



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 2000 to 2009, the proportion of all HIV infection diagnoses with male-to-male sex as an exposure mode increased from 30% to 43%. Among males, the proportion of HIV infection diagnoses with male-to-male sex as the reported exposure mode increased from 42% in 2000 to 56% in 2009.

From 2001 to 2006, while the overall number of HIV diagnoses in Massachusetts declined by 24%, the number of HIV diagnoses attributed to male-to-male sex remained stable at around 300 to 330 cases.ⁱ

General Statistics:

- Within the three-year period 2007 to 2009, 744 of the individuals diagnosed with HIV infection in Massachusetts were exposed through male-to-male sex, accounting for 41% of all cases and 55% of HIV infections among men. An additional 58 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, 2010, there were 6,252 men living with HIV/AIDS in whom HIV infection was attributed to male-to-male sex, representing 35% of all people living with HIV/AIDS in Massachusetts and 50% of men living with HIV/AIDS. An additional 575 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 mode of exposure in all Health Service Regionsⁱⁱ among people recently diagnosed with HIV infection. This marks the first time in recent years that male-to-male sex is the predominant exposure mode throughout the Commonwealth. Among those living with HIV/AIDS, it was the most frequently reported mode of exposure in the Boston, Metro West, Northeast and Southeast Health Service Regions.

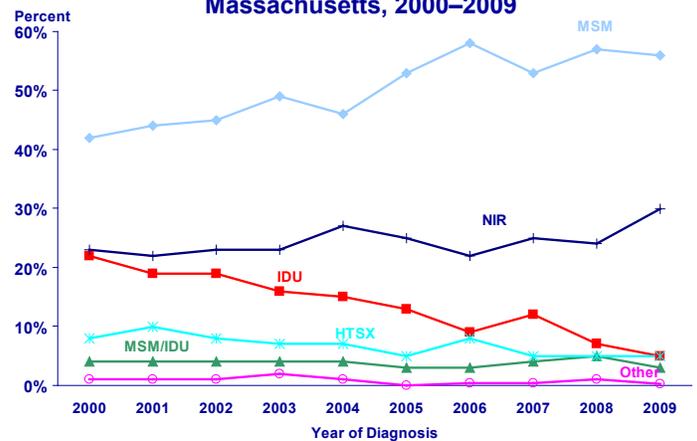
Among cities with over 20 people diagnosed with HIV infection within the three-year period 2007 to 2009, the following have the highest proportions of persons whose HIV infection was attributed to male-to-male sex (N=number of HIV-infected men reported to be MSM, not including those with a history of injection drug use):

• Provincetown	91.7%	(N=33)
• Everett	54.2%	(N=13)
• Somerville	52.6%	(N=20)
• Boston	49.9%	(N=255)
• Cambridge	46.8%	(N=22)
• Malden	46.7%	(N=14)
• Medford	45.5%	(N=10)
• Waltham	35.7%	(N=10)
• Springfield	34.2%	(N=26)
• Quincy	31.8%	(N=7)

Diagnosis of HIV Infection over Time:

- The proportion of men diagnosed with HIV infection who were reported to have engaged in male-to-male sex increased from 42% in 2000 to 56% in 2009.ⁱⁱⁱ

Figure 1. Percentage Distribution of Males Diagnosed with HIV Infection by Exposure Mode and Year of Diagnosis: Massachusetts, 2000–2009



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



For detailed data tables and technical notes see Appendix
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Race/Ethnicity:

- The distribution of race/ethnicity among MSM diagnosed with HIV infection within the three-year period 2007 to 2009 was:
 - 64% white (non-Hispanic)
 - 15% black (non-Hispanic)
 - 18% Hispanic/Latino
 - 3% other
- The distribution of race/ethnicity among MSM living with HIV/AIDS is similar to that among MSM recently diagnosed with HIV infection: 72% 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 (13–24 years) within the three-year period 2007 to 2009, male-to-male sex was the most frequently reported mode of exposure at 76% (N=117). MSM/IDU accounted for an additional 4% (N=6) 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 77% (N=47) of white (non-Hispanic), 78% (N=36) of black (non-Hispanic), and 73% (N=30) of Hispanic/Latino adolescent males reported with HIV diagnoses attributed to male-to-male sex.
- Over half (58%) of MSM recently diagnosed with HIV infection were between the ages of 30 and 49 years. An additional 27% were diagnosed in their 20's, 10% in their 50s, and 2% 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 2007 to 2009 was:
 - 80% United States
 - 4% Puerto Rico or another US dependency
 - 16% 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-two percent of Hispanic/Latino MSM diagnosed with HIV infection within the three-year period 2007 to 2009 were born outside the US, compared to 17% of black (non-Hispanic) MSM, and 7% of white (non-Hispanic) MSM.

Risk of HIV Infection:

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

- From 2000 to 2009, 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 29% of respondents to the 2008 and 2009 BRFSS who reported male-to-male sex reported condom use at last sexual encounter, compared to an average of 27% of male respondents with exclusively female sex partners.
- In 2009, the proportion of BRFSS respondents reporting male-to-male sex who used a condom at last sexual encounter reached a ten-year low of 26%.
- An average of 13% percent of respondents to the 2008 and 2009 BRFSS who reported male-to-male sex reported three or more sex partners, compared to an average of 5% of male respondents with exclusively female sex partners.
- From 1993 to 2009, the proportion of 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 2.5% to 4.9%.
- Among respondents to the 2009 YRBS reporting male-to-male sex:
 - 47% used a condom at last intercourse, compared to 68% of sexually active males with only female partners;
 - 41% reported alcohol/drug use at last intercourse, compared to 26% of other sexually active males;
 - 42% reported having four or more lifetime sexual partners, compared to 23% of other males;
 - 10% reported having ever been diagnosed with an STD, compared to 2% of other males; and



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- 28% reported having sexual intercourse before age 13, compared to 11% 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 over eleven-fold during the eleven-year period from 2000 (N=33) to 2010 (N=382).
- The proportion of self-identified MSM among reported infectious syphilis cases increased from 23% in 2000 to 82% in 2010.
- The proportion of reported infectious syphilis cases among self-identified MSM who were also living with HIV infection increased from 12% in 2001 to 52% in 2005, then declined to 38% in 2010.

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.

- From 2000 to 2009, the proportion of MSM among reported AIDS diagnoses increased from 22% to 36%.

Mortality with HIV/AIDS

- From 2000 to 2009, the proportion of MSM among people with HIV/AIDS who died remained fairly stable between 15% and 22%.

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

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 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.

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



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