

Regional HIV/AIDS Epidemiologic Profile of City of Boston, Massachusetts: 2012

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 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.

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 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 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.

Table 1. Total number of people reported with HIV infection or AIDS¹ by mortality status on December 31, 2011: City of Boston, Massachusetts²

	N	%
People Living with HIV/AIDS	5,297	57%
People Reported with HIV or AIDS who are Deceased	4,042	43%
Total Number of People Reported with HIV Infection or AIDS	9,339	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 1/1/12

Table 2. Average annual rate of HIV infection diagnosis from 2008 to 2010 and HIV/AIDS prevalence rate on 12/31/11¹: City of Boston, Massachusetts²

Average annual HIV diagnosis rate from 2008–2010	Average rate per 100,000	Average annual number of HIV diagnoses
City of Boston, MA	28.9	178.7
Massachusetts Total	10.3	664.7

HIV/AIDS prevalence rate on 12/31/11	Rate per 100,000	Number of people living with HIV/AIDS
City of Boston, MA	857.7	5,297
Massachusetts Total	277.5	18,170

¹ The denominators for rate calculations are from the 2010 Census, Summary File 1

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 1/1/12

Table 3. People living with HIV/AIDS¹, deaths among people reported with HIV/AIDS, and newly diagnosed HIV infections by year²: 2001–2010, City of Boston, Massachusetts³

Year	HIV/AIDS Prevalence	Deaths among those with HIV/AIDS	Diagnosis of HIV Infection
2001	3,828	109	282
2002	4,028	108	307
2003	4,206	92	270
2004	4,371	78	242
2005	4,557	72	254
2006	4,686	85	214
2007	4,800	71	185
2008	4,922	71	193
2009	5,037	54	169
2010	5,152	59	174

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 1/1/12

Table 4. People diagnosed with HIV infection from 2008–2010¹ and people living with HIV/AIDS on December 31, 2011 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	410	76%	4,042	76%
Female	126	24%	1,255	24%
Place of Birth:	N	%	N	%
US	340	63%	3,671	69%
Puerto Rico/US Dependency ³	30	6%	313	6%
Non-US	166	31%	1,313	25%
Race/Ethnicity:	N	%	N	%
White (non-Hispanic)	187	35%	2,128	40%
Black (non-Hispanic)	227	42%	2,132	40%
Hispanic/Latino	109	20%	941	18%
Asian/Pacific Islander	11	2%	80	2%
Exposure Mode:	N	%	N	%
Male-to-male sex (MSM)	244	46%	2,513	47%
Injection Drug Use (IDU)	35	7%	737	14%
MSM/IDU	15	3%	181	3%
Heterosexual Sex	59	11%	662	12%
Other	7	1%	101	2%
Total Undetermined	176	33%	1,103	21%
• Presumed Heterosexual Sex ⁴	58	11%	411	8%
• Undetermined ⁵	118	22%	692	13%
Age:	N	%	N	%
	At Diagnosis		On December 31, 2011	
Under 13	5	1%	8	<1%
13 to 19	13	2%	36	1%
20 to 24	47	9%	78	1%
25 to 29	71	13%	152	3%
30 to 34	73	14%	248	5%
35 to 39	72	13%	382	7%
40 to 44	74	14%	651	12%
45 to 49	72	13%	1,053	20%
50 to 54	53	10%	1,100	21%
55 to 59	31	6%	806	15%
60+	25	5%	783	15%
Total⁶	536	100%	5,297	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-eight percent of people diagnosed with HIV infection from 2008–2010 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.

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.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/12

Table 5. People living with HIV/AIDS on December 31, 2011 by gender and race/ethnicity: City of Boston, Massachusetts¹

Race/Ethnicity:	Male		Female	
	N	%	N	%
White (non-Hispanic)	1,975	49%	153	12%
Black (non-Hispanic)	1,269	31%	863	69%
Hispanic/Latino	719	18%	222	18%
Asian/Pacific Islander	67	2%	13	1%
Total²	4,042	100%	1,255	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 1/1/12

Table 6. People living with HIV/AIDS on December 31, 2011 by gender and exposure mode: City of Boston, Massachusetts¹

Exposure Mode:	Male		Female	
	N	%	N	%
Male-to-male sex (MSM)	2,513	62%	N/A	N/A
Injection drug use (IDU)	486	12%	251	20%
MSM/IDU	181	4%	N/A	N/A
Heterosexual sex	214	5%	448	36%
Other	51	1%	50	4%
Total Undetermined	597	15%	506	40%
• Presumed heterosexual sex ²	N/A	N/A	411	33%
• Undetermined ³	597	15%	95	8%
Total	4,042	100%	1,255	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 1/1/12

Table 7. People diagnosed with HIV infection by gender and year of diagnosis: City of Boston, Massachusetts¹, 2001–2010²

	Male		Female		Total
	N	%	N	%	
2001	212	75%	70	25%	282
2002	223	73%	84	27%	307
2003	185	69%	85	31%	270
2004	184	76%	58	24%	242
2005	199	78%	55	22%	254
2006	169	79%	45	21%	214
2007	146	79%	39	21%	185
2008	156	81%	37	19%	193
2009	133	79%	36	21%	169
2010	121	70%	53	30%	174

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 1/1/12

Table 8. People diagnosed with HIV infection by race/ethnicity and year of diagnosis: City of Boston, Massachusetts¹, 2001–2010²

	White Non-Hispanic		Black Non-Hispanic		Hispanic/Latino		Total ³
	N	%	N	%	N	%	N
2001	104	37%	124	44%	46	16%	282
2002	104	34%	150	49%	48	16%	307
2003	93	34%	118	44%	57	21%	270
2004	84	35%	113	47%	42	17%	242
2005	91	36%	101	40%	59	23%	254
2006	89	42%	81	38%	43	20%	214
2007	74	40%	73	39%	31	17%	185
2008	76	39%	77	40%	36	19%	193
2009	58	34%	78	46%	32	19%	169
2010	53	30%	72	41%	41	24%	174

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 1/1/12

Table 9. People diagnosed with HIV infection by place of birth and year of diagnosis: City of Boston, Massachusetts¹, 2001–2010²

	US		Puerto Rico/ US Dependency ³		Non-US		Total
	N	%	N	%	N	%	N
2001	187	66%	9	3%	86	30%	282
2002	194	63%	13	4%	100	33%	307
2003	172	64%	18	7%	80	30%	270
2004	164	68%	7	3%	71	29%	242
2005	168	66%	16	6%	70	28%	254
2006	139	65%	10	5%	65	30%	214
2007	126	68%	7	4%	52	28%	185
2008	127	66%	10	5%	56	29%	193
2009	113	67%	11	7%	45	27%	169
2010	100	57%	9	5%	65	37%	174

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 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.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/12.

Table 10. People diagnosed with HIV infection by exposure mode and year of diagnosis: City of Boston, Massachusetts¹, 2001–2010²

	MSM		IDU		MSM/ IDU		HTSX		Other		Pres. HTSX ³		Undeter- mined ⁴		Total
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N
2001	121	43%	35	12%	-- ⁵	-- ⁵	42	15%	-- ⁵	-- ⁵	26	9%	49	17%	282
2002	125	41%	41	13%	-- ⁵	-- ⁵	55	18%	-- ⁵	-- ⁵	21	7%	52	17%	307
2003	105	39%	31	11%	-- ⁵	-- ⁵	36	13%	-- ⁵	-- ⁵	36	13%	49	18%	270
2004	110	45%	22	9%	-- ⁵	-- ⁵	23	10%	-- ⁵	-- ⁵	32	13%	47	19%	242
2005	135	53%	19	7%	-- ⁵	-- ⁵	30	12%	-- ⁵	-- ⁵	20	8%	39	15%	254
2006	113	53%	15	7%	-- ⁵	-- ⁵	26	12%	-- ⁵	-- ⁵	19	9%	31	14%	214
2007	91	49%	20	11%	-- ⁵	-- ⁵	15	8%	-- ⁵	-- ⁵	13	7%	35	19%	185
2008	95	49%	12	6%	-- ⁵	-- ⁵	20	10%	-- ⁵	-- ⁵	15	8%	39	20%	193
2009	81	48%	11	7%	-- ⁵	-- ⁵	21	12%	-- ⁵	-- ⁵	15	9%	37	22%	169
2010	68	39%	12	7%	-- ⁵	-- ⁵	18	10%	-- ⁵	-- ⁵	28	16%	42	24%	174

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 1/1/12

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, 2001–2010²

	HIV and AIDS diagnosed within two months	All HIV infection diagnoses	% diagnosed with HIV and AIDS within two months
Year:	N	N	%
2001	92	282	33%
2002	97	307	32%
2003	87	270	32%
2004	75	242	31%
2005	76	254	30%
2006	73	214	34%
2007	59	185	32%
2008	46	193	24%
2009	49	169	29%
2010	50	174	29%

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 1/1/12

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 2008–2010²

	HIV and AIDS diagnosed within two months	All HIV infection diagnoses	% diagnosed with HIV and AIDS within two months
Gender:	N	N	%
Male	113	410	28%
Female	32	126	25%
Race/Ethnicity:	N	N	%
White (non-Hispanic)	43	187	23%
Black (non-Hispanic)	70	227	31%
Hispanic/Latino	30	109	28%
Asian/Pacific Islander	-- ⁵	-- ⁵	-- ⁵
Other/Undetermined ³	-- ⁵	-- ⁵	-- ⁵
Place of Birth:	N	N	%
US	85	340	25%
Puerto Rico/US Dependencies ⁴	5	30	17%
Non-US	55	166	33%
Total	145	536	27%

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-eight percent of people diagnosed with HIV infection from 2008–2010 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.

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 1/1/12