



**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: Racial and Ethnic Minorities**

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**Slide sets for HIV/AIDS Epidemiologic Profile Reports**

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

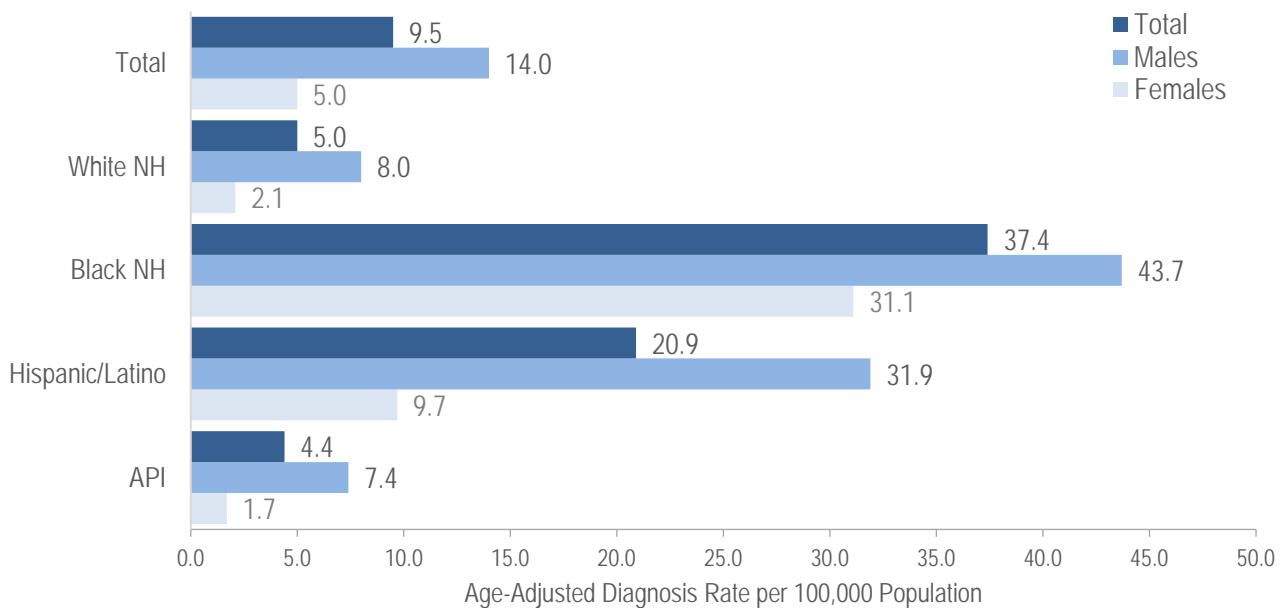
# RACIAL AND ETHNIC MINORITIES

The racial and ethnic minorities fact sheet focuses on black (non-Hispanic), white (non-Hispanic), and Asian/Pacific Islander individuals recently diagnosed (2016–2018) and living with HIV infection (as of 12/31/18). Analyses for American Indian/Alaskan Native and mixed race individuals are not presented due to small numbers (N=5 and N=20 recent HIV diagnoses, respectively; N=37 and N=182 persons living with HIV infection, respectively).

N=571	30%	of new HIV diagnoses from 2016–2018 were among black (non-Hispanic) individuals	N=6,839	30%	of persons living with HIV infection as of 12/31/2018 were among black (non-Hispanic)
N=528	27%	of new HIV diagnoses from 2016–2018 were among Hispanic/Latino individuals	N=6,140	27%	of persons living with HIV infection as of 12/31/2018 were among Hispanic/Latino
N=75	4%	of new HIV diagnoses from 2016–2018 were among Asian/Pacific Islanders	N=525	2%	of persons living with HIV infection as of 12/31/2018 were among Asian/Pacific Islanders

## RATES PER 100,000 POPULATION

**FIGURE 1.** Average age-adjusted HIV diagnosis rate per 100,000 population<sup>i</sup> by sex assigned at birth and race/ethnicity: Massachusetts, 2016–2018 (N=1,928)



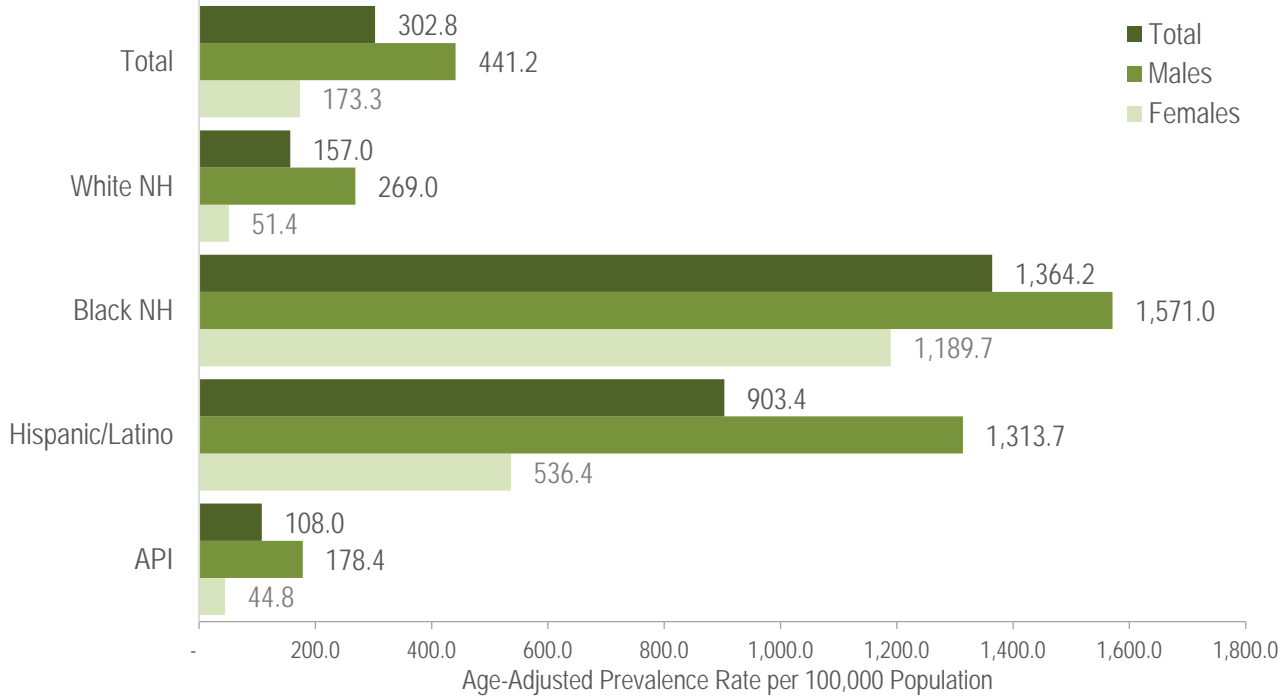
<sup>i</sup> As of 1/1/2020, BIDLS calculates rates per 100,000 population using denominators estimated by the University of Massachusetts Donahue Institute using a modified Hamilton-Perry model (Strate S, et al. Small Area Population Estimates for 2011 through 2020, report published Oct 2016). Note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

### KEY FACTS

- There were large disparities in age-adjusted HIV diagnosis rates for 2016 to 2018 by race/ethnicity: the rates among black (non-Hispanic) individuals and Hispanic/Latino individuals were seven and four times that of white (non-Hispanic) individuals, respectively.
- With respect to differences based on race/ethnicity and sex assigned at birth, the average age-adjusted HIV diagnosis rates for 2016 to 2018 among black (non-Hispanic) and Hispanic/Latina individuals assigned female at birth (AFAB) were 15 and five times that of white (non-Hispanic) individuals AFAB, respectively. Among black (non-Hispanic) and Hispanic/Latino individuals assigned male at birth (AMAB), the average age-adjusted HIV diagnosis rates were five and four times greater than the rate among white (non-Hispanic) individuals AMAB, respectively.

# RACIAL AND ETHNIC MINORITIES

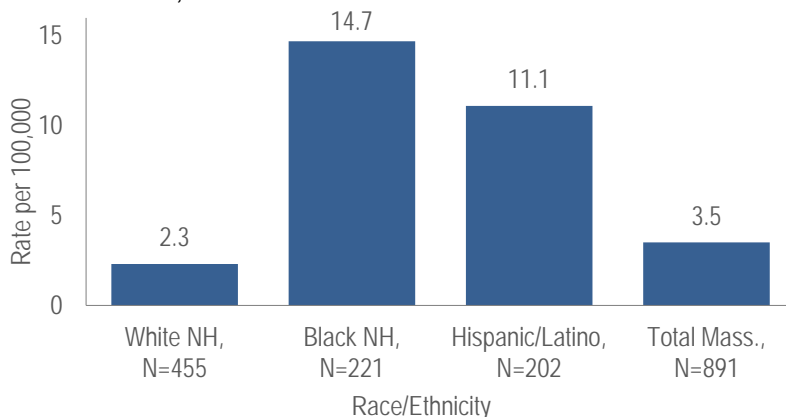
**FIGURE 2.** Age-adjusted HIV prevalence rates per 100,000 population<sup>i</sup> by sex assigned at birth and race/ethnicity: Massachusetts, 2018 (N= 23,073)



## KEY FACTS

- In 2018, there were large disparities in age-adjusted prevalence rates by race/ethnicity: the rates among black (non-Hispanic) individuals and Hispanic/Latino individuals were nine and six times that of white (non-Hispanic individuals), respectively.
- With respect to differences based on race/ethnicity and sex assigned at birth, the age-adjusted HIV prevalence rates among black (non-Hispanic) and Hispanic/Latina individuals AFAB were 23 and 10 times greater than the rate among white (non-Hispanic) individuals AFAB, respectively. Among black (non-Hispanic) and Hispanic/Latino individuals AMAB, the age-adjusted HIV prevalence rates were six and five times greater than the rate among white (non-Hispanic) individuals AMAB, respectively.

**FIGURE 3.** Age-adjusted death rate per 100,000 population<sup>i</sup> among people reported with HIV/AIDS by race/ethnicity:<sup>ii</sup> Massachusetts, 2016–2018



- The age-adjusted average death rates from 2016 to 2018 among black (non-Hispanic) and Hispanic/Latino individuals reported with HIV/AIDS were six and five times greater than the rate among white (non-Hispanic) individuals, respectively.

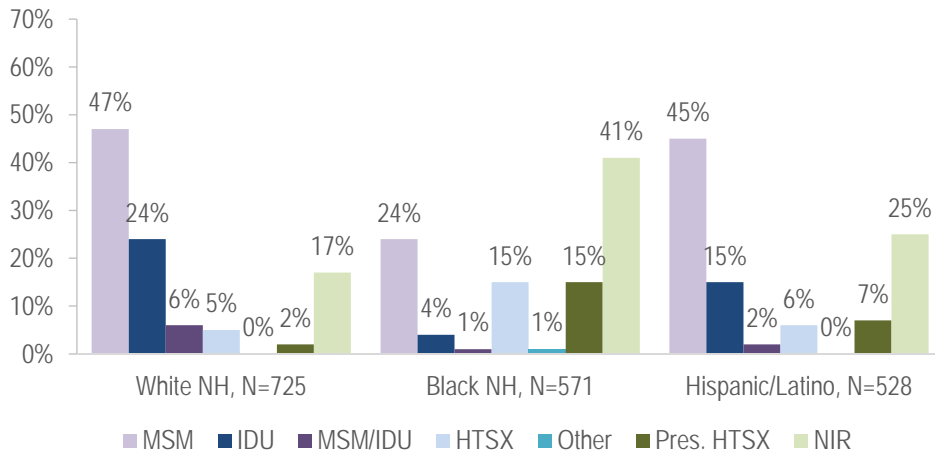
<sup>i</sup> As of 1/1/2020, BIDLs calculates rates per 100,000 population using denominators estimated by the University of Massachusetts Donahue Institute using a modified Hamilton-Perry model (Strate S, et al. Small Area Population Estimates for 2011 through 2020, report published Oct 2016). Note 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> Death rate for Asian/Pacific Islander is not presented because the numerator <12 and therefore must be interpreted with caution

# RACIAL AND ETHNIC MINORITIES

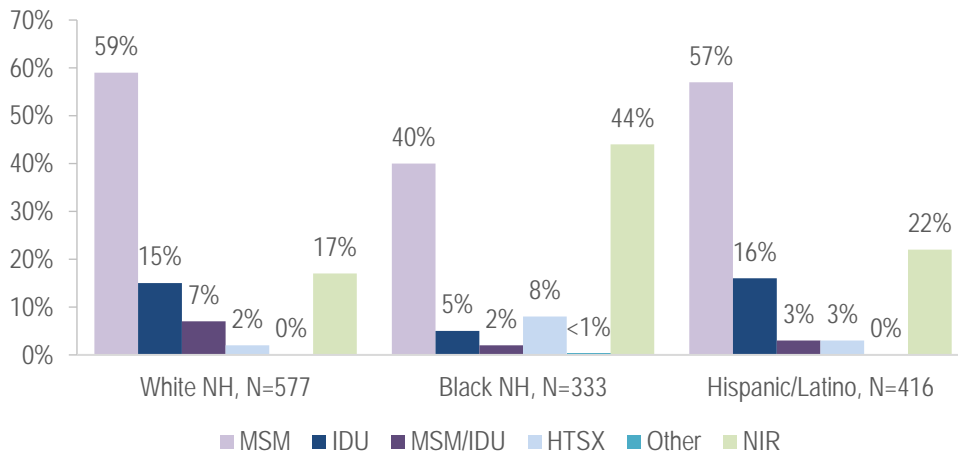
## EXPOSURE MODE

**FIGURE 4.** Individuals diagnosed with HIV infection by exposure mode and race/ethnicity: Massachusetts, 2016–2018



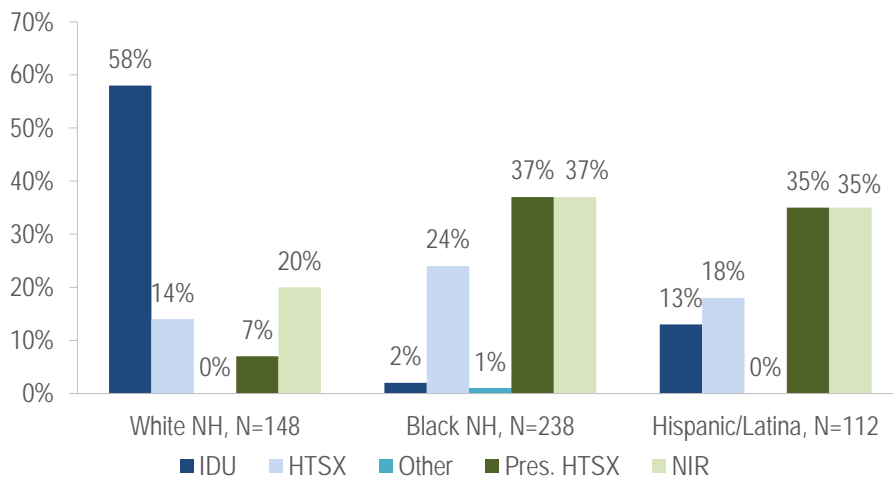
- While the predominant exposure mode among white (non-Hispanic) and Hispanic/Latino individuals recently diagnosed with HIV infection was MSM (47% and 45%, respectively), the largest proportion of black (non-Hispanic) individuals had no identified risk (NIR) (41%).

**FIGURE 5.** Individuals AMAB diagnosed with HIV infection by exposure mode and race/ethnicity: Massachusetts, 2016–2018



- Male-to-male sex was the most frequently reported exposure mode among white (non-Hispanic) and Hispanic/Latino individuals AMAB (59% and 57%, respectively). The largest proportion of black (non-Hispanic) individuals AMAB had NIR (44%).

**FIGURE 6.** Individuals AFAB diagnosed with HIV infection by exposure mode and race/ethnicity: Massachusetts, 2016–2018

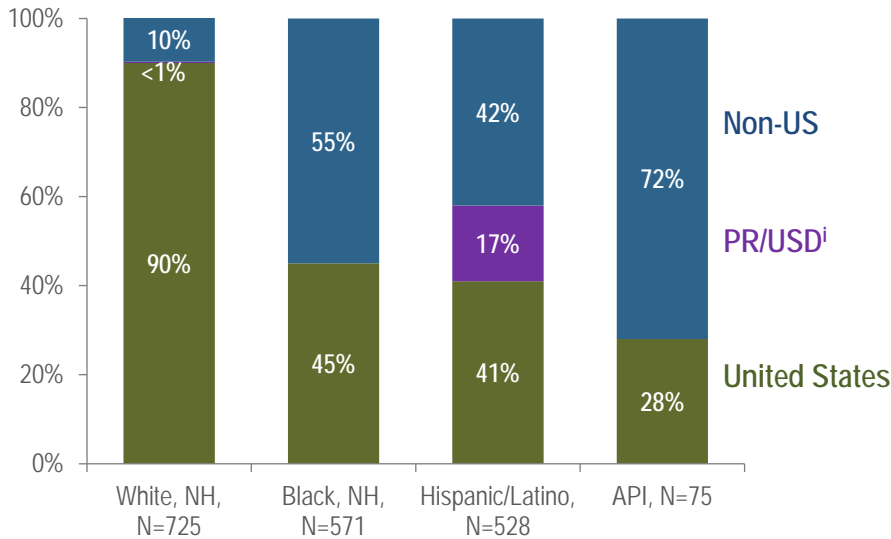


- Injection drug use was the predominant exposure mode among white (non-Hispanic) individuals AFAB recently diagnosed with HIV infection, while presumed heterosexual sex and no identified risk accounted for the largest proportions among both black (non-Hispanic) and Hispanic/Latina individuals AFAB.

# RACIAL AND ETHNIC MINORITIES

## PLACE OF BIRTH

**FIGURE 7.** Percentage of individuals diagnosed with HIV infection by race/ethnicity and place of birth: Massachusetts, 2016–2018



**KEY FACTS**

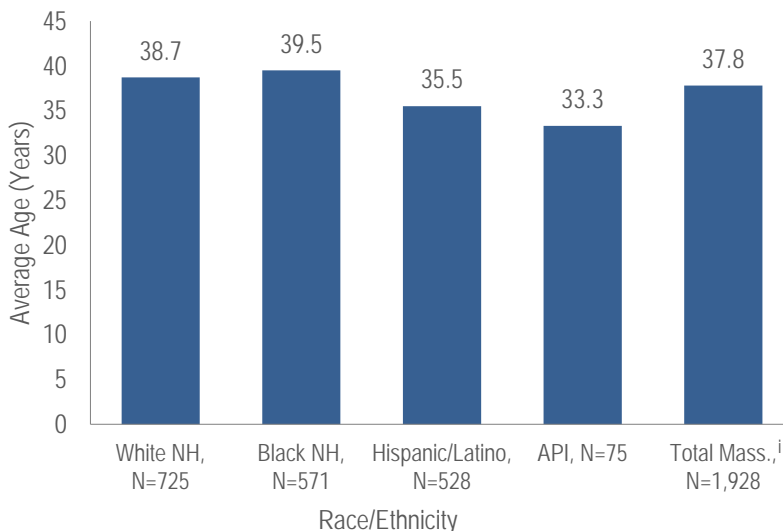
- Seventy-two percent of Asian/Pacific Islander individuals diagnosed with HIV infection during 2016–2018 were born outside the US, compared to 55% of black (non-Hispanic), 42% of Hispanic/Latino, and 10% of white (non-Hispanic) individuals.

<sup>1</sup> PR/USD = Puerto Rico/US Dependency; all individuals diagnosed with HIV infection from 2016-2018 who were born in PR/USD were born in Puerto Rico, API=Asian/Pacific Islander

- The majority of the 315 non-US born black (non-Hispanic) individuals diagnosed with HIV infection from 2016 to 2018 were from sub-Saharan Africa (58%) or the Caribbean (38%).
- The majority of the 221 non-US born Hispanic/Latino individuals were from Central and South America (63%) or the Caribbean (33%).

## AGE

**FIGURE 8.** Average age at HIV infection diagnosis by race/ethnicity: Massachusetts, 2016–2018



- The average age at HIV diagnosis from 2016 to 2018 was younger for Asian/Pacific Islander and Hispanic/Latino individuals diagnosed with HIV infection (33.3 and 35.5 years, respectively) compared to black (non-Hispanic) and white (non-Hispanic) individuals (39.5 and 38.7 years, respectively).

<sup>1</sup> Total includes individuals of other/unknown race/ethnicity (N=29)

# RACIAL AND ETHNIC MINORITIES

## AREA OF RESIDENCE

**TABLE 1.** Massachusetts cities/towns<sup>i</sup> with the highest percentage of HIV diagnoses among black (non-Hispanic) individuals, 2016–2018

	HIV Diagnoses Among Black NH Individuals (N)	HIV Diagnoses Among Black NH Individuals as Percent of Total HIV Diagnoses (%)
Massachusetts Total	571	30%
Top Cities/Towns		
Brockton	65	66%
Waltham	13	59%
Malden	15	47%
Lynn	21	45%
Worcester	47	42%
Boston	167	40%
Springfield	29	28%
Quincy	7	27%
Everett	8	26%
Cambridge	8	24%
All Other Cities/Towns <sup>ii</sup>	191	19%

<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 over 20 reported HIV diagnoses from 2016 to 2018, Brockton, Waltham, and Malden had the highest percentages of HIV diagnoses among black (non-Hispanic) individuals. Each had over 45% of new HIV infections diagnosed among black (non-Hispanic) individuals.

**TABLE 2.** Massachusetts cities/towns<sup>i</sup> with the highest percentage of HIV diagnoses among Hispanic/Latino individuals, 2016–2018

	HIV Diagnoses Among Hispanic/Latino Individuals (N)	HIV Diagnoses Among Hispanic/Latino Individuals as Percent of Total HIV Diagnoses (%)
Massachusetts Total	528	27%
Top Cities/Towns		
Chelsea	19	83%
Lawrence	57	74%
Revere	15	58%
Springfield	49	48%
Fall River	9	38%
Worcester	36	32%
Boston	129	31%
Cambridge	10	29%
Framingham	6	29%
Lowell	28	28%
All Other Cities/Towns <sup>ii</sup>	170	17%

<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 over 20 reported HIV diagnoses from 2016 to 2018, Chelsea, Lawrence, and Revere had the highest percentages of HIV diagnoses among Hispanic/Latino individuals. Each had over half of new HIV infections diagnosed among Hispanic/Latino individuals.

## INFORMATION FROM ADDITIONAL DATA SOURCES

**Behavioral Risk Factors:** Recent statewide surveys describe sexual and drug use behaviors among racial/ethnic minorities 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.

# RACIAL AND ETHNIC MINORITIES

- Sexually active adults ages 18–64 years who responded to the BRFSS from 2016 to 2018 reported the following rates of sexual behaviors. Only one statistically significant difference emerged between racial/ethnic groups: black (non-Hispanic) and Hispanic/Latino respondents were more likely to report condom use than white (non-Hispanic) respondents.

**TABLE 3.** Percentage<sup>i</sup> (95% confidence interval) and number of respondents ages 18–64 years reporting sexual behaviors to the BRFSS by race/ethnicity: Massachusetts, 2016–2018

	White (non-Hispanic)	Black (non-Hispanic)	Hispanic/Latino
Two or more sexual partners in past year <sup>ii</sup>	10.0% (8.7%–11.4%), n=4,180	15.6% (10.2%–21.0%), n=297	10.0% (7.0%–12.9%), n=592
Condom use at last sex <sup>iii</sup>	19.5% (17.5%–21.4%), n=3,191	40.4% (31.9%–48.9%), n=213	32.3% (27.3%–38.6%), n=432

<sup>i</sup>% = percent of total responding “yes” to specified question

<sup>ii</sup> “Number of sexual partners in past year” is a state-added question administered to a sub-sample of BRFSS respondents and represents the number of people a respondent reports having sex with. Sex was defined by the interviewer as including oral, vaginal, or anal sex.

<sup>iii</sup> Only asked of adults reporting sex (including oral, vaginal, or anal sex) in the past year

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.*

- Respondents to the 2019 YRBS reported the following rates of sexual behaviors. Only one statistically significant difference emerged between racial/ethnic groups: Hispanic/Latino respondents were more likely to report having sexual intercourse before age 13 than white (non-Hispanic) respondents.

**TABLE 4.** Percentage<sup>i</sup> (95% confidence interval) and number<sup>ii</sup> of respondents reporting sexual behaviors to the BRFSS by race/ethnicity: Massachusetts, 2019

	White (non-Hispanic)	Black (non-Hispanic)	Hispanic/Latino
Ever had sexual intercourse	35.9% (31.3%–40.7%), n=1,039	33.8% (27.0%–40.8%), n=250	45.8% (37.5%–54.4%), n=371
Sexual intercourse before age 13	1.3% (0.6%–2.9%), n=1,041	5.9% (2.3%–14.3%), n=252	5.3% (3.1%–8.9%), n=371
4 or more lifetime sexual intercourse partners	7.6% (5.7%–10.1%), n=1,032	8.6% (5.0%–14.4%), n=248	9.5% (6.0%–14.6%), n=371
Condom use at last sexual intercourse	43.2% (35.3%–51.5%), n=227	Results not presented for n<100	61.0% (50.4%–70.7%), n=101
Drank alcohol or used drugs before last sexual intercourse	25.2% (20.4%–30.6%), n=230	Results not presented for n<100	21.6% (14.8%–30.4%), n=105

<sup>i</sup>% = percent of total responding “yes” to specified question

<sup>ii</sup> n = total number of respondents (unweighted) by sex of partner for each question. The number of respondents for each question varies because some survey participants do not answer all questions.

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 10/21/2020, CDC, Accessed at Youth Online, <https://nccd.cdc.gov/Youthonline/App/Default.aspx>.