

Regional HIV/AIDS Epidemiologic Profile of Central Health Service Region (HSR), Massachusetts: 2013

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, 2013, this resulted in the removal of 3,529 HIV/AIDS cases, of which 914 have died and 2,615 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 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, 2012: Central HSR, Massachusetts²

	N	%
People Living with HIV/AIDS	1,598	59%
People Reported with HIV or AIDS who are Deceased	1,090	41%
Total Number of People Reported with HIV Infection or AIDS	2,688	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 1/1/13

Table 2. Average annual rate of HIV infection diagnosis from 2009 to 2011 and HIV/AIDS prevalence rate on 12/31/12¹: Central HSR, Massachusetts²

Average annual HIV diagnosis rate from 2009–2011	Average rate per 100,000	Average annual number of HIV diagnoses
Central HSR, MA	6.6	57.0
Massachusetts Total	10.3	664.7

HIV/AIDS prevalence rate on 12/31/12	Rate per 100,000	Number of people living with HIV/AIDS
Central HSR, MA	186.3	1,598
Massachusetts Total	277.5	18,170

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 1/1/13

Table 3. People living with HIV/AIDS¹, deaths among people reported with HIV/AIDS, and newly diagnosed HIV infections by year²: 2002–2011, Central HSR, Massachusetts³

Year	HIV/AIDS Prevalence	Deaths among those with HIV/AIDS	Diagnosis of HIV Infection
2002	1,224	39	104
2003	1,276	35	87
2004	1,319	41	84
2005	1,349	40	70
2006	1,398	31	80
2007	1,429	30	61
2008	1,456	29	56
2009	1,482	28	54
2010	1,516	22	56
2011	1,564	13	61

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 1/1/13

Table 4. People diagnosed with HIV infection from 2009–2011¹ and people living with HIV/AIDS on December 31, 2012 by gender, place of birth, race/ethnicity, exposure mode, age at HIV infection diagnosis and current age: Central HSR, Massachusetts²

HIV Infection Diagnoses			PLWH/A	
Gender:	N	%	N	%
Male	110	64%	983	62%
Female	61	36%	615	38%
Place of Birth:	N	%	N	%
US	95	56%	977	61%
Puerto Rico/US Dependency ³	15	9%	284	18%
Non-US	61	36%	337	21%
Race/Ethnicity:	N	%	N	%
White (non-Hispanic)	62	36%	675	42%
Black (non-Hispanic)	66	39%	405	25%
Hispanic/Latino	39	23%	490	31%
Exposure Mode:	N	%	N	%
Male-to-male sex (MSM)	53	31%	392	25%
Injection Drug Use (IDU)	14	8%	443	28%
MSM/IDU	-- ⁷	-- ⁷	47	3%
Heterosexual Sex	34	20%	296	19%
Other	-- ⁷	-- ⁷	48	3%
Total Undetermined	62	36%	372	23%
• Presumed Heterosexual Sex ⁴	22	13%	174	11%
• Undetermined ⁵	40	23%	198	12%
Age:	N	%	N	%
	At Diagnosis		On December 31, 2012	
Under 13	2	1%	2	<1%
13 to 19	5	3%	12	1%
20 to 24	19	11%	33	2%
25 to 29	14	8%	47	3%
30 to 34	18	11%	80	5%
35 to 39	27	16%	111	7%
40 to 44	28	16%	194	12%
45 to 49	21	12%	287	18%
50 to 54	20	12%	352	22%
55 to 59	6	4%	243	15%
60+	11	6%	237	15%
Total⁶	171	100%	1,598	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 2009–2011 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 Asian/Pacific Islander, 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 1/1/13

Table 5. People living with HIV/AIDS on December 31, 2012 by gender and race/ethnicity: Central HSR, Massachusetts¹

Race/Ethnicity:	Male		Female	
	N	%	N	%
White (non-Hispanic)	489	50%	186	30%
Black (non-Hispanic)	198	20%	207	34%
Hispanic/Latino	273	28%	217	35%
Other/Undetermined	23	2%	5	1%
Total	983	100%	615	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.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/13

Table 6. People living with HIV/AIDS on December 31, 2012 by gender and exposure mode: Central HSR, Massachusetts¹

Exposure Mode:	Male		Female	
	N	%	N	%
Male-to-male sex (MSM)	392	40%	N/A	N/A
Injection drug use (IDU)	266	27%	177	29%
MSM/IDU	47	5%	N/A	N/A
Heterosexual sex	79	8%	217	35%
Other	25	3%	23	4%
Total Undetermined	174	18%	198	32%
• Presumed heterosexual sex ²	N/A	N/A	174	28%
• Undetermined ³	174	18%	24	4%
Total	983	100%	615	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 1/1/13

Table 7. People diagnosed with HIV infection by gender and year of diagnosis: Central HSR, Massachusetts¹, 2002–2011²

	Male		Female		Total
	N	%	N	%	
2002	63	61%	41	39%	104
2003	45	52%	42	48%	87
2004	50	60%	34	40%	84
2005	49	70%	21	30%	70
2006	49	61%	31	39%	80
2007	36	59%	25	41%	61
2008	31	55%	25	45%	56
2009	38	70%	16	30%	54
2010	33	59%	23	41%	56
2011	39	64%	22	36%	61

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 1/1/13

Table 8. People diagnosed with HIV infection by race/ethnicity and year of diagnosis: Central HSR, Massachusetts¹, 2002–2011²

	White Non-Hispanic		Black Non-Hispanic		Hispanic/Latino		Total ³
	N	%	N	%	N	%	N
2002	39	38%	34	33%	30	29%	104
2003	33	38%	28	32%	23	26%	87
2004	34	40%	26	31%	24	29%	84
2005	30	43%	22	31%	16	23%	70
2006	23	29%	32	40%	22	28%	80
2007	25	41%	22	36%	13	21%	61
2008	22	39%	16	29%	16	29%	56
2009	20	37%	20	37%	12	22%	54
2010	18	32%	27	48%	10	18%	56
2011	24	39%	19	31%	17	28%	61

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 1/1/13

Table 9. People diagnosed with HIV infection by place of birth and year of diagnosis: Central HSR, Massachusetts¹, 2002–2011²

	US		Puerto Rico/ US Dependency ³		Non-US		Total
	N	%	N	%	N	%	N
2002	57	55%	14	13%	33	32%	104
2003	50	57%	12	14%	25	29%	87
2004	45	54%	14	17%	25	30%	84
2005	36	51%	11	16%	23	33%	70
2006	39	49%	12	15%	29	36%	80
2007	32	52%	6	10%	23	38%	61
2008	28	50%	13	23%	15	27%	56
2009	33	61%	-- ⁴	-- ⁴	-- ⁴	-- ⁴	54
2010	27	48%	5	9%	24	43%	56
2011	35	57%	6	10%	20	33%	61

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.

⁴ 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 1/1/13

Table 10. People diagnosed with HIV infection by exposure mode and year of diagnosis: Central HSR, Massachusetts¹, 2002–2011²

	MSM		IDU		MSM/ IDU		HTSX		Other		Pres. HTSX ³		Undeter- mined ⁴		Total
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N
2002	19	18%	25	24%	-- ⁵	-- ⁵	15	14%	-- ⁵	-- ⁵	17	16%	23	22%	104
2003	19	22%	14	16%	-- ⁵	-- ⁵	13	15%	-- ⁵	-- ⁵	17	20%	17	20%	87
2004	16	19%	19	23%	-- ⁵	-- ⁵	21	25%	-- ⁵	-- ⁵	14	17%	12	14%	84
2005	24	34%	16	23%	0	0%	6	9%	0	0%	13	19%	11	16%	70
2006	22	28%	11	14%	-- ⁵	-- ⁵	13	16%	-- ⁵	-- ⁵	18	23%	15	19%	80
2007	21	34%	9	15%	0	0%	8	13%	0	0%	13	21%	10	16%	61
2008	14	25%	11	20%	-- ⁵	-- ⁵	11	20%	-- ⁵	-- ⁵	9	16%	10	18%	56
2009	21	39%	-- ⁵	-- ⁵	-- ⁵	-- ⁵	10	19%	-- ⁵	-- ⁵	5	9%	10	19%	54
2010	14	25%	-- ⁵	-- ⁵	-- ⁵	-- ⁵	10	18%	0	0%	12	21%	14	25%	56
2011	18	30%	7	11%	-- ⁵	-- ⁵	14	23%	-- ⁵	-- ⁵	5	8%	16	26%	61

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 1/1/13

Table 11. People diagnosed with HIV infection and AIDS within two months and all people diagnosed with HIV infection by year of diagnosis: Central HSR, Massachusetts¹, 2002–2011²

	HIV and AIDS diagnosed within two months	All HIV infection diagnoses	% diagnosed with HIV and AIDS within two months
Year:	N	N	%
2002	37	104	36%
2003	29	87	33%
2004	31	84	37%
2005	28	70	40%
2006	28	80	35%
2007	25	61	41%
2008	26	56	46%
2009	19	54	35%
2010	19	56	34%
2011	24	61	39%

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 1/1/13

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: Central HSR, Massachusetts,¹ 2009–2011²

	HIV and AIDS diagnosed within two months	All HIV infection diagnoses	% diagnosed with HIV and AIDS within two months
Gender:	N	N	%
Male	44	110	40%
Female	18	61	30%
Race/Ethnicity:	N	N	%
White (non-Hispanic)	24	62	39%
Black (non-Hispanic)	28	66	42%
Hispanic/Latino	9	39	23%
Asian/Pacific Islander	-- ⁵	-- ⁵	-- ⁵
Other/Undetermined ³	-- ⁵	-- ⁵	-- ⁵
Place of Birth:	N	N	%
US	-- ⁵	-- ⁵	-- ⁵
Puerto Rico/US Dependencies ⁴	-- ⁵	-- ⁵	-- ⁵
Non-US	25	61	41%
Total	62	171	36%

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 2009–2011 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 1/1/13