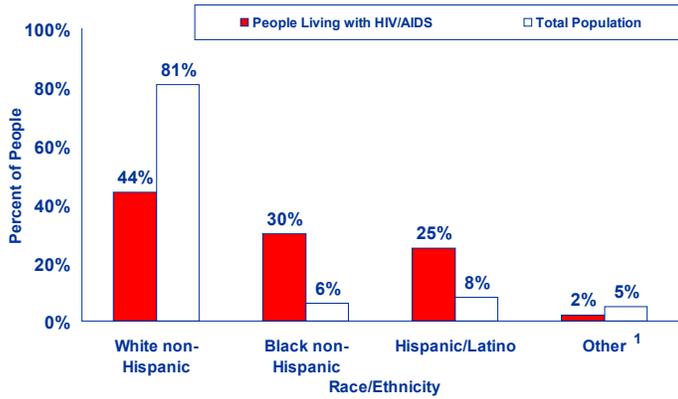




Introduction

Figure 1. Percentage of People Living with HIV/AIDS and Total Population by Race/Ethnicity: Massachusetts, 2011



¹ Other include Asian/Pacific Islander and American Indian/Alaska Native
Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/12; Massachusetts Department of Public Health Modified Age, Race/Ethnicity, & Sex Estimates 2005

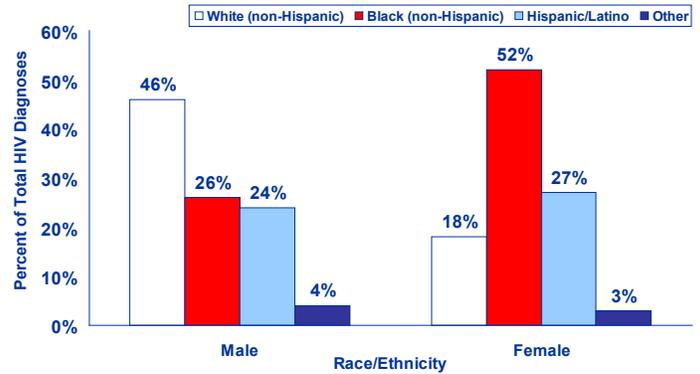
Communities of color have been disproportionately affected by HIV/AIDS in Massachusettsⁱ since the beginning of the epidemic. While only 6% of the Massachusetts population are black (non-Hispanic) and another 8% are Hispanic/Latino, 30% of people living with HIV/AIDS in Massachusetts are black (non-Hispanic), and 25% are Hispanic/Latino. Among individuals diagnosed with HIV infection within the years 2008 to 2010, 33% were black (non-Hispanic) and 25% were Hispanic/Latino. People of color are affected by HIV/AIDS at levels disproportionate to their representation in the population at all disease stages, from detection of HIV infection to an AIDS diagnosis, as well as in mortality.

Evidence of Disparity:

- Six percent of males in Massachusetts are black (non-Hispanic) compared to 24% of males living with HIV/AIDS, and 26% of those recently diagnosed with HIV infection.
- Eight percent of all Massachusetts males are Hispanic/Latino compared to 23% of males living with HIV/AIDS, and 24% of those recently diagnosed with HIV infection.
- Six percent of females in Massachusetts are black (non-Hispanic) compared to 44% of females living with HIV/AIDS, and 52% of those recently diagnosed with HIV infection.

- Eight percent of females in Massachusetts are Hispanic/Latina compared to 28% of females living with HIV/AIDS, and 27% of those recently diagnosed with HIV infection.

Figure 2. People Diagnosed with HIV Infection Within the Years 2008–2010 by Gender and Race/Ethnicity: Massachusetts

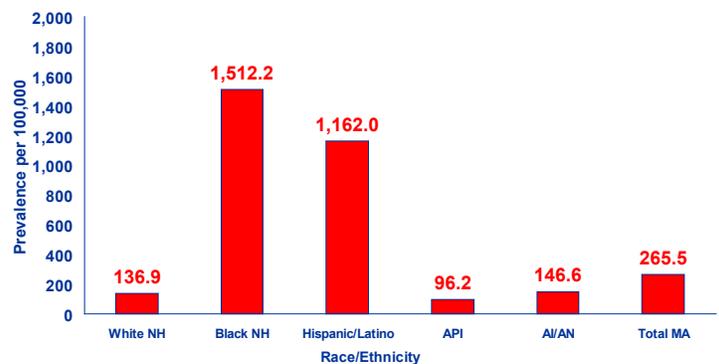


Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/12

Age-adjusted rates: Age-adjusted rates allow for direct comparison of disease impact among racial/ethnic populations of different sizes and age distribution.ⁱⁱ

- The age-adjusted prevalence rate of HIV/AIDS among the black (non-Hispanic) population (1,512.2 per 100,000) is 11 times greater, and among the Hispanic/Latino population (1,162.0 per 100,000) is eight times greater than that among the white (non-Hispanic) population (136.9 per 100,000).

Figure 3. Age-Adjusted HIV/AIDS Prevalence Rate per 100,000¹ Population by Race/Ethnicity: Massachusetts, 2011



¹ Population sizes are from the Massachusetts Department of Public Health 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 1/1/12



For detailed data tables and technical notes see Appendix
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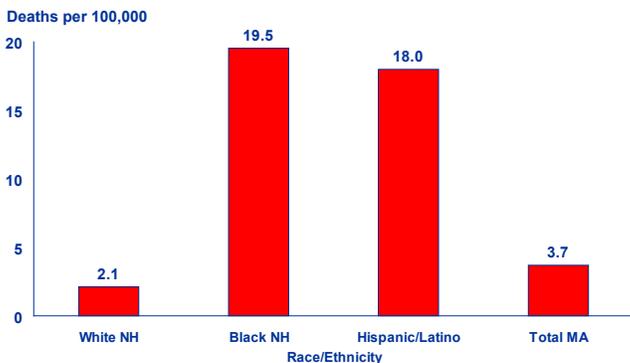
Communities of Color



- Similarly, the age-adjusted average annual rate of HIV diagnosis from 2008 to 2010 among the black (non-Hispanic) population (57.7 per 100,000) is 12 times greater, and among the Hispanic/Latino population (35.0 per 100,000) is seven times greater than that among the white (non-Hispanic) population (4.8 per 100,000).
- Among females, the level of disparity is more pronounced: the age-adjusted prevalence of HIV/AIDS among black (non-Hispanic) females (1,226.1 per 100,000) is 26 times greater, and among Hispanic/Latina females (718.9 per 100,000) is 15 times greater than that among white (non-Hispanic) females (46.9 per 100,000).
- Similarly, the age-adjusted average annual rate of HIV diagnosis from 2008 to 2010 among black (non-Hispanic) females (48.0 per 100,000) is 40 times greater, and among Hispanic/Latina females (21.0 per 100,000) is 18 times greater than for white (non-Hispanic) females (1.2 per 100,000).

Age-adjusted rates of death: The disparate impact experienced by non-Hispanic black and Hispanic/Latino populations, as evidenced by their age-adjusted HIV/AIDS prevalence and rates of HIV infection diagnosis, is mirrored in the age-adjusted rates of death. However, while persons of color are diagnosed with HIV/AIDS at higher rates in Massachusetts, after diagnosis, the average survival time does not appear to vary with race/ethnicity. This is likely due to widespread availability and utilization of medical care and highly active antiretroviral therapy (HAART) in the Commonwealth.

Figure 4. Age-Adjusted Rate of Death per 100,000 Population Among People Reported with HIV/AIDS by Race/Ethnicity: Massachusetts, Average Annual Rate 2008–2010



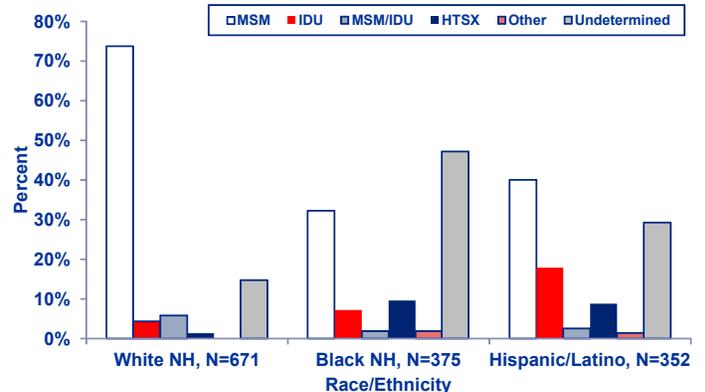
¹ Population sizes are from the Massachusetts Department of Public Health Modified Age, Race/Ethnicity, & Sex Estimates 2005; all rates are age-adjusted using the 2000 US standard population; NH= Non-Hispanic, API = Asian/Pacific Islander; AI/AN = American Indian/Alaska Native; Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/12

- The age-adjusted average annual rate of death within the three-year period 2008 to 2010 among both the black (non-Hispanic) and Hispanic population reported with HIV/AIDS (19.5 per 100,000 and 18.0 per 100,000, respectively) is nine times greater than for the white (non-Hispanic) population (2.1 per 100,000).

Exposure Mode:

- The predominant mode of exposure among white (non-Hispanic) individuals diagnosed with HIV infection, within the years 2008 to 2010, is male-to-male sex (64%). Among black (non-Hispanic) individuals, the most frequently reported exposure mode is female reporting sex with male of unknown risk and HIV status (presumed heterosexual exposure, 22%), followed by heterosexual sex with partners of known risk and/or HIV status (19%) and male-to-male sex (18%). Among Hispanic/Latino individuals, male-to-male sex accounts for 28%, injection drug use 18%, and heterosexual exposure 17% of reported exposures to HIV infection.
- Exposure mode among people diagnosed with HIV infection within the three-year period 2008 to 2010 varies by race/ethnicity among both males and females.

Figure 5. Males Diagnosed with HIV Infection Within the Years 2008–2010 by Exposure Mode and Race/Ethnicity: Massachusetts



NH= Non-Hispanic, Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/12

- Among white (non-Hispanic) males, male-to-male sex is the predominant exposure mode, accounting for 74% of reported cases; for 15%, exposure mode is undetermined.





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- Exposure mode is undetermined in 47% of black (non-Hispanic) males. Male-to-male sex is the most frequently reported risk accounting for 32% of all cases, followed by heterosexual sex at 10% and injection drug use at 7% of reported exposures.
- Among Hispanic/Latino males, male-to-male sex is the most frequently reported exposure mode accounting for 40% of cases, followed by undetermined exposure mode at 29%, injection drug use at 18% and heterosexual sex at 9% of exposures.

Geography:

- The Western Health Service Region (HSR)iv was the residence for the largest proportion of Hispanic/Latino individuals among recent HIV infection diagnoses (42%), followed by the Northeast HSR (32%) and the Central HSR (26%).
- The Boston HSR was the residence for the largest proportion of black (non-Hispanic) individuals among recent HIV infection diagnoses at 41%, followed by the Central HSR at 37% and the Metro West HSR at 34%.

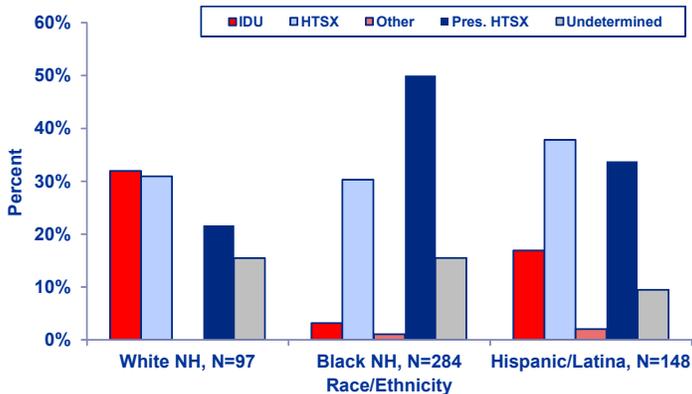
Among cities with over 20 people diagnosed with HIV infection within the three-year period 2008 to 2010, the following have the highest proportions of black (non-Hispanic) individuals diagnosed with HIV infection [N is the number of black (non-Hispanic) individuals diagnosed]:

- Brockton 77.8% (N=49)
- Malden 64.7% (N=22)
- Waltham 48.6% (N=18)
- Worcester 45.4% (N=44)
- Cambridge 44.2% (N=23)
- Quincy 42.9% (N=9)
- Boston 42.4% (N=227)
- Everett 41.7% (N=10)
- Lynn 35.7% (N=15)
- Framingham 34.8% (N=8)

Among cities with over 20 people diagnosed with HIV infection within the three-year period 2008 to 2010, the following have the highest proportions of Hispanic/Latino individuals diagnosed with HIV infection (N is the number of Hispanic/Latino individuals diagnosed):

- Lawrence 88.2% (N=45)
- Holyoke 67.7% (N=21)
- Springfield 53.6% (N=52)
- Framingham 43.5% (N=10)
- Lynn 38.1% (N=16)
- Worcester 30.9% (N=30)
- Lowell 30.5% (N=18)
- Everett 29.2% (N=7)
- Fall River 25.0% (N=9)
- Malden 23.5% (N=8)

Figure 6. Females Diagnosed with HIV Infection Within the Years 2008–2010 by Exposure Mode and Race/Ethnicity: Massachusetts



- Among white (non-Hispanic) females diagnosed with HIV infection, exposure mode is near evenly distributed among the three main exposure modes reported in females: injection drug use accounts for 32%, heterosexual sex (with partners of known risk and/or HIV status) accounts for 31%, and sex with males of unknown risk and HIV status (presumed heterosexual) accounts for 22% of exposures.
- The predominant exposure mode among black (non-Hispanic) females is sex with males of unknown risk and HIV status (presumed heterosexual exposure) at 50% of exposures.
- Among Hispanic/Latina females, heterosexual sex (with partners of known risk and/or HIV status) is the most frequently reported exposure mode accounting for 38% of exposures, followed by sex with males of unknown risk and HIV status (presumed heterosexual exposure) at 34% and injection drug use at 17% of exposures.

NH= Non-Hispanic. Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/12





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Place of Birth:

- Fifty-one percent of black (non-Hispanic) individuals diagnosed with HIV infection within the three-year period 2008 to 2010 were born outside the US, compared to 67% of Asian/Pacific Islander individuals, 35% 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 2008 to 2010 were from Sub-Saharan Africa and the Caribbean Basin.

- Combined, the following five countries represent the country of birth for 70% of non-US born black (non-Hispanic) individuals diagnosed with HIV infection in Massachusetts within the three-year period 2008 to 2010 (N is the number of non-US born black (non-Hispanic) individuals diagnosed with HIV infection):

• Haiti	37.0%	(N=125)
• Uganda	10.1%	(N=34)
• Cape Verde	9.8%	(N=33)
• Ghana	6.8%	(N=23)
• Kenya	5.9%	(N=20)

- The majority of non-US born Hispanic/Latino individuals recently diagnosed with HIV infection are from Central and South America and the Caribbean Basin.

- Combined, the following five countries represent the country of birth for 78% of non-US-born Hispanic/Latino individuals diagnosed with HIV infection in Massachusetts within the three-year period 2008 to 2010 (N is the number of non-US born Hispanic/Latino individuals diagnosed with HIV infection):

• Dominican Republic	30.1%	(N=52)
• Brazil	19.7%	(N=34)
• El Salvador	11.6%	(N=20)
• Guatemala	8.7%	(N=15)
• Honduras	8.1%	(N=14)

Youth Diagnosed with HIV Infection:

- Although black (non-Hispanic) youth represent only 8% of people under the age of 25 in Massachusetts, they accounted for 36% of HIV infection diagnoses among this age group within the three-year period 2008 to 2010.

- Although Hispanic/Latino youth represent only 11% of people under the age of 25 in Massachusetts, they accounted for 29% of HIV infection diagnoses among this age group within the three-year period 2008 to 2010.

Behavioral Risk for HIV Infection:

The Behavioral Risk Factor Surveillance System (BRFSS) tracks patterns of condom use among sexually active adults in Massachusetts.

- Of 4,679 sexually active respondents to the 2009 and 2010 BRFSS, aged 18-64 years, 22% reported using a condom during their last sexual encounter. A greater proportion of black (non-Hispanic) respondents (39%) and Hispanic/Latino respondents (24%) reported condom use at last sexual encounter, compared to white (non-Hispanic) respondents (20%).

Data Sources:

All HIV/AIDS Case Data: Massachusetts Department of Public Health (MDPH) HIV/AIDS Surveillance Program, Data as of January 1, 2012

BRFSS Data: Massachusetts Department of Public Health, Bureau of Health Information, Statistics, Research and Evaluation, Behavioral Risk Factor Surveillance System.

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 who were first diagnosed in another state before being reported in Massachusetts. As of January 1, 2012, this resulted in the removal of 2,924 HIV/AIDS cases, of which 808 have died and 2,116 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.

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).





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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-seven percent of females living with HIV/AIDS and 40% 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 probable, 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 case reporting for males in alignment with CDC standards. The MDPH will maintain presumed heterosexual and heterosexual exposure mode categories for females.

^{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/eohhs/docs/dph/aids/2006-profiles/app-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).

