



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

Massachusetts HIV/AIDS Epidemiologic Profile: Data as of 2/1/2021 Population Report: Men Who Have Sex with Men

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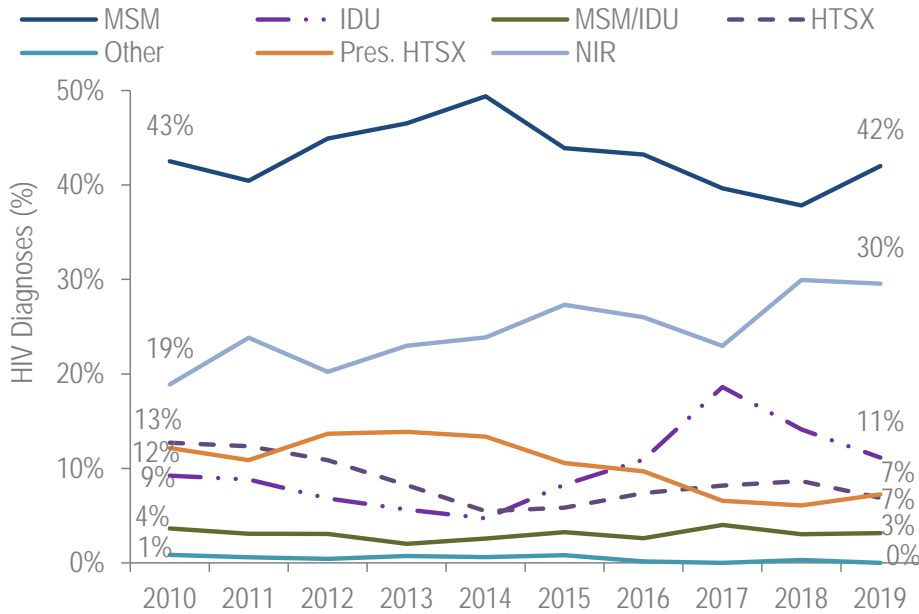
MEN WHO HAVE SEX WITH MEN

Men who have sex with men (MSM) remain at high risk for HIV infection as male-to-male sex (MSM) continues to be the predominant exposure mode in Massachusetts.

N=722 40% of new HIV diagnoses from 2017–2019 were among MSM

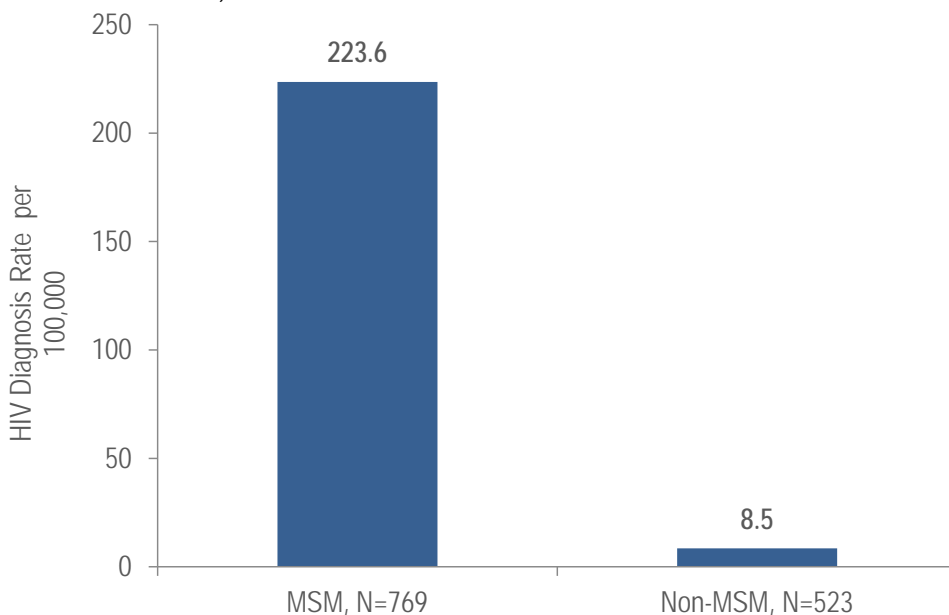
N=9,238 40% of persons living with HIV infection in MA as of 12/31/2019 were MSM

FIGURE 1. Percentage distribution of individuals diagnosed with HIV infection by exposure mode: Massachusetts, 2010–2019



Individuals Diagnosed with HIV Infection 2010-2019: N=6,546, MSM=Male-to-male sex, IDU=Injection drug use, HTSX=Heterosexual sex, Pres.=Presumed, NIR=No identified risk

FIGURE 2. Estimatedⁱ average HIV diagnosis rate per 100,000 population, MSM compared to non-MSM (males only) ages 18–64 years: Massachusetts, 2017–2019



ⁱ Multiple source estimation method for MSM rate (2017-2019 BRFSS; as of 1/1/2020 BIDLs calculates rates using University of Massachusetts Donahue Institute 2019 population estimates using a modified Hamilton-Perry model. Note that rates calculated using previous population denominators cannot be compared to these.

- Among individuals assigned male at birth (AMAB), MSM was the exposure mode for 54% (N=722/1,329), and MSM/IDU an additional 5% (N=62/1,329), of HIV infection diagnoses from 2017 to 2019.

KEY FACT

- From 2010 to 2019, MSM exposure mode accounted for the largest percentage of HIV diagnoses each year (with a low of 38% (N=249/658) in 2018 and a high of 49% (N=325/658) in 2014).

KEY FACT

- At 223.5 per 100,000 population, the estimated average rate of HIV diagnosis from 2017 to 2019 among MSM (ages 18-64) was 26 times the rate of non-MSM (8.5 per 100,000).

- Additionally, at 7,812.0 per 100,000 population, the estimated HIV prevalence rate among MSM (ages 18-64) was 30 times the rate of non-MSM (263.5 per 100,000).

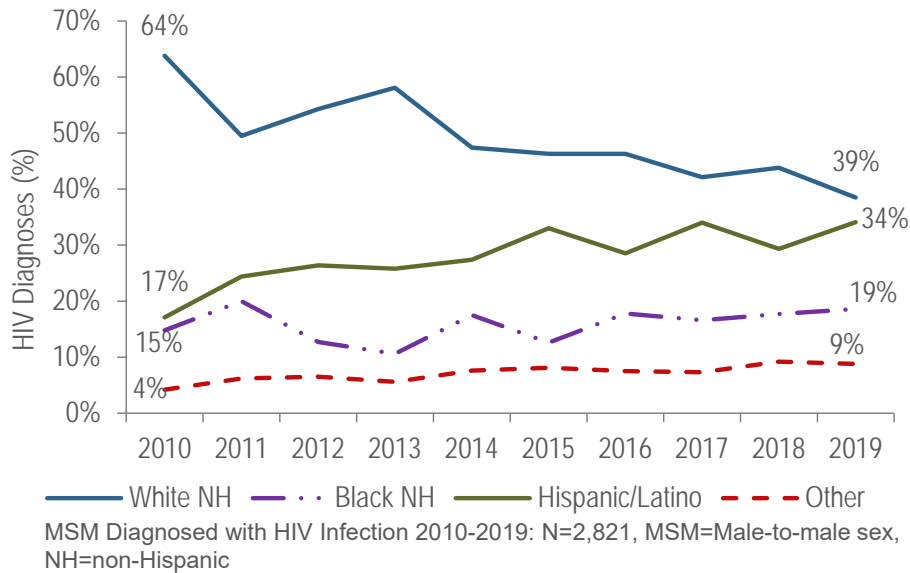
Please note that individuals AMAB with no identified risk for HIV infection were included in the non-MSM category for rate calculations.

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RACE/ETHNICITY

- Forty-two percent of 722 MSM diagnosed with HIV infection during 2017–2019 were white (non-Hispanic), 32% were Hispanic/Latino, 18% were black (non-Hispanic), 6% were Asian/Pacific Islander, and 3% were of other or unknown race/ethnicity.
- Among 9,238 MSM living with HIV infection on 12/31/19, 61% were white (non-Hispanic), 20% were Hispanic/Latino, 14% were black (non-Hispanic), 3% were Asian/Pacific Islander, and 2% were of other or unknown race/ethnicity.

FIGURE 3. Individuals diagnosed with HIV infection with MSM exposure mode by race/ethnicity and year of diagnosis: Massachusetts, 2010–2019



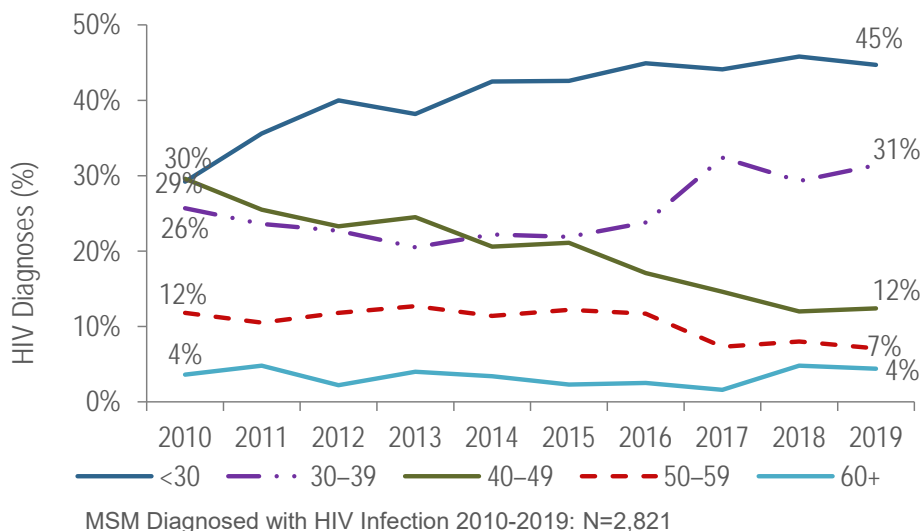
KEY FACTS

- From 2010 to 2019, the proportion of individuals AMAB diagnosed with HIV infection with MSM exposure mode who identified as Hispanic/Latino increased from 17% to 34%.
- During the same time period, the proportion of individuals AMAB diagnosed with MSM exposure mode who identified as white (non-Hispanic) decreased from 64% to 39%.

AGE

- Among individuals AMAB diagnosed with HIV infection during adolescence and young adulthood (13–24 years), during 2017 to 2019, MSM was the most frequently reported mode of exposure at 73% (N=148/202). Among individuals AMAB diagnosed with HIV infection aged 25 years or older, MSM accounted for 51% (N=574/1,127) of diagnoses during the same time period.

FIGURE 4. Individuals diagnosed with HIV infection with MSM exposure mode by age at diagnosis and year of diagnosis: Massachusetts, 2010–2019

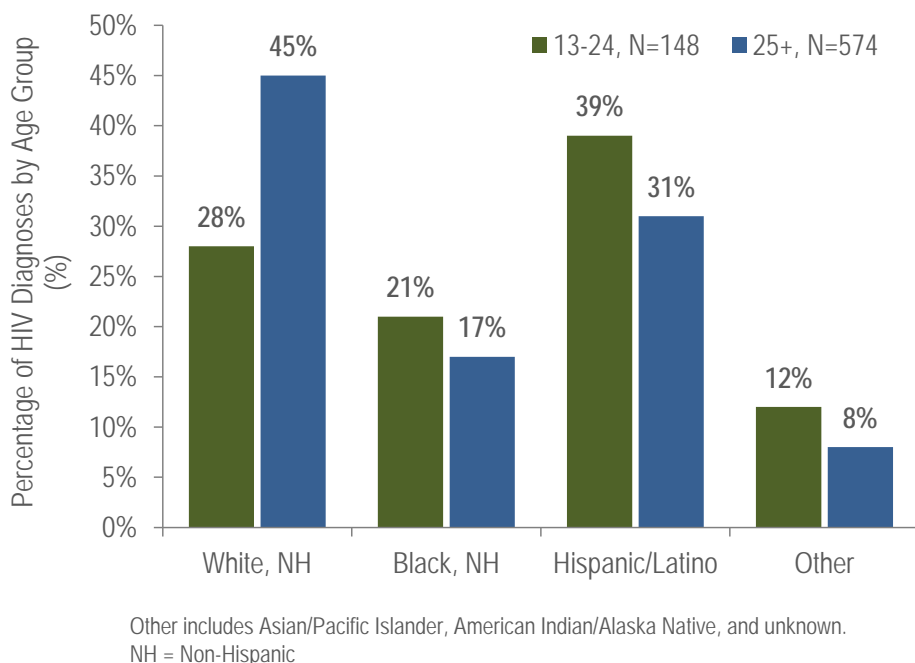


KEY FACT

- The proportion of MSM diagnosed with HIV infection younger than 30 years of age increased from 29% in 2010 to 45% in 2019.

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FIGURE 5. Individuals diagnosed with HIV infection with MSM exposure mode by age at diagnosis and race/ethnicity: Massachusetts, 2017–2019



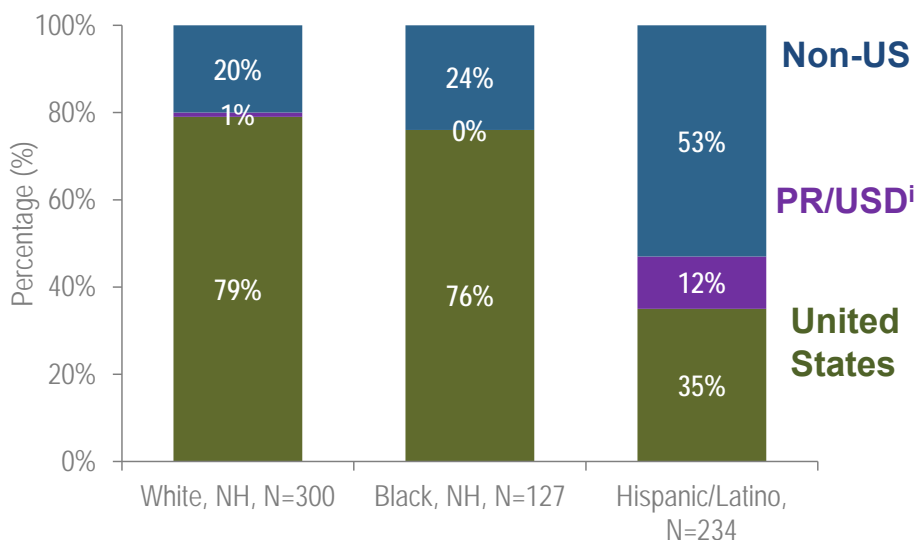
- A larger proportion of MSM diagnosed with HIV between the ages of 13 and 24 years were racial/ethnic minorities, as compared to MSM diagnosed at age 25 years or older.

- The average age of HIV diagnosis was younger for Asian/Pacific Islander, black (non-Hispanic), and Hispanic/Latino individuals AMAB recently diagnosed with MSM exposure mode (29.1, 31.1, and 31.3 years, respectively) compared to white (non-Hispanic) individuals AMAB with MSM exposure mode (37.2 years).

PLACE OF BIRTH

- The distribution of place of birth of 722 MSM diagnosed with HIV infection during 2017–2019 was: 61% born in the US, 35% born outside the US, and 4% born in Puerto Rico or another US dependency.
- The distribution of place of birth among 9,238 MSM living with HIV infection on 12/31/19 was: 76% born in the US, 20% born outside of the US, and 4% born in Puerto Rico or another US dependency.

FIGURE 6. Individuals diagnosed with HIV infection with MSM exposure mode by race/ethnicity and place of birth: Massachusetts, 2017–2019



KEY FACT

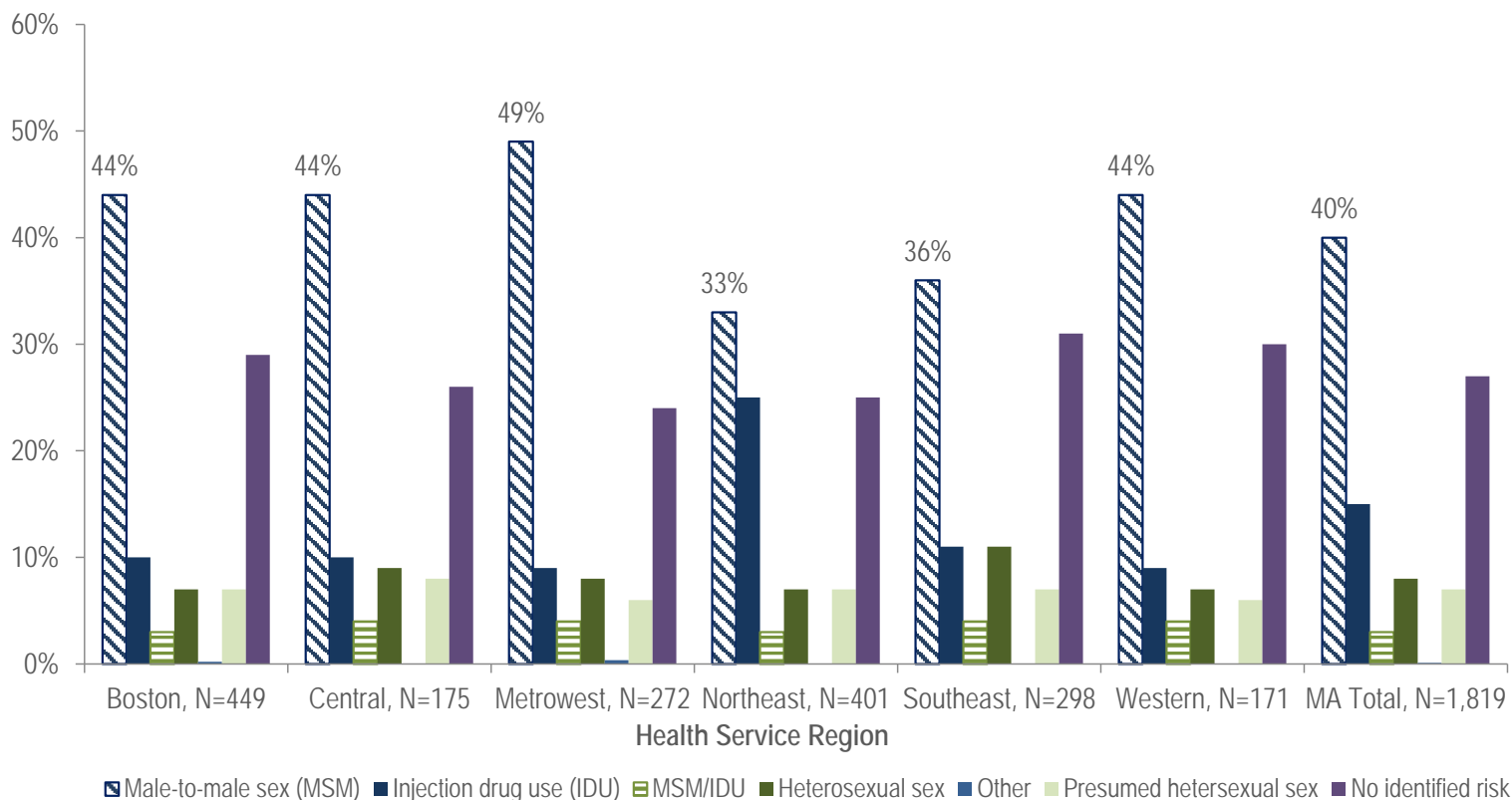
- Fifty-three percent of Hispanic/Latino MSM recently diagnosed with HIV infection were non-US born, compared to 24% of black (non-Hispanic) MSM and 20% of white (non-Hispanic) MSM. An additional 12% of Hispanic/Latino MSM were born in Puerto Rico, compared to 1% of white (non-Hispanic) MSM and none of black (non-Hispanic) MSM.

¹ All individuals diagnosed with HIV infection from 2017–2019 who were born in a US dependency were born in Puerto Rico, PR/USD=Puerto Rico/US Dependency

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AREA OF RESIDENCE

FIGURE 7. HIV infection diagnoses by Health Service Regionⁱ and exposure mode: Massachusetts, 2017–2019



ⁱ HSR is based on residence at HIV infection diagnosis.

- MSM was the predominant exposure mode for HIV infection in all Health Service Regions of Massachusetts.

TABLE 1. Massachusetts cities/townsⁱ with the highest percentage of HIV diagnoses among MSM, 2017–2019

	HIV Diagnoses Among MSM (N)	HIV Diagnoses Among MSM as Percent of Total HIV Diagnoses (%)
Massachusetts Total	722	40%
Top Cities/Towns		
Cambridge	25	76%
Somerville	15	65%
Revere	14	54%
Quincy	15	54%
Chelsea	12	52%
Malden	17	52%
Everett	15	48%
Framingham	12	46%
Springfield	35	44%
Boston	168	42%
All Other Cities/Townsⁱⁱ	394	35%

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

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

- Among cities and towns with over 20 reported HIV diagnoses from 2017 to 2019, Cambridge, Somerville, Revere, and Quincy had the highest percentages of HIV diagnoses among MSM. Each had at least 54% of new HIV diagnoses attributed to MSM exposure mode.

INFORMATION FROM ADDITIONAL DATA SOURCES

Behavioral Risk Factors: Recent statewide surveys describe sexual and drug use behaviors among MSM 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 AMAB ages 18–64 years who responded to the BRFSS from 2017 to 2019:
 - 5.3% (95% confidence interval [CI]: 4.1%–6.5%, n=1,979) reported having sex with individuals AMAB or with both individuals AMAB and AFAB;
 - 37.4% (95% CI: 26.0%–48.8%, n=108) who reported having sex with individuals AMAB or with both individuals AMAB and AFAB reported condom use at last sexual encounter, compared to 26.5% (95% CI: 23.8%–29.2%, n= 1,853) of sexually active individuals AMAB who reported sex with individuals AFAB only; and
 - 55.8% (95% CI: 44.2%–67.4%, n=106) who reported having sex with individuals AMAB or with both individuals AMAB and AFAB reported two or more sexual partners in the past year, compared to 13.1% (95% CI: 11.0%–15.1%, n=1,838) of sexually active individuals AMAB who reported sex with individuals AFAB only.

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/identity

- In 2019, 3.0% (95% CI: 2.2%–4.2%, n=62) of public high school students identified as gay or lesbian, 8.9% (95% CI: 7.4%–10.8%, n=208) identified as bisexual, 84.2% (95% CI: 82.0%–86.2%, n=1,835) identified as heterosexual, and 3.8% (95% CI: 3.0%–4.9, n=87) were not sure of their sexual identity.
- Respondents to the 2019 YRBS who reported MSM reported the following rates of sexual behaviors. No statistically significant differences emerged between 2019 YRBS respondents who identified as male, and reported sex with only females, and those who reported ever having sex with other males.

TABLE 2. Percentageⁱ (95% confidence interval) and numberⁱⁱ of male respondents reporting sexual behaviors to the YRBS by sex of partner: Massachusetts, 2019

	Same sex/both sexes	Opposite sex
Ever had sexual intercourse ⁱⁱⁱ	76.5% (60.4%–87.5%), n=42	76.5% (70.9%–81.4%), n=369
Sexual intercourse before age 13	15.9% (5.9%–36.3%), n=43	6.8% (3.9%–11.7%), n=370
4 or more lifetime sexual intercourse partners	35.2% (16.2%–60.4%), n=41	17.2% (13.3%–21.9%), n=369
Sexual intercourse in past 3 months	46.3% (27.9%–65.8%), n=41	54.4% (50.0%–58.8%), n=368
Were never tested for HIV	71.1% (53.8%–83.9%), n=49	84.2% (78.3%–88.7%), n=405

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

ⁱⁱn = 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.

ⁱⁱⁱ Among men who reported any sexual contact with opposite sex partner, same sex partner, or both

Note: Condom use is not presented because the n was <30 for this question among males reporting same sex or both sex sexual partners