRFSS) reporting sex with males in the previous 12 months ranged from 4.3% to 9.4%.
- An average of 38% of respondents to the 2009 and 2010 BRFSS who reported male-to-male sex reported condom use at last sexual encounter, compared to an average of 25% of male respondents with exclusively female sex partners.
- An average of 15% percent of respondents to the 2009 and 2010 BRFSS who reported male-to-male sex reported three or more sex partners, compared to an average of 6% of male respondents with exclusively female sex partners.
- From 2001 to 2010, the proportion of BRFSS respondents reporting male-to-male sex who used a condom at last sexual encounter ranged from 31% to 56%, with no significant differences between any years.
- From 1997 to 2011, the proportion of sexually active male high-school aged respondents to the Massachusetts Youth Risk Behavior Survey (YRBS) reporting male to male sex at any point in their lifetime ranged from 5.1% to 8.0%.



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





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Men Who Have Sex with Men

- Among respondents to the 2011 YRBS reporting male-to-male sex:
 - 44% used a condom at last intercourse, compared to 66% of sexually active males with only female partners;
 - 56% reported alcohol/drug use at last intercourse, compared to 27% of other sexually active males;
 - 37% reported having four or more lifetime sexual partners, compared to 22% of other males;
 - 5% reported having ever been diagnosed with an STD, compared to 2% of other males; and
 - 19% reported having sexual intercourse before age 13, compared to 10% of other males.^{iv}

Syphilis Incidence: Recent outbreaks of syphilis among MSM in Massachusetts are an indicator of unprotected sex and elevated risk for HIV infection.

- The number of reported cases of infectious syphilis in self-identified MSM increased seven-fold during the eleven-year period from 2001 (N=52) to 2011 (N=363).
- The proportion of self-identified MSM among reported infectious syphilis cases increased from 50% in 2001 to 73% in 2011.
- The proportion of reported infectious syphilis cases among self-identified MSM who were also diagnosed with HIV infection increased from 12% in 2001 to 52% in 2005, then declined to 42% in 2011.

HIV-Related Morbidity and Mortality among Men Who Have Sex with Men:

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.

- The proportion of MSM among reported AIDS diagnoses increased from 24% to 35% from 2001 to 2009, then declined to 28% in 2010.

Mortality with HIV/AIDS:

- From 2001 to 2010, the proportion of MSM among people with HIV/AIDS who died remained fairly stable between 15% and 23%.

Data Sources:

HIV/AIDS Case Data: Massachusetts Department of Public Health (MDPH) HIV/AIDS Surveillance Program; data as of January 1, 2012

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

Syphilis Data: MDPH Division of Sexually Transmitted Disease Prevention

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 who were first diagnosed in another state before being reported in Massachusetts. As of January 1, 2012, this resulted in the removal of 2,924 HIV/AIDS cases, of which 808 have died and 2,116 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/eohhs/docs/dph/aids/2006-profiles/app-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-seven percent of females living with HIV/AIDS and 40% 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 probable, 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 case reporting for males in alignment with CDC standards. The MDPH will maintain presumed heterosexual and heterosexual exposure mode categories for females.

^{iv} These statistics should be interpreted with caution due to small sample sizes (see detailed data tables for sample size by question).



For detailed data tables and technical notes see Appendix
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