



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

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### Massachusetts HIV/AIDS Epidemiologic Profile: Data as of 2/1/2021 Population Report: Women

#### **Suggested citation:**

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<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

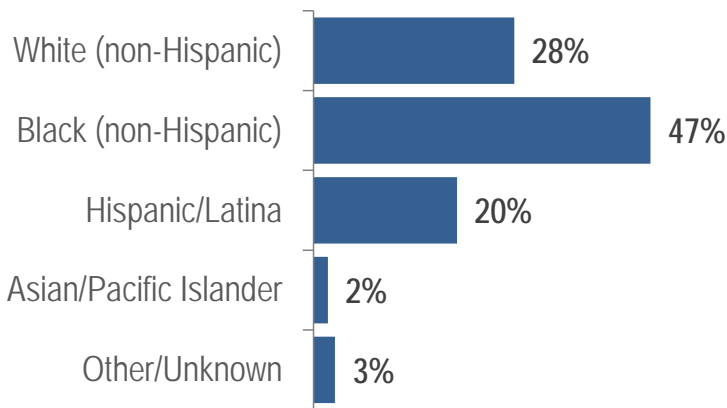
Please note the following data among women represent that of individuals assigned female at birth (AFAB) only and therefore do not represent the gender identity or expression of transgender women (N=15 transgender women diagnosed with HIV infection from 2017 – 2019 and N=120 transgender women living with HIV infection in Massachusetts as of 12/31/19, according to data current as of 2/1/2021).

**N=490** 27% of new HIV diagnoses from 2017-2019 were among individuals AFAB

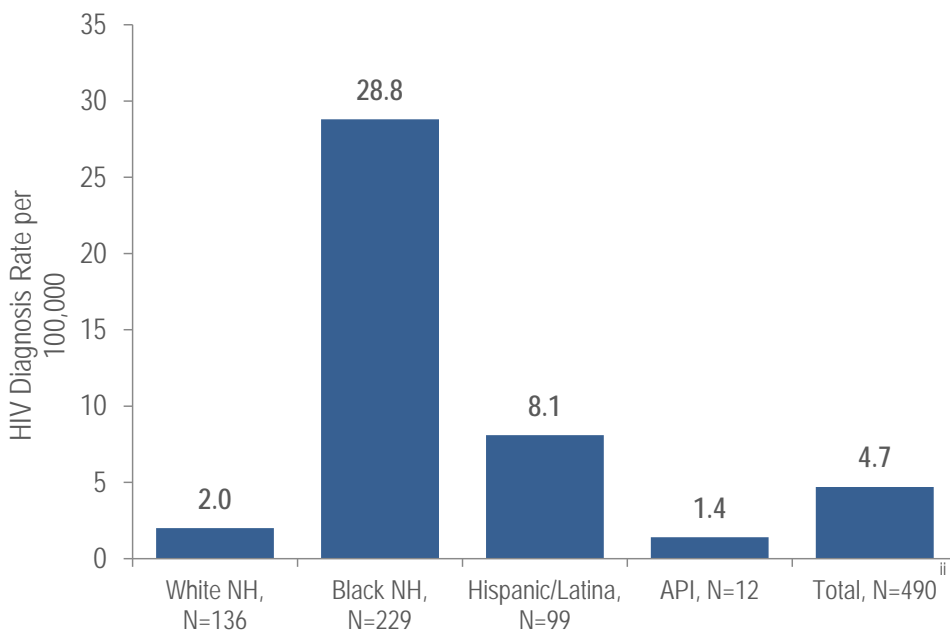
**N=6,678** 29% of persons living with HIV infection in MA as of 12/31/2019 were individuals AFAB

## RACE/ETHNICITY

**FIGURE 1.** Percentage of individuals AFAB diagnosed with HIV infection by race/ethnicity, Massachusetts 2017–2019 (N=490)



**FIGURE 2.** Average age-adjusted rate of HIV infection diagnosis per 100,000 population<sup>i</sup> among individuals AFAB by race/ethnicity, Massachusetts 2017–2019



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

- Forty-seven percent of individuals AFAB living with HIV infection were black (non-Hispanic), 28% were Hispanic/Latina, 22% were white (non-Hispanic), and 3% were other/unknown race/ethnicity.

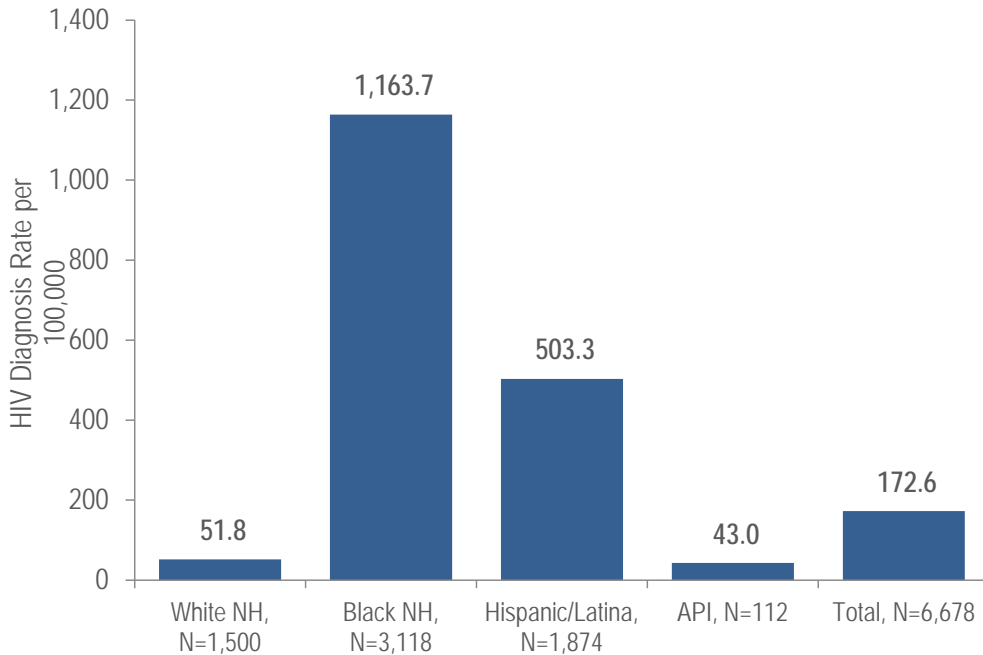
### KEY FACT

- The average annual age-adjusted HIV diagnosis rates for 2017 to 2019 among black (non-Hispanic) (28.8 per 100,000) and Hispanic/Latina individuals AFAB (8.1 per 100,000) were 14 and four times that of white (non-Hispanic) individuals AFAB (2.0 per 100,000), respectively.

<sup>i</sup> 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.

<sup>ii</sup> Total includes other/unknown race/ethnicities (N=14)

**FIGURE 3.** Age-adjusted HIV prevalence rate per 100,000 population<sup>i</sup> among individuals AFAB by race/ethnicity, Massachusetts 2019



<sup>i</sup> Total includes other/unknown race/ethnicities (N=74)

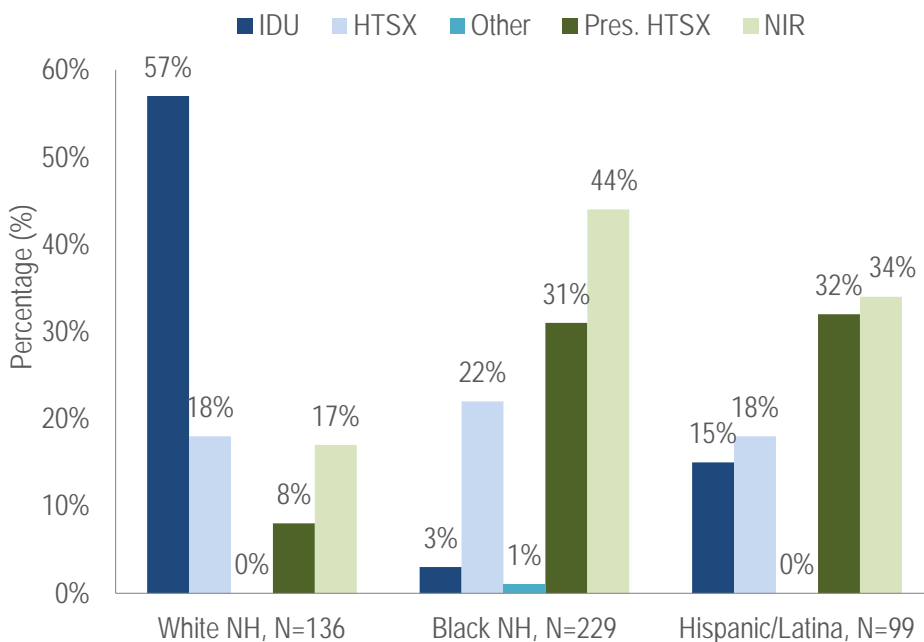
### KEY FACT

- The age-adjusted prevalence rates of HIV infection among black (non-Hispanic) (1,163.7 per 100,000) and Hispanic/Latina individuals AFAB (503.3 per 100,000) were 22 and 10 times greater than the rate among white (non-Hispanic) individuals AFAB (51.8 per 100,000), respectively.

## EXPOSURE MODE

- Thirty-four percent of 490 individuals AFAB diagnosed with HIV infection during 2017 to 2019 were reported with no identified risk, 24% with presumed heterosexual exposure mode, 21% with injection drug use, 20% with heterosexual sex, and <1% with other exposure modes.
- Thirty-five percent of 6,678 individuals AFAB living with HIV infection on 12/31/19 were reported with heterosexual exposure mode, 31% with presumed heterosexual, 19% with injection drug use, 12% with no identified risk, and 3% with other exposure modes.

**FIGURE 4.** Individuals AFAB diagnosed with HIV infection by race/ethnicity and exposure mode, Massachusetts 2017–2019



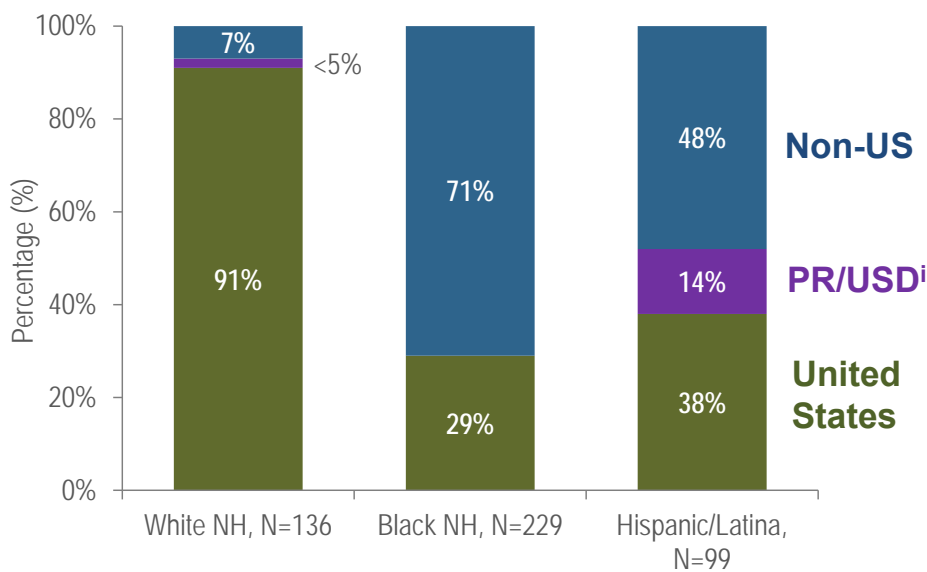
IDU=injection drug use; HTSX=heterosexual sex; Pres.=presumed; NIR=no identified risk; NH=non-Hispanic

- 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

- Forty-nine percent of 490 individuals AFAB diagnosed with HIV infection during 2017 to 2019 were born outside the US [compared to 34% of 1,329 individuals assigned male at birth (AMAB)], 48% were born in the US (compared to 61% of individuals AMAB), and 3% were born in Puerto Rico<sup>i</sup> (compared to 5% of individuals AMAB).
- Forty-eight percent of 6,678 individuals AFAB living with HIV infection on 12/31/19 were born in the US (compared to 67% of 16,613 individuals AMAB), 40% were born outside the US (compared to 24% of individuals AMAB), and 12% were born in Puerto Rico/US Dependency<sup>i</sup> (compared to 9% of individuals AMAB).

**FIGURE 5.** Percentage of individuals AFAB diagnosed with HIV infection by race/ethnicity and place of birth, Massachusetts 2017–2019



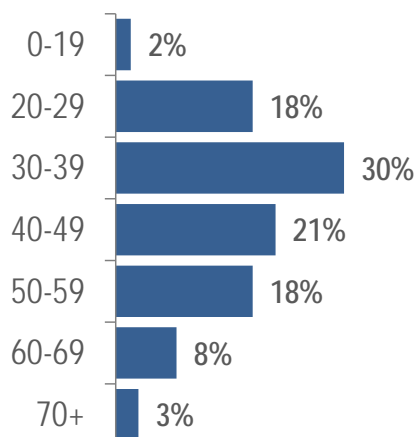
### KEY FACT

- Seventy-one percent of black (non-Hispanic) individuals AFAB recently diagnosed with HIV infection were born outside the US, compared to 48% of Hispanic/Latina and seven percent of white (non-Hispanic) individuals AFAB. An additional 14% percent of Hispanic/Latina individuals AFAB were born in Puerto Rico<sup>i</sup> compared to <5% of white (non-Hispanic) and no black (non-Hispanic) individuals AFAB.

<sup>i</sup> All individuals diagnosed with HIV infection from 2017–2019 and 98% of persons living with HIV infection on 12/31/19 who were born in a US dependency were born in Puerto Rico, PR/USD = Puerto Rico/US Dependency

## AGE

**FIGURE 6.** Percentage of individuals AFAB diagnosed with HIV infection by age at diagnosis (years), Massachusetts 2017–2019 (N=490)



- Individuals AFAB newly diagnosed with HIV infection in Massachusetts during 2017 to 2019 were predominantly in their thirties or forties (30% 30–39 year-olds and 21% 40–49 year-olds).

- Individuals AFAB living with HIV infection on 12/31/19 were predominantly 50 years of age or above (1% 0–19 years, 5% 20–29 years, 12% 30–39 years, 23% 40–49 years, 34% 50–59 years, 20% 60–69 years, and 5% 70+ years).

## AREA OF RESIDENCE

**TABLE 1.** Massachusetts cities/towns<sup>i</sup> with the highest percentage of HIV diagnoses among individuals AFAB, 2017–2019

	HIV Diagnoses Among individuals AFAB (N)	HIV Diagnoses Among Individuals AFAB as Percent of Total HIV Diagnoses (%)
Massachusetts Total	490	27%
Top Cities/Towns		
Brockton	45	53%
Lawrence	25	40%
Everett	10	32%
Fall River	10	32%
Quincy	9	32%
New Bedford	8	32%
Framingham	8	31%
Worcester	31	30%
Lowell	28	30%
Lynn	14	30%
All Other Cities/Towns <sup>ii</sup>	302	23%

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

<sup>ii</sup> All Other Cities/Towns includes individuals diagnosed in a correctional facility

- Among cities and towns with at least 20 reported HIV diagnoses during 2017 to 2019, Brockton and Lawrence had the highest percentages of HIV diagnoses among individuals AFAB. Each had at least 40% 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 2017 to 2019:
  - 20.1% (95% confidence interval [CI]: 17.6%–22.5%, n=2,006) reported condom use at their last sexual encounter, compared to 27.1% (95% CI: 24.5%–29.7%, n=1,962) of individuals AMAB; and
  - 7.5% (95% CI: 6.1%–8.9%, n=2,796) reported two or more sexual partners in the past year, 68.9% (95% CI: 66.5%–71.2%) reported one partner, and 23.7% (95% CI: 21.6%–25.8%) reported none; compared to 12.1% (95% CI: 10.4%–13.8%), 67.2% (95% CI: 64.8%–69.6%), and 20.7% (95% CI: 18.6%–22.8%), respectively, of individuals AMAB (n=2,471).

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, 2019, Results from the Behavioral Risk Factor Surveillance System*, December 2020, <https://www.mass.gov/lists/brfss-statewide-reports-and-publications#2019->

**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>.