The number of new HIV infection diagnoses decreased by 47% (from 1,191 to 629) and deaths among people living with HIV infection decreased by 35% (from 353 to 231) in Massachusetts during the period 2000 to 2014.

The improvement of health and longevity due to current HIV treatment has resulted in an increase in the number of people living with HIV infection of approximately 3% per year.

While the reduction in new cases and survival of people living with HIV infection is good news, vulnerable populations remain disproportionately impacted:

- The proportion of new HIV infection diagnoses among men who have sex with men increased from 38% in 2005 (N=350/913) to 46% in 2014 (N=288/629).
- Persons with injection drug use exposure mode constitute about half of all deaths among persons with HIV/AIDS though only 18% of all persons living with HIV infection (as of 12/31/15).
- Black (non-Hispanic) and Hispanic/Latino populations are diagnosed with HIV infection at rates ten and seven times that of the white (non-Hispanic) population, respectively.

HIV/AIDS Trends from 2000 to 2014

- Since 2000, there are more people living with HIV infection in Massachusetts, with fewer people being diagnosed with HIV infection, and fewer people with HIV infection who die. From 2000 to 2014, the number of people living with HIV infection increased by 56% (Figure 1). During the same time period, the number of deaths among people reported with HIV/AIDS decreased by 35% (from 353 to 231). The number of HIV infection diagnoses decreased by 37% from 2000 (N=1,191) to 2008 (N=746), then plateaued at an average of 691 diagnoses each year from 2009 to 2014 (Figure 2).

General Statistics

- As of December 31, 2015, a cumulative total of 34,001 individuals were ever diagnosed with HIV infection and reported in Massachusetts, with or without an AIDS diagnosis.
  - 40% (N=13,729) have died and 60% (N=20,272) were living with HIV infection
  - An additional 3,814 people living with HIV infection in Massachusetts were first diagnosed in another state.¹
  - There are an estimated 22,500 – 24,500 individuals were currently living with HIV infection in the Commonwealth.

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

Data Source: MDPH HIV/AIDS Surveillance Program; Data as of 3/1/16
Who is most impacted by HIV infection?

- Among individuals recently diagnosed with HIV infection (during 2012 to 2014), male-to-male sex was the leading reported exposure mode, accounting for 45% of diagnoses, followed by people with undetermined exposure mode (reported without exposure mode information, 25%) (Figure 3).ii

- From 2005 to 2014, male-to-male sex remained the predominant exposure mode, accounting for the largest proportion of persons newly diagnosed with HIV infection each year, and increasing from 38% (N=350/913) to 46% (N=288/629) of the total.

- Among men,iii the proportion of HIV diagnoses with male-to-male sex as the exposure mode increased from 53% in 2005 to 61% in 2014, even though the absolute number of new infections attributed to MSM exposure has declined (from 350 in 2005 to 288 in 2014).

- During the same time period, the proportion of reported cases with injection drug use as the exposure mode decreased from 14% in 2005 to 4% in 2014, and the number of cases decreased by 81% (from 125 to 24).

- From 2005 to 2014, the number of men diagnosed with HIV infection decreased by 28% (from 663 to 475) while the number of women diagnosed with HIV infection decreased by 38% (from 250 to 154).

- From 2005 to 2014, the number of white (non-Hispanic) individuals diagnosed with HIV infection decreased by 42% (from 366 to 211); the number of black (non-Hispanic) individuals decreased by 32% (from 305 to 207); and the number of Hispanic/Latino individuals decreased by 19% (from 223 to 180).

- While 43% (N=649/1,510) of men diagnosed with HIV infection during 2012 to 2014 were white (non-Hispanic), 52% (N=269/517) of women diagnosed during this time period were black (non-Hispanic).

- With age-adjusted average annual rates of HIV diagnosis from 2012 to 2014 of 48.5 and 31.3 cases per 100,000 population, black (non-Hispanic) and Hispanic/Latino populations are affected by HIV/AIDS at rates ten and six times that of the white (non-Hispanic) population (4.8 per 100,000).

- With age-adjusted average annual rates of HIV diagnosis from 2012 to 2014 of 57.3 and 48.5 cases per 100,000 population, black (non-Hispanic) and Hispanic/Latina men are affected by HIV/AIDS at rates seven and six times that of white (non-Hispanic) men(8.6 per 100,000).

- With age-adjusted average annual rates of HIV diagnosis from 2012 to 2014 of 40.9 and 15.2 cases per 100,000 population, black (non-Hispanic) and Hispanic/Latina women are affected by HIV/AIDS at levels 33 and 12 times that of white (non-Hispanic) women (1.2 per 100,000).

- During 2012 to 2014, 56% of black (non-Hispanic) individuals diagnosed with HIV infection were born outside the US, compared to 41% of Hispanic/Latino individuals and 9% of white (non-Hispanic) individuals. An additional 23% percent of Hispanic/Latino individuals diagnosed with HIV infection during this time period were born in Puerto Rico or another US Dependency, compared to less than one percent of white (non-Hispanic) individuals and no black (non-Hispanic) individuals (Figure 4).
Who is currently living with HIV infection?

- Male-to-male sex and injection drug use were the leading exposure modes for HIV infection among 20,272 people living with HIV infection in Massachusetts on December 31, 2015, accounting for 38% and 18% of all exposures, respectively.

- Forty-two percent of people living with HIV infection in Massachusetts are white (non-Hispanic), 30% are black (non-Hispanic), 25% are Hispanic/Latino, 2% are Asian/Pacific Islander, and 1% are of other/undetermined race/ethnicity. By comparison, black (non-Hispanic) individuals make up 6% and Hispanic/Latino individuals 10% of the total Massachusetts population.

- Among 14,439 men living with HIV infection in Massachusetts are white (non-Hispanic), 30% are black (non-Hispanic), 25% are Hispanic/Latino, 2% are Asian/Pacific Islander, and 1% are of other/undetermined race/ethnicity. By comparison, black (non-Hispanic) individuals make up 6% and Hispanic/Latino individuals 10% of the total Massachusetts population.

- Among 5,833 women living with HIV infection, 24% are white (non-Hispanic), 23% are black (non-Hispanic) and 24% are Hispanic/Latino.

Who is being concurrently diagnosed with HIV and AIDS?

- From 2012 to 2014, 562 people had AIDS when their HIV infection was first diagnosed (or were diagnosed with AIDS within two months), representing 28% of the 2,027 diagnoses of HIV infection during this time period.

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

- In 2014, the annual number of deaths of people reported with HIV/AIDS declined to a low of 231.

- The proportion of deaths among people reported with HIV/AIDS, with an exposure mode of injection drug use, decreased from 52% (N=172/333) in 2005 to 44% (N=101/231) in 2014 while the proportion in people with an exposure mode of male-to-male sex increased from 17% (N=56/333) to 26%(N=60/231).

- From 2005 to 2014, the proportion of deaths among people reported with HIV/AIDS by race/ethnicity remained fairly stable with roughly half (45-53%) of the average number of deaths each year among white (non-Hispanic) individuals and roughly one quarter (24-29%) among black (non-Hispanic) and one fifth to one quarter (21-27%) among Hispanic/Latino individuals.

Data Sources

HIV/AIDS Case Data: Massachusetts Department of Public Health, HIV/AIDS Surveillance Program, all data as of 3/1/16

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\(^1\) 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.

\(^2\) The category of presumed heterosexual is used exclusively for women, to define HIV exposure mode in cases when sex with men is the only reported risk factor for HIV infection.

\(^3\) Please note “women” and “men” are used for stylistic reasons to describe female and male populations diagnosed with HIV infection that include a small number of girls and boys (N=24 children living with HIV infection under age 13 as of 1/1/16). Data reflect sex at birth and therefore not gender identity or gender expression of transgender individuals (N=56 transgender individuals living with HIV infection).