

HIV Infection, Risk, Prevention, and Testing Behaviors Among Men Who Have Sex with Men
National HIV Behavioral Surveillance (NHBS) in Hampton Roads Metropolitan Statistical Area, 2023

Garrett Shields, MPH

Rachel Stallings, MPH

Jennifer Kienzle, PhD

Contact: Jennifer Kienzle: Jennifer.Kienzle@vdh.virginia.gov

Acknowledgements:

The authors would like to acknowledge the contributions to this report by current and past NHBS staff. The authors would also like to acknowledge the training and support of CDC Division of HIV/AIDS Prevention and the Data Coordinating Center at ICF International. Finally, the authors would like to acknowledge the individuals who participated in the project.

Table of Contents

List of Tables..... iii

Introduction..... 1

Summary of Findings

Sample Recruitment and Eligibility 1

Sociodemographic Characteristics..... 1

Health Insurance Coverage and Health Care Utilization..... 1

Substance Use..... 2

Sexual Behavior..... 2

HIV/STI Testing..... 2

HIV Prevalence..... 2

HIV Prevention..... 3

Tables..... 4

List of Tables

Table 1. Participant characteristics- NHBS Men Who Have Sex with Men, Hampton Roads MSA, 2023.....	4
Table 2. Health insurance and health care utilization- NHBS Men Who Have Sex with Men, Hampton Roads MSA, 2023.....	6
Table 3. Substance use- Men Who Have Sex with Men, Hampton Roads MSA, 2023.....	7
Table 4. Median and range of largest number of alcoholic beverages consumed on a single occasion in the past 30 days- NHBS Men Who Have Sex with Men, Hampton Roads MSA, 2023.....	8
Table 5. Median and range of sexual partners- NHBS Men Who Have Sex with Men, Hampton Roads MSA, 2023.....	9
Table 6. Sexual behavior in the past 12 months- NHBS Men Who Have Sex with Men, Hampton Roads MSA, 2023.....	10
Table 7. HIV/STI testing- NHBS Men Who Have Sex with Men, Hampton Roads MSA, 2023.....	11
Table 8. HIV prevalence- NHBS Men Who Have Sex with Men, Hampton Roads MSA, 2023.....	12
Table 9. HIV prevention activities- NHBS Men Who Have Sex with Men, Hampton Roads MSA, 2023.....	13

National HIV Behavioral Surveillance (NHBS) collects behavioral data and conducts anonymous HIV testing among people at increased risk for acquiring HIV. A standardized questionnaire is used to collect data related to sociodemographic information, behavioral risk factors for HIV, HIV testing behaviors, receipt of prevention services, and use of prevention strategies.¹ NHBS collects data in 19 urban areas with high prevalence of HIV, each of which rotate data collection between three key populations: men who have sex with men (MSM), people who report injection drug use (IDU), and heterosexual persons at increased risk of HIV infection (HET). Data are collected in annual cycles from one risk group per year, meaning each population is surveyed every three years. In 2023, Virginia conducted NHBS activities in the Hampton Roads Metropolitan Statistical Area (Hampton Roads MSA) for the MSM cycle.

Sample Recruitment and Eligibility

General eligibility criteria across all three cycles include: 18 years of age or older, current resident in a participating MSA, no previous participation in NHBS during the current survey cycle, ability to complete the survey, and ability to provide informed consent. Additional eligibility criteria applied for the 2023 MSM cycle include: born and self-identify as male and reported having oral or anal sex with another man in the past 12 months.²

In 2023, NHBS participants were recruited through a process called venue-based sampling, in which participants are recruited during sampling events at venues identified to be frequented by MSM. All interviews were conducted in a private area in the identified venues from July-December 2023. Virginia NHBS screened 329 individuals for participation in the project; 313 (95%) were

eligible and completed the survey. Among those who completed the survey, 250 (80%) were considered MSM participants. Data for those 250 participants are included in this report.

Sociodemographic Characteristics

Among the 250 MSM participants, 50% were Black or African American, 34% were White, 9% were Hispanic, and 7% reported some other race (Table 1). Forty percent of participants were 30-39 years of age, 16% were 50 years or older, 16% were 25-29 years of age, 14% were 40-49 years of age, and 13% were 18-24 years of age. For education level, 39% of participants completed some college or technical degree, 30% completed high school or received a GED, 28% completed a college degree or more, and 3% had less than a high school education. Sixty-nine percent of participants were employed full time, 6% were employed part time, 10% were unemployed, and 4% were full-time students. In terms of finances, 37% of participants reported an annual income of \$60,000 or more, 24% reported an annual income of \$40,000 to \$59,999, 17% reported an annual income of \$25,000 to \$39,999, 12% reported an annual income of \$0 to \$14,999, and 11% reported an annual income of \$15,000 to \$24,999. In the previous 12 months, 5% of participants reported being homeless. Among participants who reported ever being incarcerated, 19% reported being incarcerated in the past 12 months. The two most common responses for current county or city of residence were Norfolk City (48%) and Virginia Beach City (20%).

Health Insurance Coverage and Health Care Utilization

Ninety percent of participants reported that they had health insurance or health care coverage at the time of the survey (Table 2).

Among participants with health insurance, the most reported types of insurance included private (48%), Medicaid (28%), TRICARE/CHAMPUS (14%), and Medicare (9%). Types of insurance are not mutually exclusive; therefore, participants can report more than one type. Ninety-five percent of participants reported having a usual source of care where they go when sick or need health-related assistance. The locations for usual sources of care included doctor's office or HMO (54%), clinic or health center (30%), hospital emergency room (15%), and other location (1%). The majority of participants reported visiting a health care provider in the 12 months prior to the interview (90%). Among participants who did not visit a health care provider in the previous 12 months, 52% had a visit between one to two years ago, 44% had a visit two to five years ago, and 4% had a visit more than five years ago. Six percent of participants reported not receiving necessary medical care in the past 12 months because they were unable to afford it.

Substance Use

Eighty-four percent of participants reported having at least one alcoholic drink in the past 30 days (Table 3). Among those who reported drinking alcohol, 22% reported binge drinking in the past 30 days. The median number of alcoholic drinks consumed on a single occasion was three drinks (range, 1.0-30.0; Table 4).

Excluding marijuana, 14% of participants reported non-injection drug use in the past 12 months (Table 3). Poppers (amyl nitrite) were the most used non-injection drug among those who reported any non-injection drug use (56%). Four percent of participants reported injection drug use in their lifetime, with methamphetamine being the most injected drug type among participants who had injected drugs in the past 12 months (67%).

Sexual Behavior

The median number of sexual partners in the past 12 months was three (range, 1.0-100.0; Table 5).

More than half of participants reported only casual partners for anal sex (56%), 38% reported only main partners, and 7% reported both main and casual partners (Table 6). Seventy-four percent of participants reported engaging in condomless sex and 10% reported exchanging sex for money or drugs in the past 12 months. Forty-two percent of participants reported having sex with a partner whose HIV status was positive or unknown and 6% of participants reported having sex with a partner who injects drugs.

HIV/STI Testing

Ninety-six percent of participants reported having ever received an HIV test, and 56% of these participants reported receiving an HIV test in the past 12 months (Table 7). Among participants with a recent HIV test (n=134), the three most common locations of the test were in a private doctor's office (37%), a public health clinic or community health center (26%), and an HIV counseling and testing site (11%). Among participants who had never tested positive for HIV and did not report a recent HIV test (n=49), 45% believed they were at low risk for HIV infection, 35% reported no particular reason, 8% were afraid of finding out they had HIV, 6% reported not having time, and 6% reported some other reason for not testing. More than half of participants received gonorrhea, chlamydia, and/or syphilis testing in the past 12 months (58%).

HIV Prevalence

Twenty-four percent (n=58) of participants who had ever received an HIV test reported testing positive for HIV (Table 8). Among

those 58 participants, 85% were told where to get care within 30 days of their first positive HIV test result and 97% have seen a health care provider for their HIV infection. Among participants who have seen a health care provider, 96% are currently taking antiretroviral medicines and 95% reported having had an HIV viral load (VL) test in the past 12 months. Results of the most recent VL test were undetectable (less than 200 viral copies/mL) for 91% of participants, detectable, but less than 5,000 viral copies/mL for 6% of participants, and between 5,000 and 10,000 viral copies/mL for 4% of participants.

HIV Prevention

Fifty-two percent of participants reported receiving free condoms in the past 12 months (Table 9). The three most cited locations where participants received free condoms were bar, club, bookstore or other business (39%), HIV/AIDS-focused organization (34%), and gay, lesbian, bisexual, transgender, or queer organization (32%). Twenty-six percent of participants reported participating in HIV behavioral interventions, defined as one-on-one conversations with an outreach worker, counselor, or prevention program worker, about ways to prevent HIV or organized sessions involving a small group of people to discuss ways to prevent HIV in the past 12 months.

Among the participants who have never tested positive for HIV (n=181), 96% had heard of pre-exposure prophylaxis (PrEP) before the interview. Of these individuals, approximately half reported having a discussion with a health care provider about taking PrEP (52%) and 33% of participants reported taking PrEP in the past 12 months.

References

- [1] Centers for Disease Control and Prevention (CDC). National HIV Behavioral Surveillance (NHBS). Updated February 7, 2025. Accessed July 15, 2025. <https://www.cdc.gov/hiv-data/nhbs/index.html>.
- [2] Centers for Disease Control and Prevention. National HIV Behavioral Surveillance: Men Who Have Sex with Men – 2023: Operations Manual. Updated April 21, 2023. Accessed July 15, 2025. https://www.cdc.gov/hiv-data/media/pdfs/nhbs/NHBS_Operations_Manual_MSM2023.pdf.

Suggested Citation:

Shields, G., Stallings, R., and Kienzle, J. HIV Infection, Risk, Prevention, and Testing Behaviors Among Men Who Have Sex with Men—National HIV Behavioral Surveillance in Hampton Roads Metropolitan Statistical Area, 2023. Published November 26, 2025. Accessed [enter date]. <http://www.vdh.virginia.gov/disease-prevention/virginia-hiv-surveillance-program/national-hiv-behavioral-surveillance/>.

Table 1. Participant characteristics - NHBS men who have sex with men,
Hampton Roads MSA, 2023

	n	%
Race		
Black	126	50.4
White	84	33.6
Hispanic	23	9.2
Other	17	6.8
Age at time of interview (years)		
18-24	33	13.2
25-29	40	16.0
30-39	100	40.0
40-49	36	14.4
50+	41	16.4
Education		
Less than high school	7	2.8
High school diploma or GED	75	30.1
Some college or technical degree	97	39.0
College degree or more	70	28.1
Employment status		
Employed full time	172	68.8
Employed part time	16	6.4
Full-Time student	11	4.4
Retired	7	2.8
Unable to work for health reasons	7	2.8
Homemaker	3	1.2
Unemployed	25	10.0
Other	9	3.6
Household income (annual)		
\$0 to \$14,999	29	11.7
\$15,000 to \$24,999	27	10.9
\$25,000 to \$39,999	41	16.6
\$40,000 to \$59,999	59	23.9
\$60,000 +	91	36.8
Homeless, past 12 months^a		
Yes	13	5.2
No	237	94.8

Table 1. Participant characteristics - NHBS men who have sex with men,
Hampton Roads MSA, 2023 (continued)

	n	%
Incarcerated, past 12 months^b		
Yes	11	18.6
No	48	81.4
Current county of residence		
Chesapeake City	16	6.4
Hampton City	12	4.8
James City County	1	0.4
Newport News City	20	8.0
Norfolk City	120	48.0
Poquoson City	1	0.4
Portsmouth City	21	8.4
Suffolk City	5	2.0
Virginia Beach City	50	20.0
Williamsburg City	1	0.4
York County	3	1.2

^a Includes living on the street, in a shelter, in a Single Room Occupancy hotel (SRO), or in a car

^b Data includes participants that reported ever being incarcerated. Incarcerated is defined as having been held in a detention center, jail, or prison for more than 24 hours

Table 2. Health insurance and health care utilization - NHBS men who have sex with men, Hampton Roads MSA, 2023

	n	%
Current health insurance/coverage		
Yes	224	90.0
No	25	10.0
Type of health insurance/coverage^a		
Private	108	48.2
Medicaid	63	28.1
TRICARE/CHAMPUS	32	14.3
Medicare	19	8.5
Veterans Administration	10	4.5
Other government plan	6	2.7
Other	2	0.9
Usual source of care		
Yes	233	95.1
No	12	4.9
Location of usual source of care^b		
Doctor office or HMO	125	54.4
Clinic or health center	68	29.6
Hospital emergency room	35	15.2
Other	2	0.9
Health care visit, past 12 months		
Yes	226	90.4
No	24	9.6
Time since last health care visit^c		
More than 1 year, but less than 2 years ago	12	52.2
2 to 5 years ago	10	43.5
More than 5 years ago	1	4.4
Unable to afford needed medical care		
Yes	15	6.0
No	235	94.0

^a Data includes participants that have current health insurance/coverage. Categories are not mutually exclusive

^b Data includes participants that have a usual source of care

^c Data includes participants that did not have a health care visit in the past 12 months

Table 3. Substance use - NHBS men who have sex with men,
Hampton Roads MSA, 2023

	n	%
At least one alcoholic drink, past 30 days		
Yes	211	84.4
No	39	15.6
Binge drinking, past 30 days^a		
Yes	47	22.3
No	164	77.7
Non-injection drug use excluding marijuana, past 12 months		
Yes	34	13.6
No	216	86.4
Most frequently reported non-injection drug type excluding marijuana^b		
Poppers (amyl nitrite)	19	55.9
Injection drug use, lifetime		
Yes	10	4.0
No	240	96.0
Most frequently reported injection drug type^c		
Methamphetamine	2	66.7

^a Binge drinking defined as five or more drinks for males in one sitting. Data includes participants who reported drinking alcohol in the past 30 days.

^b Data includes participants who reported non-injection drug use in the past 12 months.

^c Data includes participants who reported injection drug use in the past 12 months.

Table 4. Median and range of largest number of alcoholic beverages consumed on a single occasion in the past 30 days- NHBS men who have sex with men, Hampton Roads MSA, 2023

median	mean	SD	range
3.0	3.6	3.1	1.0-30.0

Table 5. Median and range of sexual partners- NHBS men who have sex with men, Hampton Roads MSA, 2023

median	mean	SD	range
3.0	6.4	10.4	1.0-100.0

Table 6. Sexual behavior in the past 12 months - NHBS men who have sex with men, Hampton Roads MSA, 2023

	n	%
Type of partner for anal sex		
Casual only ^a	125	55.8
Main only ^b	84	37.5
Main and casual	15	6.7
Condomless sex		
Yes	185	74.0
No	65	26.0
Exchange sex^c		
Yes	24	9.6
No	226	90.4
Sex with partner whose HIV status is positive or unknown		
Yes	105	42.2
No	144	57.8
Sex with partner who injects drugs		
Yes	16	6.4
No	234	93.6

^a Casual partner is defined as someone the participant is not committed to or does not know very well

^b Main partner is defined as someone to whom the participant is committed

^c Refers to having given or received things like money or drugs in exchange for sex

Table 7. HIV/STI testing - NHBS men who have sex with men,
Hampton Roads MSA, 2023

	n	%
Ever tested for HIV		
Yes	241	96.4
No	9	3.6
HIV test, past 12 months^a		
Yes	134	55.6
No	107	44.4
Location of recent HIV test^b		
Private doctor's office	49	36.6
Public health clinic or community health center	35	26.1
HIV counseling and testing site	14	10.5
HIV/AIDS street outreach program or mobile unit	13	9.7
Hospital (inpatient)	6	4.5
Emergency room	6	4.5
At home	5	3.7
Family planning or obstetrics clinic	2	1.5
Other	4	3.0
Reason for not receiving HIV test, past 12 months^c		
Thought he was at low risk for HIV infection	22	44.9
No particular reason	17	34.7
Afraid of finding out he had HIV	4	8.2
Did not have time	3	6.1
Some other reason	3	6.1
Tested for STI, past 12 months^d		
Yes	144	57.8
No	105	42.2

^a Data includes participants that reported ever receiving an HIV test

^b Data includes participants that reported an HIV test in the past 12 months

^c Data includes participants that have never tested positive for HIV and did not receive an HIV test in the past 12 months

^d STI= Sexually transmitted infection. This includes gonorrhea, chlamydia, and syphilis

Table 8. HIV prevalence - NHBS men who have sex with men,
Hampton Roads MSA, 2023

	n	%
Ever tested positive for HIV^a		
Yes	58	24.1
No	183	75.9
Told where to get HIV care within 30 days of first positive HIV test^b		
Yes	49	84.5
No	9	15.5
Seen health care provider for HIV infection^b		
Yes	56	96.6
No	2	3.5
Currently taking antiretroviral medication^c		
Yes	54	96.4
No	2	3.6
HIV viral load (VL) test, past 12 months^c		
Yes	53	94.6
No	3	5.4
Result of most recent VL test^d		
Undetectable ^e	48	90.6
Detectable, but less than 5,000 viral copies/mL	3	5.7
5,000 to 10,000 viral copies/mL	2	3.8

^a Data includes participants that reported ever receiving an HIV test

^b Data includes participants that reported ever testing positive for HIV

^c Data includes participants that reported seeing a health care provider

^d Data includes participants that reported VL test in the past 12 months

^e Undetectable viral load defined as < 200 copies/mL

Table 9. HIV prevention activities- NHBS men who have sex with men,
Hampton Roads MSA, 2023

	n	%
Received free condoms, past 12 months		
Yes	131	52.4
No	119	47.6
Location received free condoms^a		
Bar, club, bookstore, or other business	51	38.9
HIV/AIDS-focused organization	45	34.4
Gay, lesbian, bisexual, transgender, or queer organization	42	32.1
Participated in discussion about HIV prevention, past 12 months		
Yes	66	26.4
No	184	73.6
Ever heard of pre-exposure prophylaxis (PrEP) before interview^b		
Yes	173	95.6
No	8	4.4
Discussed taking PrEP with health care provider, past 12 months^c		
Yes	92	51.7
No	86	48.3
Taken PrEP, past 12 months^c		
Yes	58	32.6
No	120	67.4

^aThree most frequently reported locations. Numbers will not add up to 100 as participants were able to choose more than one location. Data includes participants that received free condoms

^b Data includes participants that never tested positive for HIV

^c Data includes participants that had heard of PrEP before the interview