



Massachusetts HIV/AIDS Data Fact Sheet

Who is experiencing differential impact from HIV/AIDS?

Fast Facts

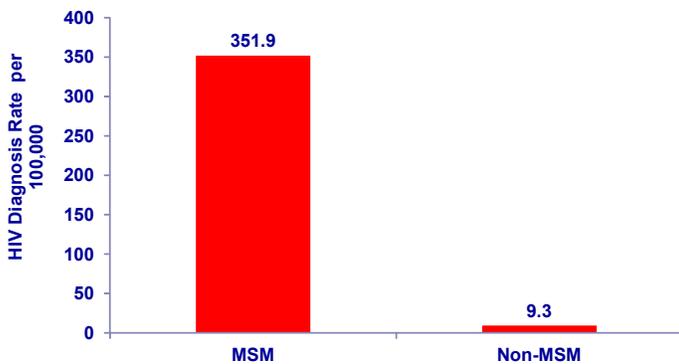
- Men who have sex with men (MSM) in Massachusetts have substantially higher rates of HIV infection than non-MSM, with a prevalence of infection 30-fold higher.
- Black and Hispanic/Latino residents are disproportionately more likely to be living with HIV infection than white non-Hispanic residents, in every region of the Commonwealth.
- The epidemiology of HIV/AIDS varies by region of the state.

Overview

HIV/AIDS does not affect all Massachusetts populations equally. One way to understand which populations are experiencing differential impact is to compare rates of HIV/AIDS prevalence (people living with HIV/AIDS) and diagnoses of HIV infection per 100,000 population.ⁱ

Estimated HIV Diagnosis Rate and Prevalence Rate among MSM

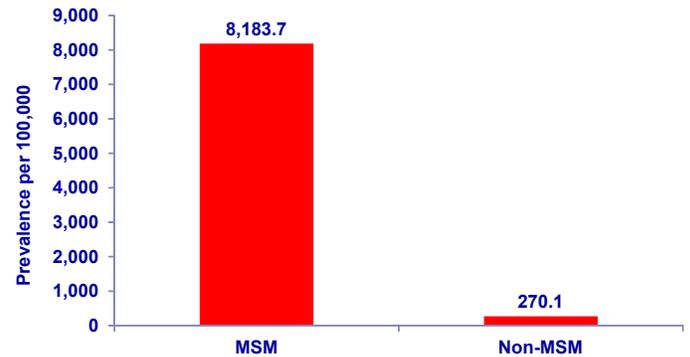
Figure 1. Estimated¹ Average Annual HIV Diagnosis Rate per 100,000 Population: MSM Compared to non-MSM (men only) Ages 18–64 Years: Massachusetts, 2011–2013



¹ Multiple source estimation method for MSM rate (BRFSS, 2010 US Census, and MDPH HIV/AIDS Surveillance Program, data as of 1/1/15)

- At 351.9 cases per 100,000 population, the estimated average annual rate of HIV diagnosis from 2011 to 2013 among MSM (ages 18–64) is 38 times the rate of infection in non-MSM men (9.3 per 100,000).ⁱⁱ Please note that men with no identified risk for HIV infection were included in the non-MSM category for rate calculations.

Figure 2. Estimated¹ HIV/AIDS Prevalence Rate per 100,000 Population: MSM Compared to non-MSM (men only) Ages 18–64 Years: Massachusetts, January 1, 2015

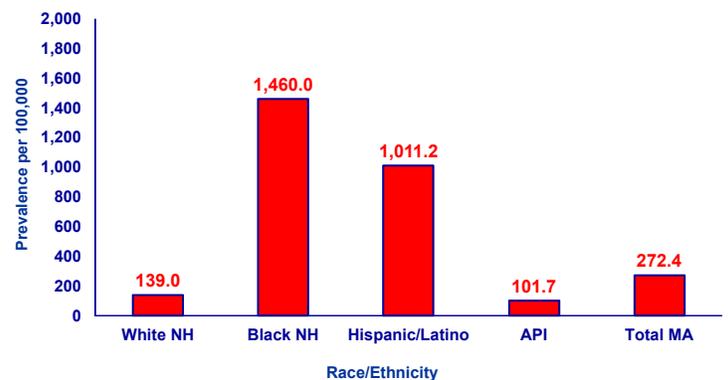


¹ Multiple source estimation method for MSM rate (BRFSS, 2010 US Census, and MDPH HIV/AIDS Surveillance Program, data as of 1/1/15)

- At 8,183.7 cases per 100,000 population, the estimated HIV/AIDS prevalence rate among MSM (ages 18–64) is 30 times the rate of non-MSM men (270.1 per 100,000).ⁱⁱ

Age-Adjusted Rate of HIV/AIDS Prevalence by Race/Ethnicity

Figure 3. Age-Adjusted HIV/AIDS Prevalence Rate per 100,000¹ Population by Race/Ethnicity: Massachusetts, 2014



¹ Population sizes 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, API = Asian/Pacific Islander; AI/AN = American Indian/Alaska Native; Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/15

- The age-adjusted HIV/AIDS prevalence rate among the black (non-Hispanic) population (1,460.0 per 100,000) is 11 times greater, and among the Hispanic/Latino population (1,011.2 per 100,000) is seven times greater than among the white (non-Hispanic) population (139.0 per 100,000).ⁱⁱⁱ





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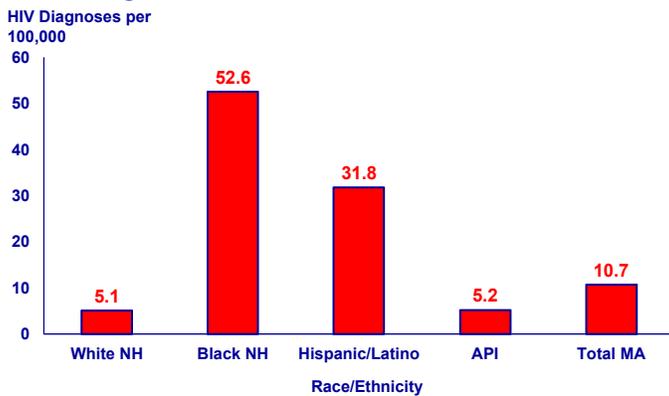
Who is experiencing differential impact from HIV/AIDS?

- When considering the differential impact of HIV/AIDS by race/ethnicity, it is important to examine country of birth. For example, 47% of black (non-Hispanic) individuals living with HIV/AIDS are non-US born as compared to 27% of Hispanic/Latino individuals and 6% of white (non-Hispanic) individuals. Forty percent of Hispanic/Latino individuals living with HIV/AIDS were born in Puerto Rico or another US dependency, compared to less than one percent of both black (non-Hispanic) and white (non-Hispanic) individuals.

Age-Adjusted Average Annual Rate of HIV Diagnosis by Race/Ethnicity, 2011–2013

- With age-adjusted average annual rates of HIV diagnosis from 2011 to 2013 of 52.6 and 31.8 cases per 100,000 population, black (non-Hispanic) and Hispanic/Latino populations are affected by HIV/AIDS at levels ten and six times that of the white (non-Hispanic) population (5.1 per 100,000).

Figure 4. Age-Adjusted Rate of HIV Infection Diagnosis per 100,000¹ Population by Race/Ethnicity: Average Annual Rate 2011–2013, Massachusetts



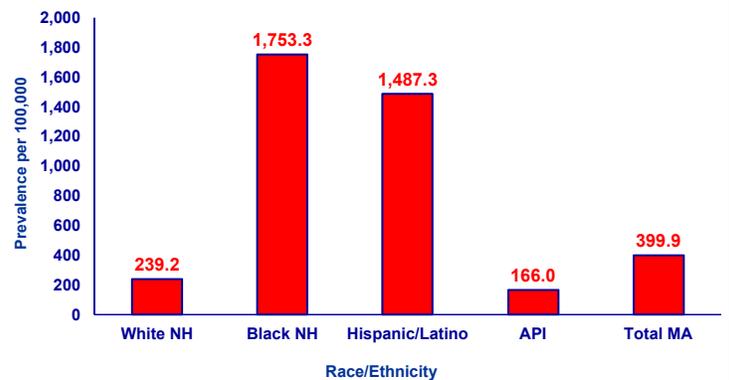
¹ Population sizes are from the Massachusetts Department of Public Health Modified Age, Race/Ethnicity, & Sex Estimates 2010; all rates are age-adjusted using the 2000 US standard population; NH= Non-Hispanic, API = Asian/Pacific Islander, AI/AN = American Indian/Alaska Native; Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/15

- As with HIV/AIDS prevalence, country of birth is a factor in these differences in new HIV diagnoses. For example, 55% of black (non-Hispanic) individuals diagnosed with HIV infection within the three-year period 2011 to 2013 are non-US born, as compared to 39% of Hispanic/Latino individuals and 9% of white (non-Hispanic) individuals. An additional 26% 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 both black (non-Hispanic) and white (non-Hispanic) individuals.

Age-Adjusted Rate of HIV/AIDS Prevalence by Race/Ethnicity Among Men^{iv}

- The age-adjusted prevalence rate of HIV/AIDS among black (non-Hispanic) men (1,753.3 per 100,000) is seven times greater and among Hispanic/Latino men (1,487.3 per 100,000) is six times greater than for white (non-Hispanic) men (239.2 per 100,000).

Figure 5. Age-Adjusted HIV/AIDS Prevalence Rate per 100,000¹ Population by Race/Ethnicity among Men: Massachusetts, 2014



¹ Population sizes 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, API = Asian/Pacific Islander, AI/AN = American Indian/Alaska Native; Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/15

Age-Adjusted Average Annual Rate of HIV Diagnosis by Race/Ethnicity Among Men, 2011–2013

- With age-adjusted average annual rates of HIV diagnosis from 2011 to 2013 of 61.6 and 48.7 cases per 100,000 population, black (non-Hispanic) and Hispanic/Latino men are being diagnosed with HIV infection at levels seven and five times that of white (non-Hispanic) men (9.0 per 100,000).



For detailed data tables and technical notes see Appendix
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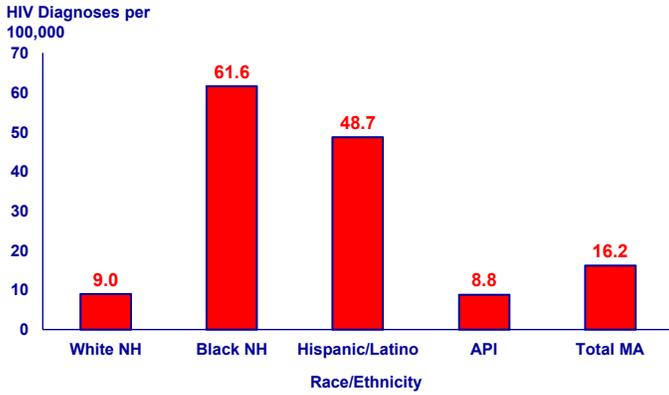




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Figure 6. Age-Adjusted Rate of HIV Infection Diagnosis per 100,000¹ Population Among Men by Race/Ethnicity: Average Annual Rate 2011–2013, Massachusetts

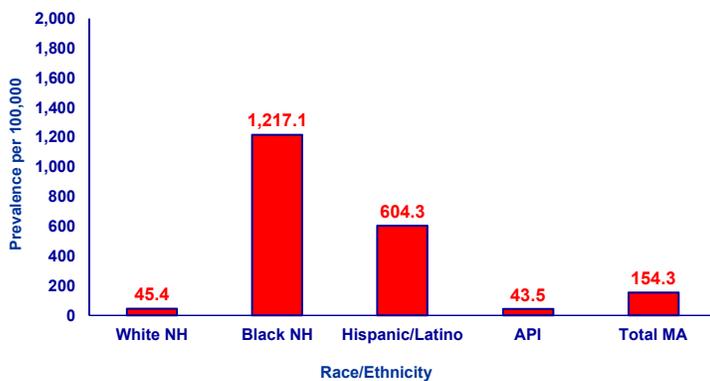


¹ Population sizes are from the Massachusetts Department of Public Health Modified Age, Race/Ethnicity, & Sex Estimates 2010; all rates are age-adjusted using the 2000 US standard population; NH= Non-Hispanic, API = Asian/Pacific Islander
Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/14

Age-Adjusted Rate of HIV/AIDS Prevalence by Race/Ethnicity Among Women

- The age-adjusted prevalence rate of HIV/AIDS among black (non-Hispanic) women (1,217.1 per 100,000) is 27 times greater, and among Hispanic/Latina women (604.3 per 100,000) is 13 times greater than for white (non-Hispanic) women (45.4 per 100,000).

Figure 7. Age-Adjusted HIV/AIDS Prevalence Rate per 100,000¹ Population by Race/Ethnicity among Women: Massachusetts, 2014

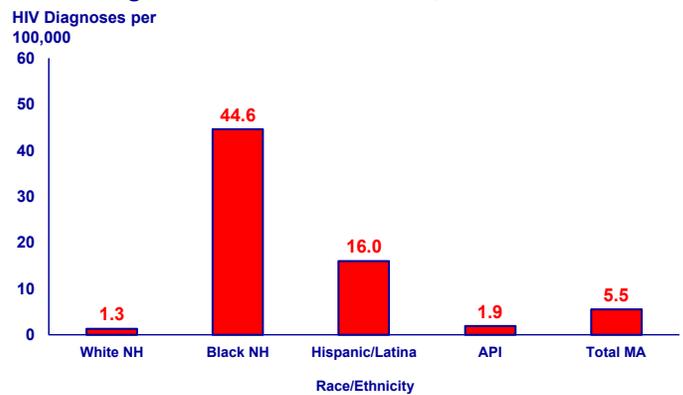


¹ Population sizes are from the Massachusetts Department of Public Health Modified Age, Race/Ethnicity, & Sex Estimates 2010; all rates are age-adjusted using the 2000 US standard population; NH= Non-Hispanic, API = Asian/Pacific Islander; AI/AN = American Indian/Alaska Native; Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/15

Age-Adjusted Average Annual Rate of HIV Diagnosis by Race/Ethnicity Among Women, 2011–2013

- With age-adjusted average annual rates of HIV diagnosis from 2011 to 2013 of 44.6 and 16.0 cases per 100,000 population, black (non-Hispanic) and Hispanic/Latina women are being diagnosed with HIV infection at levels 34 and 12 times that of white (non-Hispanic) women (1.3 per 100,000).

Figure 8. Age-Adjusted Rate of HIV Infection Diagnosis per 100,000¹ Population Among Women by Race/Ethnicity: Average Annual Rate 2011–2013, Massachusetts



¹ Population sizes 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, API = Asian/Pacific Islander; AI/AN = American Indian/Alaska Native; Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/15

Age-Adjusted Rate of HIV/AIDS Prevalence by Race/Ethnicity and Health Service Region (HSR)¹ in Massachusetts

- The Boston HSR has the highest age-adjusted prevalence rate of HIV/AIDS at 847.3 per 100,000; the comparable rate for the state is 272.4 per 100,000.
- Among regions, the highest age-adjusted prevalence rate of HIV/AIDS for the black (non-Hispanic) population is in the Northeast region at 1,609.3 per 100,000. This rate is 15 times that of the white (non-Hispanic) population in the Northeast region (109.4 per 100,000).
- Among regions, the highest age-adjusted prevalence rate of HIV/AIDS for the Hispanic/Latino population is in the Western region at 1,230.8 per 100,000. This rate is 14 times that of the white (non-Hispanic) population in the Western region (89.7 per 100,000).



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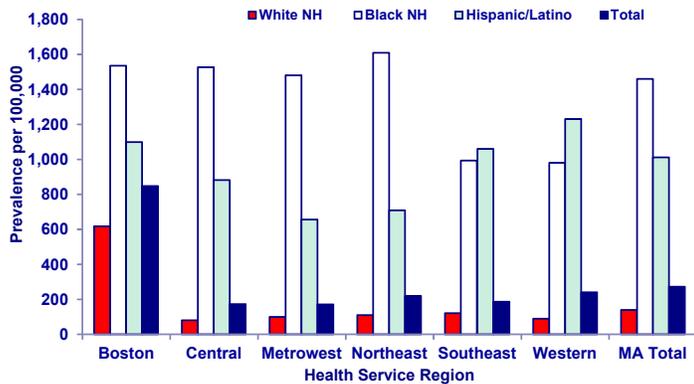




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Figure 9. Age-Adjusted HIV/AIDS Prevalence Rate per 100,000¹ Population Health Service Region¹ and Race/Ethnicity: Massachusetts, 2014



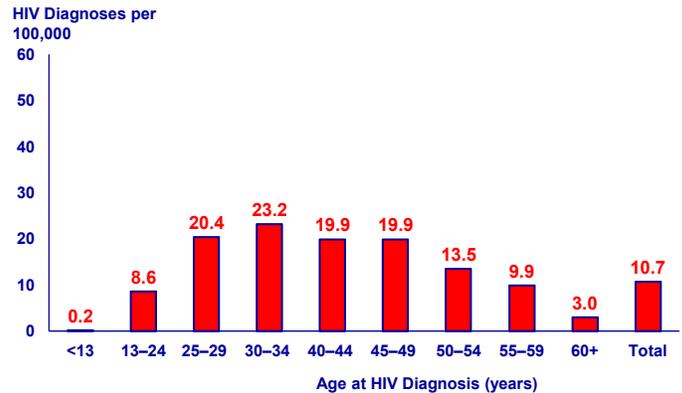
¹ Reflects the health service region of a person's residence at the time of report (not necessarily current residence)
NH= Non-Hispanic; Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/15

Age-Adjusted Average Annual Rate of HIV Diagnosis by Race/Ethnicity and Health Service Region (HSR), 2011–2013

- Among regions, the Boston HSR has the highest age-adjusted average annual rate of diagnosis of HIV infection within the three-year period 2011 to 2013 at 25.9 per 100,000; the comparable rate for the state as a whole is 10.7 per 100,000.
- Among regions, the highest age-adjusted average annual rate of HIV diagnosis for the black (non-Hispanic) population is in the Northeast HSR at 63.3 per 100,000. This rate is 13 times the rate for the white (non-Hispanic) population in the Northeast region (5.0 per 100,000).
- Among regions, the highest age-adjusted average annual rate of HIV diagnosis for the Hispanic/Latino population is in the Boston HSR at 40.6 per 100,000, followed by the Southeast HSR at 36.3. The rate for the Hispanic/Latino population is twice the rate for the white (non-Hispanic) population in the Boston region (15.9 per 100,000) and eight times the rate for the white population in the Western region (4.6 per 100,000).
- Among regions, the highest age-adjusted average annual rate of HIV diagnosis for the white (non-Hispanic) population is in the Boston HSR at 15.9 per 100,000.

Average Annual Rate of HIV Diagnosis by Age at Diagnosis, 2011–2013

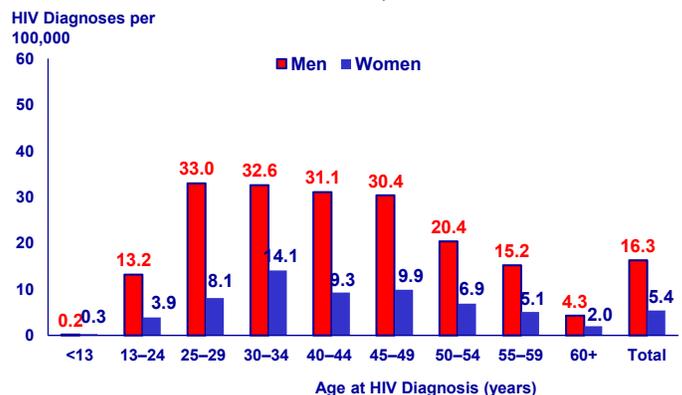
Figure 10. Rate of HIV Infection Diagnosis per 100,000¹ Population by Age at Diagnosis: Average Annual Rate 2011–2013, Massachusetts



¹ Population sizes are from the 2010 Census; all rates are age-adjusted using the 2000 US standard population
Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/15

- Persons aged 30 to 34 years (23.2 per 100,000) and 25 to 29 years (20.4 per 100,000) accounted for the highest average annual rates of HIV infection diagnosis from 2011 to 2013; whereas persons aged less than 13 (0.2 per 100,000) and 60 years or older (3.0 per 100,000) accounted for the lowest rates.

Figure 11. Rate of HIV Infection Diagnosis per 100,000¹ Population by Sex at Birth and Age at Diagnosis: Average Annual Rate 2011–2013, Massachusetts



¹ Population sizes are from the 2010 Census; all rates are age-adjusted using the 2000 US standard population
Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/15



For detailed data tables and technical notes see Appendix
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- Persons aged 30 to 34 years (23.2 per 100,000) and 25 to 29 years (20.4 per 100,000) accounted for the highest average annual rates of HIV infection diagnosis from 2011 to 2013; whereas persons aged less than 13 (0.2 per 100,000) and 60 years or older (3.0 per 100,000) accounted for the lowest rates.

Data Sources

HIV/AIDS Case Data: Massachusetts Department of Public Health, HIV/AIDS Surveillance Program; All Data as of 1/1/15

ⁱ See detailed data tables and technical notes for this fact sheet for a full description of age-adjustment and sample calculations.

ⁱⁱ Size of the MSM population for rate calculations was estimated by applying the average proportion of men, ages 18-64 years, reporting same-sex partner (or opposite and same-sex partner) on the 2012 and 2013 Massachusetts BRFSS (4.4%) to the number of 18-64 year old men in Massachusetts as reported in the 2010 Census (2,064,804). See detailed data tables and technical notes for detailed calculations.

ⁱⁱⁱ 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.

^{iv} 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=23 children living with HIV/AIDS under age 13 as of 1/1/15).

^v Reflects the health service region of a person’s residence at the time of report (not necessarily current residence). HSRs are regions defined geographically to facilitate targeted health service planning. See Epidemiologic Profile General Appendices, Health Service Region Maps, available at <http://www.mass.gov/eohhs/docs/dph/aids/2006-profiles/app-hrs-maps.pdf> for configuration of health service regions.



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