



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, 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 four-year period from 2000 to 2003, the number of deaths among people reported with HIV infection and AIDS was at least 350 deaths each year, ranging from 350 to 412 deaths. Over the next six years from 2004 to 2009, the number of deaths declined each year to a low of 213 deaths in 2009. 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

Trends in mortality among people reported with HIV/AIDS reflect shifts in HIV infection and AIDS diagnoses. For example, HIV infection diagnosis patterns across race/ethnicity are mirrored in elevated mortality rates of black (non-Hispanic) and Hispanic/Latino individuals compared to white (non-Hispanic) individuals. As to exposure mode, about half of all deaths from 2000 to 2009 were among people with a primary reported risk of injection drug use.

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

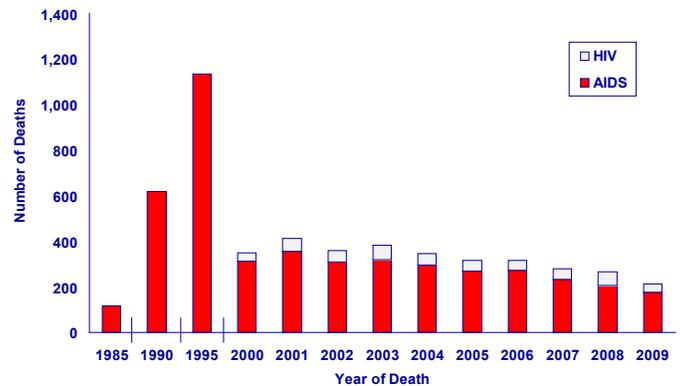
Rank of HIV/AIDS among leading causes of death in 2008:ⁱⁱ

- 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 1,152 in 1994 (data not shown), deaths among people reported with AIDS declined each year through 1998, when there were 317 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, 1985–2009



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 1/1/11

- The number of deaths declined 38% from 345 in 2004 to a low of 213 deaths in 2009.
- The proportion of deaths among people with HIV infection (non-AIDS) of total deaths among people reported with HIV/AIDS increased from 11% in 2000 to 22% in 2008 then decreased to 18% in 2009. Note: people with HIV infection (non-AIDS) refers to those reported with an HIV infection diagnosis, who did not progress to AIDS before death.

Deaths among people reported with HIV/AIDS by gender:

- From 2000 to 2009, the proportion of deaths among people reported with HIV/AIDS who were female ranged from 25% to 35%.

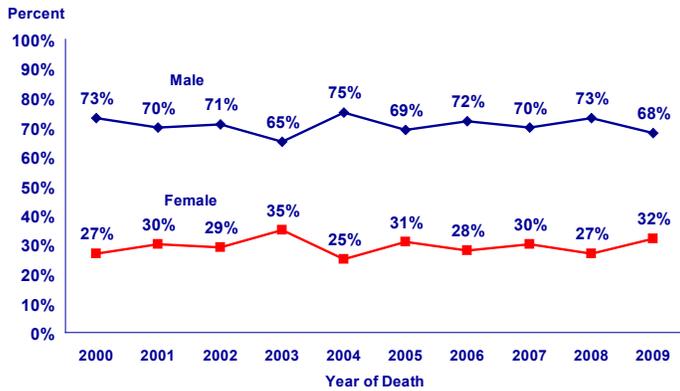




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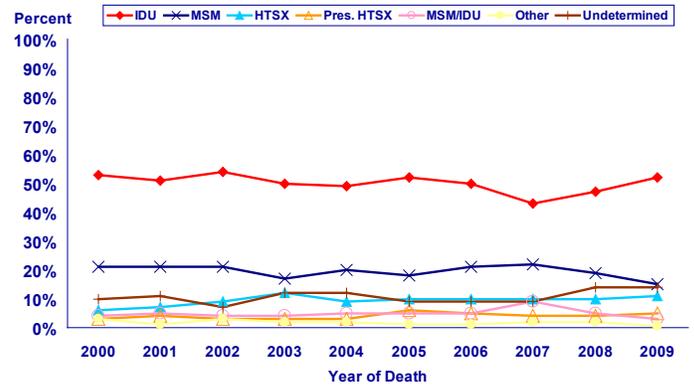
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Figure 2. Percent of Deaths among People Reported with HIV/AIDS by Gender and Year of Death: Massachusetts, 2000–2009



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

Figure 3. Percent of Deaths among People Reported with HIV/AIDS by Mode of Exposure and Year of Death: Massachusetts, 2000–2009



IDU= Injection Drug Use, MSM=Male-to-Male Sex, HTSX=Heterosexual Sex, Pres.=Presumed; Data Source: MDPH HIV/AIDS Surveillance Program; data as of 1/1/11

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

- From 2000 to 2009, deaths among people reported with HIV/AIDS by place of birth remained stable, with 75% 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 6% to 12% among people born outside the U.S.

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

- From 2000 to 2009, the proportion of deaths of among people reported with HIV/AIDS who were white (non-Hispanic) ranged from 48% to 54%, black (non-Hispanic) from 23% to 28% and Hispanic/Latino from 19% to 25%.
- The number of deaths among people reported with HIV/AIDS who were white (non-Hispanic) decreased by 42% (from 180 to 104) from 2000 to 2009, black (non-Hispanic) by 40% (from 84 to 50), and Hispanic/Latino by 36% (from 83 to 53).

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

- From 2000 to 2009, the distribution of deaths among people reported with HIV/AIDS by exposure mode remained fairly stable, close to 50% of deaths each year in people with a primary reported exposure risk of injection drug use and 17% to 22% in people with a risk of male-to-male sex.

- From 2000 to 2009, the proportion of deaths among people reported with HIV/AIDS with a reported exposure of heterosexual sex ranged from 6% to 12%, of male-to-male sex and injection drug use from 3% to 9%, of presumed heterosexual sexⁱⁱⁱ from 3% to 6%, and of all other risks 1% to 3%.
- From 2000 to 2009, the number of deaths among males reported with HIV/AIDS with an exposure risk of injection drug use decreased by 42% (from 125 to 72), while the number of females decreased by 37% (from 60 to 38).

Average annual rate of death among people reported with HIV/AIDS by race/ethnicity, 2007–2009:

- An average of 3.7 out of every 100,000 people in Massachusetts died with a reported diagnosis of HIV/AIDS each year within the years 2007 to 2009 (rate adjusted for age of the population groups).
- The age-adjusted average annual rate of death within the three-year period 2007 to 2009 among the black (non-Hispanic) population reported with HIV/AIDS (19.3 per 100,000) is nine times greater, and for the Hispanic/Latino population (16.3 per 100,000) is seven times greater than for the white (non-Hispanic) population (2.2 per 100,000). These rates reflect HIV diagnosis by race/ethnicity: the black (non-Hispanic) population is diagnosed with HIV infection at 11 times and



For detailed data tables and technical notes see Appendix
 Massachusetts Department of Public Health Office of HIV/AIDS
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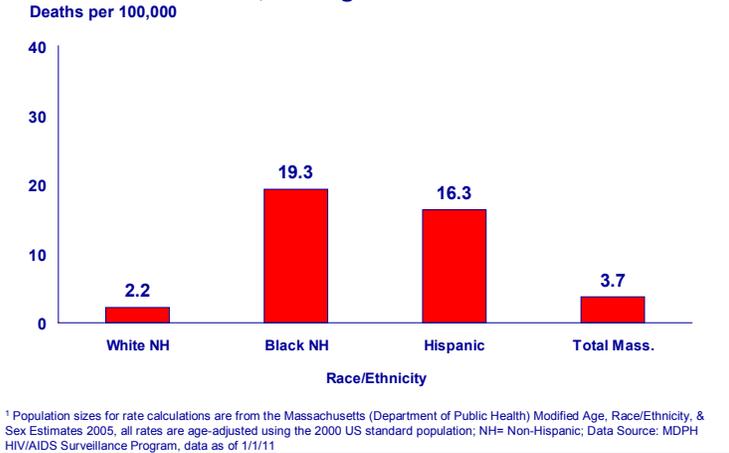


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the Hispanic/Latino population at six times the rate of the white (non-Hispanic) population.

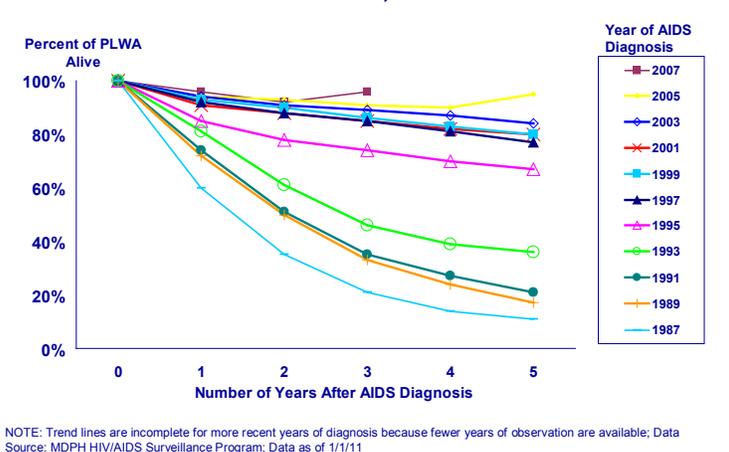
Figure 4. Age-Adjusted Rate of Death per 100,000 Population¹ Among People Reported with HIV/AIDS by Race/Ethnicity: Massachusetts, Average Annual Rate 2007–2009



Trends in survival after an AIDS diagnosis:

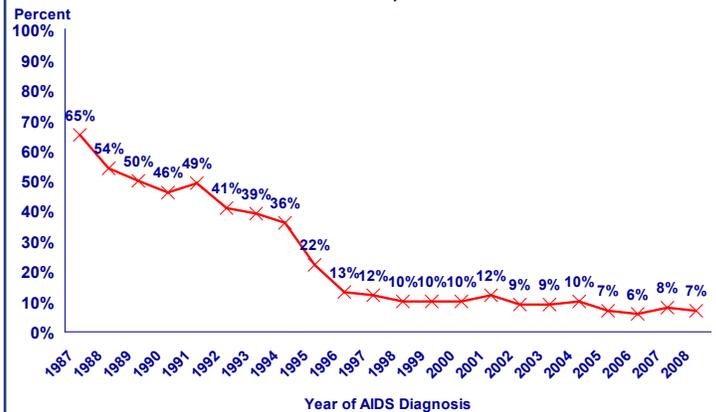
- In comparing survival trends for people diagnosed in 1987 with people diagnosed in more recent years, it is evident that the proportion of people who survive with AIDS is increasing over successive time periods. Among people diagnosed in 1987, 11% survived five years after an AIDS diagnosis compared with 21% diagnosed in 1991, 67% diagnosed in 1995, 80% diagnosed in 1999 and 84% diagnosed in 2003.

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, 1987–2007



- 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 2008, the proportion of people diagnosed with AIDS who died within two years of their diagnosis ranged from 6% to 12%.

Figure 6. Percent of People Who Died Within 2 Years of an AIDS Diagnosis by Year of AIDS Diagnosis: Massachusetts, 1987–2008



Data Source

All HIV/AIDS Case Data: Massachusetts Department of Public Health (MDPH) HIV/AIDS Surveillance Program, Data as of 1/1/11

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 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.



For detailed data tables and technical notes see Appendix
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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/Eeohhs2/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-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 efficient, 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.



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