



**Massachusetts Department of Public Health
Bureau of Infectious Disease and Laboratory Sciences**

**Massachusetts HIV/AIDS Epidemiologic Profile:
Data as of 1/1/2020
Population Report: Women**

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Requests for additional data

<https://www.mass.gov/lists/infectious-disease-data-reports-and-requests>

Slide sets for HIV/AIDS Epidemiologic Profile Reports

<https://www.mass.gov/lists/hivaids-epidemiologic-profiles>

WOMEN

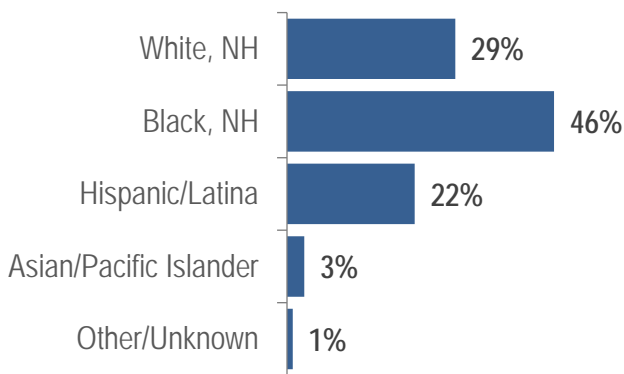
Please note the following data among women include individuals assigned female at birth (AFAB) and therefore not gender identity or gender expression of transgender individuals (N=19 transgender individuals diagnosed with HIV infection from 2016 – 2018 and N=121 transgender persons living with HIV infection in Massachusetts as of 12/31/18, according to data current as of 1/1/2020).

N=519 27% of new HIV diagnoses from 2016-2018 were among individuals AFAB

N=6,629 29% of persons living with HIV infection in MA as of 12/31/2018 were individuals AFAB

RACE/ETHNICITY

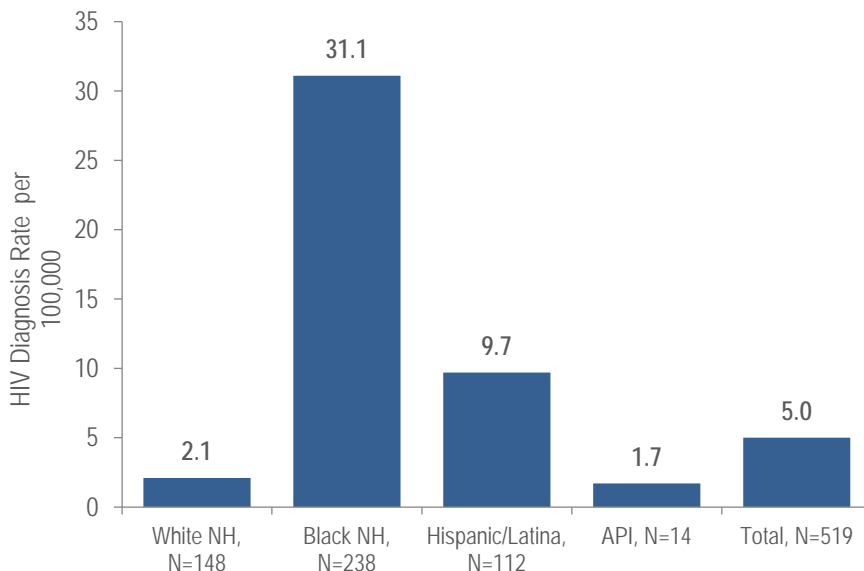
FIGURE 1. Percentage of individuals AFAB diagnosed with HIV infection by race/ethnicity: Massachusetts, 2016–2018 (N=519)



- Sixty-eight percent of individuals AFAB recently diagnosed with HIV infection were either black (non-Hispanic) or Hispanic/Latina.

- Forty-six percent of individuals AFAB living with HIV infection were black (non-Hispanic), 28% were Hispanic/Latina, 23% were white (non-Hispanic), and 3% were other/unknown race/ethnicity.

FIGURE 2. Average age-adjusted rate of HIV infection diagnosis per 100,000 population¹ among individuals AFAB by race/ethnicity: Massachusetts, 2016–2018



¹ As of 1/1/2020, BIDLS calculates rates per 100,000 population using denominators estimated by the University of Massachusetts Donahue Institute using a modified Hamilton-Perry model (Strate S, et al. Small Area Population Estimates for 2011 through 2020, report published Oct 2016). Note that rates and trends calculated using previous methods cannot be compared to these. All rates are age-adjusted using the 2000 US standard population.

KEY FACTS

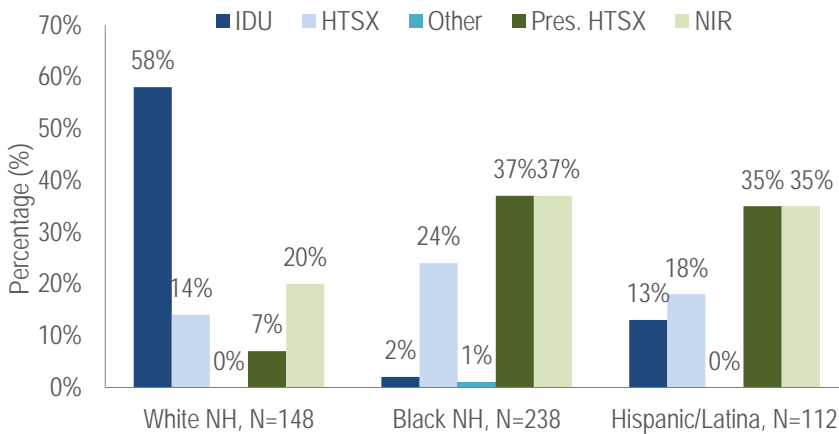
- The average age-adjusted HIV diagnosis rates for 2016 to 2018 among black (non-Hispanic) (31.1 per 100,000) and Hispanic/Latina individuals AFAB (9.7 per 100,000) were 15 and five times that of white (non-Hispanic) individuals AFAB (2.1 per 100,000), respectively.
- The age-adjusted prevalence rates of HIV infection among black (non-Hispanic) (1,189.7 per 100,000) and Hispanic/Latina individuals AFAB (536.4 per 100,000) were 23 and 10 times greater than the rate among white (non-Hispanic) (51.4 per 100,000) individuals AFAB, respectively.

WOMEN

EXPOSURE MODE

- Thirty-two percent of 519 individuals AFAB diagnosed with HIV infection during 2016 to 2018 were reported with no identified risk, 28% with presumed heterosexual exposure mode, 21% with injection drug use, 19% with heterosexual sex, and <1% with other exposure modes.
- Thirty-five percent of 6,629 individuals AFAB living with HIV infection on 12/31/18 were reported with heterosexual exposure mode, 31% with presumed heterosexual, 20% with injection drug use, 11% with no identified risk, and 3% with other exposure modes.

FIGURE 3. Individuals AFAB diagnosed with HIV infection by race/ethnicity and exposure mode: Massachusetts, 2016–2018

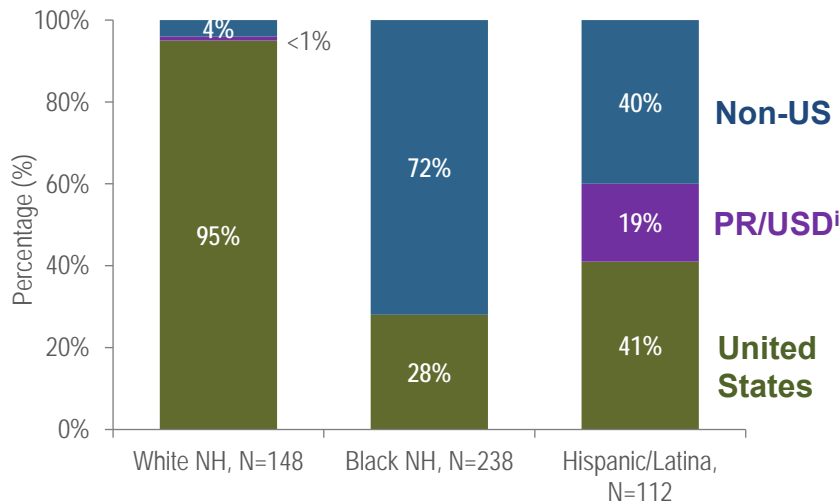


- Injection drug use was the predominant exposure mode among white (non-Hispanic) individuals AFAB recently diagnosed with HIV infection, while presumed heterosexual sex and no identified risk accounted for the largest proportions among both black (non-Hispanic) and Hispanic/Latina individuals AFAB.

PLACE OF BIRTH

- Fifty-one percent of 519 individuals AFAB diagnosed with HIV infection during 2016 to 2018 were born in the US (compared to 64% of individuals assigned male at birth (AMAB)), 45% were born outside the US (compared to 31% of 1,409 individuals AMAB), and 4% were born in Puerto Ricoⁱ (compared to 5% of individuals AMAB).
- Forty-eight percent of 6,629 individuals AFAB living with HIV infection on 12/31/18 were born in the US (compared to 68% of individuals AMAB), 39% were born outside the US (compared to 23% of 16,444 individuals AMAB), and 12% were born in Puerto Ricoⁱ (compared to 9% of individuals AMAB).

FIGURE 4. Percentage of individuals AFAB diagnosed with HIV infection by race/ethnicity and place of birth: Massachusetts, 2016–2018



KEY FACT

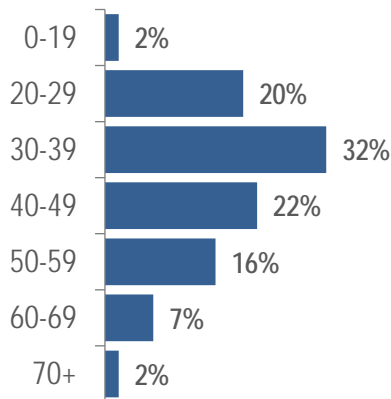
- Seventy-two percent of black (non-Hispanic) individuals AFAB recently diagnosed with HIV infection were born outside the US, compared to 40% of Hispanic/Latina and four percent of white (non-Hispanic) individuals AFAB. An additional 19% percent of Hispanic/Latina individuals AFAB were born in Puerto Ricoⁱ compared to <1% of white (non-Hispanic) and no black (non-Hispanic) individuals AFAB.

ⁱ All individuals diagnosed with HIV infection from 2016–2018 and 98% of persons living with HIV infection on 12/31/18 who were born in a US dependency were born in Puerto Rico, PR/USD = Puerto Rico/US Dependency

WOMEN

AGE

FIGURE 5. Percentage of individuals AFAB diagnosed with HIV infection by age at diagnosis: Massachusetts, 2016–2018 (N=519)



AREA OF RESIDENCE

TABLE 1. Massachusetts cities/townsⁱ with the highest percentage of HIV diagnoses among individuals AFAB, 2016–2018

	HIV Diagnoses Among individuals AFAB (N)	HIV Diagnoses Among Individuals AFAB as Percent of Total HIV Diagnoses (%)
Massachusetts Total	519	27%
Top Cities/Towns		
Brockton	44	45%
Lawrence	32	42%
Lynn	18	38%
Waltham	8	36%
Malden	11	34%
Lowell	33	33%
Worcester	35	32%
Framingham	6	29%
Quincy	7	27%
Fall River	6	25%
All Other Cities/Towns ⁱⁱ	319	23%

ⁱ City/town is based on residence at HIV infection diagnosis.

ⁱⁱ All Other Cities/Towns includes individuals diagnosed in a correction facility

- Individuals AFAB newly diagnosed with HIV infection in Massachusetts during 2016 to 2018 were predominantly in their thirties or forties (32% 30–39 year-olds and 22% 40–49 year-olds).

- Individuals AFAB living with HIV infection on 12/31/18 were predominantly 50 years of age or above (1% 0–19 years, 5% 20–29 years, 13% 30–39 years, 24% 40–49 years, 34% 50–59 years, 18% 60–69 years, and 4% 70+ years).

- Among cities and towns with over 20 reported HIV diagnoses during 2016 to 2018, Brockton, Lawrence, Lynn, and Waltham had the highest percentages of HIV diagnoses among individuals AFAB. Each had over 35% of new HIV infections diagnosed among individuals AFAB.

INFORMATION FROM ADDITIONAL DATA SOURCES

Behavioral Risk Factors: Recent statewide surveys describe sexual and drug use behaviors among individuals AFAB in Massachusetts.

Massachusetts Behavioral Risk Factor Surveillance Survey (BRFSS): A continuous anonymous telephone survey of adults ages 18 and older that collects data on a variety of health risk factors, preventive behaviors, chronic conditions, and emerging public health issues.

- Among sexually active individuals AFAB ages 18–64 years who responded to the BRFSS from 2016 to 2018:
 - 19.7% (95% confidence interval (CI): 17.2%–22.3%, n=2,028) reported condom use at their last sexual encounter, compared to 26.9% (95% CI: 24.3%–29.5%, n=2,091) of individuals AMAB; and

WOMEN

- 8.1% (95% CI: 6.6%–9.6%, n=2,856) reported two or more sexual partners in the past year, 68.9% (95% CI: 66.5%–71.3%) reported one partner, and 23.0% (95% CI: 20.8%–25.1%) reported none; compared to 12.6% (95% CI: 10.9%–14.3%), 70.4% (95% CI: 68.5%–72.3%), and 19.3% (95% CI: 17.2%–21.2%), respectively, of individuals AMAB (n=2,599).

Data Source: Office of Data Management and Outcomes Assessment, Massachusetts Behavioral Risk Factor Surveillance System (BRFSS). For more information, see: Office of Data Management and Outcomes Assessment, Massachusetts Department of Public Health. *A Profile of Health Among Massachusetts Adults, 2018, Results from the Behavioral Risk Factor Surveillance System*, December 2019, <https://www.mass.gov/lists/brfss-statewide-reports-and-publications#2018->

Massachusetts Youth Risk Behavior Survey (YRBS): *An anonymous survey of public high school students conducted every odd year that collects data on health-related behaviors that may threaten the health and safety of young people.*

Sexual behaviors

- Respondents AFAB to the 2019 YRBS were significantly more likely than respondents AMAB to report ever experiencing sexual violence: 13.6% (95% CI: 11.0%–16.6%, n=975) vs. 5.8% (95% CI: 4.0%–8.4%, n=945).
- Respondents AFAB to the 2019 YRBS were significantly less likely than respondents AMAB to report:
 - having sexual intercourse before age 13: 1.0% (95% CI: 0.5%–2.0%, n=1,031) vs. 3.9% (95% CI: 2.5%–6.1%, n=909);
 - alcohol or drug use at last intercourse: 17.7% (95% CI: 13.3%–23.1%, n=219) vs. 29.5% (95% CI: 23.3%–36.7%, n=211).
- Respondents AFAB to the 2019 YRBS reported the following rates of sexual behaviors (none differed significantly from rates reported among respondents AMAB):
 - ever having sexual intercourse: 36.2% (95% CI: 30.9%–41.9%, n=1,030);
 - having four or more lifetime sexual partners: 6.3% (95% CI: 4.4%–9.0%, n=1,026);
 - not using any method to prevent pregnancy at last intercourse: 9.7% (95% CI: 6.3%–14.6%, n=211);
 - using a condom at last intercourse: 44.5% (95% CI: 37.5%–51.7%, n=215);
 - ever being tested for HIV infection: 12.8% (95% CI: 10.4%–15.6%, n=1,072).

Drug use

Both injection and non-injection substance use have been documented to increase risk for HIV and hepatitis C virus infection.

- Respondents AFAB to the 2019 YRBS reported the following rates of drug use (none differed significantly from rates reported among respondents AMAB):
 - ever using marijuana: 41.7% (95% CI: 36.3%–47.3%, n=979);
 - ever using cocaine: 2.4% (95% CI: 1.6%–3.6%, n=982);
 - ever using heroin: 1.1% (95% CI: 0.4%–2.8%, n=1,101);
 - ever using ecstasy: 2.8% (95% CI: 1.7%–4.8%, n=982);
 - ever using methamphetamines: 1.0% (95% CI: 0.5%–1.9%, n=1,104).

Data Source: Centers for Disease Control and Prevention (CDC). 2019 High School Youth Risk Behavior Survey Data. Available at <http://nccd.cdc.gov/youthonline/>. Accessed on 9/2/2020, CDC, Accessed at Youth Online, <https://nccd.cdc.gov/Youthonline/App/Default.aspx>.