

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, 2011, this resulted in the removal of 2,297 HIV/AIDS cases, of which 739 have died and 1,558 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 Massachusetts Department of Public Health (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 41% 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 cases among males in alignment with CDC standards. The MDPH maintains presumed heterosexual and heterosexual exposure mode categories for females.

Table 1. People diagnosed with HIV infection by gender and exposure mode: Massachusetts¹, 2007–2009²

Exposure Mode:	Male		Female		Total	
	N	%	N	%	N	%
Male-to-male sex (MSM)	744	55%	N/A	N/A	744	41%
Injection drug use (IDU)	108	8%	64	13%	172	9%
MSM/IDU	58	4%	N/A	N/A	58	3%
Heterosexual sex	70	5%	144	30%	214	12%
Other	7	1%	3	1%	10	1%
Total undetermined/other	355	26%	269	56%	624	34%
- Pres. HTSX ³	N/A	N/A	198	41%	198	11%
- Undetermined ⁴	355	26%	71	15%	426	23%
Total	1,342	100%	480	100%	1,822	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 1/1/11

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, 2009 by gender and exposure mode: Massachusetts¹

Exposure Mode:	Male		Female		Total	
	N	%	N	%	N	%
Male-to-male sex (MSM)	6,252	50%	N/A	N/A	6,252	35%
Injection drug use (IDU)	2,620	21%	1,300	26%	3,920	22%
MSM/IDU	575	5%	N/A	N/A	575	3%
Heterosexual sex	736	6%	1,741	34%	2,477	14%
Other	231	2%	181	4%	412	2%
Total undetermined/other	2,135	17%	1,850	36%	3,985	23%
- Pres. HTSX ²	N/A	N/A	1,490	29%	1,490	8%
- Undetermined ³	2,135	17%	360	7%	2,495	14%
Total	12,549	100%	5,072	100%	17,621	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.

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 1/1/11

Table 3. Percent of people diagnosed with HIV infection by Health Service Region (HSR)¹ and exposure mode: Massachusetts², 2007–2009³

Health Service Region:	MSM	IDU	MSM/ IDU	HTSX	Other	Pres. HTSX ⁴	Undet. ⁵	Total
Boston HSR	50%	7%	4%	9%	1%	8%	22%	539
Central HSR	32%	13%	2%	15%	2%	15%	21%	153
Metro West HSR	41%	5%	4%	13%	1%	13%	24%	309
Northeast HSR	34%	8%	2%	13%	0%	15%	28%	295
Southeast HSR	42%	9%	3%	13%	0%	11%	22%	283
Western HSR	40%	13%	1%	12%	1%	11%	23%	186
Prison ⁶	7%	46%	11%	11%	0%	2%	23%	56
Mass. Total	41%	9%	3%	12%	1%	11%	23%	1,822

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, those lost to follow-up, and those with confirmed occupational exposure.

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 1/1/11

Table 4. Percentage distribution of people living with HIV/AIDS on December 31, 2010 by Health Service Region (HSR)¹ and exposure mode: Massachusetts²

HSR	MSM	IDU	MSM/ IDU	HTSX	Other	Pres. HTSX ³	Unde- ter- mined ⁴	Total
Boston HSR	47%	14%	3%	12%	2%	8%	13%	5,625
Central HSR	23%	31%	3%	18%	3%	10%	12%	1,535
Metro West HSR	39%	13%	3%	13%	3%	10%	18%	2,455
Northeast HSR	30%	20%	3%	15%	3%	11%	18%	2,671
Southeast HSR	38%	23%	3%	15%	2%	7%	12%	2,412
Western HSR	24%	30%	3%	19%	3%	9%	12%	1,978
Prison ⁵	7%	68%	6%	5%	<1%	1%	12%	941
Total	35%	22%	3%	14%	2%	8%	14%	17,621

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, those lost to follow-up, and those with confirmed occupational exposure.

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. 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 1/1/11

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): 2007–2009²

Rank	City/Town	Number of HIV Dx among MSM	Percent of Total HIV Dx
1	Provincetown	33	91.7%
2	Everett	13	54.2%
3	Somerville	20	52.6%
4	Boston	255	49.9%
5	Cambridge	22	46.8%
6	Malden	14	46.7%
7	Medford	10	45.5%
8	Waltham	10	35.7%
9	Springfield	26	34.2%
10	Quincy	7	31.8%

¹ Among cities/towns with over 20 reported HIV Infection diagnoses in the years 2007–2009. 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 1/1/11

Table 6. Males diagnosed with HIV infection by exposure mode and year of diagnosis: Massachusetts¹, 2000–2009²

	MSM		IDU		MSM/ IDU		HTSX		Other		Undeter- mined ³		To- tal N
	N	%	N	%	N	%	N	%	N	%	N	%	
2000	352	42%	184	22%	30	4%	65	8%	12	1%	190	23%	833
2001	308	44%	134	19%	29	4%	71	10%	6	1%	151	22%	699
2002	325	45%	136	19%	26	4%	57	8%	5	1%	166	23%	715
2003	314	49%	102	16%	26	4%	42	7%	10	2%	147	23%	641
2004	302	46%	95	15%	23	4%	48	7%	5	1%	178	27%	651
2005	336	53%	85	13%	22	3%	32	5%	0	0%	157	25%	632
2006	316	58%	50	9%	15	3%	41	8%	2	<1%	121	22%	545
2007	244	53%	54	12%	19	4%	25	5%	2	<1%	113	25%	457
2008	259	57%	34	7%	25	5%	24	5%	4	1%	112	24%	458
2009	241	56%	20	5%	14	3%	21	5%	1	<1%	130	30%	427

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, those lost to follow-up, and those with confirmed occupational exposure.

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 1/1/11

Table 7. Males diagnosed with HIV infection by exposure mode and race/ethnicity: Massachusetts¹, 2007–2009²

Race/ Ethnicity:	MSM		IDU		MSM/ IDU		HTSX		Other		Undeter- mined ³	
	N	%	N	%	N	%	N	%	N	%	N	%
White NH	475	64%	34	31%	44	76%	11	16%	2	29%	77	22%
Black NH	109	15%	21	19%	5	9%	36	51%	4	57%	179	50%
Hispanic/Latino	136	18%	49	45%	9	16%	23	33%	1	14%	86	24%
API	22	3%	2	2%	0	0%	0	0%	0	0%	12	3%
Other/Und.	2	<1%	2	2%	0	0%	0	0%	0	0%	1	<1%
Total	744	100%	108	100%	58	100%	70	100%	7	100%	355	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.

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 1/1/11

Table 8. Males living with HIV/AIDS on December 31, 2009 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	4,490	72%	820	31%	353	61%	141	19%	82	35%	562	26%
Black NH	791	13%	629	24%	106	18%	331	45%	83	36%	995	47%
Hispanic/Latino	849	14%	1,151	44%	111	19%	249	34%	65	28%	496	23%
API	97	2%	13	0%	2	0%	11	1%	1	0%	68	3%
Other/Und.	25	<1%	7	<1%	3	1%	4	1%	0	0%	14	1%
Total	6,252	100%	2,620	100%	575	100%	736	100%	231	100%	2,135	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.

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 1/1/11

Table 9. Males diagnosed with HIV infection by age at HIV diagnosis and exposure mode: Massachusetts¹, 2007–2009²

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%	117	76%	104	63%	88	55%	113	60%	118	56%	111	51%	52	42%	23	40%	18	31%
IDU	0	0%	3	2%	9	5%	15	9%	14	7%	17	8%	23	11%	18	14%	6	10%	3	5%
MSM/IDU	0	0%	6	4%	11	7%	16	10%	6	3%	10	5%	4	2%	3	2%	2	3%	0	0%
HTSX	0	0%	2	1%	8	5%	8	5%	12	6%	15	7%	12	5%	5	4%	4	7%	4	7%
Other	6	100%	0	0%	0	0%	0	0%	0	0%	0	0%	1	0%	0	0%	0	0%	0	0%
Undetermined ³	0	0%	25	16%	33	20%	32	20%	43	23%	51	24%	68	31%	47	38%	23	40%	33	57%
Total	6	100%	153	100%	165	100%	159	100%	188	100%	211	100%	219	100%	125	100%	58	100%	58	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.

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 1/1/11

Table 10. White (non-Hispanic) *males* diagnosed with HIV infection by age at HIV diagnosis and exposure mode: Massachusetts¹, 2007–2009²

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%	47	77%	61	75%	45	74%	70	74%	85	77%	92	75%	43	72%	18	64%	14	61%
IDU	0	0%	0	0%	5	6%	3	5%	5	5%	6	5%	6	5%	7	12%	1	4%	1	4%
MSM/IDU	0	0%	4	7%	10	12%	12	20%	6	6%	5	5%	4	3%	1	2%	2	7%	0	0%
HTSX	0	0%	1	2%	1	1%	0	0%	1	1%	3	3%	1	1%	1	2%	1	4%	2	9%
Other	1	100%	0	0%	0	0%	0	0%	0	0%	0	0%	1	1%	0	0%	0	0%	0	0%
Undetermined ³	0	0%	9	15%	4	5%	1	2%	12	13%	12	11%	19	15%	8	13%	6	21%	6	26%
Total	1	100%	61	100%	81	100%	61	100%	94	100%	111	100%	123	100%	60	100%	28	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.

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 1/1/11

Table 11. Black (non-Hispanic) *males* diagnosed with HIV infection by age at HIV diagnosis and exposure mode: Massachusetts¹, 2007–2009²

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%	36	78%	16	46%	15	38%	11	28%	14	29%	8	15%	5	12%	1	5%	3	13%
IDU	0	0%	0	0%	0	0%	1	3%	2	5%	3	6%	7	13%	4	9%	3	14%	1	4%
MSM/IDU	0	0%	0	0%	1	3%	2	5%	0	0%	1	2%	0	0%	1	2%	0	0%	0	0%
HTSX	0	0%	0	0%	2	6%	6	15%	8	21%	8	17%	7	13%	1	2%	2	10%	2	8%
Other	4	100%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Undetermined ³	0	0%	10	22%	16	46%	15	38%	18	46%	22	46%	33	60%	32	74%	15	71%	18	75%
Total	4	100%	46	100%	35	100%	39	100%	39	100%	48	100%	55	100%	43	100%	21	100%	24	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.

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 1/1/11

Table 12. Hispanic/Latino *males* diagnosed with HIV infection by age at HIV diagnosis and exposure mode: Massachusetts, 2007–2009

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%	30	73%	24	53%	24	48%	23	52%	17	35%	10	27%	4	19%	4	50%	0	0%
IDU	0	0%	3	7%	4	9%	8	16%	7	16%	8	17%	9	24%	7	33%	2	25%	1	11%
MSM/IDU	0	0%	2	5%	0	0%	2	4%	0	0%	4	8%	0	0%	1	5%	0	0%	0	0%
HTSX	0	0%	1	2%	5	11%	2	4%	3	7%	4	8%	4	11%	3	14%	1	13%	0	0%
Other	1	100%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Undetermined ³	0	0%	5	12%	12	27%	14	28%	11	25%	15	31%	14	38%	6	29%	1	13%	8	89%
Total	1	100%	41	100%	45	100%	50	100%	44	100%	48	100%	37	100%	21	100%	8	100%	9	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.

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 1/1/11

Table 13. Males diagnosed with HIV infection by mode of exposure and place of birth: Massachusetts¹, 2007–2009²

	MSM		IDU		MSM/ IDU		HTSX		Other		Undeter- mined ³	
United States	594	80%	69	64%	53	91%	28	40%	5	71%	160	45%
PR/US Depen. ⁴	28	4%	33	31%	4	7%	9	13%	0	0%	25	7%
Non-US	122	16%	6	6%	1	2%	33	47%	2	29%	170	48%
Total	744	100%	108	100%	58	100%	70	100%	7	100%	355	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-nine percent of people diagnosed with HIV infection from 2007–2009 who were born in a US dependency were born in Puerto Rico, <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 1/1/11

Table 14. Males living with HIV/AIDS on December 31, 2010 by mode of exposure and place of birth: Massachusetts¹

	MSM		IDU		MSM/ IDU		HTSX		Other		Undeter- mined ³	
United States	5,274	84%	1,722	66%	475	83%	332	45%	192	83%	961	45%
PR/US Depen. ⁴	186	3%	791	30%	68	12%	118	16%	15	6%	161	8%
Non-US	792	13%	107	4%	32	6%	286	39%	24	10%	1,013	47%
Total	6,252	100%	2,620	100%	575	100%	736	100%	231	100%	2,135	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-six 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, and 3% 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 1/1/11

Table 15. MSM¹ diagnosed with HIV infection by race/ethnicity and place of birth: Massachusetts², 2007–2009						
	White Non-Hispanic		Black Non-Hispanic		Hispanic/Latino	
Place of Birth	N	%	N	%	N	%
United States	443	93%	89	82%	53	39%
PR/US Depen. ³	1	<1%	1	1%	26	19%
Non-US	31	7%	19	17%	57	42%
Total	475	100%	109	100%	136	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; 99% of people diagnosed with HIV infection from 2007–2009 who were born in a US dependency were born in Puerto Rico, <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 1/1/11

Table 16. MSM¹ living with HIV/AIDS on December 31, 2010 by race/ethnicity and place of birth: Massachusetts²						
	White Non-Hispanic		Black Non-Hispanic		Hispanic/Latino	
MSM	N	%	N	%	N	%
US	4,234	94%	677	86%	307	36%
PR/US Depen. ³	13	0%	3	0%	170	20%
Non-US	243	5%	111	14%	372	44%
Total	4,490	100%	791	100%	849	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; 96% 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, and 3% 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 1/1/11

Technical Notes:

Tables 20–23 include data reported by Massachusetts residents through anonymous telephone interviews from 2000 to 2009. 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 male Behavioral Risk Factor Surveillance System (BRFSS) respondents ages 18–64¹ years by sex of sexual partner(s) during the past 12 months: Massachusetts, 2000–2009			
Males ages 18–64			
Year	Same-Sex/ Both Sexes	Opposite Sex	N
2000	6.2%	93.8%	1,527
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	5.7%	94.3%	992

¹ Sexually active in past year
Data Source: Massachusetts Behavioral Risk Factor Surveillance System (BRFSS)

Table 18. Percent of male Behavioral Risk Factor Surveillance System (BRFSS) respondents ages 18–64¹ years reporting same-sex partner² by condom use at last sexual encounter³ and year: Massachusetts, 2000–2009

Year	Used Condom (%)	Did not Use Condom (%)	Total (N) ⁴
2000	34%	66%	94
2001	38%	63%	64
2002	46%	54%	81
2003	39%	61%	63
2004	42%	58%	91
2005	56%	44%	39
2006	44%	56%	60
2007	33%	67%	51
2008	32%	68%	60
2009	26%	74%	56

¹ Sexually active in past year

² During the past 12 months

³ Includes oral, vaginal, or anal sex (with either a male or female partner) but not masturbation

⁴ Annual number of male respondents reporting same sex partner

Data Source: Massachusetts Behavioral Risk Factor Surveillance System (BRFSS), 2000–2007

Table 19. Percent of male Behavioral Risk Factor Surveillance System (BRFSS) respondents ages 18–64¹ years reporting same-sex partner² by race/ethnicity: Massachusetts, 2008–2009

Race/Ethnicity:	Males Reporting Same-Sex Partner	
	N	%
White (Non-Hispanic)	1,868	3.4%
Black (Non-Hispanic)	127	2.2%
Hispanic/Latino	193	9.7%

¹ Sexually active in past year

² During the past 12 months

Data Source: Massachusetts Behavioral Risk Factor Surveillance System (BRFSS), 2007–2009

Table 20. Percent of male Behavioral Risk Factor Surveillance System (BRFSS) respondents ages 18–64¹ reporting same-sex partner (or opposite- and same-sex partners)² compared to male respondents reporting only opposite-sex partner² by number of sexual partners in the past year and condom use at last sexual encounter: Massachusetts, 2008–2009

	Males Reporting Same-Sex Partner or Opposite- and Same-Sex Partners	Males Reporting Only Opposite-Sex Partner
	%	%
Number of Sexual Partners:		
1 partner	82.3%	88.4%
2 partners	4.3%	6.3%
3 or more partners	13.4%	5.3%
Total N	112	2,167
Condom Use:	%	%
Yes	29.2%	27.3%
No	70.8%	72.7%
Total N	116	2,177
¹ Sexually active in past year		
² During the past 12 months		
Data Source: Massachusetts Behavioral Risk Factor Surveillance System (BRFSS), 2008–2009		

Technical Notes:

Tables 24–26 include data reported by students in randomly selected Massachusetts public high schools every odd year from 1993 to 2009. 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 21. Percentage of male respondents by sex of sexual partner(s) and year: Massachusetts Youth Risk Behavior Survey, 1993–2009¹				
Year	Same-Sex/ Both Sexes		Opposite-Sex	
	%	Total N²	%	Total N²
1993	3.9%	56	56.6%	829
1995	2.5%	44	53.1%	955
1997	3.5%	69	48.7%	941
1999	4.2%	89	54.5%	1,169
2001	3.0%	63	55.0%	1,080
2003	3.5%	59	53.6%	931
2005	4.9%	79	56.2%	881
2007	4.9%	70	56.9%	843
2009	4.8%	70	59.6%	802

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), 1993–2009

	Sex of Partner			
	Opposite-Sex		Same-Sex/ Both Sexes	
By Behavior:	% ¹	Total N ²	% ¹	Total N ²
Ever had sexual intercourse ³	74.1%	722	87.9%	59
Sexual intercourse before age 13	10.9%	727	28.2%	60
4 or more lifetime sexual intercourse partners	22.5%	722	41.8%	58
4 or more sexual intercourse partners in last 3 months	5.6%	728	21.9%	59
Alcohol/drugs used at last intercourse ⁴	25.6%	370	41.4%	41
Condom used at last intercourse ⁴	68.0%	367	47.0%	41
Ever been diagnosed with any STD	2.4%	786	10.0% ⁵	65 ⁵
Ever injected illegal drugs	3.2%	793	21.6% ⁵	69 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 number may be unreliable due to a Relative Standard Error of greater than 30%

Data Source: Massachusetts Department of Elementary and Secondary Education, Youth Risk Behavior Survey (YRBS), 2009

Table 23. Percentage of Massachusetts Youth Risk Behavior Survey (YRBS) male respondents reporting condom use at last sexual intercourse¹ by year and sex of partner: Massachusetts, 1993–2009

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

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), 1993–2009

Table 24. Reported infectious syphilis cases that were among men who have sex with men (MSM): Massachusetts, 2000–2010

Year	Number of Cases among MSM	Total Number of Cases	Proportion of Cases among MSM
2000	33	142	23%
2001	52	105	50%
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 ¹	382	464	82%

¹ 2010 data are preliminary

Data Source: MDPH Division of STD Prevention

Table 25. Reported infectious syphilis cases among men who have sex with men by HIV status and year of diagnosis: Massachusetts, 2001–2010

Year	HIV-Positive		HIV-Negative/ Unknown Serostatus		Total
	N	%	N	%	N
2001	6	12%	46	88%	52
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 ¹	147	38%	235	62%	382

¹ 2010 data are preliminary
 Note: HIV status of syphilis cases is not available for 2000
 Data Source: MDPH Division of STD Prevention

Table 26. Reported AIDS cases by exposure mode and year of diagnosis: Massachusetts, selected years, 1985–2009

	MSM ¹		IDU ²		MSM/ IDU		HTSX ³		Other ⁴		Pres. HTSX ⁵		Undet. ⁶		Total
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N
1985	140	62%	33	15%	11	5%	8	4%	10	4%	7	3%	16	7%	225
1990	459	44%	339	32%	43	4%	72	7%	55	5%	17	2%	65	6%	1,050
1995	410	31%	540	41%	62	5%	157	12%	31	2%	31	2%	93	7%	1,324
2000	169	22%	254	34%	19	3%	126	17%	10	1%	57	8%	119	16%	754
2001	167	24%	198	29%	28	4%	110	16%	12	2%	65	9%	106	15%	686
2002	163	24%	186	28%	21	3%	112	17%	10	1%	57	9%	121	18%	670
2003	141	25%	170	30%	19	3%	81	14%	7	1%	62	11%	95	17%	575
2004	164	26%	157	24%	20	3%	87	14%	11	2%	64	10%	138	22%	641
2005	180	28%	168	26%	18	3%	90	14%	4	1%	51	8%	125	20%	636
2006	200	34%	110	19%	15	3%	92	16%	6	1%	71	12%	98	17%	592
2007	151	31%	104	21%	13	3%	74	15%	9	2%	49	10%	84	17%	484
2008	125	33%	68	18%	15	4%	45	12%	2	1%	39	10%	87	23%	381
2009	122	36%	56	16%	7	2%	41	12%	1	0%	35	10%	78	23%	340

¹ MSM = Male-to-male sex
² IDU = Injection Drug Use
³ HTSX = Heterosexual Sex
⁴ Other includes pediatric and receipt of blood/blood products
⁵ Pres. HTSX = Presumed Heterosexual Sex, heterosexual sex with partners with unknown risk and HIV status
⁶ Undet. = Undetermined; includes those still being followed up for risk information, those who have died with no determined risk and those lost to follow-up
 Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding); data as of 1/1/11

Table 27. Deaths among persons reported with HIV/AIDS by exposure mode and year of death: Massachusetts¹, 2000–2009

	MSM		IDU		MSM/ IDU		HTSX		Other		Pres. HTSX ²		Undeter- mined ³		Total
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N
2000	72	21%	185	53%	13	4%	21	6%	12	3%	12	3%	35	10%	350
2001	85	21%	211	51%	19	5%	28	7%	5	1%	17	4%	47	11%	412
2002	74	21%	194	54%	15	4%	33	9%	9	3%	10	3%	25	7%	360
2003	66	17%	191	50%	17	4%	45	12%	8	2%	10	3%	44	12%	381
2004	69	20%	170	49%	18	5%	30	9%	7	2%	11	3%	40	12%	345
2005	57	18%	164	52%	15	5%	33	10%	2	1%	19	6%	27	9%	317
2006	66	21%	157	50%	16	5%	30	10%	3	1%	16	5%	27	9%	315
2007	62	22%	121	43%	25	9%	28	10%	5	2%	12	4%	26	9%	279
2008	51	19%	124	47%	14	5%	26	10%	4	2%	11	4%	36	14%	266
2009	33	15%	110	52%	6	3%	23	11%	1	<1%	11	5%	29	14%	213

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.

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 1/1/11