



Massachusetts HIV/AIDS Data Fact Sheet

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

Introduction

This fact sheet describes all deaths among people reported with HIV/AIDS in Massachusetts from all causes, including cardiovascular disease, liver disease, cancer, accidental injury, or poisoning inclusive of drug overdose. Therefore, some of the data here will differ from HIV/AIDS as the cause of death reported in *Massachusetts Deaths* by the Massachusetts Department of Public Health, Registry of Vital Records and Statistics, Bureau of Health Information, Statistics, Research and Evaluation.

In the four-year period from 1999 to 2002, the number of deaths among people reported with HIV infection and AIDS was at least 351 deaths each year, ranging from 351 to 414 deaths. Over the next nine years from 2003 to 2011, the number of deaths declined to a low of 208 deaths in 2011. This trend in the number of deaths among people reported with HIV/AIDS indicates that improvements in care and treatment have resulted in longer survival.ⁱ Since 1999, the majority of annual deaths in persons diagnosed with HIV infection occur in persons who are reported with an AIDS diagnosis (ranging from 79% to 89%).

Patterns in mortality among people reported with an AIDS diagnosis reflect those among people living with HIV infection who have not progressed to AIDS. As black (non-Hispanic) and Hispanic/Latino populations are living and diagnosed with HIV infection at higher rates than the white (non-Hispanic) population, they also experience higher mortality rates. This does not indicate that black (non-Hispanic) and Hispanic/Latino individuals experience differential survival compared to white (non-Hispanic) individuals once diagnosed. Additionally, deaths among people reported with HIV/AIDS from 2002 to 2011 declined for all race/ethnicities. As to exposure mode, about half of all deaths from 2002 to 2011 were among people with a primary reported exposure mode of injection drug use.

The following describes trends in morbidity and mortality among people reported with HIV/AIDS in Massachusetts in greater detail.

Rank of HIV/AIDS among leading causes of death in 2010:ⁱⁱ

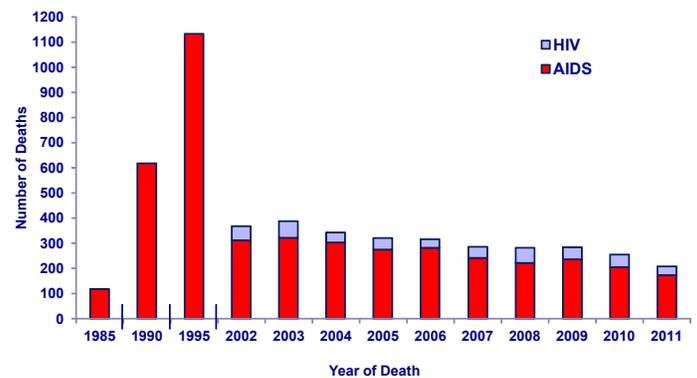
- In 2010, HIV/AIDS was the 28th leading cause of death in Massachusetts.

- HIV/AIDS was the 11th leading cause of death for Hispanic/Latino individuals, the 13th leading cause of death for black (non-Hispanic) individuals and the 31st leading cause of death for white (non-Hispanic) individuals.
- Among 25–44 year olds, HIV/AIDS was the 9th leading cause of death in 2010; fifteen years prior (1995), it was the leading cause of death in this age group.

General statistics:

- After reaching a peak of 1,157 in 1994, deaths among people reported with AIDS declined each year through 1998, when there were 320 deaths. Note: death data for people reported with HIV infection (non-AIDS) are not available prior to 1999 because HIV infection was not a reportable condition before that time.
- The number of deaths among people reported with HIV/AIDS declined 43% from 368 in 2002 to a low of 208 deaths in 2011

Figure 1. Number of Deaths Among People Reported with HIV Infection and AIDS by Year of Death: Massachusetts, Selected Years, 1985–2011



Note: Death data for people with HIV who had not yet progressed to AIDS are not available before 1999 and therefore not included here. Data Source: MDPH HIV/AIDS Surveillance Program; Data as of 1/1/13

Deaths among people reported with HIV/AIDS by gender:

- From 2002 to 2011, the proportion of deaths among people reported with HIV/AIDS who were who were male ranged from 66% to 73% and who were female ranged from 27% to 34%.
- From 2002 to 2011, the number of deaths among males reported with HIV/AIDS decreased by 43% (from 261 to 150) and among females by 46% (from 107 to 58).

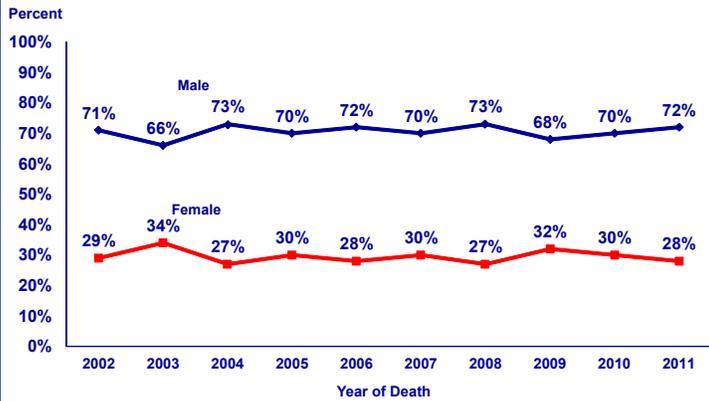




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Figure 2. Percent of Deaths among People Reported with HIV/AIDS by Gender and Year of Death: Massachusetts, 2002–2011



Data Source: MDPH HIV/AIDS Surveillance Program; data as of 1/1/13

Deaths among people reported with HIV/AIDS by place of birth:

- From 2002 to 2011, deaths among people reported with HIV/AIDS by place of birth remained stable, with 73% to 80% of the deaths among people born in the U.S., 12% to 18% among people born in Puerto Rico or another U.S. dependency, and 8% to 12% among people born outside the U.S.
- From 2002 to 2011, the number of deaths among people reported with HIV/AIDS who were born in the U.S. decreased by 45%, among people born in Puerto Rico or another U.S. dependency by 42%, and among people born outside the U.S. by 35%.

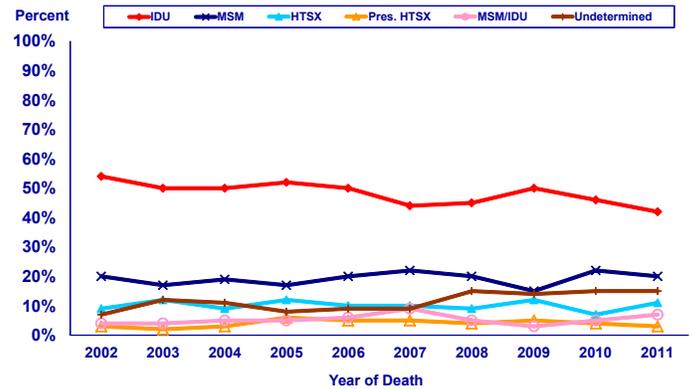
Deaths among people reported with HIV/AIDS by race/ethnicity:

- From 2002 to 2011, the proportion of deaths among people reported with HIV/AIDS who were white (non-Hispanic) ranged from 46% to 53%, black (non-Hispanic) from 25% to 28% and Hispanic/Latino from 21% to 27%.
- The number of deaths among people reported with HIV/AIDS who were white (non-Hispanic) decreased by 40% (from 177 to 107) from 2002 to 2011, black (non-Hispanic) by 46% (from 104 to 56), and Hispanic/Latino by 47% (from 83 to 44).

Deaths among people reported with HIV/AIDS by exposure mode:

- The proportion of deaths among people reported with HIV/AIDS and injection drug use exposure mode decreased from 54% in 2002 to 42% in 2011.

Figure 3. Percent of Deaths among People Reported with HIV/AIDS by Mode of Exposure and Year of Death: Massachusetts, 2002–2011



IDU= Injection Drug Use, MSM=Male-to-Male Sex, HTSX=Heterosexual Sex, Pres.=Presumed; Data Source: MDPH HIV/AIDS Surveillance Program; data as of 1/1/13

- From 2002 to 2011, the proportion of deaths among people reported with HIV/AIDS with an exposure mode of male to male sex ranged from 15% to 22%, with undetermined exposure ranged from 7% to 15%, with heterosexual sex ranged from 7% to 12%, with male-to-male sex and injection drug use from 3% to 9%, and with presumed heterosexual sexⁱⁱⁱ from 2% to 6%.
- From 2002 to 2011, the number of deaths among people reported with HIV/AIDS with an exposure mode of injection drug use decreased by 56% (from 199 to 88), with an exposure mode of male-to-male sex decreased by 45% (from 74 to 41), with an exposure mode of heterosexual sex decreased by 33% (from 33 to 22), and with an exposure mode of presumed heterosexual sex decreased by 42% (from 12 to 7); while the number of deaths among people with an undetermined exposure mode increased by 23% (from 26 to 32).



For detailed data tables and technical notes see Appendix
 Massachusetts Department of Public Health Office of HIV/AIDS
 250 Washington St. 3rd Floor Boston, MA 02108
 617-624-5300 FAX 617-624-5399 www.mass.gov/dph/aids





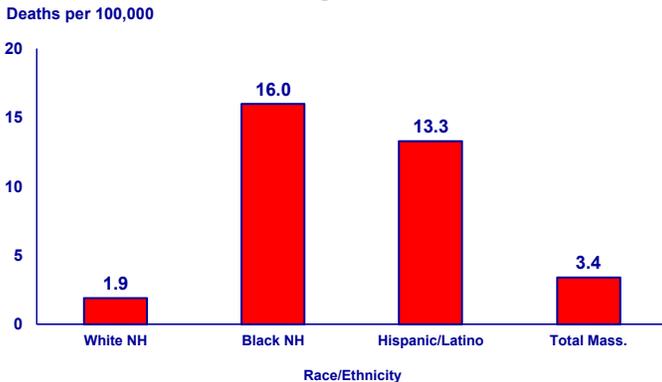
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Average annual rate of death among people reported with HIV/AIDS by race/ethnicity, 2009–2011:

- An average of 3.4 out of every 100,000 people in Massachusetts died after being reported with HIV/AIDS each year within the years 2009 to 2011 (rate adjusted for age).
- The age-adjusted average annual death rates within the three-year period 2009 to 2011 among both the black (non-Hispanic) (16.0 per 100,000) and the Hispanic/Latino (13.3 per 100,000) populations reported with HIV/AIDS are eight and seven times greater than for the white (non-Hispanic) population (1.9 per 100,000), respectively. These rates reflect longstanding disparities in HIV diagnosis by race/ethnicity: the black (non-Hispanic) population is diagnosed with HIV infection at 11 times and the Hispanic/Latino population at five times the rate of the white (non-Hispanic) population.

Figure 4. Age-Adjusted Rate of Death per 100,000 Population¹ Among People Reported with HIV/AIDS by Race/Ethnicity: Massachusetts, Average Annual Rate 2009–2011

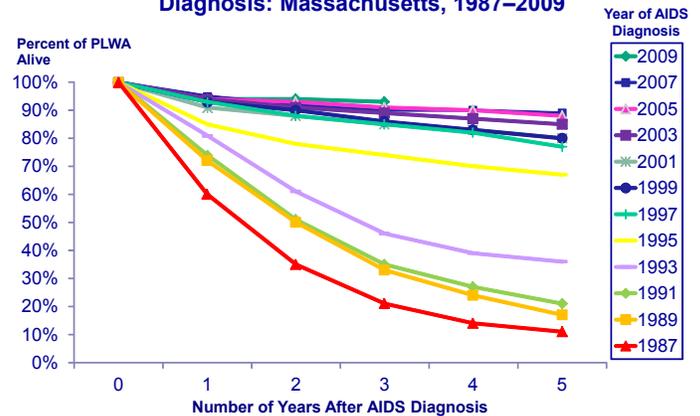


¹ Population sizes for rate calculations are from the Massachusetts (Department of Public Health) Modified Age, Race/Ethnicity, & Sex Estimates 2010, all rates are age-adjusted using the 2000 US standard population; NH= Non-Hispanic; Data Source: MDPH HIV/AIDS Surveillance Program, data as of 1/1/13.

Trends in survival after an AIDS diagnosis:

- In comparing survival trends for people diagnosed in 1987 with people diagnosed in more recent years, it is evident that the proportion of people who survive with AIDS is increasing over successive time periods. Among people diagnosed in 1987, 11% survived five years after an AIDS diagnosis compared with 17% diagnosed in 1989, 21% in 1991, 36% in 1993, 67% in 1995, 77% in 1997, 80% in both 1999 and 2001, 85% in 2003, 88% in 2005, and 89% in 2007.

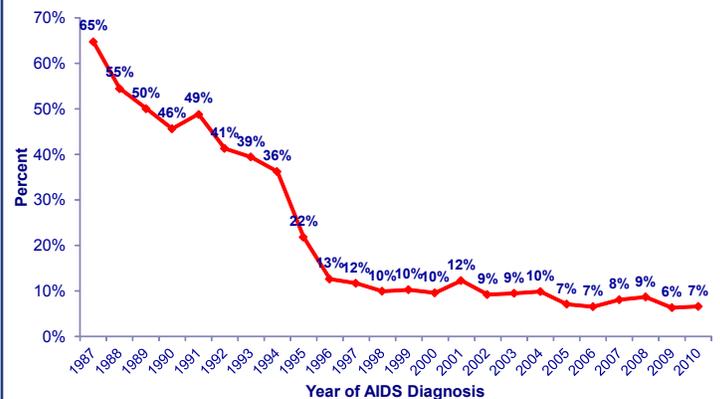
Figure 5. Percent of People Living with AIDS (PLWA) Who Are Alive 1–5 Years After an AIDS Diagnosis by Year of AIDS Diagnosis: Massachusetts, 1987–2009



NOTE: Trend lines are incomplete for more recent years of diagnosis because fewer years of observation are available; Data Source: MDPH HIV/AIDS Surveillance Program; Data as of 1/1/13

- From 1987 to 1996, the proportion of people diagnosed with AIDS who died within two years of their diagnosis declined from 65% to 13%.
- From 1997 to 2010, the proportion of people diagnosed with AIDS who died within two years of their diagnosis ranged from 12% to 6%.

Figure 6. Percent of People Who Died Within 2 Years of an AIDS Diagnosis by Year of AIDS Diagnosis: Massachusetts, 1987–2010



Data Source: MDPH HIV/AIDS Surveillance Program; Data as of 1/1/13

Data Source

All HIV/AIDS Case Data: Massachusetts Department of Public Health (MDPH) HIV/AIDS Surveillance Program, Data as of 1/1/13



For detailed data tables and technical notes see Appendix
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ⁱ 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.

ⁱⁱ Data included here represent HIV/AIDS-related deaths from: Massachusetts Deaths 2010. Boston, MA: Division of Research and Epidemiology, Bureau of Health Information, Statistics, Research, and Evaluation, Massachusetts Department of Public Health. January 2013

ⁱⁱⁱ The category of presumed heterosexual is used exclusively for females, to define HIV exposure mode in cases when sex with males is the only reported risk factor for HIV infection.



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