



# Massachusetts HIV/AIDS Data Fact Sheet

## Who is most at risk of HIV infection?

### Fast Facts

- HIV infection is decreasing in Massachusetts, but racial and ethnic disparities persist.
- Although black non-Hispanic and Hispanic/Latina women are diagnosed with HIV infection at rates 33 and 11 times that of white non-Hispanic women, there has been a dramatic decrease in newly diagnosed HIV infection cases among women in all demographic groups.
- Despite the decreasing rate of HIV infection diagnosis, male-to-male sex has predominated and has accounted for an increasing proportion of cases.
- The second largest exposure group consists of those with no reported risk behavior.
- The most dramatic decrease in HIV infection diagnoses has been in injection drug users.

### Overview

Although newly diagnosed HIV infection during a recent three year time period, is not a direct measure of newly acquired HIV infections during that time, recent HIV infection diagnoses are the best available indicator for who is most at risk for HIV infection. While the relative frequencies of diagnosis of HIV infection by gender, race/ethnicity, and place of birth have remained fairly stable over the past ten years, there has been a shift in the distribution of HIV infection diagnoses by exposure mode. The proportion of cases with injection drug use as the reported exposure mode decreased from 15% in 2003 to 6% in 2012. During the same time period, the proportion of all HIV infection diagnoses with male-to-male sex as an exposure mode increased from 33% to 46%. Among males, the proportion of HIV infection diagnoses with male-to-male sex as the reported exposure mode increased from 49% in 2003 to 61% in 2012.

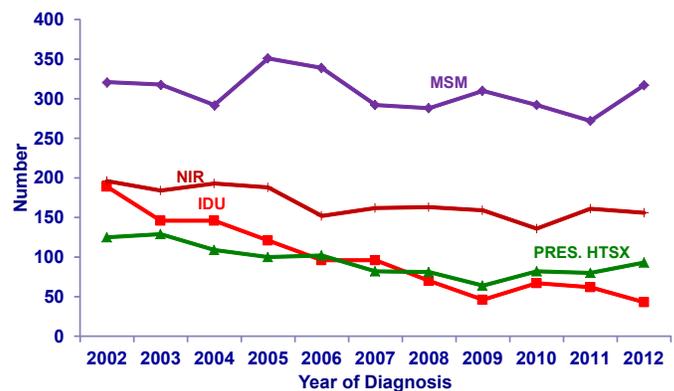
### Trends in HIV Infection Diagnoses from 2003 to 2012:

- The number of HIV diagnoses reported annually decreased by 28% from 958 in 2003 to 694 in 2012.<sup>i</sup>

### Exposure Mode:

- From 2003 to 2012, male-to-male sex remained the predominant exposure mode, accounting for the largest proportion of HIV infection diagnoses each year and increasing from 33% to 46% of the total.
- The proportion of cases with injection drug use as the reported exposure mode decreased from 15% in 2003 to 6% of new diagnoses in 2012.
- From 2003 to 2012, the number of individuals diagnosed with HIV infection with male-to-male sex as an exposure mode remained fairly level with a decrease of less than 1% (from 318 to 317) while the number of cases with:
  - undetermined exposure mode decreased by 18% (from 184 to 156).
  - presumed heterosexual exposure mode decreased by 28% (from 129 to 93); and
  - heterosexual sex exposure mode decreased by 57% (from 136 to 59);
  - injection drug use (IDU) exposure mode decreased by 71% (from 146 to 43); and
  - MSM/IDU exposure mode decreased by 31% (from 32 to 22).

Figure 1. Individuals Diagnosed with HIV Infection by Selected Exposure Modes and Year of Diagnosis: Massachusetts, 2003–2012



Data Source: MDPH HIV/AIDS Surveillance Program; Data as of 1/1/14

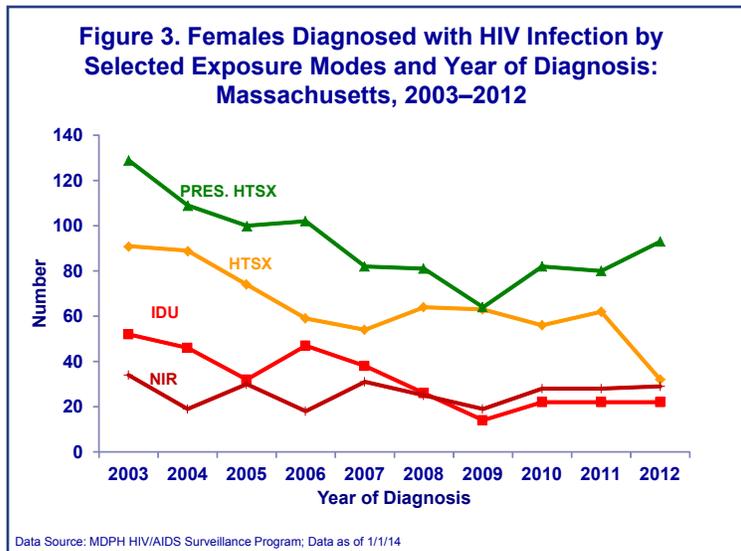
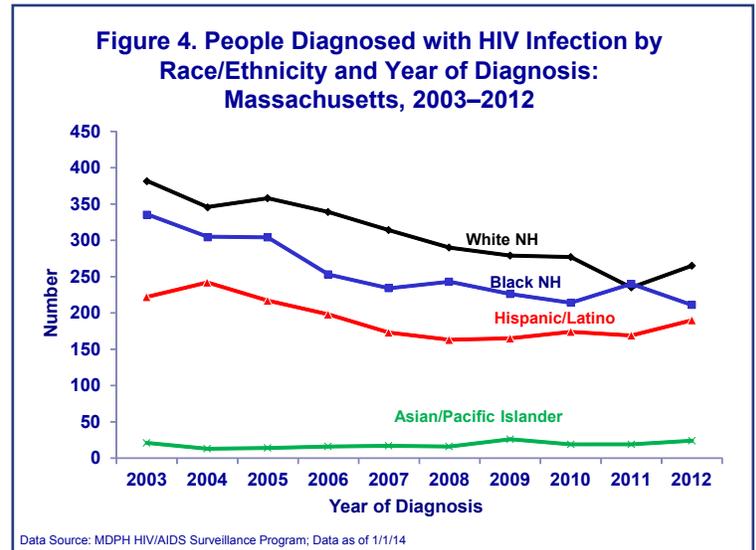
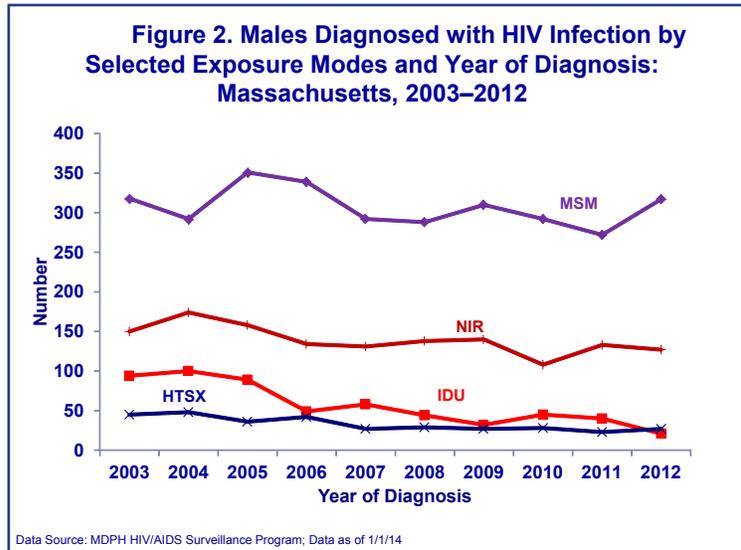




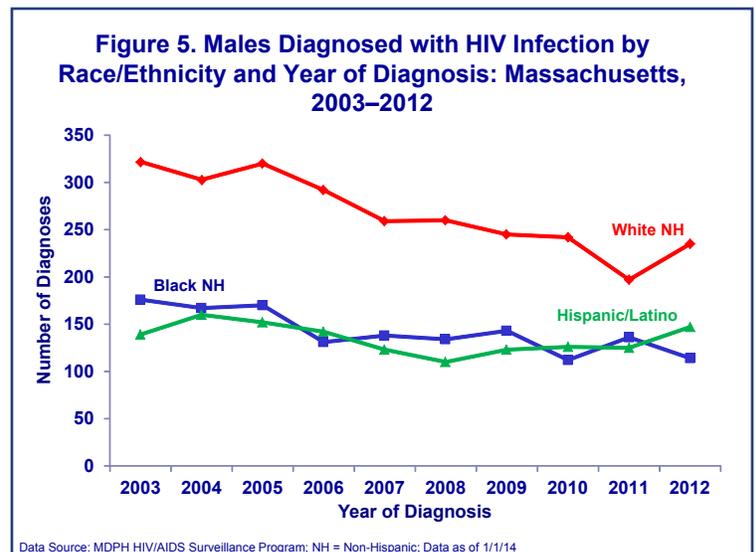
# Massachusetts HIV/AIDS Data Fact Sheet

## Who is most at risk of HIV infection?

### Exposure Mode and Gender: <sup>ii</sup>



### Gender and Race/Ethnicity:



### Race/Ethnicity:

- From 2003 to 2012, the number of white (non-Hispanic) individuals diagnosed with HIV infection decreased by 31% (from 382 to 265); the number of black (non-Hispanic) individuals decreased by 37% from (336 to 211); and the number of Hispanic/Latino individuals decreased by 14% (from 222 to 190).



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

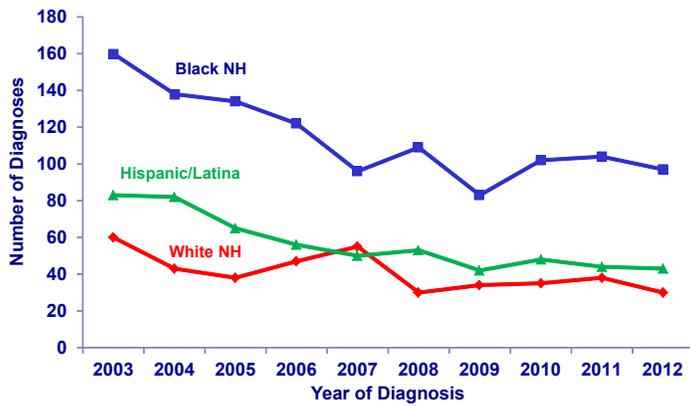




# Massachusetts HIV/AIDS Data Fact Sheet

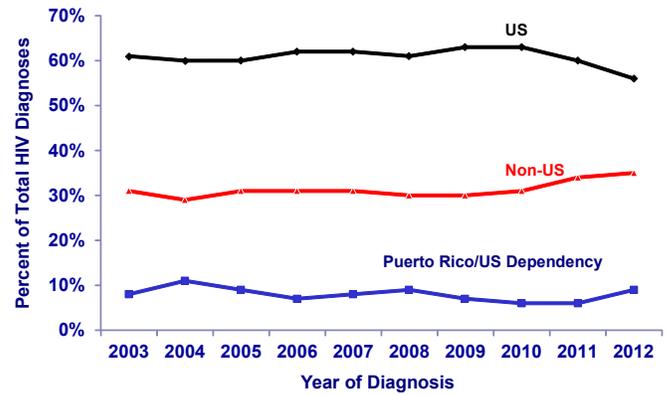
## Who is most at risk of HIV infection?

**Figure 6. Females Diagnosed with HIV Infection by Race/Ethnicity and Year of Diagnosis: Massachusetts, 2003–2012**



Data Source: MDPH HIV/AIDS Surveillance Program; NH = Non-Hispanic; Data as of 1/1/14

**Figure 7. Percentage Distribution of People Diagnosed with HIV Infection by Place of Birth and Year of Diagnosis: Massachusetts, 2003–2012**



Data Source: MDPH HIV/AIDS Surveillance Program; Data as of 1/1/14

### Age at HIV Infection Diagnosis:

- The proportion of HIV diagnoses reported in people age 24 years or younger at the time of diagnosis increased from 9% in 2003 to 15% in 2014.
- During the same time period, the proportion of HIV diagnoses reported in people between the ages of 25 and 49 years old decreased from 79% to 64%.
- The proportion of HIV diagnoses reported in people age 50 years or older increased from 12% in 2003 to 20% in 2012.

### Gender:

- From 2003 to 2012, the number of males diagnosed with HIV infection decreased by 20% (from 649 to 517) while the number of females diagnosed with HIV infection decreased by 43% (from 309 to 177).

### Place of Birth and Gender:

- The proportion of individuals diagnosed with HIV infection born outside the US increased to 35% in 2012 after remaining between 29% and 31% from 2003 to 2010, and the proportion born in the US decreased to 56% after remaining between 60% and 63%.

- From 2003 to 2012, the proportion of individuals born outside the US among females increased from 43% to 56%.

### A Profile of People Recently Diagnosed with HIV Infection:

#### Race/Ethnicity and Exposure Mode:

- The predominant mode of exposure among white (non-Hispanic) individuals diagnosed with HIV infection within the years 2010 to 2012, was male-to-male sex (65%); for 12% exposure mode was undetermined.
- Exposure mode was undetermined in 31% of black (non-Hispanic) individuals recently diagnosed with HIV infection. Female reporting sex with male of unknown risk and HIV status (presumed heterosexual exposure) was the reported exposure mode for 26%, male-to-male sex for 20% and heterosexual sex with partners of known risk and/or HIV status for 16%.
- Among Hispanic/Latino individuals, male-to-male sex was the most frequently reported HIV exposure within the years 2010 to 2012 (36%) followed by heterosexual exposure (15%) and injection drug use (13%); for 25% exposure mode was undetermined.

#### Race/Ethnicity, Exposure Mode and Gender:

- Among white (non-Hispanic) males, male-to-male sex was the predominant exposure mode, accounting for 75% of reported exposures; for 12% exposure mode was undetermined.



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





# Massachusetts HIV/AIDS Data Fact Sheet

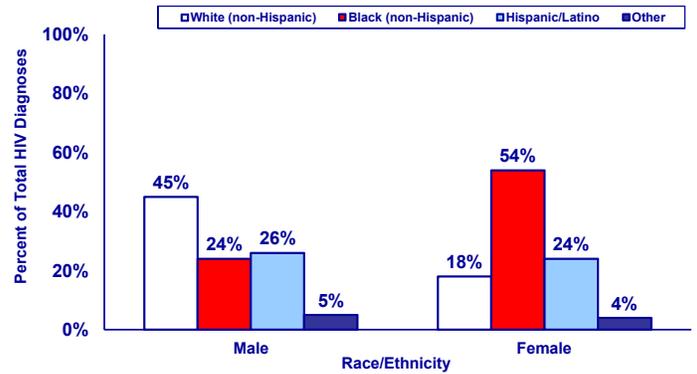
## Who is most at risk of HIV infection?

- Exposure mode was undetermined in 45% of black (non-Hispanic) males and male-to-male sex was the most frequently reported risk accounting for 37% of all exposures, followed by heterosexual sex at 9%, and injection drug use at 6% of reported exposures.
- Among Hispanic/Latino males, male-to-male sex was the most frequently reported exposure mode accounting for 48% of exposures, followed by injection drug use at 13% and heterosexual sex at 9% of exposures. For 28% of Hispanic/Latino males, exposures mode was undetermined.
- Among white (non-Hispanic) females diagnosed with HIV infection, injection drug use was the most frequently reported exposure mode accounting for 42% of exposures, followed by sex with males of unknown risk and HIV status (presumed heterosexual) at 22%, and heterosexual sex (with partners of known risk and/or HIV status) at 20% of exposures.
- The predominant exposure mode among black (non-Hispanic) females was sex with males of unknown risk and HIV status (presumed heterosexual exposure) (57%), followed by injection drug use at 25%.
- Among Hispanic/Latina females, sex with males of unknown risk and HIV status (presumed heterosexual exposure) and heterosexual sex (with partners of known risk and/or HIV status) were the most frequently reported exposure modes accounting for 35% and 34% of exposures, respectively, followed by injection drug use at 13% of exposures.

### Race/Ethnicity and Gender:

- The distribution of race/ethnicity among persons diagnosed with HIV infection within the years 2010 to 2012 was different among males and females. While 45% of males diagnosed with HIV infection within the years 2010 to 2012 were white (non-Hispanic), 54% of females diagnosed during this time period were black (non-Hispanic).

**Figure 8. People Diagnosed with HIV Infection Within the Years 2010–2012 by Gender and Race/Ethnicity: Massachusetts**

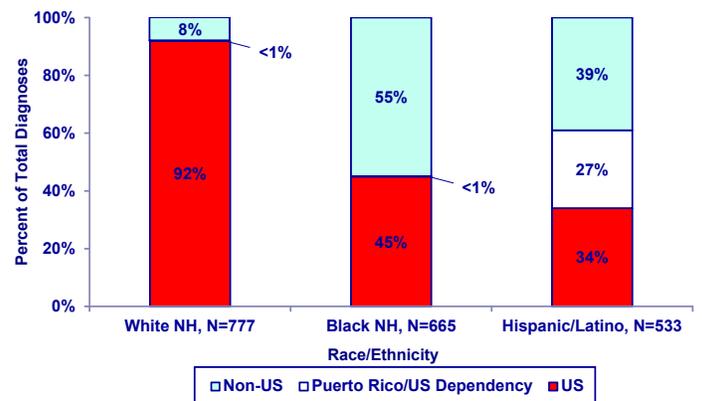


Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/14

### Race/Ethnicity and Place of Birth:

- During the three-year period 2010 to 2012, 55% of black (non-Hispanic) individuals diagnosed with HIV infection were born outside the US, compared to 39% of Hispanic/Latino individuals and 8% of white (non-Hispanic) individuals. An additional 27% percent of Hispanic/Latino individuals diagnosed with HIV infection during this time period were born in Puerto Rico or another US Dependency, compared to less than one percent of both black (non-Hispanic) and white (non-Hispanic) individuals.

**Figure 9. People Diagnosed with HIV Infection Within the Years 2010–2012 by Race/Ethnicity and Place of Birth: Massachusetts**



Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/14 NH = Non-Hispanic



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





# Massachusetts HIV/AIDS Data Fact Sheet

## Who is most at risk of HIV infection?

- The majority of non-US born black (non-Hispanic) individuals diagnosed with HIV infection within the three-year period 2010 to 2012 were from sub-Saharan Africa, and the Caribbean; the majority of non-US born Hispanic/Latino individuals were from Central and South America, and the Caribbean. The majority of non-US born white (non-Hispanic) individuals were from Central and South America, North America, and Europe.
- Fifty-three percent of females diagnosed with HIV infection within the three-year period 2010 to 2012 were born outside the US compared to 26% of males. Among black (non-Hispanic) females diagnosed with HIV infection, the proportion born outside the US was 72% compared to 44% of Hispanic/Latina females and 5% of white (non-Hispanic) females. Among black (non-Hispanic) males, the proportion born outside the US was 41% compared to 38% of Hispanic/Latino males and 9% of white (non-Hispanic) males.

### Distribution by Exposure Mode and Health Service Region (HSR): <sup>iii</sup>

- Male-to-male sex was the most frequently reported exposure mode in all regions among people diagnosed with HIV infection within the years 2010 to 2012, accounting for 50% of exposures in the Boston HSR, 33% in the Central HSR, 47% in the Metro West HSR, 36% in the Northeast HSR, 44% in the Southeast HSR, and 40% in the Western HSR.
- The Western and Central HSRs had the highest proportions of exposures attributed to injection drug use, at 12% and 11%, respectively. Injection drug use accounted for 3% to 8% of exposures in the remaining regions.

### Distribution by Race/Ethnicity and Health Service Region (HSR):

- White (non-Hispanic) individuals constitute the largest proportion of people recently diagnosed with HIV infection in the Southeast (53%), Metro West (43%) and Northeast (37%) HSRs.
- In the Boston HSR, black (non-Hispanic) individuals constitute the largest proportion of recent diagnoses at 37%.
- In the Central HSR, black (non-Hispanic) individuals and white (non-Hispanic) individuals each account for 34% and Hispanic/Latino individuals 27% of recent diagnoses.

- In the Western HSR, Hispanic/Latino individuals (41%) account for the largest proportion of people recently diagnosed with HIV infection, followed by white (non-Hispanic) individuals (34%).

### Distribution by Gender and Health Service Region (HSR):

- The Metro West and Boston HSR have the highest proportion of males among those with HIV infection diagnosed within the three-year period 2010 to 2012, at 78%.
- The Central HSR has the highest proportion of females among people diagnosed with HIV infection within the three-year period 2010 to 2012 at 37%.

### People at Risk for HIV Infection: State-funded HIV Counseling, Testing and Referral:

- In 2012, 1.0% of 66,665 HIV tests performed at publicly funded HIV Counseling, Testing and Referral (CTR) sites were positive. Testing identified 322 new diagnoses, representing 46% of individuals newly diagnosed with HIV infection (N=694) in the state.
- In 2012, more HIV tests were performed on males (58%, N=38,421) than females (41%, N=27,509) at publicly funded sites.
- A similar proportion of HIV tests was performed on white (non-Hispanic) (33%, N=22,037), black (non-Hispanic) (30%, N=20,288), and Hispanic/Latino clients (29%, N=19,261).
- The percentage of positive HIV tests among racial/ethnic groups was similar at 1.1% to 1.0%.
- By age category, the highest percentage of positive HIV tests was among clients between the ages of 55 and 59 years at 2.5%, followed by clients between the ages of 45 and 49 years at 2.1%.

### Behavioral Risk for HIV Infection Number of Sexual Partners:

- Among 7,001 respondents to the 2011 and 2012 Massachusetts Behavioral Risk Factor Surveillance System (BRFSS) survey, 18–64 years of age, 10% reported two or more sexual partners in the previous year, 70% reported one partner, and 20% reported no sexual partners.



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](http://www.mass.gov/dph/aids)





# Massachusetts HIV/AIDS Data Fact Sheet

## Who is most at risk of HIV infection?

- A larger proportion of men reported two or more partners in the previous year (14% of men compared to 5% of women), as well as 18 to 24 year olds (30% of 18 to 24 year olds reported two or more partners compared to 10% of 25 to 34 year olds, 7% of 35 to 44 year olds, and 4% of 45 to 64 year olds).
- Thirty-seven percent of males who had sex with male partners reported two or more sexual partners in the previous year, compared to 16% of males who had sex with opposite-sex partners.

### Male-to-Male Sex:

- Among 2,189 male respondents to the 2011 and 2012 BRFSS 18–64 years of age, 4.9% reported having sex with other males.

### Condom Use:

- Of 5,153 18–64 year old sexually active respondents to the 2011 and 2012 BRFSS, 25% reported using a condom at last sexual encounter (29% of male respondents and 21% of female respondents).
- Thirty-two percent of black (non-Hispanic) respondents reported condom use at last sexual encounter, compared to 24% of both white (non-Hispanic) individuals and Hispanic/Latino individuals.
- Seventy-five percent of those reporting three or more sexual partners in the previous year also reported condom use at last sexual encounter, compared to 40% of those reporting two partners and 20% of those reporting one partner.

state before being reported in Massachusetts.

<sup>ii</sup> The category of presumed heterosexual is used exclusively for females, to define HIV exposure mode in cases when sex with males is the only reported risk factor for HIV infection.

<sup>iii</sup> Reflects the health service region of a person's residence at the time of report (not necessarily current residence). 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.

### Data Sources

HIV/AIDS Case Data: Massachusetts Department of Public Health, HIV/AIDS Surveillance Program, all data as of 1/1/14

Counseling and Testing Data: Massachusetts Department of Public Health, Office of HIV/AIDS, Office of Research and Evaluation

BRFSS Data: Massachusetts Department of Public Health, Bureau of Health Statistics, Research and Evaluation, Behavioral Risk Factor Surveillance System

<sup>i</sup> Effective January 1, 2011, the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another

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](http://www.mass.gov/dph/aids)

