

The Massachusetts HIV/AIDS Epidemic at a Glance – Detailed Data Tables and Technical Notes:

Table 1. People living with HIV/AIDS¹, deaths among people reported with HIV/AIDS, and newly diagnosed HIV infections by year²: 1999–2006, Massachusetts

Year	HIV/AIDS Prevalence	Deaths among those with HIV/AIDS	Diagnosis of HIV Infection
1999	12,325	398	1,326
2000	13,133	375	1,183
2001	13,729	424	1,020
2002	14,428	382	1,081
2003	14,992	399	963
2004	15,633	331	972
2005	16,217	300	884
2006	16,621	296	700 ³

¹ Number of People living with HIV/AIDS on 12/31 of each year
² Reflects year of diagnosis for HIV infection among all individuals reported with HIV infection, with or without an AIDS diagnosis
³ 2006 HIV diagnosis data are preliminary
 Data source: MDPH HIV/AIDS Surveillance Program, Data as of 11/1/07

Technical Notes:

Estimated Total Number of People Living with HIV/AIDS:

The U.S. Centers for Disease Control and Prevention (CDC) estimates that about one-quarter of HIV infected persons nationwide do not know they are infected¹ (previous editions of the Epidemiologic Profile estimated that about one-third of HIV-infected persons either did not know they were infected or were not in care). Applying the national estimate to the number of people living with HIV/AIDS in Massachusetts reported to the HIV/AIDS Surveillance Program (N = 16,866 as of November 1, 2007), and adjusting for completeness of reporting, would yield an estimated 6,614 people who are infected with HIV and do not know it, and 2,976 who know their status but have not been reported. Therefore, the estimated total number of people currently living with HIV/AIDS in Massachusetts, including people known to the surveillance system as well as those yet to be identified, is in the range of 25,000–27,000 people.

Please note that previous editions of the Epidemiologic Profile presented people living with HIV/AIDS as of December 31 whereas this edition presents people living with

¹ Fleming PL, Byers RH, Sweeney PA, Daniels D, Karon JM, Janssen RS. HIV prevalence in the United States, 2000. Abstract 11. 9th Conference on Retroviruses and Opportunistic Infections, Seattle, Washington, February 24-28, 2002

HIV/AIDS as of November 1 due to the timing of this release. Future editions will continue to present people living with HIV/AIDS as of December 31.

Table 2. Total number of people reported with HIV infection or AIDS¹ by mortality status on November 1, 2007: Massachusetts		
	N	%
People Living with HIV/AIDS	16,866	58%
People Reported with HIV or AIDS who are Deceased	11,995	42%
Total Number of People Reported with HIV Infection or AIDS	28,861	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.
Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 11/1/07

Who is currently living with HIV/AIDS in Massachusetts?

Table 3. People living with HIV/AIDS on November 1, 2007 by gender, race/ethnicity, place of birth and health service region: Massachusetts		
People Living with HIV/AIDS on 11/1/07		
Gender:	N	%
Male	12,029	71%
Female	4,837	29%
Race/Ethnicity:	N	%
White (non-Hispanic)	7,600	45%
Black (non-Hispanic)	4,707	28%
Hispanic	4,220	25%
Asian/Pacific Islander	215	1%
American Indian/Alaska Native	24	<1%
Other/Unknown	100	1%
Place of Birth:	N	%
US	11,576	69%
Puerto Rico/US Dependency ¹	2,023	12%
Non-US	3,267	19%
Health Service Region (HSR)²:	N	%
Boston HSR	5,401	32%
Central HSR	1,506	9%
Metro West HSR	2,163	13%
Northeast HSR	2,436	14%
Southeast HSR	2,342	14%
Western HSR	2,025	12%
Prison ³	983	6%
TOTAL⁴	16,866	100%
<p>¹ 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.</p> <p>² 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.</p> <p>³ HSRs are regions defined geographically to facilitate targeted health service planning. While prisons are not an HSR, the prison population is presented separately in this analysis because of its unique service planning needs. The prisons category represents persons who were diagnosed with HIV/AIDS while in a correctional facility.</p> <p>⁴ Total includes 10 people living with HIV/AIDS with unknown HSR; Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 11/1/07</p>		

Table 4. People living with HIV/AIDS on November 1, 2007 by exposure mode: Massachusetts

People Living with HIV/AIDS on 11/1/07		
Exposure Mode:	N	%
Male-to-male sex (MSM)	5,731	34%
Injection Drug Use (IDU)	4,252	25%
MSM/IDU	536	3%
Receipt of Blood/Blood products	120	1%
Pediatric	296	2%
Total Heterosexual Sex (HTSX)	2,245	13%
• HTSX w/ an Injection Drug User	931	6%
• HTSX w/ Bisexual male	39	<1%
• HTSX w/ a person w/ HIV or AIDS	1,249	7%
• Other HTSX ¹	26	<1%
Total Undetermined/Other	3,686	22%
• Presumed Heterosexual Sex ²	2,628	16%
• Undetermined/Other ³	1,058	6%
TOTAL	16,866	100%

¹ Includes heterosexual sex with a person who received blood/blood products

² Heterosexual sex with a partner of unknown HIV status or risk

³ Includes 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

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 11/1/07

Note: The category of “presumed heterosexual sex” is used in Massachusetts to re-assign people who are reported with no identified risk but who are known to have not reported any other risks except heterosexual sex with a partner of unknown HIV status or risk. Massachusetts uses this category to distinguish these cases from other undetermined cases about which we know less. Nationally, the Centers for Disease Control and Prevention categorizes “presumed heterosexual sex” 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 is for people in this category. Although a person may not report other risk behaviors such as injection drug use or male-to-male sex to his/her health care provider, it does not necessarily mean that he/she has not engaged in them. There are many barriers to disclosing HIV risk behaviors in the health care setting such as a limited patient-provider relationship or stigma.

Table 5. People living with HIV/AIDS on November 1, 2007 by gender and race/ethnicity: Massachusetts

Race/Ethnicity:	Male		Female	
	N	%	N	%
White Non-Hispanic	6,209	52%	1,391	29%
Black Non-Hispanic	2,748	23%	1,959	41%
Hispanic	2,835	24%	1,385	29%
Asian/Pacific Islander	166	1%	49	1%
American Indian/Alaska Native	10	<1%	14	<1%
Not Specified	61	1%	39	1%
Total	12,029	100%	4,837	100%

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 11/1/07

Who is experiencing differential impact from HIV/AIDS?

Explanation of age adjusted rates

A “rate” of a disease per 100,000 population is a useful way to compare groups that have substantially different population sizes rather than relying on the raw number of cases. For example, the number of people living with HIV/AIDS on November 1, 2007 who are Hispanic, is 4,220 whereas the number of people living with HIV/AIDS who are white (non-Hispanic) is 7,600. Although the *number* of people living with HIV/AIDS who are Hispanic in Massachusetts is smaller than the number of people living with HIV/AIDS who are white (non-Hispanic), we also need to consider that there are far fewer people of Hispanic heritage living in Massachusetts than white (non-Hispanic) individuals. Hispanic individuals represent 6% of the Massachusetts population compared to white (non-Hispanic) individuals who represent 82% of the population. So, if HIV/AIDS had the same impact on the Hispanic population of the state as on the white (non-Hispanic), then there should be almost 12 times as many cases in white (non-Hispanic) individuals, but there are less than twice as many. By calculating a rate which takes into consideration the differences in the population size, it is evident that the number of people living with HIV/AIDS for every 100,000 Hispanic individuals in Massachusetts is much higher than the rate for every 100,000 white (non-Hispanic) individuals. This is called a “crude rate” and is calculated by dividing the number of people living with HIV/AIDS by the population of interest (the total number of Hispanic individuals in Massachusetts, for example) and multiplying by 100,000. (See example 1.A below).

Example 1.A: Calculation of crude HIV/AIDS prevalence rate for white (non-Hispanic) individuals, Massachusetts (142.7 per 100,000)

$$\begin{aligned} \text{Crude HIV/AIDS prevalence rate for white (non-Hispanic) individuals} &= (\text{number of white (non-Hispanic) individuals living with HIV/AIDS} \div \text{population size of white (non-Hispanic) individuals}) \times 100,000 \\ &= (7,600/5,326,585) \times 100,000 \\ &= (.0014268) \times 100,000 \\ &= \mathbf{142.7} \end{aligned}$$

However, sometimes, in addition to the population size being different, the age composition of the populations is different. In Massachusetts, black (non-Hispanic) and Hispanic populations are generally younger than white (non-Hispanic). The median age of black (non-Hispanic) people (29.7 years) and Hispanic people (24.5 years) is younger than that of white (non-Hispanic) people (38.8 years). Therefore, it is necessary to “age-adjust” the HIV/AIDS prevalence rate to get a true comparison of the impact of the disease across racial/ethnic groups without an effect from the differences in age composition. Age-adjustment of rates minimizes the distortion created by differences in age composition.

Age-adjusted rates are calculated by weighting the age-specific rates for a given population by the age distribution of a standard population. The weighted age-specific rates are then added to produce the adjusted rate for all ages combined. (See example 1.B below).

Example 1.B: Calculation of age-adjusted HIV/AIDS prevalence rate for white (non-Hispanic) individuals, Massachusetts (135.2 per 100,000)

<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	<i>E</i>
<i>Age group (in years)</i>	<i># of prevalent HIV/AIDS cases</i>	<i>Population (2000)</i>	<i>2000 US standard population weight</i>	<i>Age-adjusted rate ((B÷CxD)×100,000)</i>
<1	0	61,381	0.013818	0.00
1-4	0	245,562	0.055317	0.00
5-14	22	675,388	0.145565	0.47
15-24	83	634,387	0.138646	1.81
25-34	548	734,417	0.135573	10.12
35-44	2579	902,498	0.162613	46.47
45-54	3126	771,970	0.134834	54.60
55-64	1038	491,985	0.087247	18.41
65-74	184	396,458	0.066037	3.06
75-84	18	300,442	0.044842	0.27
85+ years	2	112,097	0.015508	0.03
Total				135.2

To see the effect of age-distribution on prevalence rates see Table 6 below for a comparison of crude and age-adjusted rates by race/ethnicity.

Table 6. Crude and age-adjusted HIV/AIDS prevalence per 100,000 population on November 1, 2007 by race/ethnicity and gender: Massachusetts		
State Total:	Crude rate per 100,000	Age-adjusted rate per 100,000
White (non-Hispanic)	142.7	135.2
Black (non-Hispanic)	1,398.6	1,537.4
Hispanic	984.3	1,334.4
Asian/Pacific Islander	87.5	96.0
American Indian/Alaskan Native	208.9	195.8
Total prevalence	265.6	259.9
Males:	Crude rate per 100,000	Age-adjusted rate per 100,000
White (non-Hispanic) Males	242.7	226.7
Black (non-Hispanic) Males	1,694.3	1,960.0
Hispanic Males	1,339.2	1,931.5
Asian/Pacific Islander Males	137.6	152.0
American Indian/Alaskan Native Males	174.9	166.6
Total prevalence among males	393.3	382.0
Females:	Crude rate per 100,000	Age-adjusted rate per 100,000
White (non-Hispanic) Females	50.3	48.7
Black (non-Hispanic) Females	1,123.5	1,177.2
Hispanic Females	638.2	811.0
Asian/Pacific Islander Females	39.2	42.0
American Indian/Alaskan Native Females	242.5	224.6
Total prevalence among females	147.0	145.2
¹ The denominators for prevalence calculations are based on year 2000 population estimates from the MDPH Bureau of Health Statistics, Research and Evaluation Data Source: MDPH HIV/AIDS Surveillance Program; Data as of 11/1/07		

Who is most at risk of HIV infection and how has this changed over time?

Table 7. People diagnosed with HIV infection by gender and year of diagnosis: Massachusetts, before 1999, 1999–2006¹

	Male		Female		Total
	N	%	N	%	
< 1999	15,788	77%	4,667	23%	20,455
1999	922	70%	404	30%	1,326
2000	824	70%	359	30%	1,183
2001	720	71%	300	29%	1,020
2002	735	68%	346	32%	1,081
2003	661	69%	302	31%	963
2004	681	70%	291	30%	972
2005	653	74%	231	26%	884
2006 ²	516	74%	184	26%	700

¹ Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis
² 2006 data are preliminary
 Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 11/1/07

Table 8. People diagnosed with HIV infection by race/ethnicity and year of diagnosis: Massachusetts, before 1999, 1999–2006¹

	White NH		Black NH		Hispanic		API		AI/AN		Total ²
	N	%	N	%	N	%	N	%	N	%	
< 1999	11,312	55%	4,788	23%	4,185	20%	102	<1%	27	<1%	20,455
1999	565	43%	392	30%	338	25%	20	2%	3	<1%	1,326
2000	461	39%	403	34%	284	24%	27	2%	2	<1%	1,183
2001	423	41%	328	32%	238	23%	26	3%	2	<1%	1,020
2002	423	39%	360	33%	260	24%	23	2%	2	<1%	1,081
2003	383	40%	314	33%	241	25%	13	1%	0	0%	963
2004	371	38%	315	32%	257	26%	16	2%	1	<1%	972
2005	337	38%	295	33%	228	26%	18	2%	1	<1%	884
2006 ³	306	44%	200	29%	179	26%	10	1%	2	<1%	700

¹ Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis
² Totals include people with unspecified race/ethnicity
³ 2006 data are preliminary
 NH = Non-Hispanic, API = Asian/Pacific Islander, AI/AN = American Indian/Alaskan Native
 Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 11/1/07

Table 9. Males diagnosed with HIV infection by race/ethnicity and year of diagnosis: Massachusetts, before 1999, 1999–2006¹

	White NH		Black NH		Hispanic		API		AI/AN		Total ²
	N	%	N	%	N	%	N	%	N	%	
< 1999	9,525	60%	3194	20%	2,937	19%	86	1%	18	<1%	15,788
1999	446	48%	232	25%	227	25%	12	1%	1	<1%	922
2000	375	46%	227	28%	192	23%	25	3%	0	0%	824
2001	347	48%	182	25%	166	23%	21	3%	1	<1%	720
2002	349	47%	188	26%	172	23%	15	2%	2	<1%	735
2003	327	49%	168	25%	152	23%	10	2%	0	0%	661
2004	323	47%	174	26%	166	24%	11	2%	0	0%	681
2005	299	46%	173	26%	161	25%	15	2%	1	<1%	653
2006 ³	262	51%	109	21%	133	26%	10	2%	1	<1%	516

¹ Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis

² Totals include people with unspecified race/ethnicity

³ 2006 data are preliminary

NH = Non-Hispanic, API = Asian/Pacific Islander, AI/AN = American Indian/Alaskan Native

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 11/1/07

Table 10. Females diagnosed with HIV infection by race/ethnicity and year of diagnosis: Massachusetts, before 1999, 1999–2006¹

	White NH		Black NH		Hispanic		API		AI/AN		Total ²
	N	%	N	%	N	%	N	%	N	%	
< 1999	1,787	38%	1,594	34%	1,248	27%	16	<1%	9	<1%	4,667
1999	119	29%	160	40%	111	27%	8	2%	2	<1%	404
2000	86	24%	176	49%	92	26%	2	1%	2	1%	359
2001	76	25%	146	49%	72	24%	5	2%	1	<1%	300
2002	74	21%	172	50%	88	25%	8	2%	0	0%	346
2003	56	19%	146	48%	89	29%	3	1%	0	0%	302
2004	48	16%	141	48%	91	31%	5	2%	1	<1%	291
2005	38	16%	122	53%	67	29%	3	1%	0	0%	231
2006 ³	44	24%	91	49%	46	25%	0	0%	1	1%	184

¹ Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis

² Totals include people with unspecified race/ethnicity

³ 2006 data are preliminary

NH = Non-Hispanic, API = Asian/Pacific Islander, AI/AN = American Indian/Alaskan Native

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 11/1/07

Table 11. People diagnosed with HIV infection by exposure mode and year of diagnosis: Massachusetts, before 1999, 1999–2006¹

	MSM		IDU		MSM/ IDU		HTSX		Other		Pres. HTSX ²		Undeter- mined ³		Total
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N
<1999	7,609	37%	7,184	35%	865	4%	2,044	10%	773	4%	1,333	7%	647	3%	20,455
1999	373	28%	396	30%	38	3%	195	15%	17	1%	244	18%	63	5%	1,326
2000	357	30%	248	21%	24	2%	196	17%	19	2%	263	22%	76	6%	1,183
2001	316	31%	209	20%	27	3%	156	15%	10	1%	216	21%	86	8%	1,020
2002	335	31%	189	17%	27	2%	171	16%	11	1%	253	23%	95	9%	1,081
2003	319	33%	148	15%	26	3%	110	11%	16	2%	219	23%	125	13%	963
2004	311	32%	153	16%	17	2%	111	11%	14	1%	228	23%	138	14%	972
2005	330	37%	129	15%	19	2%	88	10%	2	<1%	198	22%	118	13%	884
2006 ⁴	292	42%	70	10%	10	1%	69	10%	3	<1%	169	24%	87	12%	700

¹ Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis

² Heterosexual sex with partners with unknown risk and HIV status

³ Includes those still being followed up for risk information, those who have died with no determined risk and those lost to follow-up

⁴ 2006 data are preliminary

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 11/1/07

Table 12. Males diagnosed with HIV infection by exposure mode and year of diagnosis: Massachusetts, before 1999, 1999–2006¹

	MSM		IDU		MSM/ IDU		HTSX		Other		Pres. HTSX ²		Undeter- mined ³		Total
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N
<1999	7,609	48%	5,033	32%	865	5%	565	4%	485	3%	724	5%	507	3%	15,788
1999	373	40%	274	30%	38	4%	66	7%	9	1%	117	13%	45	5%	922
2000	357	43%	170	21%	24	3%	66	8%	13	2%	133	16%	61	7%	824
2001	316	44%	149	21%	27	4%	61	8%	4	1%	110	15%	53	7%	720
2002	335	46%	132	18%	27	4%	56	8%	6	1%	120	16%	59	8%	735
2003	319	48%	105	16%	26	4%	44	7%	11	2%	86	13%	70	11%	661
2004	311	46%	100	15%	17	2%	44	6%	5	1%	106	16%	98	14%	681
2005	330	51%	98	15%	19	3%	27	4%	0	0%	99	15%	80	12%	653
2006 ⁴	292	57%	40	8%	10	2%	34	7%	1	<1%	81	16%	58	11%	516

¹ Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis

² Heterosexual sex with partners with unknown risk and HIV status

³ Includes those still being followed up for risk information, those who have died with no determined risk and those lost to follow-up

⁴ 2006 data are preliminary

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 11/1/07

Table 13. Females diagnosed with HIV infection by exposure mode and year of diagnosis: Massachusetts, before 1999, 1999–2006¹

	IDU		HTSX		Other		Pres. HTSX ²		Undeter- mined ³		Total N
	N	%	N	%	N	%	N	%	N	%	
<1999	2,151	46%	1,479	32%	288	6%	609	13%	140	3%	4,667
1999	122	30%	129	32%	8	2%	127	31%	18	4%	404
2000	78	22%	130	36%	6	2%	130	36%	15	4%	359
2001	60	20%	95	32%	6	2%	106	35%	33	11%	300
2002	57	16%	115	33%	5	1%	133	38%	36	10%	346
2003	43	14%	66	22%	5	2%	133	44%	55	18%	302
2004	53	18%	67	23%	9	3%	122	42%	40	14%	291
2005	31	13%	61	26%	2	1%	99	43%	38	16%	231
2006 ⁴	30	16%	35	19%	2	1%	88	48%	29	16%	184

¹ Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis
² Heterosexual sex with partners with unknown risk and HIV status
³ Includes those still being followed up for risk information, those who have died with no determined risk and those lost to follow-up
⁴ 2006 data are preliminary
 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 11/1/07

Table 14. People diagnosed with HIV infection by place of birth and year of diagnosis: Massachusetts, before 1999, 1999–2006¹

	US		Puerto Rico/ US Dependency ²		Non-US		Total
	N	%	N	%	N	%	
< 1999	15,823	77%	2,545	12%	2,087	10%	20,455
1999	906	68%	172	13%	248	19%	1,326
2000	751	63%	131	11%	301	25%	1,183
2001	640	63%	114	11%	266	26%	1,020
2002	644	60%	104	10%	333	31%	1,081
2003	607	63%	91	9%	265	28%	963
2004	610	63%	102	10%	260	27%	972
2005	542	61%	84	10%	258	29%	884
2006 ³	449	64%	58	8%	193	28%	700

¹ Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis
² Ninety-seven 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, and 2% were born in an unknown dependency
³ 2006 data are preliminary
 Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 11/1/07

Table 15. Males diagnosed with HIV infection by place of birth and year of diagnosis: Massachusetts, before 1999, 1999–2006¹

	US		Puerto Rico/ US Dependency ²		Non-US		Total
	N	%	N	%	N	%	
< 1999	12,514	79%	1,820	12%	1,454	9%	15,788
1999	673	73%	117	13%	132	14%	922
2000	555	67%	94	11%	175	21%	824
2001	474	66%	80	11%	166	23%	720
2002	482	66%	68	9%	185	25%	735
2003	466	70%	51	8%	144	22%	661
2004	485	71%	61	9%	135	20%	681
2005	441	68%	63	10%	149	23%	653
2006 ³	354	69%	45	9%	117	23%	516

¹ Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis

² Ninety-seven 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, and 2% were born in an unknown dependency

³ 2006 data are preliminary

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 11/1/07

Table 16. Females diagnosed with HIV infection by place of birth and year of diagnosis: Massachusetts, before 1999, 1999–2006¹

	US		Puerto Rico/ US Dependency ²		Non-US		Total
	N	%	N	%	N	%	
< 1999	3,309	71%	725	16%	633	14%	4,667
1999	233	58%	55	14%	116	29%	404
2000	196	55%	37	10%	126	35%	359
2001	166	55%	34	11%	100	33%	300
2002	162	47%	36	10%	148	43%	346
2003	141	47%	40	13%	121	40%	302
2004	125	43%	41	14%	125	43%	291
2005	101	44%	21	9%	109	47%	231
2006 ³	95	52%	13	7%	76	41%	184

¹ Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis

² Ninety-seven 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, and 2% were born in an unknown dependency

³ 2006 data are preliminary

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 11/1/07

Table 17. People diagnosed with HIV infection by race/ethnicity¹ and place of birth: Massachusetts, 2004–2006²

Race/Ethnicity:	US		Puerto Rico/ US Dependency ³		Non-US		Total
	N	%	N	%	N	%	N
White NH	939	93%	4	<1%	71	7%	1,014
Black NH	396	49%	3	<1%	411	51%	810
Hispanic	235	35%	237	36%	192	29%	664
API	14	32%	0	0%	30	68%	44

¹ Data for American Indian/Alaska Native and Other/Unknown race/ethnicity are not presented due to small numbers
² Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis;
³ Ninety-seven percent of people diagnosed with HIV infection from 2004-2006 who were born in a US dependency were born in Puerto Rico, 1% were born in the US Virgin Islands and 2% were born in an unknown US dependency
 NH = Non-Hispanic, API = Asian/Pacific Islander
 Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 11/1/07

Table 18. People diagnosed with HIV infection by gender and race/ethnicity: Massachusetts, 2004–2006¹

Race/Ethnicity:	Male		Female		State Total	
	N	%	N	%	N	%
White NH	884	48%	130	18%	1,014	40%
Black NH	456	25%	354	50%	810	32%
Hispanic	460	25%	204	29%	664	26%
API	36	2%	8	1%	44	2%
Other/Unknown	14	1%	10	1%	24	1%
Total	1,850	100%	706	100%	2,556	100%

¹ Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis; NH = Non-Hispanic, API = Asian/Pacific Islander; Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding); Data as of 11/1/07

Table 19. People diagnosed with HIV infection by gender and exposure mode: Massachusetts, 2004–2006¹

Exposure Mode:	Male		Female		State Total	
	N	%	N	%	N	%
MSM	933	50%	N/A	N/A	933	37%
IDU	238	13%	114	16%	352	14%
MSM/IDU	46	2%	N/A	N/A	46	2%
HTSX	105	6%	163	23%	268	10%
Other	6	<1%	13	2%	19	1%
Total Undetermined	522	28%	416	59%	938	37%
- Pres. HTSX ²	286	15%	309	44%	595	23%
- Undetermined ³	236	13%	107	15%	343	13%
Total	1,850	100%	706	100%	2,556	100%

¹ Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis

² Heterosexual sex with partners with unknown risk and HIV status

³ Includes those still being followed up for risk information, those who have died with no determined risk, 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; N/A = Not Applicable

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 11/1/07

**Who is infected with HIV but does not yet know?
(Concurrent Diagnoses)**

Table 20. People diagnosed with HIV infection and AIDS within two months and all people diagnosed with HIV infection by place of birth: Massachusetts, 2004–2006¹

	HIV and AIDS Diagnosed within 2 Months	All HIV Infection Diagnoses	% Diagnosed with HIV and AIDS within 2 Months
Place of Birth:	N	N	%
US	413	1,601	26%
Puerto Rico/US Dependency ²	60	244	25%
Non-US	276	711	39%
TOTAL	749	2,556	29%

¹ Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis

² Ninety-seven percent of people diagnosed with HIV infection from 2004-2006 who were born in a US dependency were born in Puerto Rico, 1% were born in the US Virgin Islands and 2% were born in an unknown US dependency

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 11/1/07

How have patterns of AIDS diagnoses changed over time?

Table 21. Reported AIDS cases, by race/ethnicity and year of diagnosis: Massachusetts, 1985–2006

	White NH		Black NH		Hispanic		API		AI/AN		Total ²
	N	%	N	%	N	%	N	%	N	%	N
1985	154	68%	49	22%	21	9%	1	<1%	0	0%	225
1990	664	62%	236	22%	171	16%	4	<1%	2	<1%	1,079
1995	755	54%	313	22%	327	23%	5	<1%	5	<1%	1,407
1997	411	44%	282	30%	223	24%	12	1%	0	0%	928
1998	415	43%	302	31%	238	25%	13	1%	0	0%	968
1999	424	45%	243	26%	254	27%	12	1%	2	<1%	935
2000	298	38%	253	32%	216	27%	18	2%	1	<1%	786
2001	298	42%	223	31%	178	25%	9	1%	1	<1%	709
2002	260	38%	225	33%	182	27%	14	2%	2	<1%	683
2003	229	39%	194	33%	153	26%	8	1%	0	0%	584
2004	253	41%	186	30%	174	28%	4	1%	1	<1%	618
2005	221	38%	198	34%	153	26%	12	2%	0	0%	584
2006 ¹	191	39%	153	31%	133	27%	10	2%	1	<1%	488

¹ 2006 data are preliminary

² Total includes people of unspecified race/ethnicity

NH = Non-Hispanic, API = Asian/Pacific Islander, AI/AN = American Indian/Alaska Native

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 11/1/07

Table 22. Reported AIDS cases by exposure mode and year of diagnosis: Massachusetts, 1985–2006¹

	MSM		IDU		MSM/ IDU		HTSX		Other		Pres. HTSX ²		Undeter- mined ³		Total
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N
1985	141	63%	32	14%	12	5%	7	3%	13	6%	17	8%	3	1%	225
1990	478	44%	344	32%	45	4%	74	7%	58	5%	53	5%	27	3%	1,079
1995	440	31%	582	41%	64	5%	165	12%	35	2%	69	5%	52	4%	1,407
1997	249	27%	369	40%	36	4%	124	13%	21	2%	80	9%	49	5%	928
1998	254	26%	351	36%	32	3%	125	13%	16	2%	140	14%	50	5%	968
1999	234	25%	373	40%	30	3%	113	12%	5	1%	153	16%	27	3%	935
2000	178	23%	266	34%	17	2%	135	17%	10	1%	147	19%	33	4%	786
2001	170	24%	212	30%	29	4%	108	15%	14	2%	132	19%	44	6%	709
2002	168	25%	192	28%	24	4%	112	16%	8	1%	128	19%	51	7%	683
2003	139	24%	166	28%	17	3%	86	15%	10	2%	103	18%	63	11%	584
2004	156	25%	154	25%	19	3%	75	12%	10	2%	129	21%	75	12%	618
2005	161	28%	146	25%	17	3%	79	14%	3	1%	116	20%	62	11%	584
2006 ¹	159	33%	78	16%	13	3%	64	13%	4	1%	119	24%	51	10%	488

¹ 2006 data are preliminary

² Heterosexual sex with partners with unknown risk and HIV status

³ Includes 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 11/1/07

Who is dying with HIV/AIDS and how has this changed over time?

The death data presented in this analysis includes all deaths among people reported with HIV infection and those with AIDS in Massachusetts to present a full description of trends in mortality among this population. This includes a small number of deaths from non-HIV/AIDS related causes such as drug overdoses, suicides, motor vehicle accidents and other causes. Therefore, the total number of annual deaths reported here will vary from the number of HIV/AIDS-related deaths reported in *Massachusetts Deaths* by the Massachusetts Department of Public Health Center for Health Information, Statistics, Research and Evaluation.

Table 23. Deaths among persons reported with HIV infection (non-AIDS) and AIDS by year of death: Massachusetts, 1985–2006			
	HIV	AIDS	Total HIV + AIDS
Year of death	N	N	
1985	-- ¹	119	-- ¹
1990	-- ¹	632	-- ¹
1995	-- ¹	1,184	-- ¹
1997	-- ¹	386	-- ¹
1998	-- ¹	332	-- ¹
1999	49	349	398
2000	39	336	375
2001	54	370	424
2002	63	319	382
2003	64	335	399
2004	56	275	331
2005	53	247	300
2006	43	253	296

¹ HIV Reporting was implemented in 1999; therefore there are no data for deaths among people with HIV who did not progress to AIDS during this time period.
Data Source MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 11/1/07

Table 24. Deaths among persons reported with HIV/AIDS by gender and year of death: Massachusetts, 1999–2006

Year of death	Male		Female		Total
	N	%	N	%	N
1999	304	76%	94	24%	398
2000	271	72%	104	28%	375
2001	304	72%	120	28%	424
2002	274	72%	108	28%	382
2003	266	67%	133	33%	399
2004	244	74%	87	26%	331
2005	207	69%	93	31%	300
2006	213	72%	83	28%	296

Data Source MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 11/1/07

Table 25. Deaths among persons reported with HIV/AIDS by race/ethnicity and year of death: Massachusetts, 1999–2006

Year of Death	White NH		Black NH		Hispanic		API		AI/AN		Total
	N	%	N	%	N	%	N	%	N	%	N ¹
1999	189	47%	98	25%	106	27%	2	1%	3	1%	398
2000	189	50%	89	24%	94	25%	2	1%	1	<1%	375
2001	229	54%	117	28%	77	18%	0	0%	1	<1%	424
2002	178	47%	113	30%	87	23%	3	1%	0	0%	382
2003	191	48%	113	28%	91	23%	2	1%	1	<1%	399
2004	169	51%	76	23%	81	24%	5	2%	0	0%	331
2005	145	48%	78	26%	74	25%	2	1%	0	0%	300
2006	163	55%	67	23%	64	22%	2	1%	0	0%	296

¹ Totals includes people of unknown race/ethnicity

NH=Non-Hispanic, API=Asian/Pacific Islander, AI/AN=American Indian/Alaska Native

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 11/1/07

Table 26. Deaths among <i>males</i> reported with HIV/AIDS by race/ethnicity and year of death: Massachusetts, 1999–2006											
Year of Death	White NH		Black NH		Hispanic		API		AI/AN		Total
	N	%	N	%	N	%	N	%	N	%	N ¹
1999	152	50%	73	24%	75	25%	2	1%	2	1%	304
2000	149	55%	54	20%	65	24%	2	1%	1	<1%	271
2001	168	55%	78	26%	57	19%	0	0%	1	<1%	304
2002	137	50%	73	27%	60	22%	3	1%	0	0%	274
2003	127	48%	67	25%	68	26%	2	1%	1	<1%	266
2004	133	55%	53	22%	53	22%	5	2%	0	0%	244
2005	104	50%	47	23%	54	26%	2	1%	0	0%	207
2006	127	60%	39	18%	45	21%	2	1%	0	0%	213

¹ Totals includes people of unknown race/ethnicity
 NH=Non-Hispanic, API=Asian/Pacific Islander, AI/AN=American Indian/Alaska Native
 Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 11/1/07

Table 27. Deaths among <i>females</i> reported with HIV/AIDS by race/ethnicity and year of death: Massachusetts, 1999–2006											
Year of Death	White NH		Black NH		Hispanic		API		AI/AN		Total
	N	%	N	%	N	%	N	%	N	%	N ¹
1999	37	39%	25	27%	31	33%	0	0%	1	1%	94
2000	40	38%	35	34%	29	28%	0	0%	0	0%	104
2001	61	51%	39	33%	20	17%	0	0%	0	0%	120
2002	41	38%	40	37%	27	25%	0	0%	0	0%	108
2003	64	48%	46	35%	23	17%	0	0%	0	0%	133
2004	36	41%	23	26%	28	32%	0	0%	0	0%	87
2005	41	44%	31	33%	20	22%	0	0%	0	0%	93
2006	36	43%	28	34%	19	23%	0	0%	0	0%	83

¹ Totals includes people of unknown race/ethnicity
 NH=Non-Hispanic, API=Asian/Pacific Islander, AI/AN=American Indian/Alaska Native
 Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 11/1/07

Table 28. Deaths among persons reported with HIV/AIDS by exposure mode and year of death: Massachusetts, 1999–2006

	MSM		IDU		MSM/ IDU		HTSX		Other		Pres. HTSX ¹		Undeter- mined ²		Total N
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
1999	72	18%	214	54%	18	5%	33	8%	14	4%	30	8%	17	4%	398
2000	76	20%	203	54%	16	4%	25	7%	13	3%	28	7%	14	4%	375
2001	91	21%	219	52%	20	5%	29	7%	7	2%	29	7%	29	7%	424
2002	77	20%	206	54%	17	4%	36	9%	9	2%	25	7%	12	3%	382
2003	74	19%	199	50%	17	4%	49	12%	8	2%	30	8%	22	6%	399
2004	61	18%	168	51%	20	6%	26	8%	8	2%	26	8%	22	7%	331
2005	45	15%	163	54%	13	4%	33	11%	3	1%	24	8%	19	6%	300
2006	60	20%	150	51%	16	5%	26	9%	3	1%	24	8%	17	6%	296

¹ Heterosexual sex with partners with unknown risk and HIV status

² Includes 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 11/1/07

Table 29. Deaths among males reported with HIV/AIDS by exposure mode and year of death: Massachusetts, 1999–2006

	MSM		IDU		MSM/ IDU		HTSX		Other		Pres. HTSX ¹		Undeter- mined ²		Total N
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
1999	72	24%	160	53%	18	6%	10	3%	11	4%	17	6%	16	5%	304
2000	76	28%	135	50%	16	6%	4	1%	10	4%	16	6%	14	5%	271
2001	91	30%	138	45%	20	7%	12	4%	2	1%	15	5%	26	9%	304
2002	77	28%	137	50%	17	6%	10	4%	6	2%	16	6%	11	4%	274
2003	74	28%	125	47%	17	6%	19	7%	4	2%	19	7%	8	3%	266
2004	61	25%	112	46%	20	8%	13	5%	7	3%	14	6%	17	7%	244
2005	45	22%	111	54%	13	6%	12	6%	2	1%	11	5%	13	6%	207
2006 ¹	60	28%	99	46%	16	8%	9	4%	3	1%	11	5%	15	7%	213

¹ Heterosexual sex with partners with unknown risk and HIV status

² Includes 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 11/1/07

Table 30. Deaths among *females* reported with HIV/AIDS by exposure mode and year of death: Massachusetts, 1999–2006

	IDU		HTSX		Other		Pres. HTSX ¹		Undeter-mined ²		Total
	N	%	N	%	N	%	N	%	N	%	N
1999	54	57%	23	24%	3	3%	13	14%	1	1%	94
2000	68	65%	21	20%	3	3%	12	12%	0	0%	104
2001	81	68%	17	14%	5	4%	14	12%	3	3%	120
2002	69	64%	26	24%	3	3%	9	8%	1	1%	108
2003	74	56%	30	23%	4	3%	11	8%	14	11%	133
2004	56	64%	13	15%	1	1%	12	14%	5	6%	87
2005	52	56%	21	23%	1	1%	13	14%	6	6%	93
2006	51	61%	17	20%	0	0%	13	16%	2	2%	83

¹ Heterosexual sex with partners with unknown risk and HIV status

² Includes those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up
 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 11/1/07