



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

Massachusetts HIV Epidemiologic Profile: Data as of 7/1/2024 Population Report: Racial and Ethnic Groups

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Bureau of Infectious Disease and Laboratory Sciences
Massachusetts Department of Public Health
Jamaica Plain Campus/State Public Health Laboratory
305 South Street
Jamaica Plain, MA 02130

Questions about this report

Tel: (617) 983-6560

To reach the Reporting and Partner Services Lineⁱ

Tel: (617) 983-6999

To speak to the on-call epidemiologist

Tel: (617) 983-6800

Questions about infectious disease reporting

Tel: (617) 983-6801

HIV Data Dashboard

<https://www.mass.gov/info-details/hiv-data-dashboard>

Requests for additional data

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

Slide sets for HIV Epidemiologic Profile Reports

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

ⁱ Providers may use this number to report individuals newly diagnosed with a notifiable sexually transmitted infection, including HIV, or request partner services. Partner services is a free and confidential service for individuals recently diagnosed with a priority infection. The client-centered program offers counseling, linkage to other health and social services, anonymous notification of partners who were exposed and assistance with getting testing and treatment. For more information, see: <https://www.mass.gov/service-details/partner-services-program-information-for-healthcare-providers>

RACIAL AND ETHNIC GROUPS

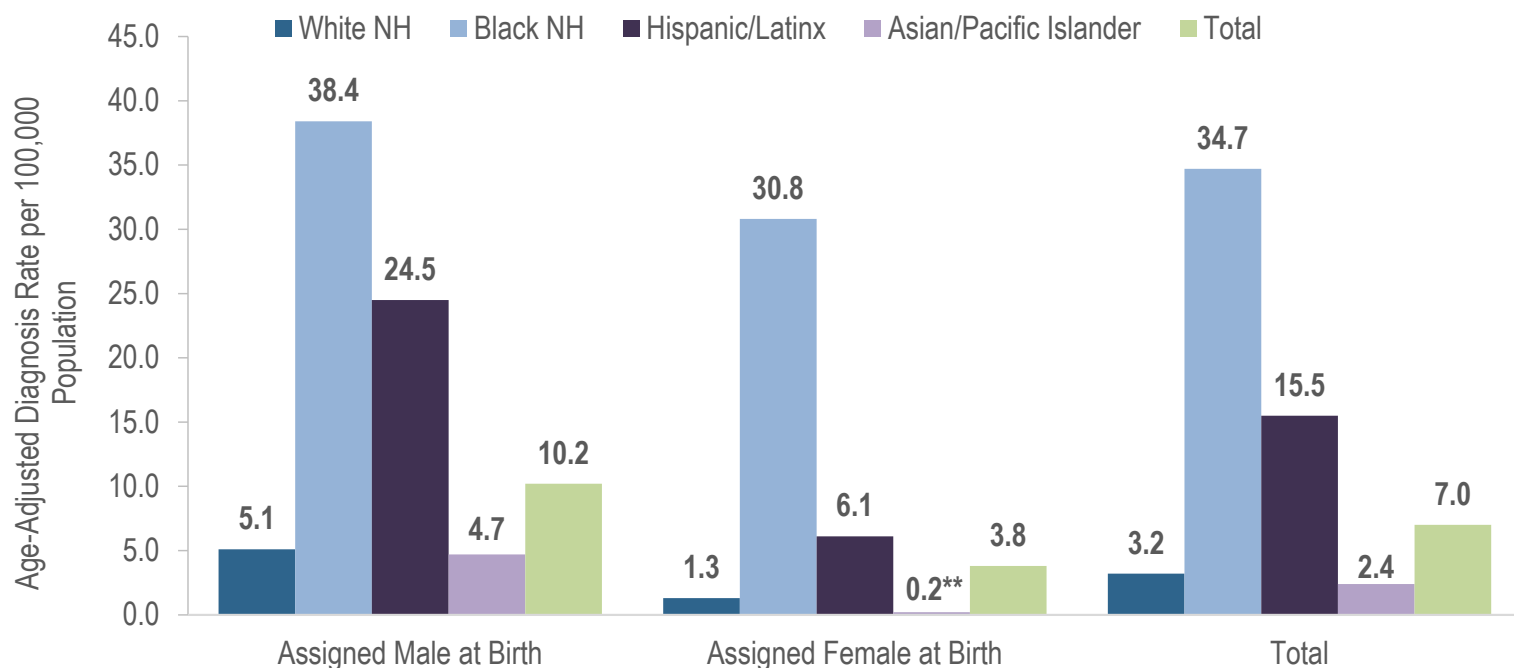
The racial and ethnic groups fact sheet focuses on Black (non-Hispanic), Hispanic/Latinx, Asian, and Pacific Islander individuals recently diagnosed (2021–2023) and living with HIV infection (as of 12/31/2023) and presents these data alongside data for White (non-Hispanic) individuals recently diagnosed and living with HIV infection to illustrate persistent racial and ethnic health disparities. Analyses for American Indian/Alaskan Native and multiracial individuals are not presented due to small numbers (N=0 and N=15 recent HIV diagnoses, respectively; N=34 and N=273 persons living with HIV infection, respectively).

HIV INCIDENCE AND PREVALENCE AMONG RACIAL/ETHNIC GROUPS

N=503	35%	of 1,435 new HIV diagnoses from 2021–2023 were among Black (non-Hispanic) individuals	N=7,370	31%	of 24,119 persons living with HIV infection as of 12/31/2023 were Black (non-Hispanic)
N=434	30%	of 1,435 new HIV diagnoses from 2021–2023 were among Hispanic/Latinx individuals	N=6,764	28%	of 24,119 persons living with HIV infection as of 12/31/2023 were Hispanic/Latinx individuals
N=42	3%	of 1,435 new HIV diagnoses from 2021–2023 were among Asian/Pacific Islanders	N=603	3%	of 24,119 persons living with HIV infection as of 12/31/2023 were Asian/Pacific Islanders

RATES PER 100,000 POPULATION

FIGURE 1. Average age-adjusted HIV diagnosis rate per 100,000 populationⁱ by sex assigned at birth and race/ethnicity, Massachusetts 2021 – 2023 (N=1,435)



ⁱ 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. **Rates based on numerators <12 are marked with an asterisk (*) and should be interpreted with caution.

KEY FINDING

There were large disparities in average annual age-adjusted HIV diagnosis rates for 2021 to 2023ⁱⁱ by race/ethnicity. Compared to the rate among White (non-Hispanic) individuals, the rate among:

- Black (non-Hispanic) individuals was 11 times greater, and
- Hispanic/Latinx individuals was five times greater.

ⁱⁱ Please consider the impact of the COVID-19 pandemic on infectious disease screening, treatment, and surveillance in the interpretation of data from 2020 to 2023.

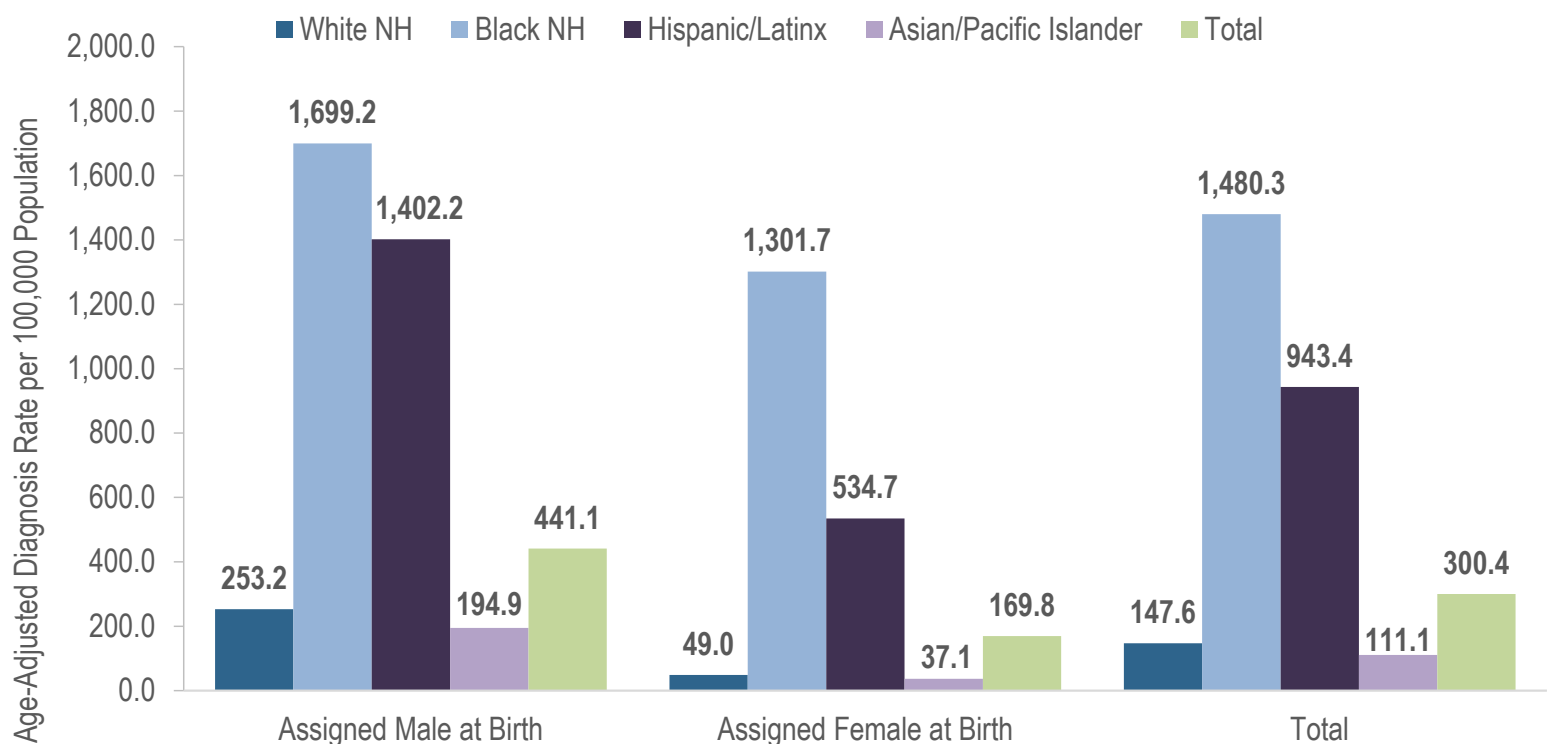
RACIAL AND ETHNIC GROUPS

KEY FINDING

With respect to differences based on race/ethnicity and sex assigned at birth, the average annual age-adjusted HIV diagnosis rate for 2021 to 2023 among:

- Black (non-Hispanic) individuals assigned male at birth (AMAB) was seven times that of White (non-Hispanic) individuals AMAB,
- Hispanic/Latinx individuals AMAB was five times that of White (non-Hispanic) individuals AMAB,
- Black (non-Hispanic) individuals assigned female at birth (AFAB) was 24 times that of White (non-Hispanic) individuals AFAB, and
- Hispanic/Latinx individuals AFAB was five times that of White (non-Hispanic) individuals AFAB.

FIGURE 2. Age-adjusted HIV prevalence rates per 100,000 populationⁱ by sex assigned at birth and race/ethnicity, Massachusetts 2023ⁱⁱ (N= 24,119)



KEY FINDINGS

In 2023, there were large disparities in age-adjusted prevalence rates by race/ethnicity. Compared to the rate among White (non-Hispanic) individuals, the rate among:

- Black (non-Hispanic) individuals was ten times greater, and
- Hispanic/Latinx individuals was six times greater.

With respect to differences based on race/ethnicity and sex assigned at birth, the age-adjusted HIV prevalence rate among:

- Black (non-Hispanic) individuals AMAB was seven times that of White (non-Hispanic) individuals AMAB,
- Hispanic/Latinx individuals AMAB was six times that of White (non-Hispanic) individuals AMAB,
- Black (non-Hispanic) individuals AFAB was 27 times that of White (non-Hispanic) individuals AFAB, and
- Hispanic/Latinx individuals AFAB was 11 times that of White (non-Hispanic) individuals AFAB.

ⁱ 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. 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.

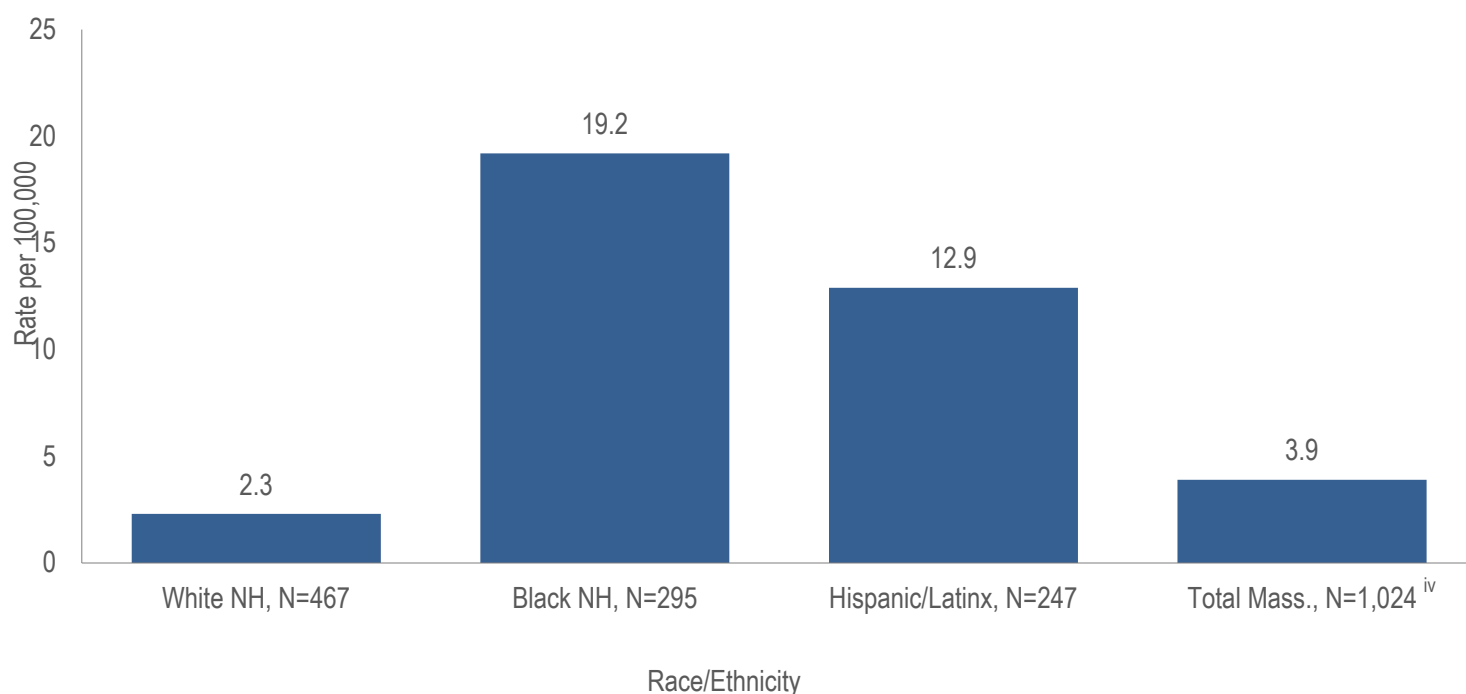
ⁱⁱ Please consider the impact of the COVID-19 pandemic on infectious disease screening, treatment, and surveillance in the interpretation of data from 2020 to 2023.

RACIAL AND ETHNIC GROUPS

TRANSGENDER INDIVIDUALS AND RACIAL/ETHNIC GROUPS

- Sixty-one percent (N=11/18) of individuals diagnosed with HIV infection from 2021 to 2023ⁱ and reported to be transgender were Hispanic/Latinx, 28% (N=5/18) were Black (non-Hispanic), and 12% (N=2/18) were White (non-Hispanic) or other/unknown race/ethnicities.
- Fifty-two percent (N=66/128) of persons living with HIV infection on 12/31/2023 and reported to be transgender were Hispanic/Latinx, 24% (N=31/128) were Black (non-Hispanic), 13% (N=16/128) were White (non-Hispanic), 7% (N=9/128) were Asian/Pacific Islander, and 5% (N=6/128) were other/unknown race/ethnicities.

FIGURE 3. Average age-adjusted death rate per 100,000 populationⁱⁱ among people reported with HIV by race/ethnicity,ⁱⁱⁱ Massachusetts 2021–2023



The age-adjusted average all-cause death rate from 2021 to 2023 among:

- Black (non-Hispanic) individuals reported with HIV was eight times that of White (non-Hispanic) individuals, and
- Hispanic/Latinx individuals reported with HIV was six times that of White (non-Hispanic) individuals.

ⁱ Please consider the impact of the COVID-19 pandemic on infectious disease screening, treatment, and surveillance in the interpretation of data from 2020 to 2023.

ⁱⁱ 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. 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.

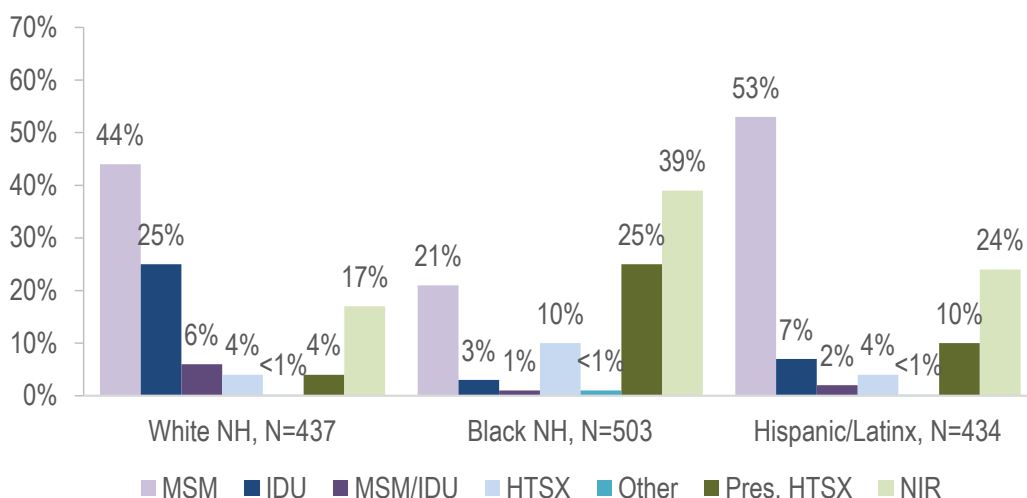
ⁱⁱⁱ Death rate for Asian/Pacific Islander (API) is not presented because the numerator <12 and therefore must be interpreted with caution.

^{iv} Total includes API and individuals of other/unknown race/ethnicity (N=15); NH=non-Hispanic

RACIAL AND ETHNIC GROUPS

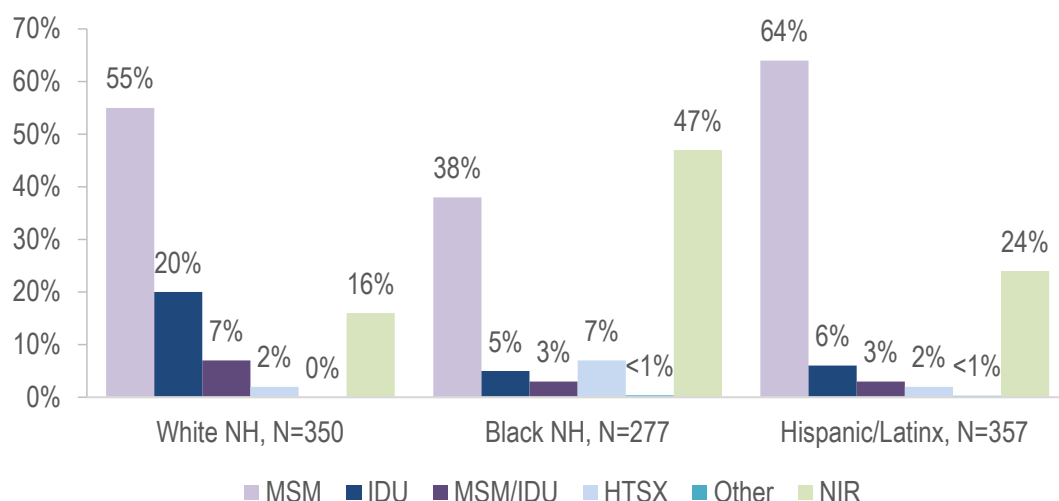
EXPOSURE MODE

FIGURE 4. Individuals diagnosed with HIV infection by exposure mode and race/ethnicity, Massachusetts 2021–2023ⁱ



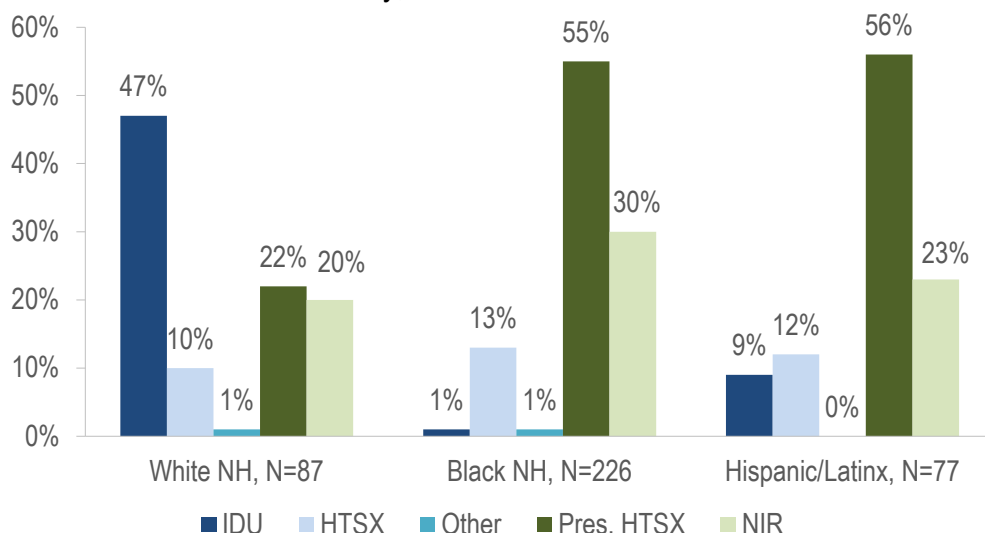
- While the predominant exposure mode among White (non-Hispanic) and Hispanic/Latinx individuals recently diagnosed with HIV infection was MSM (44% and 53%, respectively), the largest proportion of Black (non-Hispanic) individuals was assigned no identified risk for exposure mode (39%).

FIGURE 5. Individuals AMAB diagnosed with HIV infection by exposure mode and race/ethnicity, Massachusetts 2021–2023



- MSM was the most frequently reported exposure mode among White (non-Hispanic) (55%) and Hispanic/Latinx (64%) individuals AMAB, while NIR accounted for the largest proportion among Black (non-Hispanic) individuals AMAB (47%).

FIGURE 6. Individuals AFAB diagnosed with HIV infection by exposure mode and race/ethnicity, Massachusetts 2021–2023



- Injection drug use was the predominant exposure mode among White (non-Hispanic) individuals AFAB recently diagnosed with HIV infection (47%), while presumed heterosexual sex accounted for the largest proportions among Black (non-Hispanic) (55%) and Hispanic/Latinx (56%) individuals AFAB.

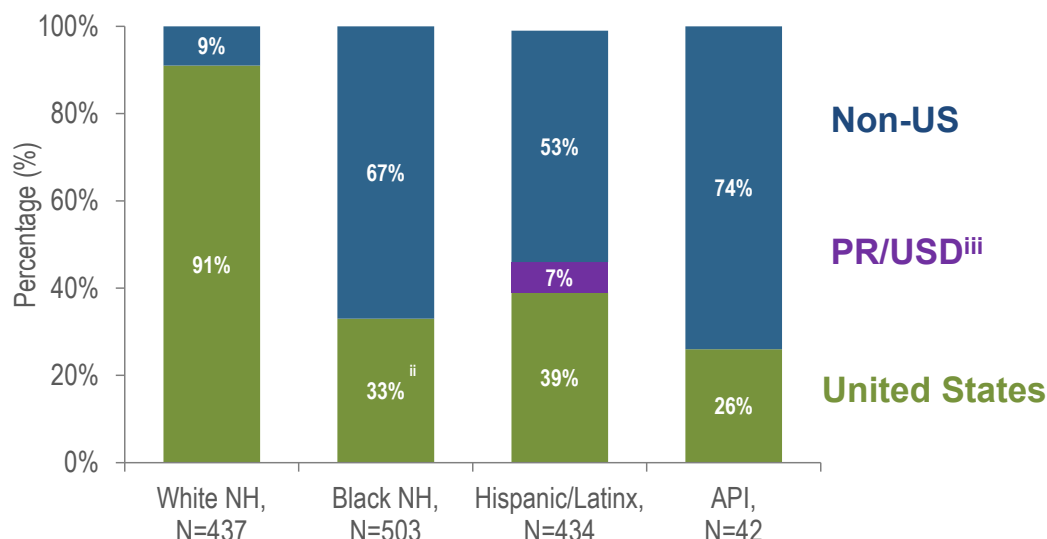
MSM=male-to-male sex; IDU= injection drug use; HTSX=heterosexual sex; Pres. HTSX=presumed heterosexual exposure, includes individuals assigned female at birth with a negative history of injection drug use who report having sex with an individual that identifies as male of unknown HIV status and risk; NIR=no identified risk

ⁱ Please consider the impact of the COVID-19 pandemic on infectious disease screening, treatment, and surveillance in the interpretation of data from 2020 to 2023.

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PLACE OF BIRTH

FIGURE 7. Percentage of individuals diagnosed with HIV infection by race/ethnicity and place of birth, Massachusetts 2021–2023ⁱ



ⁱⁱ US born and Puerto Rico/USD categories are combined for Black non-Hispanic individuals due to small numbers to adhere to cell suppression rules.

ⁱⁱⁱ 94% of individuals diagnosed with HIV infection from 2021–2023 who were born in a US dependency (USD) were born in Puerto Rico (PR).

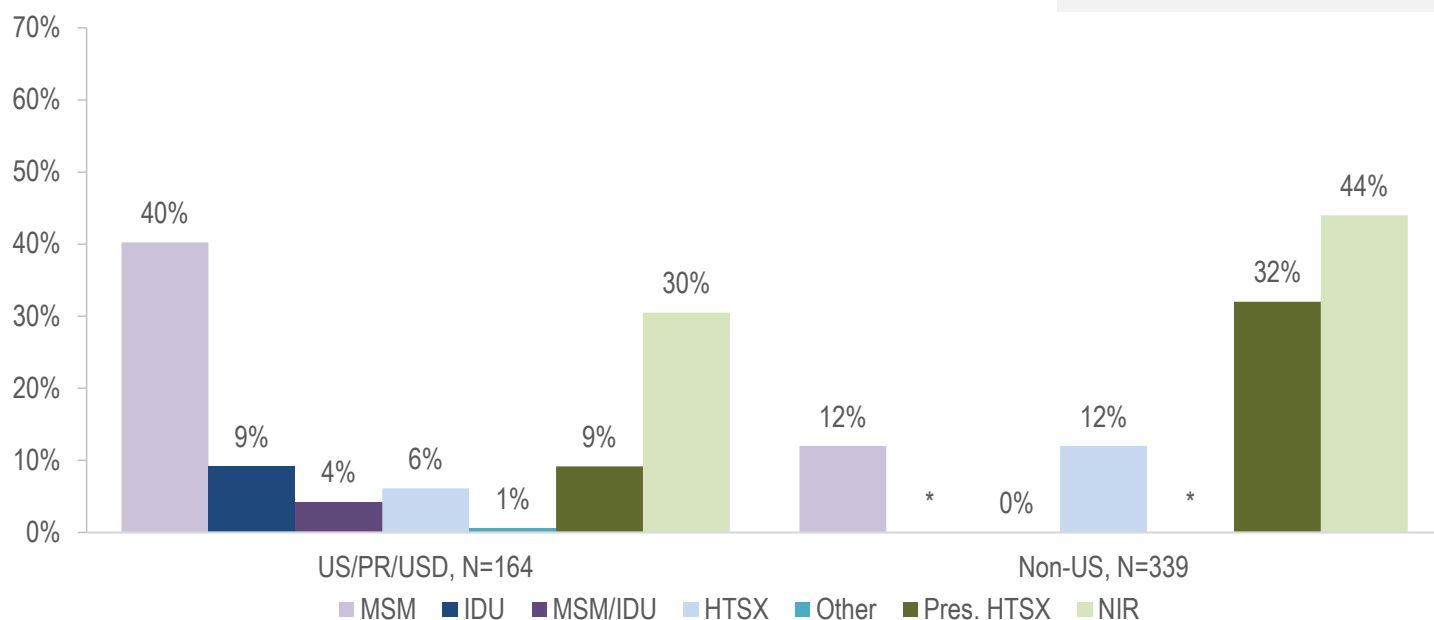
API=Asian/Pacific Islander, NH=non-Hispanic

KEY FINDING

- Seventy-four percent of Asian/Pacific Islander individuals diagnosed with HIV infection during 2021–2023 were born outside the US, compared to 67% of Black (non-Hispanic), 53% of Hispanic/Latinx, and 9% of White (non-Hispanic) individuals.
- The majority of the 339 non-US born Black (non-Hispanic) individuals diagnosed with HIV infection from 2021 to 2023 were from the Caribbean (61%) or sub-Saharan Africa (38%).
- The majority of the 231 non-US born Hispanic/Latinx individuals were from Central and South America (65%) or the Caribbean (33%).

EXPOSURE MODE AND PLACE OF BIRTH

FIGURE 8. HIV diagnoses among Black (non-Hispanic) individuals diagnosed with HIV infection by exposure mode and place of birth, Massachusetts 2021–2023ⁱ

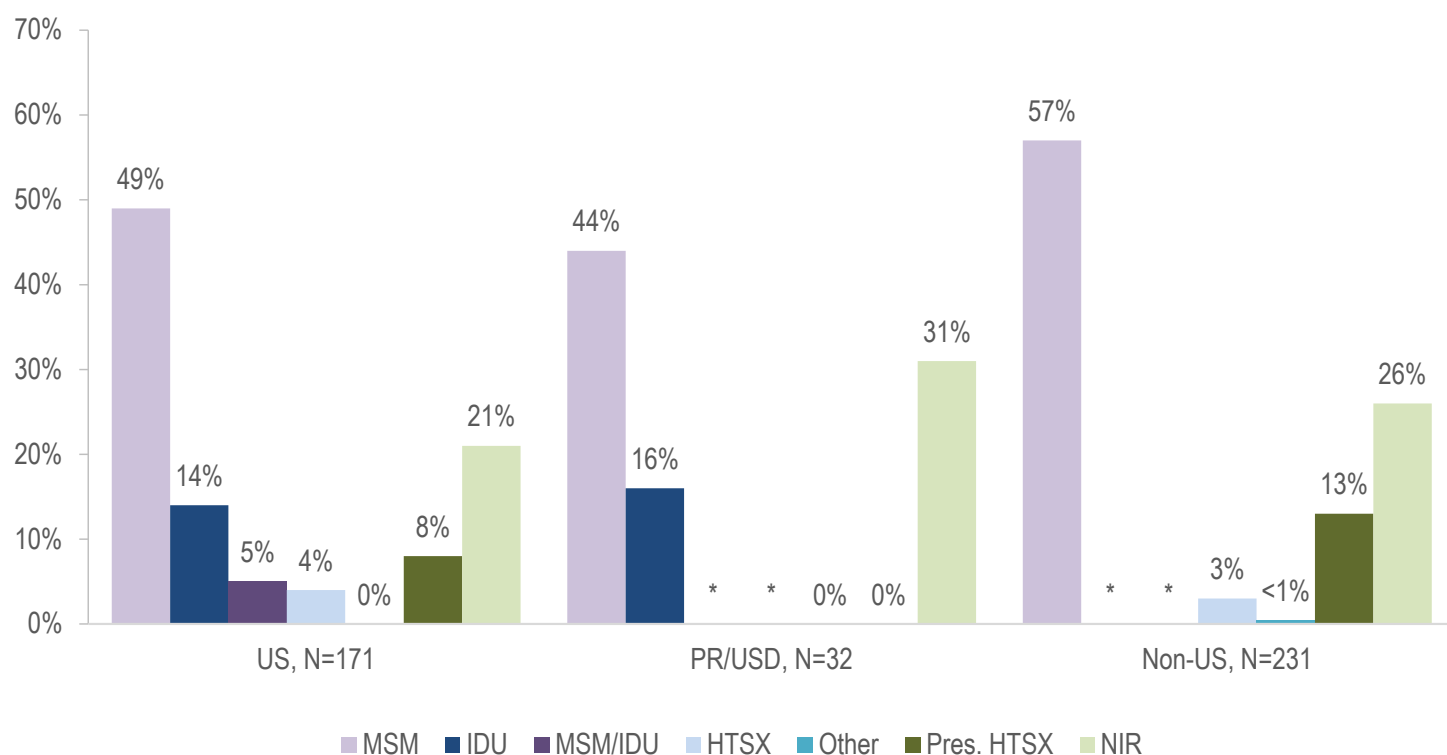


* Values less than five are suppressed for populations less than 50,000 or for populations of unknown size; Puerto Rico/US Dependency is not presented due to small numbers. US born and Puerto Rico/USD categories are combined for Black non-Hispanic individuals due to small numbers to adhere to cell suppression rules.

- While the predominant exposure mode among Black (non-Hispanic) individuals recently diagnosed with HIV infection and born in the US, Puerto Rico, and other US dependencies was MSM (40%), the largest proportion of Black (non-Hispanic) individuals born outside the US was assigned no identified risk for exposure mode (44%). Sixty-three percent (N=93/148) of HIV diagnoses among non-US born Black (non-Hispanic) individuals with NIR exposure mode were born in Haiti.

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FIGURE 9. HIV diagnoses among Hispanic/Latinx individuals diagnosed with HIV infection by exposure mode and place of birth, Massachusetts 2021–2023ⁱ

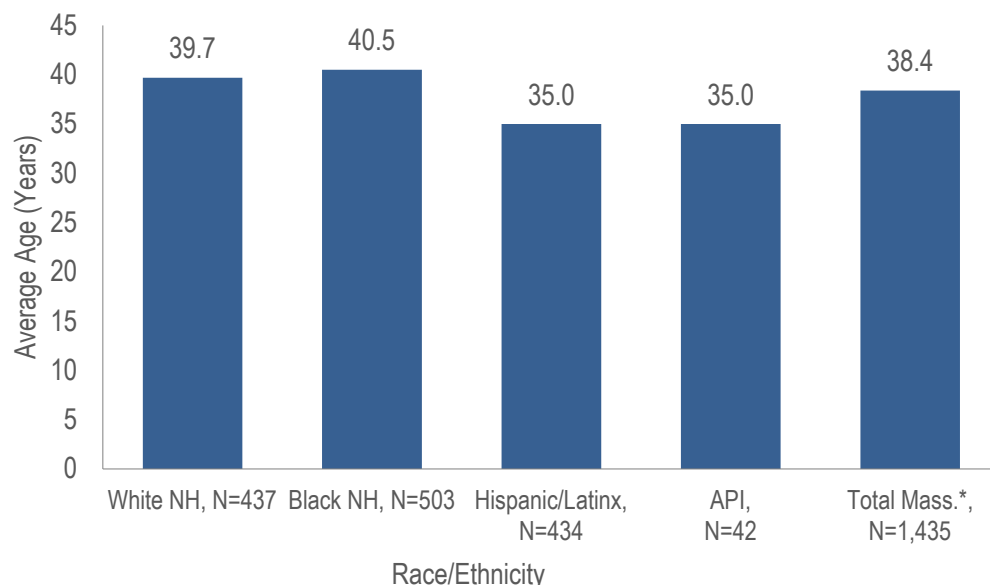


* Values less than five are suppressed for populations less than 50,000 or for populations of unknown size. Additional values of zero and greater than or equal to five may be suppressed to prevent back calculation.

- MSM was the predominant exposure mode among Hispanic/Latinx individuals recently diagnosed with HIV infection for all places of birth: US (49%), Puerto Rico (44%), and non-US (57%). Twenty-nine percent (N=38/132) of HIV diagnoses among non-US born Hispanic/Latinx individuals with MSM exposure mode were born in Brazil, 17% (N=22/132) were born in Colombia, 15% (N=20/132) were born in the Dominican Republic, and 10% (N=13/132) were born in El Salvador.

AGE

FIGURE 10. Average age at HIV infection diagnosis by race/ethnicity, Massachusetts 2021–2023



- The average age at HIV diagnosis from 2021 to 2023 was younger for Hispanic/Latinx and Asian/Pacific Islander individuals diagnosed with HIV infection (both 35.0 years) compared to Black (non-Hispanic) and White (non-Hispanic) individuals (40.5 and 39.7 years, respectively).

* Total includes individuals of other/unknown race/ethnicity (N=19)

ⁱ Please consider the impact of the COVID-19 pandemic on infectious disease screening, treatment, and surveillance in the interpretation of data from 2020 to 2023.

RACIAL AND ETHNIC GROUPS

PLACE OF RESIDENCE

TABLE 1. Massachusetts cities/townsⁱ with the highest percentage of HIV diagnoses among Black (non-Hispanic) individuals, 2021–2023

	HIV Diagnoses Among Black NH Individuals (N)	HIV Diagnoses Among Black NH Individuals as Percent of Total HIV Diagnoses in City/Town (%)
Massachusetts Total	503	35%
Top Cities/Townsⁱⁱ		
Brockton	66	88%
Boston	165	47%
Springfield	25	43%
Worcester	27	39%
New Bedford	11	37%
Lynn	14	32%
Lowell	13	30%
Everett	6	29%
Malden	8	28%
All Other Cities/Townsⁱⁱⁱ	168	24%

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

ⁱⁱ Among cities and towns with more than 20 total HIV diagnoses from 2021–2023

ⁱⁱⁱ All Other Cities/Towns includes individuals diagnosed in a correctional facility.

- Among cities and towns with more than 20 reported HIV diagnoses from 2021 to 2023,ⁱ Brockton had the highest percentage of HIV diagnoses among Black (non-Hispanic) individuals at 88%.

TABLE 2. Massachusetts cities/townsⁱ with the highest percentage of HIV diagnoses among Hispanic/Latinx individuals, 2021–2023

	HIV Diagnoses Among Hispanic/Latinx Individuals (N)	HIV Diagnoses Among Hispanic/Latinx Individuals as Percent of Total HIV Diagnoses in City/Town (%)
Massachusetts Total	434	30%
Top Cities/Townsⁱⁱ		
Chelsea	17	81%
Lawrence	28	80%
Framingham	12	55%
Springfield	28	48%
Lynn	21	48%
Malden	12	41%
Everett	8	38%
Worcester	24	34%
Boston	102	29%
New Bedford	7	23%
All Other Cities/Townsⁱⁱⁱ	175	23%

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

ⁱⁱ Among cities and towns with more than 20 total HIV diagnoses from 2021–2023

ⁱⁱⁱ All Other Cities/Towns includes individuals diagnosed in a correctional facility.

- Among cities and towns with more than 20 reported HIV diagnoses from 2021 to 2023, Chelsea and Lawrence had the highest percentages of HIV diagnoses among Hispanic/Latinx individuals at 81% and 80%, respectively.

INFORMATION FROM ADDITIONAL DATA SOURCES

Behavioral Risk Factors: Recent statewide surveys describe sexual and drug use behaviors among racial/ethnic groups in Massachusetts.

Massachusetts Behavioral Risk Factor Surveillance Survey (BRFSS): An annual, 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.

ⁱ Please consider the impact of the COVID-19 pandemic on infectious disease screening, treatment, and surveillance in the interpretation of data from 2020 to 2023.

RACIAL AND ETHNIC GROUPS

KEY FINDING

- Black (non-Hispanic) and Hispanic/Latinx respondents reported higher rates of condom use than White (non-Hispanic) respondents.

TABLE 3. Percentageⁱ (95% confidence interval) and number of adults ages 18–64 years reporting sexual behaviors by race/ethnicity, Massachusetts 2021–2023

	White (non-Hispanic)	Black (non-Hispanic)	Hispanic/Latinx
Two or more sexual partners in past year ⁱⁱ	9.9% (8.5%–11.2%), n=3,680	11.9% (8.4%–15.4%), n=393	9.2% (6.6%–11.7%), n=916
Condom use at last sex ⁱⁱⁱ	20.0% (17.9%–22.1%), n=2,676	32.2% (24.9%–39.6%), n=272	25.9% (21.4%–30.4%), n=607

ⁱ % = percent of total responding “yes” to specified question

ⁱⁱ “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.

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

Data Source: Health Survey Program, Office of Data Management and Outcomes Assessment, Massachusetts Behavioral Risk Factor Surveillance System (BRFSS). For more information, see: Health Survey Program, Office of Data Management and Outcomes Assessment, Massachusetts Department of Public Health. A Profile of Health Among Massachusetts Adults, 2022, Results from the Behavioral Risk Factor Surveillance System, December 2023, <https://www.mass.gov/lists/brfss-statewide-reports-and-publications>

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.*

KEY FINDING

- Hispanic/Latinx respondents were more likely to report having sexual intercourse before age 13 than White (non-Hispanic) respondents.

TABLE 4. Percentageⁱ (95% confidence interval) and numberⁱⁱ of respondents reporting sexual behaviors to the YRBS by race/ethnicity, Massachusetts 2021

	White (non-Hispanic)	Black (non-Hispanic)	Hispanic/Latinx
Sexual intercourse before age 13	1.6% (0.9%–2.2%), n=1,401	Results not presented for n<100	4.9% (3.3%–6.6%), n=656
4 or more lifetime sexual intercourse partners	3.7% (2.5%–5.0%), n=1,399	Results not presented for n<100	5.9% (4.2%–7.6%), n=648
Condom use at last sexual intercourse	62.4% (55.4%–69.5%), n=240	Results not presented for n<100	50.1% (42.0%–58.2%), n=124
Drank alcohol or used drugs before last sexual intercourse	20.8% (16.5%–25.0%), n=231	Results not presented for n<100	23.8% (16.9%–30.6%), n=108

ⁱ % = percent of total responding “yes” to specified question

ⁱⁱ 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: Office of Data Management and Outcomes Assessment, Department of Public Health and Massachusetts Department of Elementary and Secondary Education. For more information, see <https://www.doe.mass.edu/sfs/yrbs/>.

ⁱ Please consider the impact of the COVID-19 pandemic on infectious disease screening, treatment, and surveillance in the interpretation of data from 2020 to 2023.