

Detailed Data Tables: Men Who Have Sex with Men (MSM)

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. People diagnosed with HIV infection by gender and exposure mode: Massachusetts¹, 2009–2011²

Exposure Mode:	Male		Female		State Total	
	N	%	N	%	N	%
Male-to-male sex (MSM)	808	56%	N/A	N/A	808	41%
Injection drug use (IDU)	106	7%	56	11%	162	8%
MSM/IDU	53	4%	N/A	N/A	53	3%
Heterosexual sex	73	5%	176	33%	249	13%
Other	6	<1%	8	2%	14	1%
Total undetermined/other	401	28%	292	55%	693	35%
- Pres. HTSX ³	N/A	N/A	215	40%	215	11%
- Undetermined ⁴	401	28%	77	14%	478	24%
Total	1,447	100%	532	100%	1,979	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 Reflects year of HIV 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 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.

Pres. HTSX = Presumed Heterosexual Sex; 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

Note: The category of “presumed heterosexual” is used in Massachusetts to re-assign females who are reported with an exposure of heterosexual sex, but only with a partner of unknown HIV status or behavioral risk. Massachusetts uses the category of presumed heterosexual to distinguish these female cases from other undetermined cases about which we know less. Prior to January 1, 2011, the presumed heterosexual category was also used to report HIV data in males. The rationale for the application of the presumed heterosexual exposure mode category to females only has been addressed in the MDPH OHA report “Intersecting Risks: HIV Infection among Heterosexual Women and Men in Massachusetts.” (2010) http://www.mass.gov/Eeohhs2/docs/dph/aids/intersecting_risks.pdf. Nationally, the Centers for Disease Control and Prevention categorize “presumed heterosexual” cases as “no identified risk” (NIR). As such, comparisons of the presumed heterosexual category cannot be made to national data. Caution should be used in interpreting data for presumed heterosexual, as it is still not clear what the exposure risk was for females in this category. Although a person may not report other risk behaviors, such as injection drug use to a health care provider, it does not exclude the possibility that an individual has experienced these other risks. There are many barriers to disclosing HIV risk behaviors in the health care setting such as a limited patient-provider relationship or stigma.

Table 2. People living with HIV/AIDS on December 31, 2012 by gender and exposure mode: Massachusetts¹

Exposure Mode:	Male		Female		Total	
	N	%	N	%	N	%
Male-to-male sex (MSM)	6,720	51%	N/A	N/A	6,720	36%
Injection drug use (IDU)	2,479	19%	1,274	24%	3,753	20%
MSM/IDU	627	5%	N/A	N/A	627	3%
Heterosexual sex	782	6%	1,865	35%	2,647	14%
Other	223	2%	186	3%	409	2%
Total undetermined/other	2,313	18%	1,990	37%	4,303	23%
• Pres. HTSX ²	N/A	N/A	1,600	30%	1,600	9%
• Undetermined ³	2,313	18%	390	7%	2,703	15%
Total	13,144	100%	5,315	100%	18,459	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 3. Percentage distribution of people diagnosed with HIV infection by Health Service Region (HSR)¹ and exposure mode: Massachusetts², 2009–2011³

HSR	MSM %	IDU %	MSM/ IDU %	HTSX %	Other %	Pres. HTSX ⁴ %	Undet. ⁵ %	Total N
Boston	47%	6%	2%	11%	1%	12%	21%	604
Central	31%	8%	4%	20%	1%	13%	23%	171
Metro West	47%	4%	4%	10%	1%	9%	25%	325
Northeast	33%	7%	2%	13%	1%	11%	33%	326
Southeast	42%	7%	2%	13%	0%	12%	23%	278
Western	39%	13%	1%	12%	<1%	9%	24%	205
Prison ⁶	20%	43%	6%	14%	0%	1%	14%	69
Total	41%	8%	3%	13%	1%	11%	24%	1,979

¹ Reflects the health service region of a person's residence at the time of report (not necessarily current residence). See Epidemiologic Profile General Appendices, Health Service Region Maps, available at http://www.mass.gov/dph/aids/research/profile2005/app5_hrs_maps.pdf for configuration of health service regions.

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 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.

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 HSRs are regions defined geographically to facilitate targeted health service planning. While prisons do not constitute an HSR, the prison population is presented separately in this analysis because of its unique service planning needs. Prisons include only persons who were diagnosed with HIV/AIDS while in a correctional facility

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; Undet. = Undetermined

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

Table 4. Percentage distribution of people living with HIV/AIDS on December 31, 2012 by Health Service Region (HSR)¹ and exposure mode: Massachusetts²

HSR	MSM %	IDU %	MSM/ IDU %	HTSX %	Other %	Pres. HTSX ³ %	Undet. ⁴ %	Total N
Boston	48%	13%	4%	13%	2%	8%	13%	5,828
Central	25%	28%	3%	19%	3%	11%	12%	1,598
Metrowest	40%	11%	3%	14%	3%	11%	19%	2,628
Northeast	31%	17%	3%	16%	2%	11%	19%	2,892
Southeast	39%	21%	3%	15%	2%	7%	13%	2,520
Western	26%	28%	3%	18%	3%	9%	13%	2,032
Prison ⁵	7%	66%	7%	7%	<1%	1%	12%	956
Total⁶	36%	20%	3%	14%	2%	9%	15%	18,459

¹ Reflects the health service region of a person's residence at the time of report (not necessarily current residence). See Epidemiologic Profile General Appendices, Health Service Region Maps, available at http://www.mass.gov/dph/aids/research/profile2005/app5_hrs_maps.pdf for configuration of health service regions.

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 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 HSRs are regions defined geographically to facilitate targeted health service planning. While prisons do not constitute an HSR, the prison population is presented separately in this analysis because of its unique service planning needs. Prisons include only persons who were diagnosed with HIV/AIDS while in a correctional facility. These data do not reflect current incarceration status.

⁶ Mass. total includes five persons living with HIV/AIDS with unknown residence at time of report.

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 5. Ten cities/towns¹ in Massachusetts with the highest proportion of Male-to-Male Sex (MSM) as primary reported exposure mode among HIV infection diagnoses (HIV Dx): 2009–2011²

Rank	City/Town	Number of HIV Dx among MSM	Percent of Total HIV Dx
1	Provincetown	31	91%
2	Quincy	12	57%
3	Cambridge	25	51%
4	Somerville	14	50%
5	Medford	11	48%
6	Boston	262	47%
7	Waltham	14	39%
8	Everett	8	36%
8	New Bedford	13	36%
8	Malden	9	36%

¹ Among cities/towns with over 20 reported HIV Infection diagnoses in the years 2009–2011. Note: reflects the city/town of a person's residence at the time of report (not necessarily current residence). People diagnosed while at a correctional facility are not included.

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.

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. Males diagnosed with HIV infection by exposure mode and year of diagnosis: Massachusetts¹, 2002–2011²

	MSM		IDU		MSM/ IDU		HTSX		Undeter- mined ³		Total ⁴
	N	%	N	%	N	%	N	%	N	%	N
2002	316	45%	130	18%	32	5%	60	8%	163	23%	706
2003	308	49%	93	15%	33	5%	42	7%	143	23%	629
2004	288	45%	100	16%	26	4%	47	7%	171	27%	637
2005	332	52%	88	14%	23	4%	34	5%	156	25%	633
2006	322	58%	49	9%	17	3%	42	8%	125	22%	557
2007	275	53%	60	12%	21	4%	27	5%	134	26%	519
2008	279	53%	45	9%	30	6%	28	5%	135	26%	523
2009	295	58%	31	6%	17	3%	26	5%	134	27%	505
2010	266	57%	40	9%	18	4%	24	5%	118	25%	469
2011	247	52%	35	7%	18	4%	23	5%	149	32%	473

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 10 year period after the implementation of HIV infection reporting in 1999.

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.

⁴ Totals include pediatric and blood/blood products exposure modes.

MSM = Male-to-Male Sex; IDU = Injection Drug Use; HTSX = 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 7. Males diagnosed with HIV infection by exposure mode and race/ethnicity: Massachusetts¹, 2009–2011²

Race/ Ethnicity:	MSM		IDU		MSM/ IDU		HTSX		Other		Undeter- mined ³	
	N	%	N	%	N	%	N	%	N	%	N	%
White (NH)	1,883	64%	216	32%	165	70%	59	17%	9	25%	338	24%
Black (NH)	434	15%	160	24%	27	11%	179	51%	17	47%	658	46%
Hispanic/Latino	512	17%	283	42%	41	17%	110	31%	9	25%	378	26%
API	80	3%	-- ⁴	-- ⁴	-- ⁴	-- ⁴	5	1%	-- ⁴	-- ⁴	48	3%
Other/Und.	19	1%	-- ⁴	-- ⁴	-- ⁴	-- ⁴	0	0%	-- ⁴	-- ⁴	6	<1%
Total	2,928	100%	671	100%	235	100%	353	100%	36	100%	1,428	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 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 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.

⁴ Numbers less than 5 for populations of less than 50,000 are suppressed for the assurance of confidentiality.

(NH) = Non-Hispanic, API = Asian/Pacific Islander, Und. = Undetermined

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. Males living with HIV/AIDS on December 31, 2012 by exposure mode and race/ethnicity: Massachusetts¹

Race/ Ethnicity:	MSM		IDU		MSM/ IDU		HTSX		Other		Undeter- mined ²	
	N	%	N	%	N	%	N	%	N	%	N	%
White (NH)	4,703	70%	766	31%	390	62%	146	19%	71	32%	592	26%
Black (NH)	876	13%	610	25%	110	18%	362	46%	88	39%	1,079	47%
Hispanic/Latino	973	14%	1,079	44%	120	19%	260	33%	63	28%	554	24%
API	134	2%	14	1%	-- ³	77	3%					
Other/Und.	35	1%	10	<1%	-- ³	11	<1%					
Total	6,721	100%	2,479	100%	627	100%	782	100%	223	100%	2,313	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 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.

³ Numbers less than 5 for populations of less than 50,000 are suppressed for the assurance of confidentiality.

(NH) = Non-Hispanic, API = Asian/Pacific Islander, Und. = Undetermined

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. Males diagnosed with HIV infection by age at HIV diagnosis and exposure mode: Massachusetts¹, 2009–2011²

Exposure Mode	<13		13 to 24		25 to 29		30 to 34		35 to 39		40 to 44		45 to 49		50 to 54		55 to 59		60+	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
MSM	0	0%	137	78%	113	70%	101	58%	106	55%	127	56%	115	49%	57	42%	24	35%	28	39%
IDU	0	0%	-- ⁴	-- ⁴	7	4%	6	3%	18	9%	10	4%	22	9%	20	15%	15	22%	7	10%
MSM/IDU	0	0%	9	5%	9	6%	11	6%	8	4%	5	2%	7	3%	-- ⁴	-- ⁴	0	0%	0	0%
HTSX	0	0%	-- ⁴	-- ⁴	8	5%	10	6%	10	5%	15	7%	11	5%	10	7%	-- ⁴	-- ⁴	6	8%
Other	5	100%	-- ⁴	-- ⁴	0	0%	0	0%	0	0%	0	0%	0	0%	-- ⁴	-- ⁴	-- ⁴	-- ⁴	0	0%
Undetermined ³	0	0%	27	15%	25	15%	45	26%	52	27%	69	31%	79	34%	46	34%	27	40%	31	43%
Total	5	100%	176	100%	162	100%	173	100%	194	100%	226	100%	234	100%	137	100%	68	100%	72	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 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 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.

⁴ Numbers less than 5 for populations of less than 50,000 are suppressed for the assurance of confidentiality.

MSM = Male-to-Male Sex; IDU = Injection Drug Use; MSM/IDU = Male-to-Male Sex and Injection Drug Use; HTSX = 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 10. White (non-Hispanic) *males* diagnosed with HIV infection by age at HIV diagnosis and exposure mode: Massachusetts¹, 2009–2011²

Exposure Mode	<13		13 to 24		25 to 29		30 to 34		35 to 39		40 to 44		45 to 49		50 to 54		55 to 59		60+	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
MSM	0	0%	51	80%	58	87%	52	75%	59	69%	90	82%	85	70%	40	66%	20	71%	24	60%
IDU	0	0%	-- ⁴	-- ⁴	0	0%	-- ⁴	-- ⁴	6	7%	-- ⁴	-- ⁴	7	6%	-- ⁴					
MSM/IDU	0	0%	5	8%	8	12%	6	9%	7	8%	-- ⁴	0	0%	0	0%					
HTSX	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Other	0	0%	-- ⁴	0	0%	-- ⁴	-- ⁴	-- ⁴	-- ⁴	0	0%	-- ⁴	-- ⁴	-- ⁴	-- ⁴					
Undetermined ³	0	0%	7	11%	-- ⁴	-- ⁴	5	7%	14	16%	12	11%	25	20%	16	26%	-- ⁴	-- ⁴	12	30%
Total	0	0%	64	100%	67	100%	69	100%	86	100%	110	100%	122	100%	61	100%	28	100%	40	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 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 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.

⁴ Numbers less than 5 for populations of less than 50,000 are suppressed for the assurance of confidentiality.

MSM = Male-to-Male Sex; IDU = Injection Drug Use; MSM/IDU = Male-to-Male Sex and Injection Drug Use; HTSX = 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. Black (non-Hispanic) *males* diagnosed with HIV infection by age at HIV diagnosis and exposure mode: Massachusetts¹, 2009–2011²

Exposure Mode	<13		13 to 24		25 to 29		30 to 34		35 to 39		40 to 44		45 to 49		50 to 54		55 to 59		60+	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
MSM	0	0%	42	74%	25	61%	16	40%	12	32%	12	22%	13	25%	9	19%	-- ⁴	-- ⁴	-- ⁴	-- ⁴
IDU	0	0%	0	0%	-- ⁴	-- ⁴	0	0%	-- ⁴	8	17%	7	24%	-- ⁴	-- ⁴					
MSM/IDU	0	0%	-- ⁴	-- ⁴	0	0%	-- ⁴	0	0%	0	0%									
HTSX	0	0%	-- ⁴	-- ⁴	-- ⁴	-- ⁴	6	15%	-- ⁴	-- ⁴	5	9%	6	11%	6	13%	-- ⁴	-- ⁴	-- ⁴	-- ⁴
Other	-- ⁴	-- ⁴	0	0%	0	0%	-- ⁴	-- ⁴	0	0%	0	0%	0	0%	-- ⁴	-- ⁴	0	0%	0	0%
Undetermined ³	-- ⁴	-- ⁴	11	19%	12	29%	17	43%	19	50%	34	63%	29	55%	24	50%	19	66%	14	61%
Total	-- ⁴	-- ⁴	57	100%	41	100%	40	100%	38	100%	54	100%	53	100%	48	100%	29	100%	23	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 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 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.

⁴ Numbers less than 5 for populations of less than 50,000 are suppressed for the assurance of confidentiality.

MSM = Male-to-Male Sex; IDU = Injection Drug Use; MSM/IDU = Male-to-Male Sex and Injection Drug Use; HTSX = 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 12. Hispanic/Latino *males* diagnosed with HIV infection by age at HIV diagnosis and exposure mode: Massachusetts, 2009–2011

Exposure Mode	<13		13 to 24		25 to 29		30 to 34		35 to 39		40 to 44		45 to 49		50 to 54		55 to 59		60+	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
MSM	0	0%	34	76%	28	55%	22	43%	28	46%	22	39%	11	23%	7	26%	-- ⁴	-- ⁴	0	0%
IDU	0	0%	0	0%	5	10%	-- ⁴	-- ⁴	10	16%	5	9%	11	23%	9	33%	5	50%	-- ⁴	-- ⁴
MSM/IDU	0	0%	0	0%	-- ⁴	-- ⁴	-- ⁴	-- ⁴	0	0%	-- ⁴	0	0%	0	0%					
HTSX	0	0%	-- ⁴	-- ⁴	5	10%	-- ⁴	-- ⁴	6	10%	7	13%	-- ⁴							
Other	-- ⁴	0	0%	0	0%	-- ⁴	-- ⁴	0	0%	0	0%	0	0%	0	0%					
Undetermined ³	-- ⁴	-- ⁴	9	20%	12	24%	21	41%	17	28%	21	38%	20	43%	6	22%	-- ⁴	-- ⁴	5	71%
Total	-- ⁴	-- ⁴	45	100%	51	100%	51	100%	61	100%	56	100%	47	100%	27	100%	10	100%	7	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 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 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.

⁴ Numbers less than 5 for populations of less than 50,000 are suppressed for the assurance of confidentiality.

MSM = Male-to-Male Sex; IDU = Injection Drug Use; MSM/IDU = Male-to-Male Sex and Injection Drug Use; HTSX = 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 13. Males diagnosed with HIV infection by mode of exposure and place of birth: Massachusetts¹, 2009–2011²

	MSM		IDU		MSM/ IDU		HTSX		Other		Undeter- mined ³	
United States	641	79%	71	67%	43	81%	26	36%	-- ⁵	-- ⁵	204	51%
PR/US Depen. ⁴	26	3%	28	26%	-- ⁵	-- ⁵	12	16%	0	0%	22	5%
Non-US	141	17%	7	7%	-- ⁵	-- ⁵	35	48%	-- ⁵	-- ⁵	175	44%
Total	808	100%	106	100%	53	100%	73	100%	6	100%	401	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 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 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.

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 Numbers less than 5 for populations of less than 50,000 are suppressed for the assurance of confidentiality.

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

Table 14. Males living with HIV/AIDS on December 31, 2012 by mode of exposure and place of birth: Massachusetts¹

	MSM		IDU		MSM/ IDU		HTSX		Other		Undeter- mined ²	
United States	5,592	83%	1,643	66%	523	83%	345	44%	183	82%	1,021	44%
PR/US Depen. ³	202	3%	721	29%	67	11%	113	14%	14	6%	157	7%
Non-US	927	14%	115	5%	37	6%	324	41%	26	12%	1135	49%
Total	6,721	100%	2,479	100%	627	100%	782	100%	223	100%	2,313	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 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.

³ Ninety-eight percent of people living with HIV/AIDS 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 2% 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 1/1/13

Table 15. MSM¹ diagnosed with HIV infection by race/ethnicity and place of birth: Massachusetts², 2009–2011

Place of Birth	White Non-Hispanic		Black Non-Hispanic		Hispanic/Latino	
	N	%	N	%	N	%
United States	439	92%	114	85%	70	46%
PR/US Depen. ³	-- ⁴	-- ⁴	0	0%	25	16%
Non-US	-- ⁴	-- ⁴	20	15%	58	38%
Total	479	100%	134	100%	153	100%

¹ Includes primary reported mode of exposure as male-to-male sex (MSM)

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 PR/US Depen. = Puerto Rico/US Dependency; 98% 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 Numbers less than 5 for populations of less than 50,000 are suppressed for the assurance of confidentiality.

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

Table 16. MSM¹ living with HIV/AIDS on December 31, 2012 by race/ethnicity and place of birth: Massachusetts²

MSM	White Non-Hispanic		Black Non-Hispanic		Hispanic/Latino	
	N	%	N	%	N	%
US	4,417	94%	735	84%	359	37%
PR/US Depen. ³	8	<1%	-- ⁴	-- ⁴	191	20%
Non-US	278	6%	-- ⁴	-- ⁴	423	43%
Total	4,703	100%	876	100%	973	100%

¹ Includes primary reported mode of exposure as male-to-male sex (MSM)

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 PR/US Depen. = Puerto Rico/US Dependency; 98% of people living with HIV/AIDS 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 2% were born in an unknown dependency.

⁴ Numbers less than 5 for populations of less than 50,000 are suppressed for the assurance of confidentiality.

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

Technical Notes:

Tables 17–20 include trends reported by Massachusetts residents through anonymous telephone interviews from 2001 to 2010 and single year estimates for 2011. Data for 2011 are not included in trend data because new weighting methodology (raking weight) implemented by CDC in 2011 makes this year not comparable with previous years. This ongoing random-digit-dial telephone survey, the Behavioral Risk Factor Surveillance System (BRFSS), covers a broad range of topic areas (including risk related to sexual activity) and is part of a CDC-funded national survey program.

Table 17. Percent of males ages 18–64¹ years by sex of sexual partner(s) during the past 12 months: Massachusetts, 2001–2010²			
Males ages 18–64			
Year	Same-Sex/ Both Sexes	Opposite Sex Only	N
2001	4.3%	95.7%	1,528
2002	8.5%	91.5%	952
2003	7.2%	92.8%	894
2004	9.4%	90.6%	977
2005	4.9%	95.1%	834
2006	5.4%	94.6%	1,217
2007	6.5%	93.6%	841
2008	5.2%	94.8%	1,305
2009	5.9%	94.1%	992
2010	6.1%	93.9%	1,010

¹ Sexually active in past year
² 2011 data are not presented because new weighting methodology (raking weight) implemented by CDC in 2011 makes this year not comparable with previous years.
 Data Source: Massachusetts Behavioral Risk Factor Surveillance System (BRFSS)

Table 18. Condom use at last sexual encounter¹ among males ages 18–64² years reporting same-sex partner (or opposite- and same-sex partners)³: Massachusetts, 2001–2010⁴

Year	Used Condom (%)	Did not Use Condom (%)	Total (N) ⁵
2001	37.5%	62.5%	64
2002	46.0%	54.0%	81
2003	39.0%	61.0%	63
2004	41.8%	58.2%	91
2005	55.6%	44.4%	39
2006	46.9%	53.1%	56
2007	31.7%	68.3%	54
2008	34.4%	65.6%	68
2009	31.4%	68.6%	59
2010	44.3%	55.7%	62

¹ Includes oral, vaginal, or anal sex (with either a male or female partner) but not masturbation

² Sexually active in past year

³ During the past 12 months

⁴ 2011 data are not presented because new weighting methodology (raking weight) implemented by CDC in 2011 makes this year not comparable with previous years.

⁵ Annual number of male respondents reporting same sex partner

Note: Caution should be used in interpreting these results as the effective sample size is small and confidence intervals are wide. There are no significant differences between any years in the percent who used a condom at last intercourse

Data Source: Massachusetts Behavioral Risk Factor Surveillance System (BRFSS), 2001–2010

Table 19. Number of sexual partners in the past year and condom use at last sexual encounter among males ages 18–64¹ reporting same-sex partner (or opposite- and same-sex partners)² compared to male respondents reporting only opposite-sex partner²: Massachusetts, 2011

	Males Reporting Same-Sex Partner or Opposite- and Same-Sex Partners	Males Reporting Only Opposite-Sex Partner
Number of Sexual Partners:	% [Confidence Interval]	% [Confidence Interval]
1 partner	47.3 [17.4 - 77.2]	82.9 [76.6 - 89.1]
2 or more partners	52.7 [22.8 - 82.6]	17.1 [10.9 - 23.4]
Total N	68	1,044
Condom Use:³	%	%
Yes	59.0 [32.0 - 86.0]	24.1 [18.4 - 29.7]
No	41.0 [14.0 - 68.0]	75.9 [70.3 - 81.6]
Total N	67	1,049
¹ Sexually active in past year ² During the past 12 months ³ At last sexual intercourse Note: Caution should be used in interpreting these results as the effective sample size is small and confidence intervals are wide. There are no significant differences between any years in the percent who used a condom at last intercourse. Data Source: Massachusetts Behavioral Risk Factor Surveillance System (BRFSS), 2011		

Technical Notes:

Tables 20–22 include data reported by students in randomly selected Massachusetts public high schools every odd year from 1993 to 2011. This anonymous survey, the Youth Risk Behavior Survey (YRBS), is administered by the Massachusetts Department of Elementary and Secondary Education in collaboration with the Centers for Disease Control and Prevention and focuses on risk behaviors that may affect the health and/or safety of high school students.

Table 20. Percentage of sexually active male respondents by sex of sexual partner(s) and year: Massachusetts Youth Risk Behavior Survey, 1997–2011¹

Year	Same-Sex/ Both Sexes		Opposite-Sex	
	Total N ²	%	Total N ²	%
1997	69	6.6%	941	93.4%
1999	89	7.0%	1,169	93.0%
2001	63	5.1%	1,080	94.9%
2003	59	6.1%	931	93.9%
2005	79	8.0%	881	92.0%
2007	70	8.0%	843	92.0%
2009	70	7.5%	802	92.5%
2011	66	7.5%	743	92.5%

¹ A random sample of high schools is selected for participation each year, data presented do not represent cohorts followed over time

² Total N = total number of respondents by sex of partner (unweighted). The number of respondents for each question varies from year to year

Data Source: Massachusetts Department of Elementary and Secondary Education, Youth Risk Behavior Survey (YRBS), 1997–2011

Table 21. Sexual behavior as reported among male respondents, Youth Risk Behavior Survey (YRBS): Massachusetts, 2011

	Sex of Partner			
	Opposite-Sex		Same-Sex/ Both Sexes	
By Behavior:	Total N ²	% ¹	Total N ²	% ¹
Ever had sexual intercourse ³	669	77.4%	50	70.3%
Sexual intercourse before age 13	666	9.9%	50 ⁵	18.8% ⁵
4 or more lifetime sexual intercourse partners	663	21.8%	49 ⁵	36.7% ⁵
4 or more sexual intercourse partners in last 3 months	666	4.0%	50 ⁵	14.6% ⁵
Alcohol/drugs used at last intercourse ⁴	353	27.4%	24 ⁵	56.4%
Condom used at last intercourse ⁴	346	65.8%	24 ⁵	43.9%
Ever been diagnosed with any STD	732	2.1%	66 ⁵	4.8% ⁵
Ever injected illegal drugs	741	3.0%	64 ⁵	14.6% ⁵

¹ % = percent of total responding "yes" to specified question
² N = total number of respondents (unweighted) by sex of partner for each question. The number of respondents for each question varies because some survey participants do not answer all questions
³ Among males who reported any sexual contact with opposite sex partner, same sex partner, or both
⁴ Among males reporting sexual intercourse in the past three months
⁵ This estimate may be unreliable due to a Relative Standard Error of greater than 30%, interpret with caution.
Data Source: Massachusetts Department of Elementary and Secondary Education, Youth Risk Behavior Survey (YRBS), 2011

Table 22. Percentage of Massachusetts Youth Risk Behavior Survey (YRBS) male respondents reporting condom use at last sexual intercourse¹ by year and sex of partner: Massachusetts, 1993–2011

Year	Opposite-Sex		Same-Sex/ Both Sexes		Total	
	Total N ²	%	Total N ²	%	Total N ²	%
1993	384	58.5%	24	42.3%	409	57.4%
1995	519	60.3%	28	40.0%	623	59.9%
1997	480	65.4%	34	45.5%	517	64.2%
1999	542	64.4%	44	39.1%	589	62.6%
2001	506	63.6%	27	18.5%	553	61.6%
2003	395	62.0%	27	29.6%	424	60.3%
2005	403	72.7%	36	56.6%	442	71.6%
2007	392	65.0%	27	38.5%	419	63.4%
2009	367	68.0%	41	47.0%	409	65.7%
2011	346	65.8%	24	43.9%	373	64.5%

¹ Among youth reporting sexual intercourse in the past three months

² Total N = total number of respondents by sex of partner (unweighted). The number of respondents for each question varies from year to year.

Data Source: Massachusetts Department of Elementary and Secondary Education, Youth Risk Behavior Survey (YRBS), 1993–2011

Table 23. Reported infectious syphilis cases that were among men who have sex with men (MSM): Massachusetts, 2002–2012

Year	Number of Cases among MSM	Total Number of Cases	Proportion of Cases among MSM
2002	117	208	56%
2003	178	260	68%
2004	146	209	70%
2005	159	222	72%
2006	156	218	71%
2007	184	268	69%
2008	302	369	82%
2009	293	377	78%
2010	382	464	82%
2011	363	500	73%
2012	404	542	75%

Data Source: MDPH Division of STD Prevention

Table 24. Reported infectious syphilis cases among men who have sex with men by HIV status and year of diagnosis: Massachusetts, 2002–2012

Year	HIV-Positive		HIV-Negative/ Unknown Serostatus		Total
	N	%	N	%	N
2002	49	42%	68	58%	117
2003	73	41%	105	59%	178
2004	58	40%	88	60%	146
2005	83	52%	76	48%	159
2006	74	47%	82	53%	156
2007	89	48%	95	52%	184
2008	124	41%	178	59%	302
2009	119	41%	174	59%	293
2010	147	38%	235	62%	382
2011	150	42%	213	58%	363
2012	164	41%	240	59%	404

Data Source: MDPH Division of STD Prevention

Table 25. Reported AIDS cases by exposure mode and year of diagnosis: Massachusetts, selected years, 1985–2011¹

	MSM		IDU		MSM/ IDU		HTSX		Pres. HTSX ²		Undeter- mined ³		Total ⁴
	N	%	N	%	N	%	N	%	N	%	N	%	N
1985	140	62%	33	15%	11	5%	8	4%	7	3%	16	7%	225
1990	459	44%	339	32%	44	4%	74	7%	16	2%	65	6%	1,052
1995	415	31%	539	41%	61	5%	157	12%	31	2%	92	7%	1,326
2002	169	25%	190	28%	24	3%	112	16%	57	8%	124	18%	686
2003	148	25%	175	29%	20	3%	85	14%	64	11%	103	17%	602
2004	185	27%	170	25%	23	3%	101	15%	64	9%	137	20%	691
2005	189	28%	182	27%	22	3%	93	14%	55	8%	133	20%	678
2006	217	34%	122	19%	18	3%	99	15%	81	13%	101	16%	644
2007	174	32%	110	20%	15	3%	78	14%	52	10%	107	20%	546
2008	139	32%	78	18%	19	4%	53	12%	46	10%	100	23%	439
2009	149	33%	81	18%	14	3%	58	13%	41	9%	98	22%	445
2010	116	29%	76	19%	11	3%	63	16%	49	12%	77	19%	397
2011	118	31%	51	13%	11	3%	47	12%	44	12%	109	29%	382

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.

⁴ Totals include pediatric and blood/blood products exposure modes

MSM = Male-to-Male Sex; IDU = 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 26. Deaths among persons reported with HIV/AIDS by exposure mode and year of death: Massachusetts¹, 2002–2011

	MSM		IDU		MSM/ IDU		HTSX		Pres. HTSX ²		Undeter- mined ³		Total ⁴
	N	%	N	%	N	%	N	%	N	%	N	%	N
2002	74	20%	199	54%	15	4%	33	9%	12	3%	26	7%	368
2003	66	17%	195	50%	17	4%	47	12%	9	2%	46	12%	388
2004	64	19%	172	50%	18	5%	32	9%	12	3%	38	11%	343
2005	55	17%	166	52%	15	5%	38	12%	18	6%	27	8%	321
2006	62	20%	159	50%	19	6%	31	10%	15	5%	27	9%	316
2007	64	22%	125	44%	26	9%	28	10%	13	5%	25	9%	286
2008	57	20%	127	45%	15	5%	26	9%	12	4%	41	15%	282
2009	43	15%	143	50%	9	3%	35	12%	14	5%	39	14%	284
2010	56	22%	117	46%	14	5%	18	7%	9	4%	37	15%	255
2011	41	20%	88	42%	15	7%	22	11%	7	3%	32	15%	208

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.

⁴ Totals include pediatric and blood/blood products exposure modes

MSM = Male-to-Male Sex; IDU = 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