



Massachusetts HIV/AIDS Data Fact Sheet

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

Introduction

Sample text sample text sample text sample text. Sample text This fact sheet describes all deaths among people reported with HIV/AIDS in Massachusetts, including deaths from non HIV-related causes, such as cardiovascular disease, liver disease, cancer, and drug or alcohol abuse. 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 three-year period from 2001 to 2003, the number of deaths among people reported with HIV infection and AIDS was at least 361 deaths each year, ranging from 361 to 411 deaths. Over the next seven years from 2004 to 2010, the number of deaths declined to a low of 232 deaths in 2010. 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

Patterns in mortality among people reported with HIV/AIDS reflect those among people living and diagnosed with HIV infection. 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, the number of deaths from 2001 to 2010 has declined for people reported with HIV/AIDS of all race/ethnicities. As to exposure mode, about half of all deaths from 2001 to 2010 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 2008:ⁱⁱ

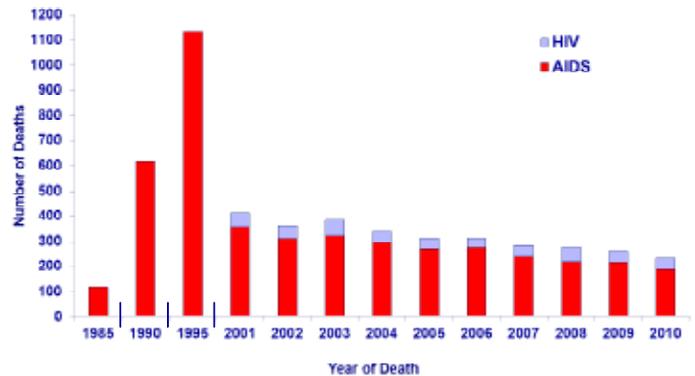
- In 2008, HIV/AIDS was the 25th leading cause of death in Massachusetts.

- HIV/AIDS was the 11th leading cause of death for Hispanic/Latino individuals, the 11th leading cause of death for black (non-Hispanic) individuals and the 28th leading cause of death for white (non-Hispanic) individuals.
- Among 25–44 year olds, HIV/AIDS was the 8th leading cause of death in 2008; thirteen years prior, it was the leading cause of death in this age group.

General statistics:

- After reaching a peak of 1,156 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.

Figure 1. Number of Deaths Among People Reported with HIV Infection and AIDS by Year of Death: Massachusetts, Selected Years, 1985–2010



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 1/1/12

- The number of deaths among people reported with HIV/AIDS declined 44% from 411 in 2001 to a low of 232 deaths in 2010.
- The proportion of deaths among people with HIV infection (non-AIDS) of total deaths among people reported with HIV/AIDS increased from 13% in 2001 to 19% in 2010. Note: People with HIV infection (non-AIDS) refers to those reported with an HIV infection diagnosis who did not progress to AIDS before death.





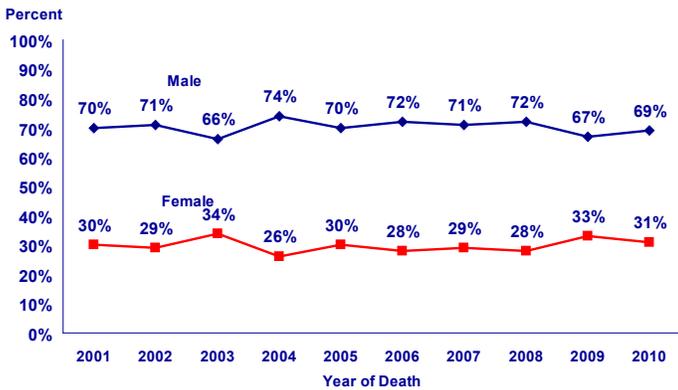
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Deaths among people reported with HIV/AIDS by gender:

- From 2001 to 2010, the proportion of deaths among people reported with HIV/AIDS who were female ranged from 26% to 34%.

Figure 2. Percent of Deaths among People Reported with HIV/AIDS by Gender and Year of Death: Massachusetts, 2001–2010



Data Source: MDPH HIV/AIDS Surveillance Program; data as of 1/1/12

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

- From 2001 to 2010, deaths among people reported with HIV/AIDS by place of birth remained stable, with 73% to 81% of the deaths among people born in the U.S., 12% to 17% among people born in Puerto Rico or another U.S. dependency, and 7% to 12% among people born outside the U.S.

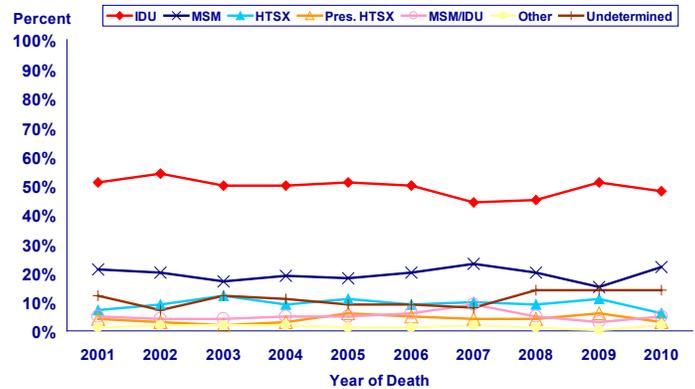
Deaths among people reported with HIV/AIDS by race/ethnicity:

- From 2001 to 2010, the proportion of deaths among people reported with HIV/AIDS who were white (non-Hispanic) ranged from 47% to 54%, black (non-Hispanic) from 24% to 29% and Hispanic/Latino from 19% to 25%.
- The number of deaths among people reported with HIV/AIDS who were white (non-Hispanic) decreased by 50% (from 218 to 108) from 2001 to 2010, black (non-Hispanic) by 47% (from 114 to 60), and Hispanic/Latino by 24% (from 78 to 59).

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

- From 2001 to 2010, while the proportion of HIV diagnoses in people with a primary reported exposure mode of injection drug use decreased from 20% to 11%, the proportion of deaths among people reported with HIV/AIDS and injection drug use exposure mode remained fairly stable at close to 50% of deaths each year.

Figure 3. Percent of Deaths among People Reported with HIV/AIDS by Mode of Exposure and Year of Death: Massachusetts, 2001–2010



IDU= Injection Drug Use, MSM=Male-to-Male Sex, HTSX=Heterosexual Sex, Pres.=Presumed; Data Source: MDPH HIV/AIDS Surveillance Program; data as of 1/1/12

- From 2001 to 2010, the proportion of deaths among people reported with HIV/AIDS with an exposure mode of male to male sex ranged from 15% to 23%, with undetermined exposure ranged from 7% to 14%, with heterosexual sex ranged from 6% to 12%, with male-to-male sex and injection drug use from 3% to 9% each, with presumed heterosexual sexⁱⁱⁱ from 2% to 6%, and with all other risks <1% to 2%.
- From 2001 to 2010, the number of deaths among males reported with HIV/AIDS with an exposure mode of injection drug use decreased by 49% (from 129 to 66), while the number of deaths among females with an exposure mode of injection drug use decreased by 44% (from 81 to 45).



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
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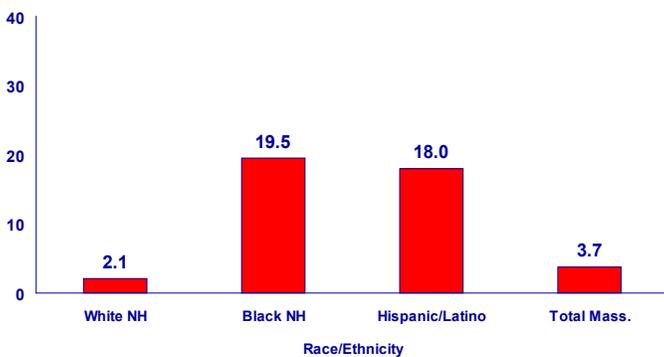
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Average annual rate of death among people reported with HIV/AIDS by race/ethnicity, 2008–2010:

- An average of 3.7 out of every 100,000 people in Massachusetts died after being reported with HIV/AIDS each year within the years 2008 to 2010 (rate adjusted for age of the population groups).
- The age-adjusted average annual death rates within the three-year period 2008 to 2010 among both the black (non-Hispanic) (19.5 per 100,000) and the Hispanic/Latino (18.0 per 100,000) populations reported with HIV/AIDS are nine times greater than for the white (non-Hispanic) population (2.1 per 100,000). These rates reflect disparities in HIV diagnosis by race/ethnicity: the black (non-Hispanic) population is diagnosed with HIV infection at 12 times and the Hispanic/Latino population at seven 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 2008–2010

Deaths per 100,000

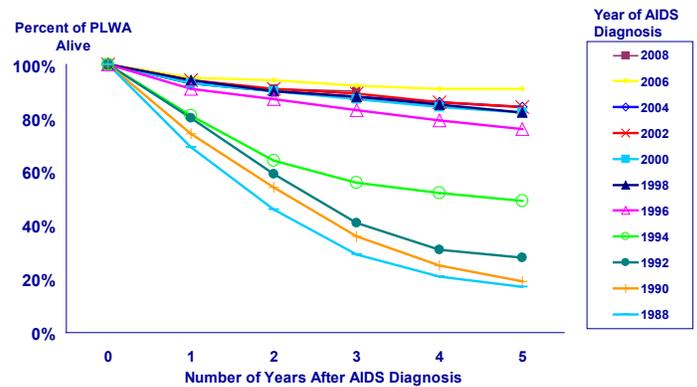


¹ Population sizes for rate calculations are from the Massachusetts (Department of Public Health) Modified Age, Race/Ethnicity, & Sex Estimates 2005, all rates are age-adjusted using the 2000 US standard population; NH= Non-Hispanic; Data Source: MDPH HIV/AIDS Surveillance Program, data as of 1/1/12

Trends in survival after an AIDS diagnosis:

- In comparing survival trends for people diagnosed in 1988 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 1988, 17% survived five years after an AIDS diagnosis compared with 19% diagnosed in 1990, 28% in 1992, 49% in 1994, 76% in 1996, 82% in both 1998 and 2000, 84% in both 2002 and 2004, and 91% in 2006.

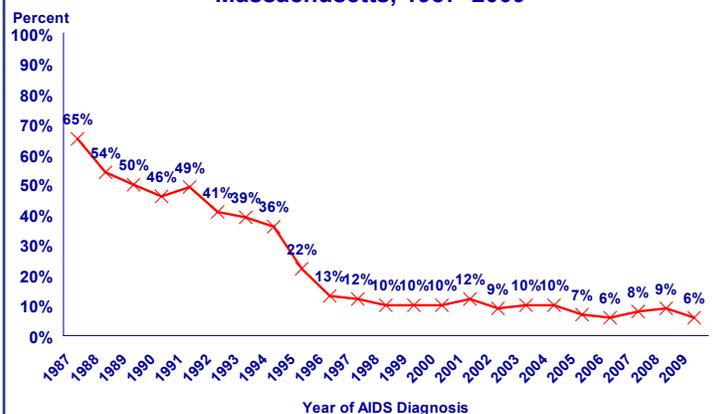
Figure 5. Percent of People Living with AIDS (PLWA) Who Are Alive 1–5 Years After an AIDS Diagnosis by Year of AIDS Diagnosis: Massachusetts, 1988–2008



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 1/1/12

- 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 2009, the proportion of people diagnosed with AIDS who died within two years of their diagnosis declined from 12% to 6%.

Figure 6. Percent of People Who Died Within 2 Years of an AIDS Diagnosis by Year of AIDS Diagnosis: Massachusetts, 1987–2009



Data Source: MDPH HIV/AIDS Surveillance Program; Data as of 1/1/12



For detailed data tables and technical notes see Appendix
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Data Sources

All HIV/AIDS Case Data: Massachusetts Department of Public Health (MDPH) HIV/AIDS Surveillance Program, Data as of 1/1/12

ⁱ 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 who were first diagnosed in another state before being reported in Massachusetts. As of January 1, 2012, this resulted in the removal of 2,924 HIV/AIDS cases, of which 808 have died and 2,116 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.

ⁱⁱ Data included here represent HIV/AIDS-related deaths from Massachusetts Deaths 2008, Bureau of Health Information, Statistics, Research and Evaluation, available online at <http://www.mass.gov/eohhs/docs/dph/research-epi/death-report-08.pdf>

ⁱⁱⁱ 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-seven percent of females living with HIV/AIDS and 40% of recent female HIV diagnoses are reported in the presumed heterosexual exposure mode category. The application of the presumed heterosexual exposure mode category to males is overly inclusive in that female to male HIV transmission is biologically less probable, and there are alternate exposure modes that are possible for males, including sex with other men (MSM) or IDU. The CDC reports males diagnosed with HIV/AIDS who report sex with females as their only risk factor, without corresponding partner risk or HIV status information, in the NIR exposure mode category. This revision to report presumed heterosexual male HIV/AIDS cases as NIR will bring Massachusetts HIV/AIDS case reporting for males in alignment with CDC standards. The MDPH will maintain presumed heterosexual and heterosexual exposure mode categories for females.



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