

## **Regional HIV/AIDS Epidemiologic Profile of City of Boston, Massachusetts: 2014**

### **Recent changes to the presentation of Massachusetts HIV/AIDS surveillance data**

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, 2014, this resulted in the removal of 4,135 HIV/AIDS cases, of which 973 have died and 3,162 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 at 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 previous HIV/AIDS fact sheets, data reports and presentations included cases that may have been first diagnosed in another state.

Also effective January 1, 2011, the MDPH HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to eliminate the presumed heterosexual reported risk category for men; those cases have been reassigned to the no identified risk (NIR) category. The presumed heterosexual reported risk category was used with the intention of identifying HIV reported risk for women when sex with men 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 men living with HIV/AIDS and 40% of recent female HIV diagnoses are reported in the presumed heterosexual reported risk category. The application of the presumed heterosexual reported risk category to men is overly inclusive in that female to male HIV transmission is biologically less probable, and there are alternate reported risks that are possible for men, including sex with other men (MSM) or IDU. The CDC reports men diagnosed with HIV/AIDS who report sex with women as their only risk factor, without corresponding partner risk or HIV status information, in the NIR category. This revision to report presumed heterosexual male HIV/AIDS cases as NIR will bring Massachusetts HIV/AIDS case reporting for men in alignment with CDC standards. The MDPH will maintain presumed heterosexual and heterosexual reported risk categories for women.

**Table 1. Total number of people reported with HIV infection or AIDS<sup>1</sup> by mortality status on December 31, 2013: City of Boston, Massachusetts<sup>2</sup>**

	<b>N</b>	<b>%</b>
People Living with HIV/AIDS	5,613	57%
People Reported with HIV or AIDS who are Deceased	4,190	43%
<b>Total Number of People Reported with HIV Infection or AIDS</b>	<b>9,803</b>	<b>100%</b>

<sup>1</sup> Does not include individuals diagnosed with HIV infection (non-AIDS) who died prior to January 1, 1999 or who were not in care on January 1, 1999

<sup>2</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 state before being reported in Massachusetts.

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

**Table 2. Average annual rate of HIV infection diagnosis from 2010 to 2012 and HIV/AIDS prevalence rate on 12/31/13<sup>1</sup>: City of Boston, Massachusetts<sup>2</sup>**

<b>Average annual HIV diagnosis rate from 2010–2012</b>	<b>Average rate per 100,000</b>	<b>Average annual number of HIV diagnoses</b>
City of Boston, MA	30.4	188.0
Massachusetts Total	10.5	688.3

  

<b>HIV/AIDS prevalence rate on 12/31/13</b>	<b>Rate per 100,000</b>	<b>Number of people living with HIV/AIDS</b>
City of Boston, MA	908.8	5,613
Massachusetts Total	292.7	19,165

<sup>1</sup> The denominators for rate calculations are from the MDPH Massachusetts Race Allocated Census 2010 Estimates (MRACE 2010), Massachusetts Department of Public Health, Bureau of Health Information, Statistics, Research, and Evaluation.

<sup>2</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 state before being reported in Massachusetts.

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

**Table 3. People living with HIV/AIDS<sup>1</sup>, deaths among people reported with HIV/AIDS, and newly diagnosed HIV infections by year<sup>2</sup>: 2003–2012, City of Boston, Massachusetts<sup>3</sup>**

<b>Year</b>	<b>HIV/AIDS Prevalence</b>	<b>Deaths among those with HIV/AIDS</b>	<b>Diagnosis of HIV Infection</b>
2003	4,203	93	283
2004	4,365	80	242
2005	4,557	77	269
2006	4,695	85	223
2007	4,827	73	205
2008	4,952	73	198
2009	5,073	64	185
2010	5,201	66	194
2011	5,349	50	198
2012	5,467	54	172

<sup>1</sup> Number of people living with HIV/AIDS on 12/31 of each year

<sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

<sup>3</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 state before being reported in Massachusetts.

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

**Table 4. People diagnosed with HIV infection from 2010–2012<sup>1</sup> and people living with HIV/AIDS on December 31, 2013 by gender, place of birth, race/ethnicity, exposure mode, age at HIV infection diagnosis and current age: City of Boston, Massachusetts<sup>2</sup>**

HIV Infection Diagnoses			PLWH/A	
Gender:	N	%	N	%
Male	436	77%	4,297	77%
Female	128	23%	1,316	23%
Place of Birth:	N	%	N	%
US	346	61%	3,812	68%
Puerto Rico/US Dependency <sup>3</sup>	23	4%	337	6%
Non-US	195	35%	1,464	26%
Race/Ethnicity:	N	%	N	%
White (non-Hispanic)	178	32%	2,211	39%
Black (non-Hispanic)	223	40%	2,235	40%
Hispanic/Latino	135	24%	1,048	19%
Asian/Pacific Islander	17	3%	84	1%
Exposure Mode:	N	%	N	%
Male-to-male sex (MSM)	283	50%	2,713	48%
Injection Drug Use (IDU)	35	6%	721	13%
MSM/IDU	19	3%	204	4%
Heterosexual Sex	54	10%	687	12%
Other	6	1%	100	2%
Total Undetermined	167	30%	1,188	21%
• Presumed Heterosexual Sex <sup>4</sup>	65	12%	449	8%
• Undetermined <sup>5</sup>	102	18%	739	13%
Age:	N	%	N	%
	At Diagnosis		On December 31, 2013	
Under 13	6	1%	9	<1%
13 to 19	19	3%	33	1%
20 to 24	58	10%	66	1%
25 to 29	69	12%	184	3%
30 to 34	70	12%	252	4%
35 to 39	77	14%	362	6%
40 to 44	70	12%	559	10%
45 to 49	80	14%	972	17%
50 to 54	51	9%	1,144	20%
55 to 59	38	7%	974	17%
60+	26	5%	1,058	19%
<b>Total<sup>6</sup></b>	<b>564</b>	<b>100%</b>	<b>5,613</b>	<b>100%</b>

<sup>1</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999.

<sup>2</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 state before being reported in Massachusetts.

<sup>3</sup> Ninety-eight percent of people diagnosed with HIV infection from 2010–2012 who were born in a US dependency were born in Puerto Rico, 1% were born in the US Virgin Islands, 1% were born in Guam and 1% were born in an unknown dependency.

<sup>4</sup> Includes female sex with male of unknown HIV status or risk. This category is limited to females.

<sup>5</sup> Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

<sup>6</sup> Total includes American Indian/Alaska Native, other and unspecified race/ethnicity.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/14

**Table 5. People living with HIV/AIDS on December 31, 2013 by gender and race/ethnicity: City of Boston, Massachusetts<sup>1</sup>**

Race/Ethnicity:	Male		Female	
	N	%	N	%
White (non-Hispanic)	2,062	48%	149	11%
Black (non-Hispanic)	1,336	31%	899	68%
Hispanic/Latino	805	19%	243	18%
Asian/Pacific Islander	68	2%	16	1%
<b>Total<sup>2</sup></b>	<b>4,297</b>	<b>100%</b>	<b>1,316</b>	<b>100%</b>

<sup>1</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 state before being reported in Massachusetts.

<sup>2</sup> Total includes American Indian/Alaska Native, other and unspecified race/ethnicity.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/14

**Table 6. People living with HIV/AIDS on December 31, 2013 by gender and exposure mode: City of Boston, Massachusetts<sup>1</sup>**

Exposure Mode:	Male		Female	
	N	%	N	%
Male-to-male sex (MSM)	2,713	63%	N/A	N/A
Injection drug use (IDU)	471	11%	250	19%
MSM/IDU	204	5%	N/A	N/A
Heterosexual sex	215	5%	472	36%
Other	53	1%	47	4%
Total Undetermined	641	15%	547	42%
• Presumed heterosexual sex <sup>2</sup>	N/A	N/A	449	34%
• Undetermined <sup>3</sup>	641	15%	98	7%
<b>Total</b>	<b>4,297</b>	<b>100%</b>	<b>1,316</b>	<b>100%</b>

<sup>1</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 state before being reported in Massachusetts.

<sup>2</sup> Includes female sex with male of unknown HIV status or risk. This category is limited to females.

<sup>3</sup> Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

N/A=Not Applicable

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/14

**Table 7. People diagnosed with HIV infection by gender and year of diagnosis: City of Boston, Massachusetts<sup>1</sup>, 2003–2012<sup>2</sup>**

	Male		Female		Total
	N	%	N	%	
2003	198	70%	85	30%	283
2004	184	76%	58	24%	242
2005	211	78%	58	22%	269
2006	174	78%	49	22%	223
2007	163	80%	42	20%	205
2008	165	83%	33	17%	198
2009	148	80%	37	20%	185
2010	140	72%	54	28%	194
2011	151	76%	47	24%	198
2012	145	84%	27	16%	172

<sup>1</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 state before being reported in Massachusetts.

<sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/14

**Table 8. People diagnosed with HIV infection by race/ethnicity and year of diagnosis: City of Boston, Massachusetts<sup>1</sup>, 2003–2012<sup>2</sup>**

	White Non-Hispanic		Black Non-Hispanic		Hispanic/Latino		Total <sup>3</sup>
	N	%	N	%	N	%	N
2003	95	34%	125	44%	59	21%	283
2004	83	34%	113	47%	42	17%	242
2005	95	35%	109	41%	63	23%	269
2006	87	39%	91	41%	41	18%	223
2007	89	43%	75	37%	33	16%	205
2008	82	41%	79	40%	33	17%	198
2009	68	37%	81	44%	35	19%	185
2010	66	34%	76	39%	44	23%	194
2011	53	27%	94	47%	39	20%	198
2012	59	34%	53	31%	52	30%	172

<sup>1</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 state before being reported in Massachusetts.

<sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

<sup>3</sup> Totals include Asian/Pacific Islander, American Indian/Alaskan Native individuals, and those of other or undetermined race/ethnicity.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/14

**Table 9. People diagnosed with HIV infection by place of birth and year of diagnosis: City of Boston, Massachusetts<sup>1</sup>, 2003–2012<sup>2</sup>**

	US		Puerto Rico/ US Dependency <sup>3</sup>		Non-US		Total
	N	%	N	%	N	%	N
2003	179	63%	20	7%	84	30%	<b>283</b>
2004	162	67%	9	4%	71	29%	<b>242</b>
2005	176	65%	18	7%	75	28%	<b>269</b>
2006	142	64%	9	4%	72	32%	<b>223</b>
2007	139	68%	7	3%	59	29%	<b>205</b>
2008	132	67%	10	5%	56	28%	<b>198</b>
2009	127	69%	12	6%	46	25%	<b>185</b>
2010	119	61%	7	4%	68	35%	<b>194</b>
2011	127	64%	7	4%	64	32%	<b>198</b>
2012	100	58%	9	5%	63	37%	<b>172</b>

<sup>1</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 state before being reported in Massachusetts.

<sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

<sup>3</sup> Ninety-eight percent of all people diagnosed with HIV infection in MA who were born in a US dependency were born in Puerto Rico, 1% were born in the US Virgin Islands, <1% were born in American Samoa, <1% were born in Guam and 1% were born in an unknown dependency.

<sup>4</sup> Values less than five are suppressed for populations less than 50,000 or for populations of unknown size. Additional values may be suppressed to prevent back calculation.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/14

**Table 10. People diagnosed with HIV infection by exposure mode and year of diagnosis: City of Boston, Massachusetts<sup>1</sup>, 2003–2012<sup>2</sup>**

	MSM		IDU		MSM/ IDU		HTSX		Other		Pres. HTSX <sup>3</sup>		Undeter- mined <sup>4</sup>		Total
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N
2003	108	38%	36	13%	-- <sup>5</sup>	-- <sup>5</sup>	36	13%	-- <sup>5</sup>	-- <sup>5</sup>	36	13%	53	19%	283
2004	110	45%	22	9%	-- <sup>5</sup>	-- <sup>5</sup>	25	10%	-- <sup>5</sup>	-- <sup>5</sup>	32	13%	43	18%	242
2005	144	54%	19	7%	-- <sup>5</sup>	-- <sup>5</sup>	28	10%	-- <sup>5</sup>	-- <sup>5</sup>	24	9%	44	16%	269
2006	111	50%	16	7%	-- <sup>5</sup>	-- <sup>5</sup>	27	12%	-- <sup>5</sup>	-- <sup>5</sup>	23	10%	34	15%	223
2007	103	50%	23	11%	-- <sup>5</sup>	-- <sup>5</sup>	15	7%	-- <sup>5</sup>	-- <sup>5</sup>	15	7%	38	19%	205
2008	100	51%	10	5%	-- <sup>5</sup>	-- <sup>5</sup>	21	11%	-- <sup>5</sup>	-- <sup>5</sup>	13	7%	41	21%	198
2009	91	49%	11	6%	-- <sup>5</sup>	-- <sup>5</sup>	23	12%	-- <sup>5</sup>	-- <sup>5</sup>	17	9%	38	21%	185
2010	96	49%	13	7%	-- <sup>5</sup>	-- <sup>5</sup>	19	10%	-- <sup>5</sup>	-- <sup>5</sup>	30	15%	30	15%	194
2011	96	48%	13	7%	-- <sup>5</sup>	-- <sup>5</sup>	22	11%	-- <sup>5</sup>	-- <sup>5</sup>	22	11%	36	18%	198
2012	91	53%	9	5%	-- <sup>5</sup>	-- <sup>5</sup>	13	8%	-- <sup>5</sup>	-- <sup>5</sup>	13	8%	36	21%	172

<sup>1</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 state before being reported in Massachusetts.

<sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

<sup>3</sup> Includes female sex with male of unknown HIV status or risk. This category is limited to females.

<sup>4</sup> Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

<sup>5</sup> Values less than five are suppressed for populations less than 50,000 or for populations of unknown size. Additional values may be suppressed to prevent back calculation.

MSM = Male-to-Male Sex; IDU = Injection Drug Use; MSM/IDU = Male-to-Male Sex and Injection Drug Use; HTSX = Heterosexual Sex; Pres. HTSX = Presumed Heterosexual Sex

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/14

**Table 11. People diagnosed with HIV infection and AIDS within two months and all people diagnosed with HIV infection by year of diagnosis: City of Boston, Massachusetts<sup>1</sup>, 2003–2012<sup>2</sup>**

	HIV and AIDS diagnosed within two months	All HIV infection diagnoses	% diagnosed with HIV and AIDS within two months
Year:	N	N	%
2003	92	283	33%
2004	76	242	31%
2005	83	269	31%
2006	76	223	34%
2007	65	205	32%
2008	52	198	26%
2009	50	185	27%
2010	52	194	27%
2011	57	198	29%
2012	41	172	24%

<sup>1</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 state before being reported in Massachusetts.

<sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.  
Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/14

**Table 12. People diagnosed with HIV infection and AIDS within two months and all people diagnosed with HIV infection by gender, race/ethnicity, and place of birth: City of Boston, Massachusetts,<sup>1</sup> 2010–2012<sup>2</sup>**

	HIV and AIDS diagnosed within two months	All HIV infection diagnoses	% diagnosed with HIV and AIDS within two months
<b>Gender:</b>	<b>N</b>	<b>N</b>	<b>%</b>
Male	113	436	26%
Female	37	128	29%
<b>Race/Ethnicity:</b>	<b>N</b>	<b>N</b>	<b>%</b>
White (non-Hispanic)	36	178	20%
Black (non-Hispanic)	73	223	33%
Hispanic/Latino	36	135	27%
Asian/Pacific Islander	-- <sup>5</sup>	-- <sup>5</sup>	-- <sup>5</sup>
Other/Undetermined <sup>3</sup>	-- <sup>5</sup>	-- <sup>5</sup>	-- <sup>5</sup>
<b>Place of Birth:</b>	<b>N</b>	<b>N</b>	<b>%</b>
US	75	346	22%
Puerto Rico/US Dependencies <sup>4</sup>	5	23	22%
Non-US	70	195	36%
<b>Total</b>	<b>150</b>	<b>564</b>	<b>27%</b>

<sup>1</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 state before being reported in Massachusetts.

<sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999.

<sup>3</sup> Includes American Indian/Alaska Native, other and unspecified race/ethnicity.

<sup>4</sup> Ninety-eight percent of people diagnosed with HIV infection from 2010–2012 who were born in a US dependency were born in Puerto Rico, 1% were born in the US Virgin Islands, 1% were born in Guam and 1% were born in an unknown dependency.

<sup>5</sup> Values less than five are suppressed for populations less than 50,000 or for populations of unknown size. Additional values may be suppressed to prevent back calculation.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/14