



# Massachusetts HIV/AIDS Data Fact Sheet

## Who is experiencing differential impact from HIV/AIDS?

### Fast Facts

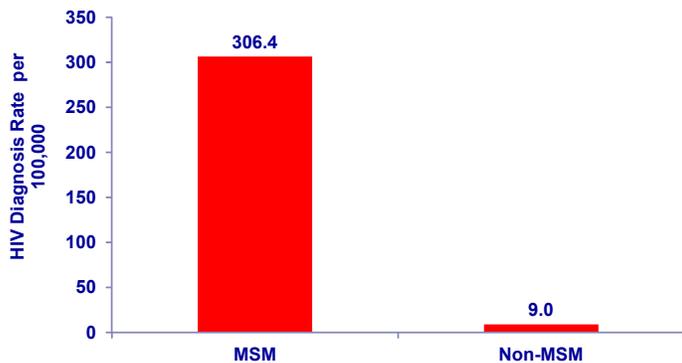
- Men who have sex with men (MSM) in Massachusetts have substantially higher rates of HIV infection than non-MSM, and are the most disproportionately impacted population in the state.
- Black and Hispanic/Latino residents are disproportionately more likely to be living with and diagnosed with HIV infection 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 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.<sup>i</sup>

### Estimated HIV Diagnosis Rate and Prevalence Rate among MSM:

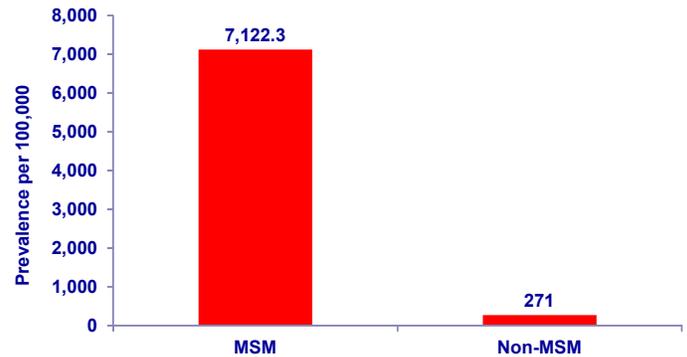
**Figure 1. Estimated<sup>1</sup> Average Annual HIV Diagnosis Rate per 100,000 Population: MSM Compared to non-MSM (men only) Ages 18–64 Years: Massachusetts, 2010–2012**



<sup>1</sup> Multiple source estimation method for MSM rate (BRFSS, US Census)  
NH= Non-Hispanic, Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/14

- At 306.4 cases per 100,000 population, the estimated average annual rate of HIV diagnosis from 2010 to 2012 among MSM (ages 18-64) is 34 times the rate of infection in non-MSM men (9.0 per 100,000).<sup>ii</sup>

**Figure 2. Estimated<sup>1</sup> HIV/AIDS Prevalence Rate per 100,000 Population: MSM Compared to non-MSM (men only) Ages 18–64 Years: Massachusetts, January 1, 2014**

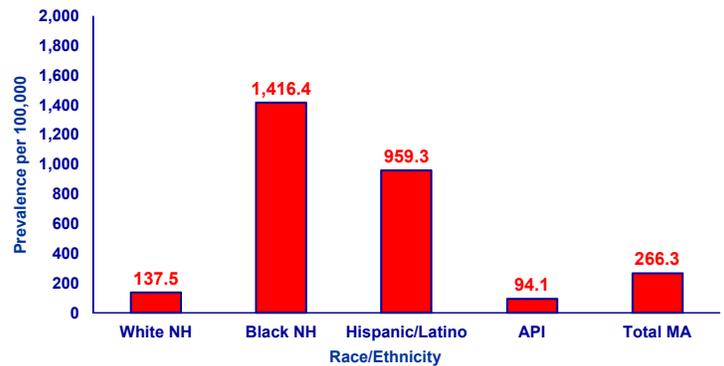


<sup>1</sup> Multiple source estimation method for MSM rate (BRFSS, 2010 US Census)  
NH= Non-Hispanic, Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/14

- At 7,122.3 cases per 100,000 population, the estimated HIV/AIDS prevalence rate among MSM (ages 18-64) is 26 times the rate of non-MSM men (271.4 per 100,000).<sup>ii</sup>

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

**Figure 3. Age-Adjusted HIV/AIDS Prevalence Rate per 100,000<sup>1</sup> Population by Race/Ethnicity: Massachusetts, 2013**



<sup>1</sup> 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

- The age-adjusted HIV/AIDS prevalence rate among the black (non-Hispanic) population (1,416.4 per 100,000) is ten times greater, and among the Hispanic/Latino population (959.3 per 100,000) is seven times greater than among the white (non-Hispanic) population (137.5 per 100,000).<sup>iii</sup>





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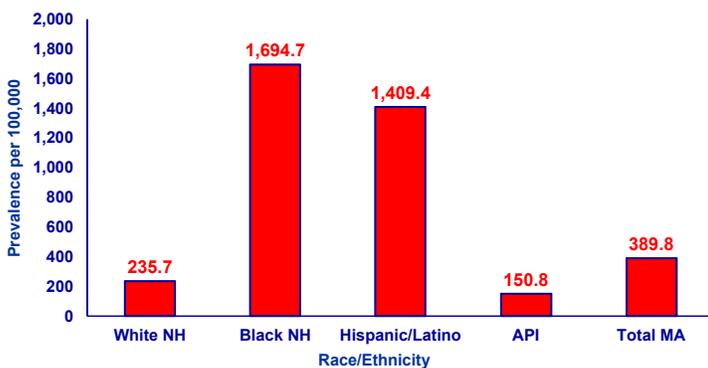
## Who is experiencing differential impact from HIV/AIDS?

- When looking at the differential impact of HIV/AIDS by race/ethnicity, it is important to consider place of birth. For example, 46% 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. An additional 41% 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.
- 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 Basin. 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 Men<sup>iv</sup>:

- The age-adjusted prevalence rate of HIV/AIDS among black (non-Hispanic) men (1,694.7 per 100,000) is seven times greater and among Hispanic/Latino men (1,490.4 per 100,000) is six times greater than for white (non-Hispanic) men (235.7 per 100,000).

**Figure 4. Age-Adjusted HIV/AIDS Prevalence Rate per 100,000<sup>1</sup> Population by Race/Ethnicity among Men: Massachusetts, 2013**

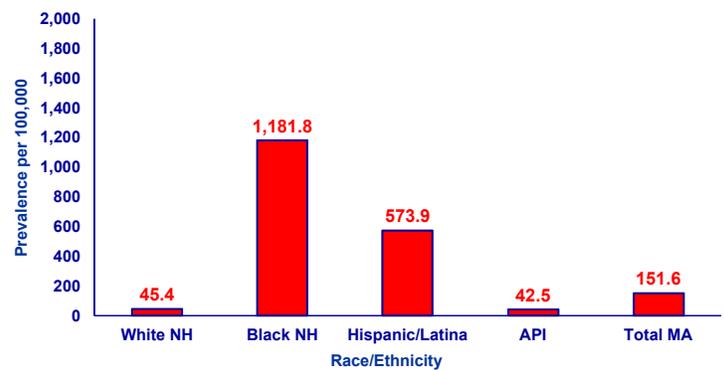


<sup>1</sup> Population sizes are from the Massachusetts Department of Public Health Modified Age, Race/Ethnicity, & Sex Estimates 2010; all rates are age-adjusted using the 2000 US standard population; NH= Non-Hispanic, API = Asian/Pacific Islander  
Data Source: MDPH HIV/AIDS Surveillance Program, 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 (1,181.8 per 100,000) is 26 times greater, and among Hispanic/Latina women (573.9 per 100,000) is 13 times greater than for white (non-Hispanic) women (45.4 per 100,000).

**Figure 5. Age-Adjusted HIV/AIDS Prevalence Rate per 100,000<sup>1</sup> Population by Race/Ethnicity among Women: Massachusetts, 2013**

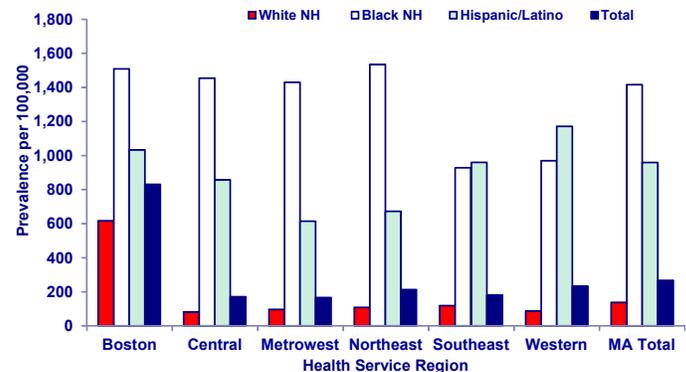


<sup>1</sup> Population sizes are from the Massachusetts Department of Public Health Modified Age, Race/Ethnicity, & Sex Estimates 2010; all rates are age-adjusted using the 2000 US standard population; NH= Non-Hispanic, API = Asian/Pacific Islander  
Data Source: MDPH HIV/AIDS Surveillance Program,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

### Age-Adjusted Rate of HIV/AIDS Prevalence by Race/Ethnicity and Health Service Region (HSR)<sup>v</sup> in Massachusetts:

- The Boston HSR has the highest age-adjusted prevalence rate of HIV/AIDS at 830.8 per 100,000; the comparable rate for the state is 266.3 per 100,000.

**Figure 6. Age-Adjusted HIV/AIDS Prevalence Rate per 100,000<sup>1</sup> Population Health Service Region<sup>1</sup> and Race/Ethnicity: Massachusetts, 2013**



<sup>1</sup> 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 1/1/14



For detailed data tables and technical notes see Appendix  
 Massachusetts Department of Public Health Office of HIV/AIDS  
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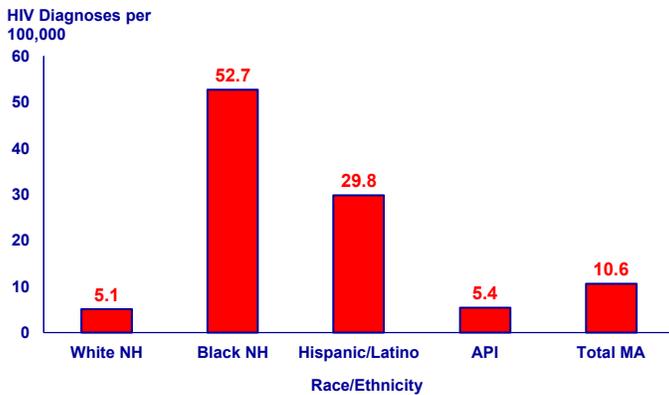
## Who is experiencing differential impact from HIV/AIDS?

- Among regions, the highest age-adjusted prevalence rate of HIV/AIDS for the black (non-Hispanic) population is in the Northeast region at 1,534.6 per 100,000. This rate is 14 times that of the white (non-Hispanic) population in the Northeast region (108.4 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 1,171.1 per 100,000. This rate is 14 times that of the white (non-Hispanic) population in the Western region (86.4 per 100,000).

### Age-Adjusted Average Annual Rate of HIV Diagnosis by Race/Ethnicity, 2010–2012:

- With age-adjusted average annual rates of HIV diagnosis from 2010 to 2012 of 52.7 and 29.8 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 7. Age-Adjusted Rate of HIV Infection Diagnosis per 100,000<sup>1</sup> Population by Race/Ethnicity: Average Annual Rate 2010–2012, Massachusetts**



<sup>1</sup> 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

- As with HIV/AIDS prevalence, place 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 2010 to 2012 are non-US born, as compared to 39% of Hispanic/Latino individuals and 8% of white (non-Hispanic) individuals. An additional 27% 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

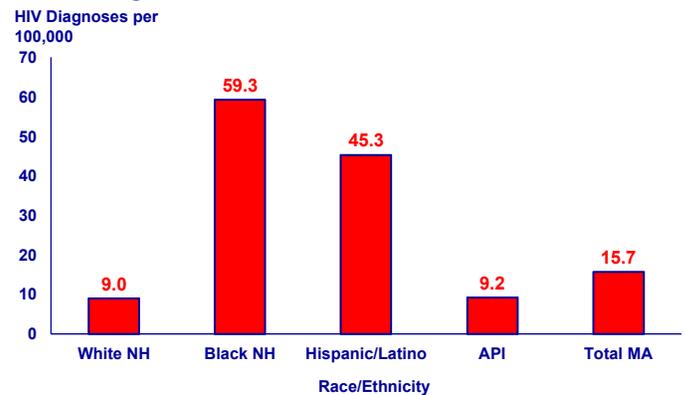
black (non-Hispanic) and white (non-Hispanic) individuals.

- The majority of non-US born black (non-Hispanic) individuals diagnosed with HIV infection within the three-year period 2010 to 2012 were from sub-Saharan Africa, and the Caribbean; the majority of non-US born Hispanic/Latino individuals were from Central and South America, and the Caribbean. The majority of non-US born white (non-Hispanic) individuals were from Central and South America, North America, and Europe.

### Age-Adjusted Average Annual Rate of HIV Diagnosis by Race/Ethnicity Among Men, 2010–2012:

- With age-adjusted average annual rates of HIV diagnosis from 2010 to 2012 of 59.3 and 45.3 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).

**Figure 8. Age-Adjusted Rate of HIV Infection Diagnosis per 100,000<sup>1</sup> Population Among Men by Race/Ethnicity: Average Annual Rate 2010–2012, Massachusetts**



<sup>1</sup> 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 Average Annual Rate of HIV Diagnosis by Race/Ethnicity Among Women, 2010–2012:

- With age-adjusted average annual rates of HIV diagnosis from 2010 to 2012 of 46.5 and 15.4 cases per 100,000 population, black (non-Hispanic) and Hispanic/Latina women are being diagnosed with HIV infection at levels 33 and 11 times that of white (non-Hispanic) women (1.4 per 100,000).



For detailed data tables and technical notes see Appendix  
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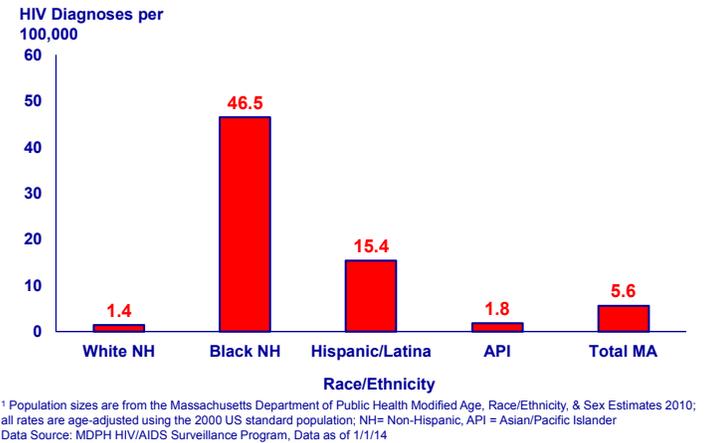




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## Who is experiencing differential impact from HIV/AIDS?

**Figure 9. Age-Adjusted Rate of HIV Infection Diagnosis per 100,000<sup>1</sup> Population Among Women by Race/Ethnicity: Average Annual Rate 2010–2012, Massachusetts**

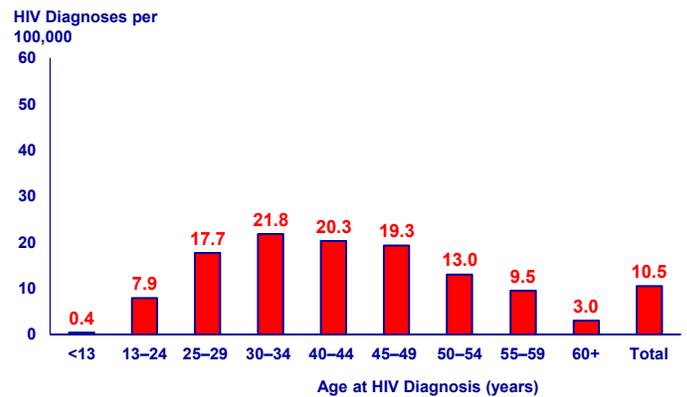


### Age-Adjusted Average Annual Rate of HIV Diagnosis by Race/Ethnicity and Health Service Region (HSR), 2010–2012:

- Among regions, the Boston HSR has the highest age-adjusted average annual rate of diagnosis of HIV infection within the three-year period 2010 to 2012 at 26.2 per 100,000; the comparable rate for the state as a whole is 10.6 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 64.1 per 100,000. This rate is 14 times the rate for the white (non-Hispanic) population in the Northeast region (4.6 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 36.1 per 100,000, followed by the Western HSR at 33.1. The rate for the Hispanic/Latino population is twice the rate for the white (non-Hispanic) population in the Boston region (16.8 per 100,000) and seven times the rate for the white population in the Western region (4.5 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 16.8 per 100,000.

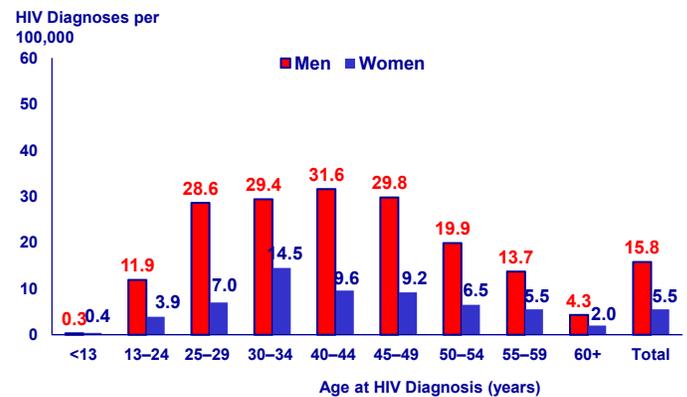
### Average Annual Rate of HIV Diagnosis by Age at Diagnosis, 2010–2012:

**Figure 10. Rate of HIV Infection Diagnosis per 100,000<sup>1</sup> Population by Age at Diagnosis: Average Annual Rate 2010–2012, Massachusetts**



- Persons aged 30 to 34 years (21.8 per 100,000) and 40 to 44 years (20.3 per 100,000) accounted for the highest average annual rates of HIV infection diagnosis from 2010 to 2012; whereas persons aged less than 13 (0.4 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 100,000<sup>1</sup> Population by Sex at Birth and Age at Diagnosis: Average Annual Rate 2010–2012, Massachusetts**



- The 40 to 44 year age group accounted for the highest average annual rate of HIV infection diagnosis among men while the 30 to 34 year age group accounted for the highest average annual rate among women.



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### Data Source

HIV/AIDS Case Data: Massachusetts Department of Public Health, HIV/AIDS Surveillance Program; All Data as of 1/1/14

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

<sup>ii</sup> Denominators for MSM rate calculations were estimated by applying the average proportion of men, ages 18-64 years, reporting same-sex partner (or opposite and same-sex partner) on the 2011 and 2012 Massachusetts BRFSS (4.9%) 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.

<sup>iii</sup> 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.

<sup>iv</sup> 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=26 children living with HIV/AIDS under age 13 as of 1/1/14).

<sup>v</sup> 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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