



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

## Massachusetts HIV Epidemiologic Profile: Data as of 7/1/2024 Population Report: Adolescents and Young Adults

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### Questions about this report

Tel: (617) 983-6560

### To reach the Reporting and Partner Services Line<sup>i</sup>

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>

<sup>i</sup> 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>

# ADOLESCENTS AND YOUNG ADULTS

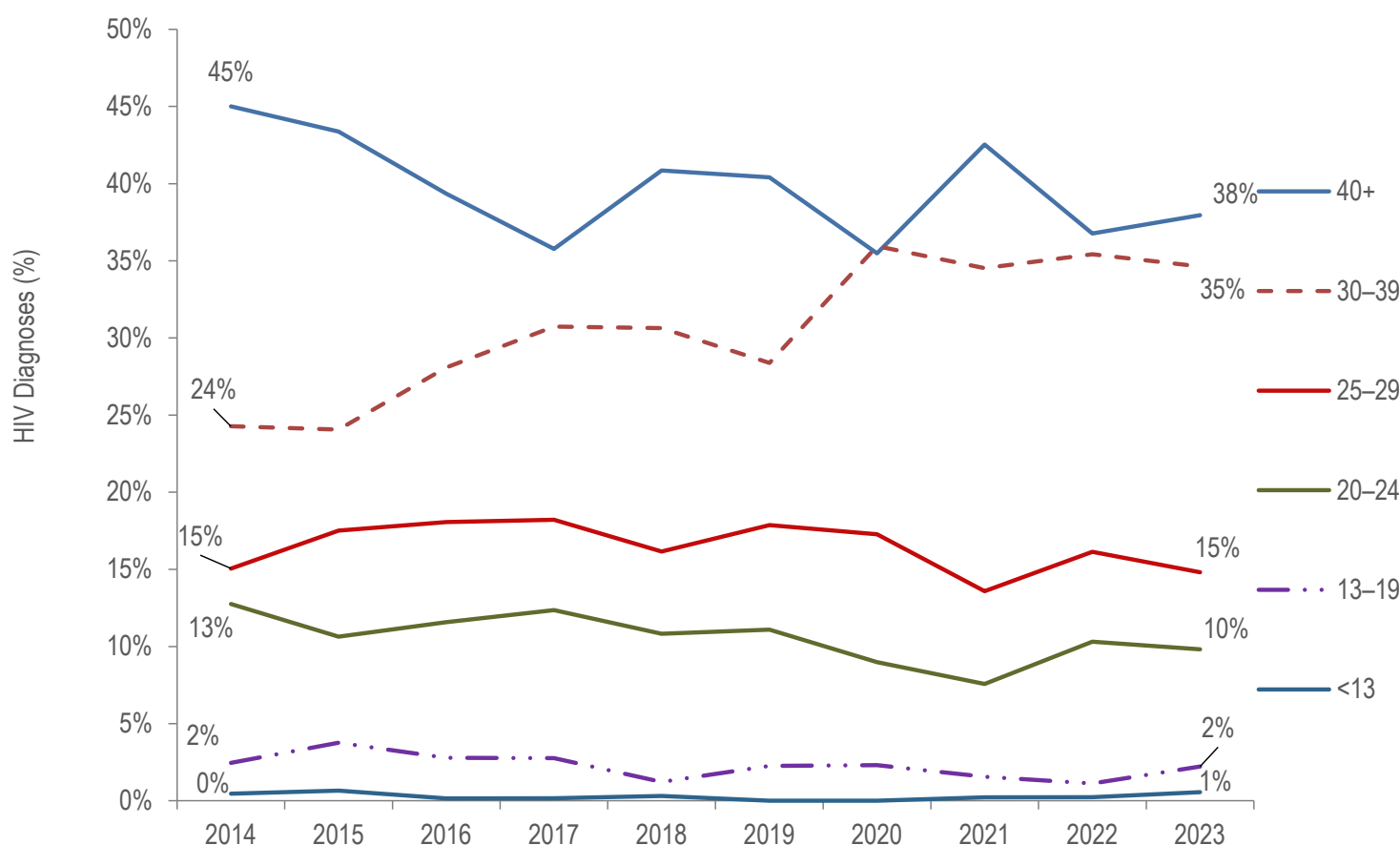
## HIV INCIDENCE AND PREVALENCE AMONG ADOLESCENTS AND YOUNG ADULTS

**N=157\*** **11%** of 1,435 new HIV diagnoses from 2021–2023 were among adolescents and young adults (aged 13 to 24 years)

**N=299\*** **1%** of 24,119 persons living with HIV infection in MA as of 12/31/2023 were adolescents and young adults (aged 13 to 24 years)

**KEY FINDING:** Nationally, in 2022, 19% of HIV infections were diagnosed among adolescents and young adults (aged 13 to 24 years),<sup>i</sup> compared to 11% in Massachusetts from 2021 to 2023.

**FIGURE 1.** Individuals diagnosed with HIV infection by age at diagnosis and year of diagnosis, Massachusetts 2014–2023



Individuals Diagnosed with HIV Infection 2014-2023: N=5,582

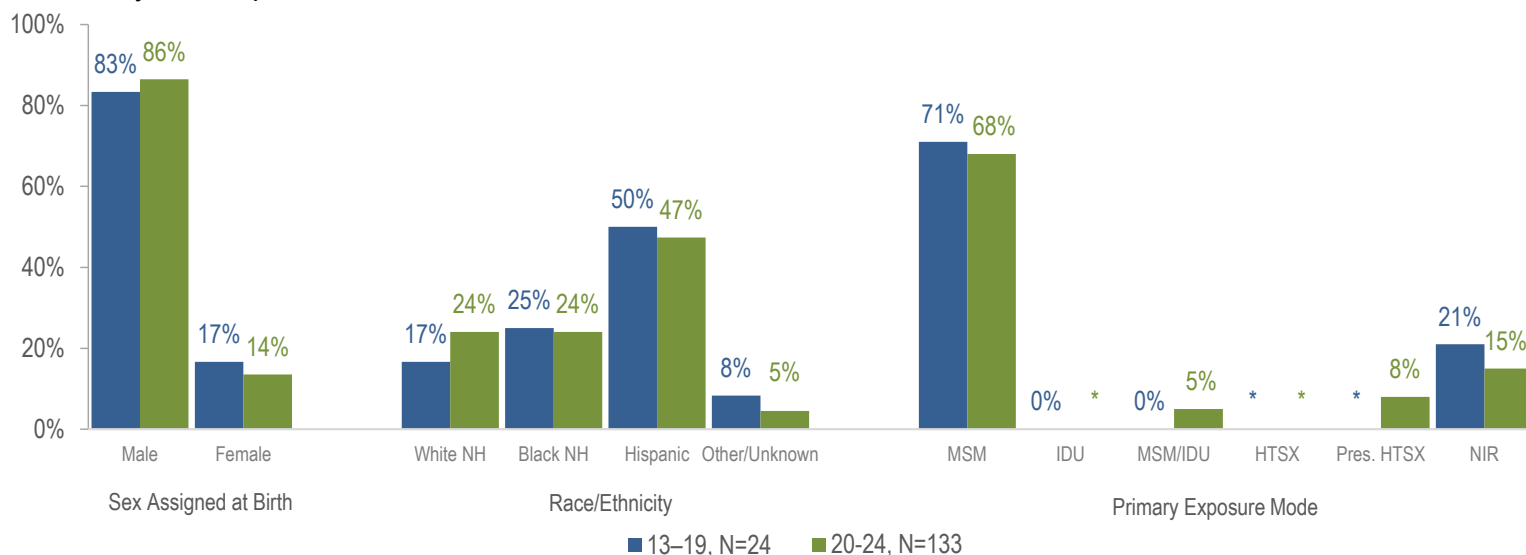
- From 2014 to 2023, the proportion of individuals diagnosed with HIV infection at age 13–19 years remained relatively stable, ranging from 1% (2018 and 2022) to 4% (2015).
- During the same time period, the proportion of individuals diagnosed with HIV infection at age 20–24 years also remained relatively stable, ranging from 8% (2021) to 13% (2014).

\*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

<sup>i</sup>Centers for Disease Control and Prevention. Diagnoses, deaths, and prevalence of HIV in the United States and 6 territories and freely associated states, 2022. HIV Surveillance Report, 2022; vol. 35. <http://www.cdc.gov/hiv-data/nhss/hiv-diagnoses-deaths-prevalence.html>. Published May 2024. Accessed [10/1/2024]. Please note, 2022 national data is presented because 2023 data (and therefore the 2021–2023 national comparison) is not yet available at the time of this publication

# ADOLESCENTS AND YOUNG ADULTS

**FIGURE 2.** Individuals diagnosed with HIV infection at age 13–19 years vs. 20–24 years by sex assigned at birth, race/ethnicity, and exposure mode, Massachusetts 2021–2023

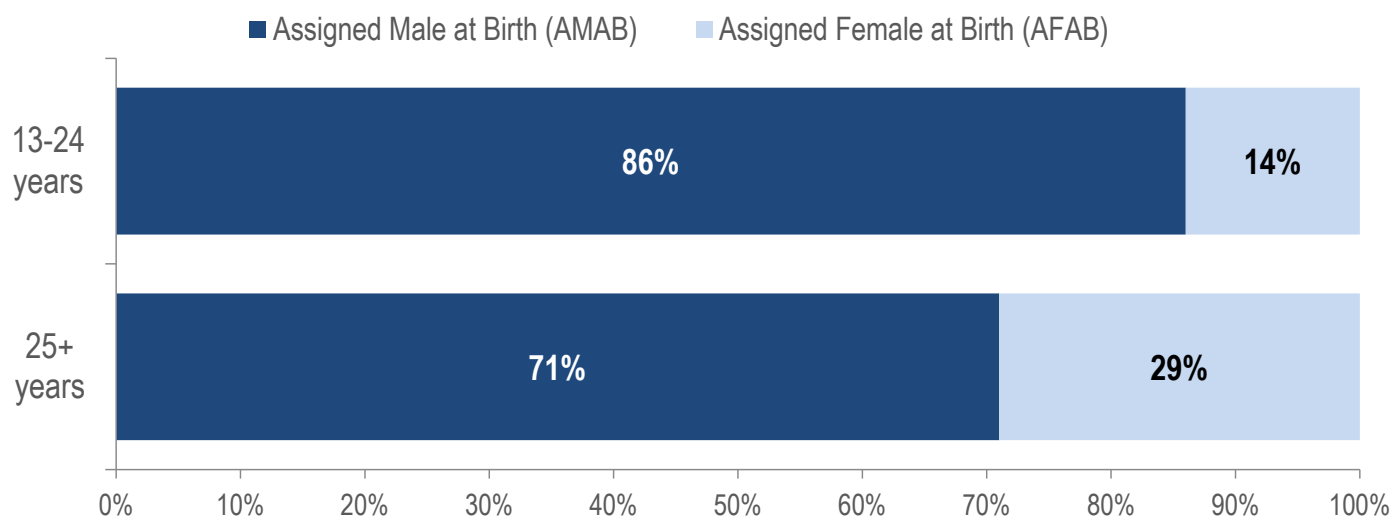


MSM=male-to-male sex; IDU= injection drug use; HTSX=heterosexual sex; Pres. HTSX=presumed heterosexual exposure, includes individuals assigned female at birth with a negative history of injection drug use who report having sex with an individual that identifies as male of unknown HIV status and risk;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

- Among adolescents and young adults (aged 13–24 years) recently diagnosed with HIV infection (2021–2023),\* 85% (N=133) were 20 to 24 years of age and 15% (N=24) were 13 to 19 years of age. Additionally, 2% (N=3) were considered minors (under 18 years of age) and 98% (N=154) were 18 years of age or older.
- The distributions by assigned sex at birth, race/ethnicity, and HIV exposure mode were similar for youth recently diagnosed with HIV infection at age 13–19 years and those diagnosed at age 20–24 years.

## SEX ASSIGNED AT BIRTH

**FIGURE 3.** HIV infection diagnoses by sex assigned at birth and age at diagnosis: 13-24 years (N=157) and 25+ years (N=1,273), Massachusetts 2021–2023



- A larger proportion of adolescents and young adults recently diagnosed with HIV infection at age 13–24 years (86%) than those diagnosed at age 25 years and older (71%) was assigned male at birth (AMAB).

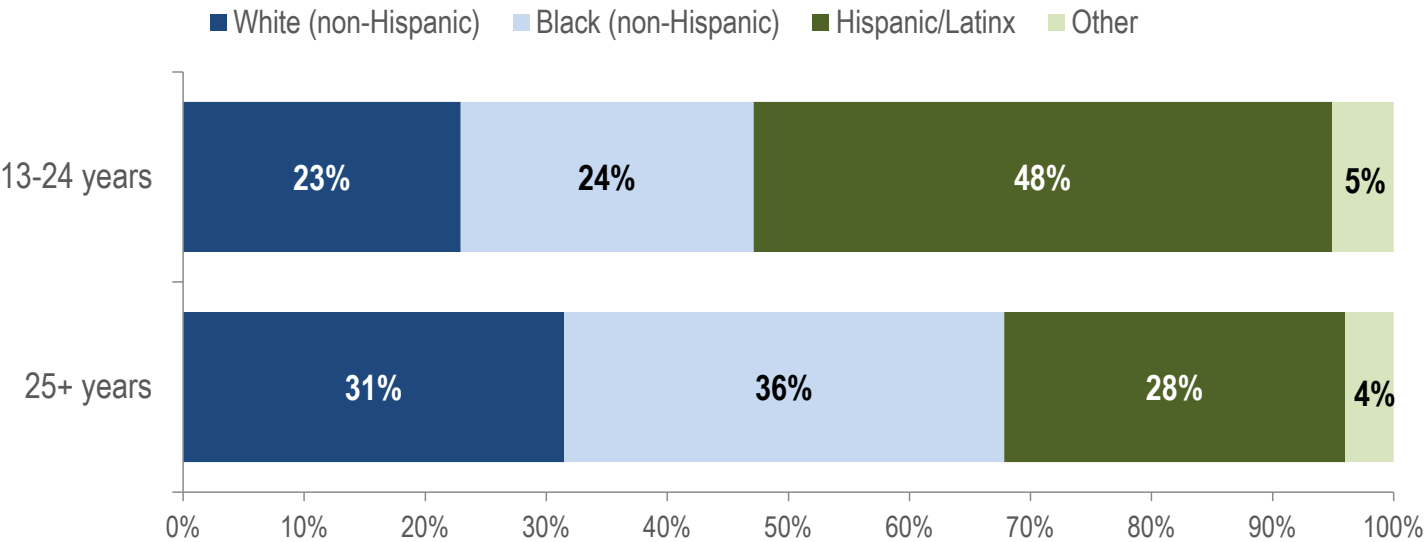
# ADOLESCENTS AND YOUNG ADULTS

## TRANSGENDER INDIVIDUALS AND AGE AT DIAGNOSIS

- Less than five of 18 individuals diagnosed with HIV infection from 2021 to 2023\* and reported to be transgender were aged 13 to 24 years old.

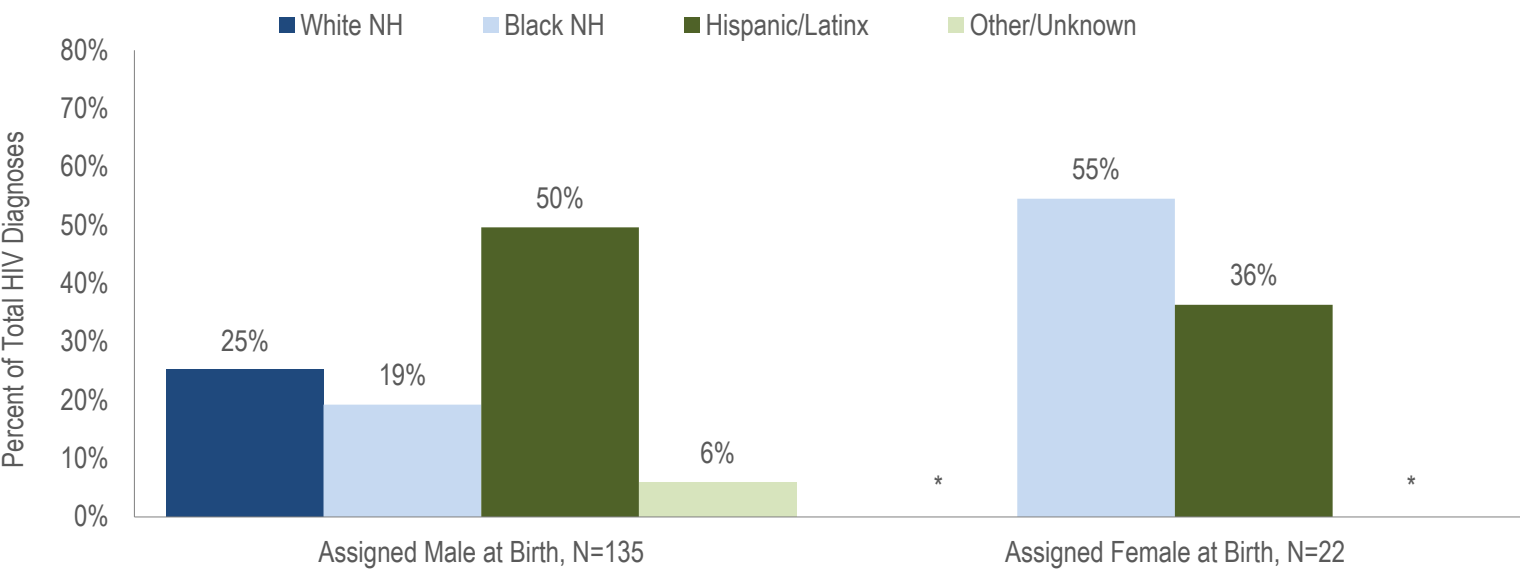
## RACE/ETHNICITY

**FIGURE 4.** HIV infection diagnoses by race/ethnicity and age at diagnosis: 13-24 years (N=157) and 25+ years (N=1,273), Massachusetts 2021–2023



- While the largest proportion of adolescents and young adults recently diagnosed with HIV infection at age 13–24 years was Hispanic/Latinx (48%), the largest proportion of individuals recently diagnosed at age 25 years and older was Black (non-Hispanic) (36%).

**FIGURE 5.** HIV infection diagnoses among individuals aged 13-24 years by sex assigned at birth and race/ethnicity, Massachusetts 2021–2023



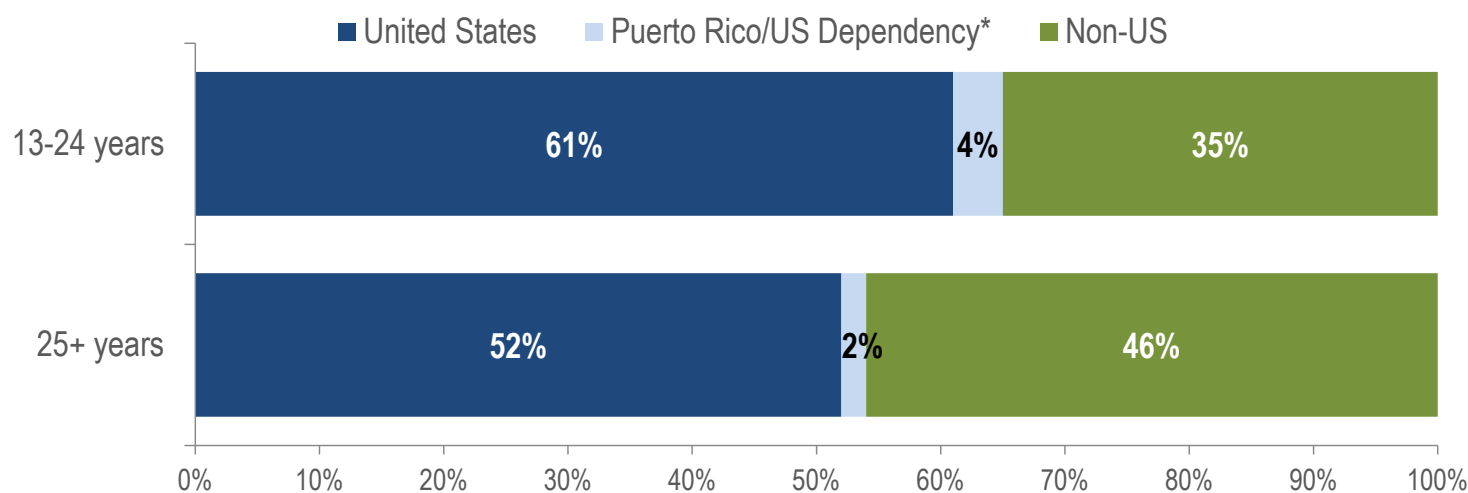
\* Values less than five are suppressed for populations less than 50,000 or for populations of unknown size. Percentages do not add up to 100% due to suppressed values.

- While the largest proportion of individuals AMAB recently diagnosed with HIV infection at age 13–24 years was Hispanic/Latinx (50%), the largest proportion of individuals AFAB recently diagnosed at age 13–24 years was Black (non-Hispanic) (55%).

# ADOLESCENTS AND YOUNG ADULTS

## PLACE OF BIRTH

**FIGURE 6.** HIV infection diagnoses by place of birth and age at diagnosis: 13-24 years (N=157) and 25+ years (N=1,273), Massachusetts 2021–2023\*

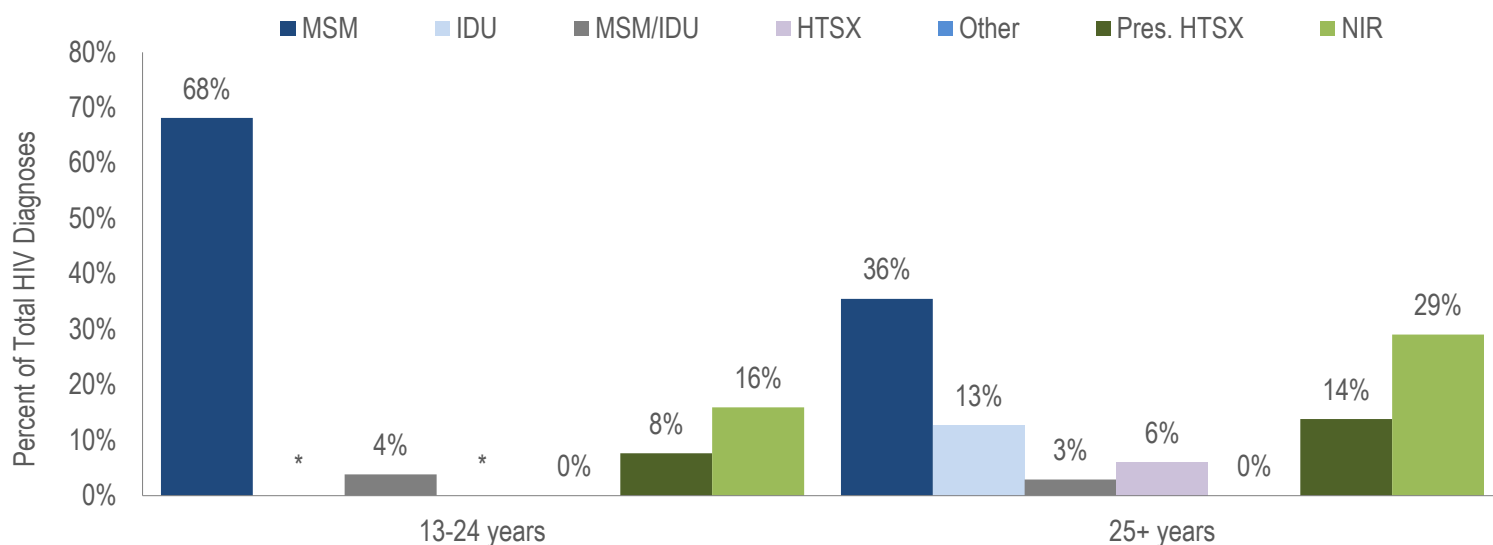


\* 94% of individuals diagnosed with HIV infection from 2021–2023 who were born in a US dependency (USD) were born in Puerto Rico (PR).

- A larger proportion of adolescents and young adults recently diagnosed with HIV infection at age 13–24 years (61%) than those diagnosed at age 25 years and older (52%) was born in the US.

## EXPOSURE MODE

**FIGURE 7.** HIV infection diagnoses by exposure mode and age at diagnosis: 13-24 years (N=157) and 25+ years (N=1,273), Massachusetts 2021–2023



\* Values less than five are suppressed for populations less than 50,000 or for populations of unknown size. Percentages do not add up to 100% due to suppressed values. 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

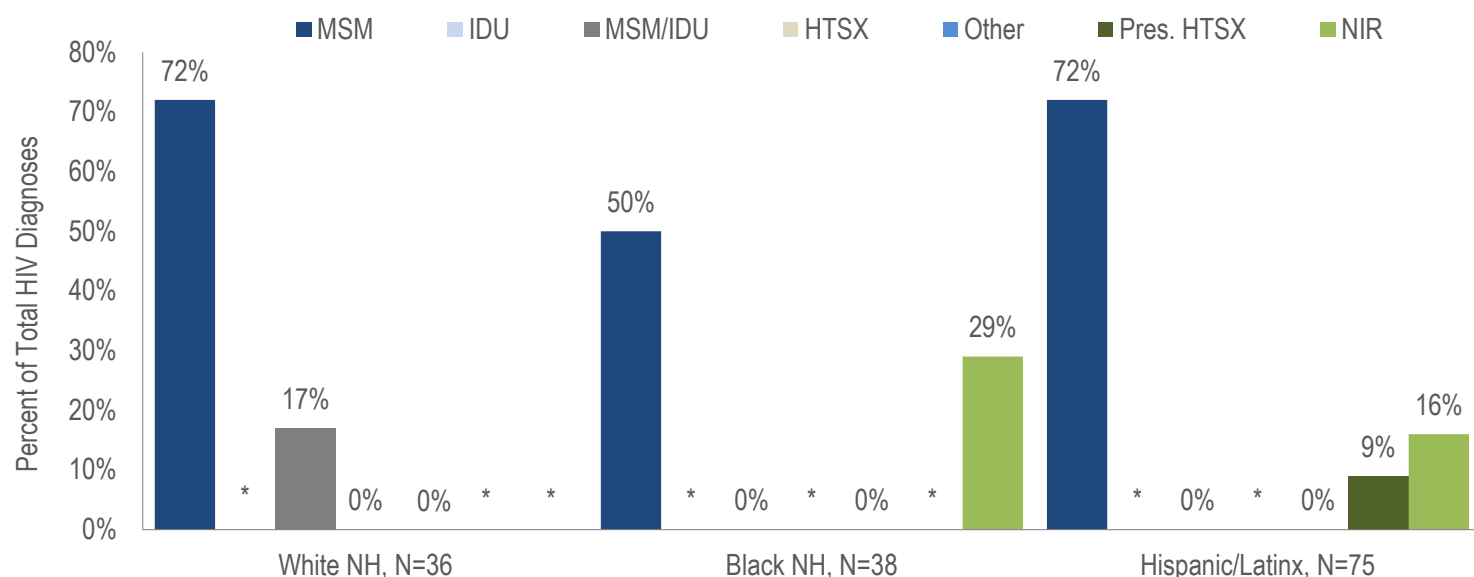
- A larger proportion of individuals diagnosed with HIV infection at age 13–24 years (68%) than those diagnosed at age 25 years and older (36%) had MSM exposure mode and a smaller proportion had injection drug use (less than 5% vs. 13%) and no identified risk (16% versus 29%).

## KEY FINDING

- Among individuals AMAB, a larger proportion of those diagnosed with HIV infection at age 13–24 years (79%, N=107/135) than those diagnosed at age 25 years and older (50%, N=452/902) had MSM exposure mode.

# ADOLESCENTS AND YOUNG ADULTS

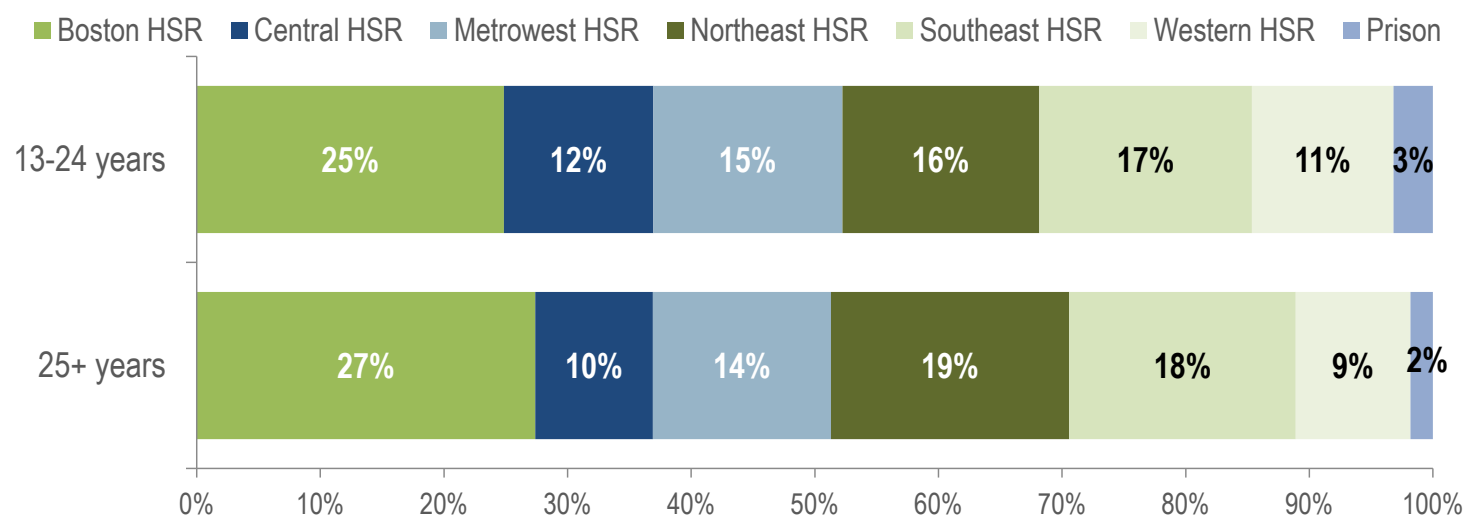
**FIGURE 8.** HIV infection diagnoses among individuals aged 13–24 years by race/ethnicity and exposure mode, Massachusetts 2021–2023\*



- The proportion of adolescents and young adults (aged 13–24 years) recently diagnosed with MSM exposure mode was 72% among both White (non-Hispanic) and Hispanic/Latinx youth, and 50% among Black (non-Hispanic) youth.
- The proportion with IDU exposure mode was less than 5% among White (non-Hispanic), Black (non-Hispanic), and Hispanic/Latinx youth. The proportion with MSM/IDU exposure mode was 17% among White (non-Hispanic) youth, compared to 0% among both Hispanic/Latinx youth and Black (non-Hispanic) youth.

## AREA OF RESIDENCE

**FIGURE 9.** HIV infection diagnoses by Health Service Region (HSR) of residence and age at diagnosis: 13–24 years (N=157) and 25+ years (N=1,273), Massachusetts 2021–2023



- The distribution by Health Service Region of residence was similar for youth recently diagnosed with HIV infection at age 13–24 years and those diagnosed at age 25+ years.

PLACE OF RESIDENCE

TABLE 1. Massachusetts cities/towns<sup>i</sup> with the highest percentage of HIV diagnoses among adolescents and young adults (13–24 years old), 2021–2023

	HIV Diagnoses Among Adolescents and Young Adults 13–24 Years (N)	HIV Diagnoses Among Adolescents and Young Adults 13–24 Years as Percent of Total HIV Diagnoses in City/Town (%)
Massachusetts Total	157	11%
Top Cities/Towns <sup>ii</sup>		
Malden	7	24%
Lawrence	7	20%
Springfield	11	19%
Worcester	12	17%
Lowell	6	14%
All Other Cities/Towns <sup>iii</sup>	114	10%

<sup>i</sup> City/town is based on residence at HIV infection diagnosis.  
<sup>ii</sup> Among cities and towns with more than 20 total HIV diagnoses from 2021–2023  
<sup>iii</sup> All Other Cities/Towns includes individuals diagnosed in a correctional facility.

• Among cities and towns with more than 20 reported HIV diagnoses in 2021–2023 and at least 5 diagnoses among adolescents and young adults aged 13-24 years, Malden and Lawrence had the largest proportions of HIV infections diagnosed in this age group, at 24% and 20%, respectively.

INFORMATION FROM ADDITIONAL DATA SOURCES

**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.

Sexual behaviors

- Respondents to the 2023 Massachusetts YRBS reported the following rates of sexual behaviors:
  - Condom use at last intercourse: 51.6% (95% CI: 45.7%–57.5%, n=568);
  - Alcohol or drug use at last intercourse: 19.1% (95% CI: 14.2%–23.9%, n=572);
  - Having four or more lifetime sexual partners: 5.3% (95% CI: 3.9%–6.7%, n=2,732); and
  - Sexual intercourse before age 13: 3.0% (95% CI: 2.2%–3.8%, n=2,740).

Drug use

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

- Respondents to the 2023 Massachusetts YRBS reported the following rates of drug use:
  - Ever using cocaine: 1.6% (95% CI: 0.8%–2.4%, n=2,768);
  - Ever using ecstasy 1.6% (95% CI: 0.9%–2.2%, n=2,759);
  - Ever using methamphetamines: 1.7% (95% CI: 0.8%–2.5%, n=2,949); and
  - Ever using heroin: 1.3% (95% CI: 0.7%– 2.0%, n=2,946).

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

\*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