

Regional HIV/AIDS Epidemiologic Profile of City of Boston, Massachusetts: 2015

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 Disease, 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, 2015, this resulted in the removal of 4,401 HIV/AIDS cases, of which 1,021 have died and 3,380 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. 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 risk category for men; those cases have been reassigned to the no identified risk (NIR) category. The presumed heterosexual risk category was used with the intention of identifying HIV 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. The application of the presumed heterosexual risk category to men is overly inclusive in that woman to man HIV transmission is biologically less probable, and there are alternate 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 risk categories for women.

Table 1. Total number of people reported with HIV infection or AIDS¹ by mortality status on December 31, 2014: City of Boston, Massachusetts²

	N	%
People Living with HIV/AIDS	5,744	57%
People Reported with HIV or AIDS who are Deceased	4,249	43%
Total Number of People Reported with HIV Infection or AIDS	9,993	100%

¹ 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

² 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 1/1/15

Table 2. Average annual rate of HIV infection diagnosis from 2011 to 2013 and HIV/AIDS prevalence rate on 12/31/14¹: City of Boston, Massachusetts²

Average annual HIV diagnosis rate from 2011–2013	Average rate per 100,000	Average annual number of HIV diagnoses
City of Boston, MA	30.6	189.0
Massachusetts Total	10.7	701.3

HIV/AIDS prevalence rate on 12/31/14	Rate per 100,000	Number of people living with HIV/AIDS
City of Boston, MA	930.1	5,744
Massachusetts Total	301.5	19,737

¹ 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.

² 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 1/1/15

Table 3. People living with HIV/AIDS¹, deaths among people reported with HIV/AIDS, and newly diagnosed HIV infections by year²: 2004–2013, City of Boston, Massachusetts³

Year	HIV/AIDS Prevalence	Deaths among those with HIV/AIDS	Diagnosis of HIV Infection
2004	4,354	81	244
2005	4,547	77	270
2006	4,686	85	224
2007	4,816	73	203
2008	4,945	75	204
2009	5,067	64	186
2010	5,197	66	196
2011	5,341	58	202
2012	5,452	64	175
2013	5,601	41	190

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

² 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.

³ 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 1/1/15

Table 4. People diagnosed with HIV infection from 2011–2013¹ and people living with HIV/AIDS on December 31, 2014 by gender, place of birth, race/ethnicity, exposure mode, age at HIV infection diagnosis and current age: City of Boston, Massachusetts²

HIV Infection Diagnoses			PLWH/A	
Gender:	N	%	N	%
Male	445	78%	4,398	77%
Female	122	22%	1,346	23%
Place of Birth:	N	%	N	%
US	347	61%	3,871	67%
Puerto Rico/US Dependency ³	24	4%	340	6%
Non-US	196	35%	1,533	27%
Race/Ethnicity:	N	%	N	%
White (non-Hispanic)	177	31%	2,246	39%
Black (non-Hispanic)	212	37%	2,275	40%
Hispanic/Latino	150	26%	1,091	19%
Asian/Pacific Islander	17	3%	88	2%
Exposure Mode:	N	%	N	%
Male-to-male sex (MSM)	293	52%	2,801	49%
Injection Drug Use (IDU)	30	5%	705	12%
MSM/IDU	-- ⁷	-- ⁷	204	4%
Heterosexual Sex	50	9%	695	12%
Other	-- ⁷	-- ⁷	96	2%
Total Undetermined	174	31%	1,243	22%
• Presumed Heterosexual Sex ⁴	65	11%	476	8%
• Undetermined ⁵	109	19%	767	13%
Age:	N	%	N	%
	At Diagnosis		On December 31, 2014	
Under 13	3	1%	8	<1%
13 to 19	21	4%	25	<1%
20 to 24	72	13%	79	1%
25 to 29	76	13%	183	3%
30 to 34	73	13%	265	5%
35 to 39	63	11%	361	6%
40 to 44	72	13%	511	9%
45 to 49	70	12%	902	16%
50 to 54	52	9%	1,163	20%
55 to 59	34	6%	1,035	18%
60+	31	5%	1,212	21%
Total⁶	567	100%	5,744	100%

¹ 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.

² 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.

³ Ninety-nine percent of people diagnosed with HIV infection from 2011–2013 who were born in a US dependency were born in Puerto Rico, <1% were born in the US Virgin Islands.

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

⁵ 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.

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

⁷ 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 1/1/15

Table 5. People living with HIV/AIDS on December 31, 2014 by gender and race/ethnicity: City of Boston, Massachusetts¹

Race/Ethnicity:	Male		Female	
	N	%	N	%
White (non-Hispanic)	2,094	48%	152	11%
Black (non-Hispanic)	1,364	31%	911	68%
Hispanic/Latino	834	19%	257	19%
Asian/Pacific Islander	72	2%	16	1%
Total²	4,398	100%	1,346	100%

¹ 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.

² 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 1/1/15

Table 6. People living with HIV/AIDS on December 31, 2014 by gender and exposure mode: City of Boston, Massachusetts¹

Exposure Mode:	Male		Female	
	N	%	N	%
Male-to-male sex (MSM)	2,801	64%	N/A	N/A
Injection drug use (IDU)	458	10%	247	18%
MSM/IDU	204	5%	N/A	N/A
Heterosexual sex	223	5%	472	35%
Other	51	1%	45	3%
Total Undetermined	661	15%	582	43%
• Presumed heterosexual sex ²	N/A	N/A	476	35%
• Undetermined ³	661	15%	106	8%
Total	4,398	100%	1,346	100%

¹ 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.

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

³ 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 1/1/15

Table 7. People diagnosed with HIV infection by gender and year of diagnosis: City of Boston, Massachusetts¹, 2004–2013²

	Male		Female		Total
	N	%	N	%	
2004	183	75%	61	25%	244
2005	211	78%	59	22%	270
2006	175	78%	49	22%	224
2007	161	79%	42	21%	203
2008	170	83%	34	17%	204
2009	149	80%	37	20%	186
2010	142	72%	54	28%	196
2011	153	76%	49	24%	202
2012	147	84%	28	16%	175
2013	145	76%	45	24%	190

¹ 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.

² 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 1/1/15

Table 8. People diagnosed with HIV infection by race/ethnicity and year of diagnosis: City of Boston, Massachusetts¹, 2004–2013²

	White Non-Hispanic		Black Non-Hispanic		Hispanic/Latino		Total ³
	N	%	N	%	N	%	N
2004	80	33%	116	48%	43	18%	244
2005	95	35%	109	40%	64	24%	270
2006	87	39%	90	40%	42	19%	224
2007	88	43%	74	36%	33	16%	203
2008	83	41%	82	40%	35	17%	204
2009	68	37%	83	45%	34	18%	186
2010	68	35%	77	39%	43	22%	196
2011	56	28%	95	47%	39	19%	202
2012	62	35%	50	29%	53	30%	175
2013	59	31%	67	35%	58	31%	190

¹ 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.

² 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.

³ 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 1/1/15

Table 9. People diagnosed with HIV infection by place of birth and year of diagnosis: City of Boston, Massachusetts¹, 2004–2013²

	US		Puerto Rico/ US Dependency ³		Non-US		Total
	N	%	N	%	N	%	N
2004	163	67%	10	4%	71	29%	244
2005	177	66%	18	7%	75	28%	270
2006	142	63%	9	4%	73	33%	224
2007	138	68%	7	3%	58	29%	203
2008	135	66%	10	5%	59	29%	204
2009	129	69%	12	6%	45	24%	186
2010	121	62%	7	4%	68	35%	196
2011	129	64%	7	3%	66	33%	202
2012	102	58%	10	6%	63	36%	175
2013	116	61%	7	4%	67	35%	190

¹ 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.

² 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.

³ Ninety-eight percent of people living with HIV/AIDS in MA who were born in a US dependency were born in Puerto Rico, 2% were born in US minor outlying areas, <1% were born in the US Virgin Islands, and <1% were born in Guam.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/15

Table 10. People diagnosed with HIV infection by exposure mode and year of diagnosis: City of Boston, Massachusetts¹, 2004–2013²

	MSM		IDU		MSM/ IDU		HTSX		Other		Pres. HTSX ³		Undeter- mined ⁴		Total
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N
2004	111	45%	23	9%	-- ⁵	-- ⁵	25	10%	-- ⁵	-- ⁵	34	14%	41	17%	244
2005	143	53%	19	7%	-- ⁵	-- ⁵	28	10%	-- ⁵	-- ⁵	25	9%	45	17%	270
2006	112	50%	16	7%	-- ⁵	-- ⁵	28	13%	-- ⁵	-- ⁵	23	10%	33	15%	224
2007	104	51%	23	11%	-- ⁵	-- ⁵	15	7%	-- ⁵	-- ⁵	15	7%	36	18%	203
2008	102	50%	10	5%	-- ⁵	-- ⁵	21	10%	-- ⁵	-- ⁵	13	6%	44	22%	204
2009	92	49%	11	6%	-- ⁵	-- ⁵	23	12%	-- ⁵	-- ⁵	17	9%	39	21%	186
2010	99	51%	13	7%	-- ⁵	-- ⁵	19	10%	-- ⁵	-- ⁵	31	16%	28	14%	196
2011	98	49%	14	7%	-- ⁵	-- ⁵	24	12%	-- ⁵	-- ⁵	21	10%	36	18%	202
2012	99	57%	8	5%	-- ⁵	-- ⁵	17	10%	-- ⁵	-- ⁵	13	7%	28	16%	175
2013	96	51%	8	4%	-- ⁵	-- ⁵	9	5%	-- ⁵	-- ⁵	31	16%	45	24%	190

¹ 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.

² 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.

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

⁴ 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.

⁵ 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 1/1/15

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, Massachusetts¹, 2004–2013²

	HIV and AIDS diagnosed within two months	All HIV infection diagnoses	% diagnosed with HIV and AIDS within two months
Year:	N	N	%
2004	78	244	32%
2005	84	270	31%
2006	77	224	34%
2007	63	203	31%
2008	54	204	26%
2009	50	186	27%
2010	53	196	27%
2011	58	202	29%
2012	43	175	25%
2013	49	190	26%

¹ 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.

² 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 1/1/15

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,¹ 2011–2013²

	HIV and AIDS diagnosed within two months	All HIV infection diagnoses	% diagnosed with HIV and AIDS within two months
Gender:	N	N	%
Male	115	445	26%
Female	35	122	29%
Race/Ethnicity:	N	N	%
White (non-Hispanic)	37	177	21%
Black (non-Hispanic)	75	212	35%
Hispanic/Latino	31	150	21%
Asian/Pacific Islander	-- ⁵	-- ⁵	-- ⁵
Other/Undetermined ³	-- ⁵	-- ⁵	-- ⁵
Place of Birth:	N	N	%
US	75	347	22%
Puerto Rico/US Dependencies ⁴	5	24	21%
Non-US	70	196	36%
Total	150	567	26%

¹ 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.

² 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.

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

⁴ Ninety-nine percent of people diagnosed with HIV infection from 2011–2013 who were born in a US dependency were born in Puerto Rico, <1% were born in the US Virgin Islands.

⁵ 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 1/1/15