

Massachusetts HIV/AIDS Data Fact Sheet

Who is experiencing differential impact from HIV/AIDS?

Introduction

HIV/AIDS does not affect all Massachusetts populations equally. One way to reveal which groups are experiencing differential impact is to compare rates of HIV/AIDS per 100,000 population as prevalence (people living with HIV/AIDS) and diagnoses of HIV infection. These rates are age-adjusted to make comparison across groups more valid as the distribution of age in various populations differ.ⁱ

As of December 31, 2010, the age-adjusted prevalence rate of HIV/AIDS varies substantially by race/ethnicity. The age-adjusted prevalence rate among the black (non-Hispanic) population (1,424.3 per 100,000) is ten times greater, and among the Hispanic/Latino population (1,089.5 per 100,000) is eight times greater than among the white (non-Hispanic) population (136.1 per 100,000).ⁱⁱ Similarly, in recent years, the black (non-Hispanic) and Hispanic/Latino populations have been diagnosed with HIV infection at higher rates than the white (non-Hispanic) population. The age-adjusted average annual rate of HIV diagnosis from 2007 to 2009 among the black (non-Hispanic) population (52.1 per 100,000) is 11 times greater, and among the Hispanic/Latino population (29.5 per 100,000) is six times greater than for the white (non-Hispanic) population (4.7 per 100,000).

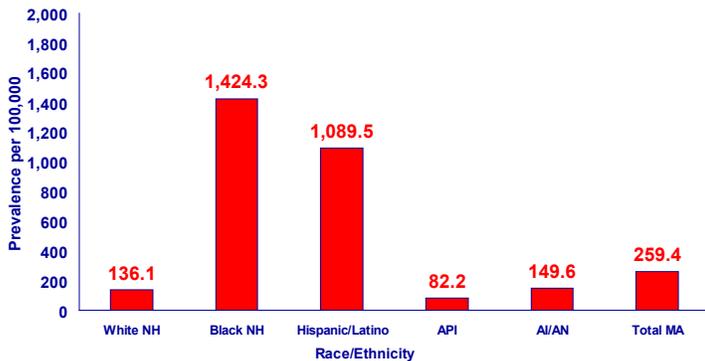
Age-Adjusted Rate of HIV/AIDS Prevalence by Race/Ethnicity:

- On December 31, 2010, 259 out of every 100,000 people in Massachusetts were living with HIV/AIDS (age-adjusted).ⁱⁱⁱ
- The age-adjusted prevalence rate of HIV/AIDS among the black (non-Hispanic) population (1,424.3 per 100,000) is ten times greater, and among the Hispanic/Latino population (1,089.5 per 100,000) is eight times greater than for the white (non-Hispanic) population (136.1 per 100,000).
- When looking at the differential impact of HIV/AIDS by race/ethnicity, it is important to consider place of birth. For example, 44% of black (non-Hispanic) individuals living with HIV/AIDS are non-US born as compared to 23% of Hispanic/Latino individuals and 6% of white (non-Hispanic) individuals. Non-US born black (non-Hispanic) individuals living with HIV/AIDS are primarily from Sub-Saharan Africa and the Caribbean Basin; the majority of non-US born Hispanic/Latino individuals living with HIV/AIDS are from Central and South America and the Caribbean. Non-US born white (non-Hispanic) individuals living with HIV/AIDS are primarily from North America and Europe.

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

- On December 31, 2010, 378 out of every 100,000 males in Massachusetts were living with HIV/AIDS (age-adjusted).
- The age-adjusted prevalence rate of HIV/AIDS among black (non-Hispanic) males (1,747.2 per 100,000) is eight times greater and among Hispanic/Latino males (1,560.8 per 100,000) is seven times greater than for white (non-Hispanic) males (229.9 per 100,000).

Figure 1. Age-Adjusted HIV/AIDS Prevalence Rate per 100,000¹ Population by Race/Ethnicity: Massachusetts, 2010



¹ Population sizes are from the MDPH Modified Age, Race/Ethnicity, & Sex Estimates 2005; 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 1/1/11



For detailed data tables and technical notes see Appendix
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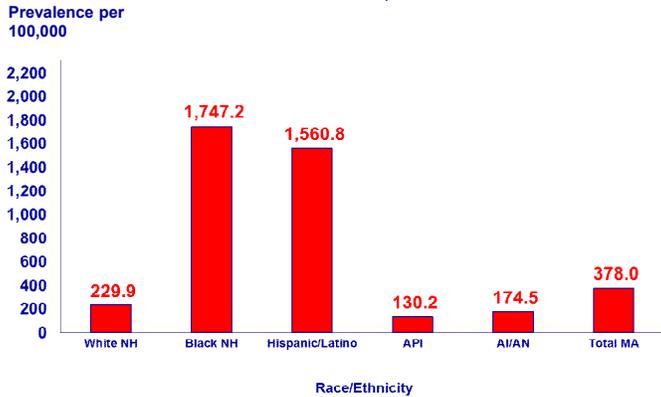




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Figure 2. Age-Adjusted HIV/AIDS Prevalence Rate Among Males per 100,000¹ Population by Race/Ethnicity: Massachusetts, 2010

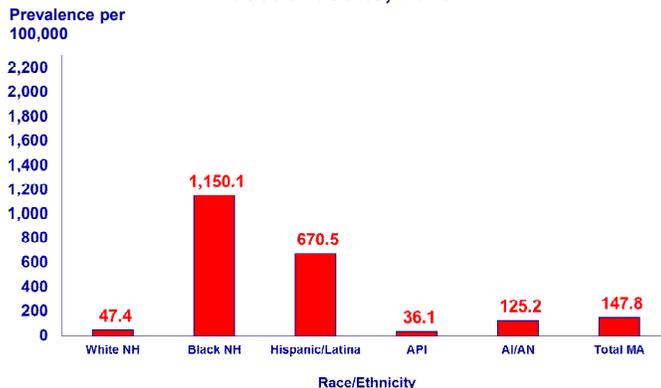


¹ Population sizes are from the MDPH Modified Age, Race/Ethnicity, & Sex Estimates 2005; all rates are age-adjusted using the 2000 US standard population; NH= Non-Hispanic, API = Asian/Pacific Islander; AI/AN = American Indian/Alaska Native; Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/11

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

- On December 31, 2010, 148 out of every 100,000 females in Massachusetts were living with HIV/AIDS (age-adjusted).
- The age-adjusted prevalence rate of HIV/AIDS among black (non-Hispanic) females (1,150.1 per 100,000) is 24 times greater, and among Hispanic/Latina females (670.5 per 100,000) is 14 times greater than for white (non-Hispanic) females (47.4 per 100,000).

Figure 3. Age-Adjusted HIV/AIDS Prevalence Rate Among Females per 100,000¹ Population by Race/Ethnicity: Massachusetts, 2010



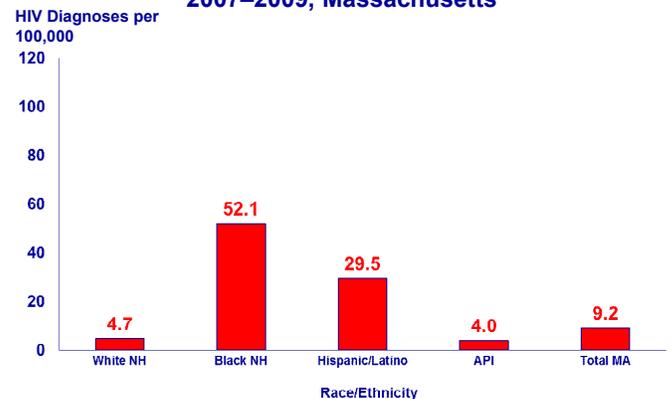
¹ Population sizes are from the MDPH Modified Age, Race/Ethnicity, & Sex Estimates 2005; all rates are age-adjusted using the 2000 US standard population; NH= Non-Hispanic, API = Asian/Pacific Islander; AI/AN = American Indian/Alaska Native; Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/11

Age-Adjusted Rate of HIV/AIDS Prevalence by Race/Ethnicity and Health Service Region (HSR)^{iv} in Massachusetts:

- The Boston HSR has the highest age-adjusted prevalence rate of HIV/AIDS at 831.0 per 100,000; the comparable rate for the state as a whole is 259.4 per 100,000.
- In each region, the age-adjusted prevalence rate of HIV/AIDS among the black (non-Hispanic) population and the Hispanic/Latino population is higher than among the white (non-Hispanic) population.
- Among regions, the highest age-adjusted prevalence rate of HIV/AIDS for the black (non-Hispanic) population is in the Northeast region at 1,667.5 per 100,000. This rate is 16 times that of the white (non-Hispanic) population in the Northeast region (102.4 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 1419.7 per 100,000. This rate is 17 times that of the white (non-Hispanic) population in the Western region (84.9 per 100,000).

Age-Adjusted Average Annual Rate of HIV Diagnosis by Race/Ethnicity, 2007–2009:

Figure 4. Age-Adjusted Rate of HIV Diagnosis per 100,000¹ Population by Race/Ethnicity: Average Annual Rate 2007–2009, Massachusetts



¹ Population sizes are from the MDPH Modified Age, Race/Ethnicity, & Sex Estimates 2005; all rates are age-adjusted using the 2000 US standard population; NH= Non-Hispanic, API = Asian/Pacific Islander; Note: American Indian/Alaska Native not presented due to small numbers Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/11

- An average of nine out of every 100,000 people in Massachusetts were diagnosed with HIV infection each year within the three-year period 2007 to 2009 (age-adjusted).



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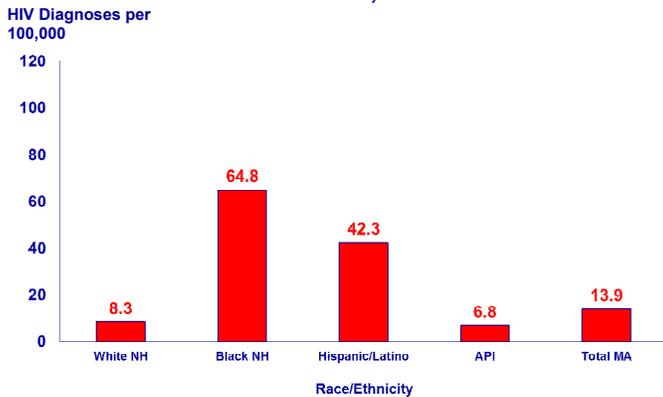
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- The age-adjusted average annual rate of HIV diagnosis within the three-year period 2007 to 2009 among the black (non-Hispanic) population (52.1 per 100,000) is 11 times greater, and among the Hispanic/Latino population (29.5 per 100,000) is six times greater than for the white (non-Hispanic) population (4.7 per 100,000).
- As with HIV/AIDS prevalence, place of birth may be a factor in these differences in new HIV diagnoses. For example, 54% of black (non-Hispanic) individuals diagnosed with HIV infection within the three-year period 2007 to 2009 are non-US born as compared to 34% of Hispanic/Latino individuals and 8% of white (non-Hispanic) individuals. The majority of non-US born black (non-Hispanic) individuals diagnosed with HIV infection within the three-year period 2007 to 2009 are from Sub-Saharan Africa and the Caribbean; the majority of non-US born Hispanic/Latino individuals are from Central and South America and the Caribbean. The majority of white (non-Hispanic) individuals are from Central and South America, North America and Europe.

Age-Adjusted Average Annual Rate of HIV Diagnosis by Race/Ethnicity Among Males, 2007–2009:

Figure 5. Age-Adjusted Rate of HIV Diagnosis per 100,000¹ Population Among Males by Race/Ethnicity: Average Annual Rate 2007–2009, Massachusetts



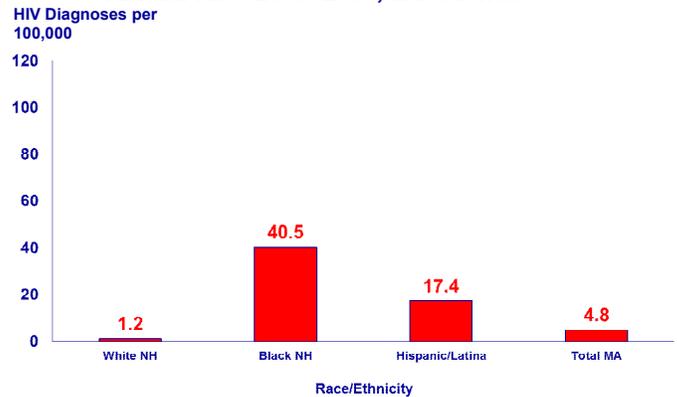
¹ Population sizes are from the MDPH Modified Age, Race/Ethnicity, & Sex Estimates 2005; all rates are age-adjusted using the 2000 US standard population; NH= Non-Hispanic, API = Asian/Pacific Islander; Note: American Indian/Alaska Native not presented due to small numbers Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/11

- An average of 14 out of every 100,000 males in Massachusetts were diagnosed with HIV infection each year within the three-year period 2007 to 2009 (age-adjusted).

- The age-adjusted average annual rate of HIV diagnosis within the three-year period 2007 to 2009 among black (non-Hispanic) males (64.8 per 100,000) is eight times greater, and among Hispanic/Latino males (42.3 per 100,000) is five times greater than for white (non-Hispanic) males (8.3 per 100,000).

Age-Adjusted Average Annual Rate of HIV Diagnosis by Race/Ethnicity Among Females, 2007–2009:

Figure 6. Age-Adjusted Rate of HIV Diagnosis per 100,000¹ Population Among Females by Race/Ethnicity: Average Annual Rate 2007–2009, Massachusetts



¹ Population sizes are from the MDPH Modified Age, Race/Ethnicity, & Sex Estimates 2005; all rates are age-adjusted using the 2000 US standard population; NH= Non-Hispanic, API = Asian/Pacific Islander; Note: American Indian/Alaska Native and Asian/Pacific Islander are not presented due to small numbers; Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/11

- An average of five out of every 100,000 females living in Massachusetts was diagnosed with HIV infection each year within the three-year period 2007 to 2009 (age-adjusted).
- The age-adjusted average annual rate of HIV diagnosis within the three-year period 2007 to 2009 among black (non-Hispanic) females (40.5 per 100,000) is 34 times greater, and among Hispanic/Latina females (17.4 per 100,000) is 15 times greater than for white (non-Hispanic) females (1.2 per 100,000).

Age-Adjusted Average Annual Rate of HIV Diagnosis by Race/Ethnicity and Health Service Region (HSR), 2007–2009:

- Among regions, the Boston HSR has the highest age-adjusted average annual rate of diagnosis of HIV infection within the three-year period 2007 to 2009 at 24.1 per 100,000.



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- In each region, the age-adjusted average annual rate of HIV diagnosis among the black (non-Hispanic) and Hispanic/Latino populations is higher than among the white (non-Hispanic) population.
- Among regions, the highest age-adjusted average annual rate of HIV diagnosis for the black (non-Hispanic) population is in the Northeast HSR at 75.7 per 100,000. This rate is 24 times the rate for the white (non-Hispanic) population in the Northeast region (3.1 per 100,000).
- Among regions, the highest age-adjusted average annual rate of HIV diagnosis for the Hispanic/Latino population is in the Southeast HSR at 40.7 per 100,000. This rate is nine times the rate for the white (non-Hispanic) population in the Southeast region (4.4 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 17.1 per 100,000.

Data Sources

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

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

ⁱⁱ Age-adjusted relative rate comparisons are lower than in previous years due to the use of updated population denominators (MDPH Modified Age, Race/Ethnicity, & Sex Estimates 2005).

ⁱⁱⁱ 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 while residing 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 currently reside and receive care in the Commonwealth. The total number of persons living in Massachusetts 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.

^{iv} 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/dph/aids/research/profile2005/app5_hrs_maps.pdf for configuration of health service regions. Reflects the health service region of a person's residence at the time of report (not necessarily current residence).



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