

## **Regional HIV/AIDS Epidemiologic Profile of Central Health Service Region, Massachusetts: 2011**

### **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 while residing 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 currently reside and receive care in the Commonwealth. The total number of persons living in Massachusetts 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 HIV diagnoses among females are reported in the presumed heterosexual exposure mode category. The application of the presumed heterosexual exposure mode category to males is overly inclusive in that female to male HIV transmission is biologically less probable, and there are alternate exposure modes that are possible for males, including sex with other men (MSM) or IDU. The CDC reports males diagnosed with HIV/AIDS who report sex with females as their only risk factor, without corresponding partner risk or HIV status information, in the NIR exposure mode category. This revision to report presumed heterosexual male HIV/AIDS cases as NIR will bring Massachusetts HIV/AIDS case reporting for males in alignment with CDC standards. The MDPH will maintain presumed heterosexual and heterosexual exposure mode categories for females.

**Table 1. Total number of people reported with HIV infection or AIDS<sup>1</sup> by mortality status on December 31, 2010: Central Health Service Region, Massachusetts<sup>2</sup>**

	<b>N</b>	<b>%</b>
People Living with HIV/AIDS	1,535	60%
People Reported with HIV or AIDS who are Deceased	1,037	40%
<b>Total Number of People Reported with HIV Infection or AIDS</b>	<b>2,572</b>	<b>100%</b>

<sup>1</sup> 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

<sup>2</sup> Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/11

**Table 2. Average annual rate of HIV infection diagnosis from 2007 to 2009 and HIV/AIDS prevalence rate on 12/31/10<sup>1</sup>: Central Health Service Region, Massachusetts<sup>2</sup>**

<b>Average annual HIV diagnosis rate from 2007–2009</b>	<b>Average rate per 100,000</b>	<b>Average annual number of HIV diagnoses</b>
Central Health Service Region, MA	6.0	51.0
Massachusetts Total	9.4	607.3

  

<b>HIV/AIDS prevalence rate on 12/31/10</b>	<b>Rate per 100,000</b>	<b>Number of people living with HIV/AIDS</b>
Central Health Service Region, MA	181.7	1,535
Massachusetts Total	273.7	17,621

<sup>1</sup> The denominators for prevalence calculations are based on year 2005 population estimates from the MDPH Bureau of Health Statistics, Research and Evaluation.

<sup>2</sup> Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/11

**Table 3. People living with HIV/AIDS<sup>1</sup>, deaths among people reported with HIV/AIDS, and newly diagnosed HIV infections by year<sup>2</sup>: 2000–2009, Central Health Service Region, Massachusetts<sup>3</sup>**

<b>Year</b>	<b>HIV/AIDS Prevalence</b>	<b>Deaths among those with HIV/AIDS</b>	<b>Diagnosis of HIV Infection</b>
2000	1,162	26	92
2001	1,191	40	69
2002	1,263	39	111
2003	1,317	35	89
2004	1,360	40	83
2005	1,389	39	68
2006	1,432	30	73
2007	1,456	29	53
2008	1,477	27	48
2009	1,511	18	52

<sup>1</sup> Number of people living with HIV/AIDS on 12/31 of each year

<sup>2</sup> 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.

<sup>3</sup> Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

Data source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/11

**Table 4. People diagnosed with HIV infection from 2007–2009<sup>1</sup> and people living with HIV/AIDS on December 31, 2010 by gender, place of birth, race/ethnicity, exposure mode, age at HIV infection diagnosis and current age: Central Health Service Region, Massachusetts<sup>2</sup>**

HIV Infection Diagnoses			PLWH/A	
Gender:	N	%	N	%
Male	95	62%	953	62%
Female	58	38%	582	38%
Place of Birth:	N	%	N	%
US	83	54%	944	61%
Puerto Rico/US Dependency <sup>3</sup>	20	13%	299	19%
Non-US	50	33%	292	19%
Race/Ethnicity:	N	%	N	%
White (non-Hispanic)	60	39%	661	43%
Black (non-Hispanic)	52	34%	356	23%
Hispanic/Latino	37	24%	493	32%
Other/Undetermined <sup>4</sup>	4	3%	25	2%
Exposure Mode:	N	%	N	%
Male-to-male sex (MSM)	49	32%	349	23%
Injection Drug Use (IDU)	20	13%	473	31%
MSM/IDU	3	2%	45	3%
Heterosexual Sex	23	15%	274	18%
Other	3	2%	50	3%
Total Undetermined	55	36%	344	22%
• Presumed Heterosexual Sex <sup>5</sup>	23	15%	154	10%
• Undetermined <sup>6</sup>	32	21%	190	12%
Age:	N	%	N	%
	At Diagnosis		On December 31, 2010	
Under 13	3	2%	4	<1%
13 to 19	3	2%	19	1%
20 to 24	16	10%	37	2%
25 to 29	13	8%	45	3%
30 to 34	22	14%	79	5%
35 to 39	23	15%	168	11%
40 to 44	26	17%	242	16%
45 to 49	21	14%	363	24%
50 to 54	14	9%	285	19%
55 to 59	6	4%	163	11%
60+	6	4%	130	8%
<b>Total</b>	<b>153</b>	<b>100%</b>	<b>1,535</b>	<b>100%</b>

<sup>1</sup> 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.

<sup>2</sup> 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.

<sup>3</sup> 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, <1% were born in Guam and 3% were born in an unknown dependency.

<sup>4</sup> Other/Undetermined includes Asian/Pacific Islander, American Indian/Alaska Native and people of unspecified race/ethnicity

<sup>5</sup> Includes female sex with male of unknown HIV status or risk. This category is limited to females.

<sup>6</sup> 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.

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. People living with HIV/AIDS on December 31, 2010 by gender and race/ethnicity: Central Health Service Region, Massachusetts<sup>1</sup>**

Race/Ethnicity:	Male		Female	
	N	%	N	%
White (non-Hispanic)	476	50%	185	32%
Black (non-Hispanic)	175	18%	181	31%
Hispanic/Latino	283	30%	210	36%
Other/Undetermined <sup>2</sup>	19	2%	6	1%
<b>Total</b>	<b>953</b>	<b>100%</b>	<b>582</b>	<b>100%</b>

<sup>1</sup> 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.

<sup>2</sup> Other/Undetermined includes Asian/Pacific Islander, American Indian/Alaska Native and people of unspecified race/ethnicity.

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

**Table 6. People living with HIV/AIDS on December 31, 2010 by gender and exposure mode: Central Health Service Region, Massachusetts<sup>1</sup>**

Exposure Mode:	Male		Female	
	N	%	N	%
Male-to-male sex (MSM)	349	37%	N/A	N/A
Injection drug use (IDU)	290	30%	183	31%
MSM/IDU	45	5%	N/A	N/A
Heterosexual sex	75	8%	199	34%
Other	28	3%	22	4%
Total Undetermined	166	17%	178	31%
• Presumed heterosexual sex <sup>2</sup>	N/A	N/A	154	26%
• Undetermined <sup>3</sup>	166	17%	24	4%
<b>Total</b>	<b>953</b>	<b>100%</b>	<b>582</b>	<b>100%</b>

<sup>1</sup> 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.

<sup>2</sup> Includes female sex with male of unknown HIV status or risk. This category is limited to females.

<sup>3</sup> 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 1/1/11

**Table 7. People diagnosed with HIV infection by gender and year of diagnosis: Central Health Service Region, Massachusetts<sup>1</sup>, 2000–2009<sup>2</sup>**

	Male		Female		Total
	N	%	N	%	
2000	62	67%	30	33%	92
2001	49	71%	20	29%	69
2002	66	59%	45	41%	111
2003	47	53%	42	47%	89
2004	49	59%	34	41%	83
2005	48	71%	20	29%	68
2006	44	60%	29	40%	73
2007	33	62%	20	38%	53
2008	26	54%	22	46%	48
2009	36	69%	16	31%	52

<sup>1</sup> 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.

<sup>2</sup> 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.

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. People diagnosed with HIV infection by race/ethnicity and year of diagnosis: Central Health Service Region, Massachusetts<sup>1</sup>, 2000–2009<sup>2</sup>**

	White NH		Black NH		Hispanic/Latino		Other/ Undetermined <sup>3</sup>		Total
	N	%	N	%	N	%	N	%	
2000	39	42%	23	25%	30	33%	0	0%	92
2001	30	43%	14	20%	22	32%	3	4%	69
2002	40	36%	36	32%	33	30%	2	2%	111
2003	35	39%	31	35%	21	24%	2	2%	89
2004	34	41%	25	30%	24	29%	0	0%	83
2005	29	43%	21	31%	16	24%	2	3%	68
2006	19	26%	29	40%	22	30%	3	4%	73
2007	22	42%	19	36%	11	21%	1	2%	53
2008	21	44%	14	29%	12	25%	1	2%	48
2009	17	33%	19	37%	14	27%	2	4%	52

<sup>1</sup> 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.

<sup>2</sup> 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.

<sup>3</sup> Other/Undetermined includes Asian/Pacific Islander, American Indian/Alaska Native and people of unspecified race/ethnicity.

NH = Non-Hispanic

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. People diagnosed with HIV infection by place of birth and year of diagnosis: Central Health Service Region, Massachusetts<sup>1</sup>, 2000–2009<sup>2</sup>**

	US		Puerto Rico/ US Dependency <sup>3</sup>		Non-US		Total
	N	%	N	%	N	%	
2000	52	57%	22	24%	18	20%	<b>92</b>
2001	36	52%	13	19%	20	29%	<b>69</b>
2002	61	55%	15	14%	35	32%	<b>111</b>
2003	51	57%	11	12%	27	30%	<b>89</b>
2004	43	52%	15	18%	25	30%	<b>83</b>
2005	34	50%	12	18%	22	32%	<b>68</b>
2006	32	44%	14	19%	27	37%	<b>73</b>
2007	26	49%	5	9%	22	42%	<b>53</b>
2008	27	56%	9	19%	12	25%	<b>48</b>
2009	30	58%	6	12%	16	31%	<b>52</b>

<sup>1</sup> 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.

<sup>2</sup> 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.

<sup>3</sup> 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, <1% were born in Guam 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 10. People diagnosed with HIV infection by exposure mode and year of diagnosis: Central Health Service Region, Massachusetts<sup>1</sup>, 2000–2009<sup>2</sup>**

	MSM		IDU		MSM/ IDU		HTSX		Other		Pres. HTSX <sup>3</sup>		Undeter- mined <sup>4</sup>		Total N
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
2000	23	25%	19	21%	2	2%	21	23%	4	4%	11	12%	12	13%	<b>92</b>
2001	16	23%	19	28%	1	1%	18	26%	0	0%	7	10%	8	12%	<b>69</b>
2002	20	18%	27	24%	3	3%	16	14%	2	2%	17	15%	26	23%	<b>111</b>
2003	20	22%	15	17%	3	3%	11	12%	3	3%	19	21%	18	20%	<b>89</b>
2004	16	19%	18	22%	1	1%	17	20%	1	1%	17	20%	13	16%	<b>83</b>
2005	22	32%	16	24%	0	0%	6	9%	0	0%	12	18%	12	18%	<b>68</b>
2006	18	25%	11	15%	1	1%	11	15%	0	0%	17	23%	15	21%	<b>73</b>
2007	21	40%	6	11%	0	0%	7	13%	0	0%	12	23%	7	13%	<b>53</b>
2008	11	23%	10	21%	1	2%	10	21%	1	2%	5	10%	10	21%	<b>48</b>
2009	17	33%	4	8%	2	4%	6	12%	2	4%	6	12%	15	29%	<b>52</b>

<sup>1</sup> 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.

<sup>2</sup> 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.

<sup>3</sup> Includes female sex with male of unknown HIV status or risk. This category is limited to females.

<sup>4</sup> 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

**Table 11. People diagnosed with HIV infection and AIDS within two months and all people diagnosed with HIV infection by year of diagnosis: Central Health Service Region, Massachusetts<sup>1</sup>, 2000–2009<sup>2</sup>**

	HIV and AIDS diagnosed within two months	All HIV infection diagnoses	% diagnosed with HIV and AIDS within two months
Year:	N	N	%
2000	26	92	28%
2001	26	69	38%
2002	37	111	33%
2003	29	89	33%
2004	30	83	36%
2005	30	68	44%
2006	26	73	36%
2007	22	53	42%
2008	25	48	52%
2009	20	52	38%

<sup>1</sup> 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.

<sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.  
Data Source: MDPH HIV/AIDS Surveillance Program, data as of 1/1/11

**Table 12. People diagnosed with HIV infection and AIDS within two months and all people diagnosed with HIV infection by gender, race/ethnicity, and place of birth: Central Health Service Region, Massachusetts,<sup>1</sup> 2007–2009<sup>2</sup>**

	HIV and AIDS diagnosed within two months	All HIV infection diagnoses	% diagnosed with HIV and AIDS within two months
<b>Gender:</b>	<b>N</b>	<b>N</b>	<b>%</b>
Male	44	95	46%
Female	23	58	40%
<b>Race/Ethnicity:</b>	<b>N</b>	<b>N</b>	<b>%</b>
White (non-Hispanic)	24	60	40%
Black (non-Hispanic)	27	52	52%
Hispanic/Latino	14	37	38%
Other/Undetermined <sup>3</sup>	2	4	50%
<b>Place of Birth:</b>	<b>N</b>	<b>N</b>	<b>%</b>
US	35	83	42%
Puerto Rico/US Dependencies <sup>4</sup>	8	20	40%
Non-US	24	50	48%
<b>Total</b>	<b>67</b>	<b>153</b>	<b>44%</b>

<sup>1</sup> 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.

<sup>2</sup> 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.

<sup>3</sup> Other/Undetermined includes Asian/Pacific Islander, American Indian/Alaska Native and people of unspecified race/ethnicity.

<sup>4</sup> 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