

HIV Infection, Risk, Prevention, and Testing Behaviors Among Men Who Have Sex with Men  
National HIV Behavioral Surveillance in Hampton Roads Metropolitan Statistical Area, 2021

Garrett Shields, MPH

Rachel Stallings, MPH

Jennifer Kienzle, PhD

Contact: Jennifer Kienzle: [Jennifer.Kienzle@vdh.virginia.gov](mailto: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 graciously 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..... 3**

**HIV Prevention..... 3**

**Tables..... 4**

List of Tables

<b>Table 1. Participant characteristics- NHBS Men Who Have Sex with Men, Hampton Roads MSA, 2021.....</b>	<b>4</b>
<b>Table 2. Health insurance and health care utilization- NHBS Men Who Have Sex with Men, Hampton Roads MSA, 2021.....</b>	<b>6</b>
<b>Table 3. Substance use- Men Who Have Sex with Men, Hampton Roads MSA, 2021.....</b>	<b>7</b>
<b>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, 2021.....</b>	<b>8</b>
<b>Table 5. Median and range of sexual partners- NHBS Men Who Have Sex with Men, Hampton Roads MSA, 2021.....</b>	<b>9</b>
<b>Table 6. Sexual behavior in the past 12 months- NHBS Men Who Have Sex with Men, Hampton Roads MSA, 2021.....</b>	<b>10</b>
<b>Table 7. HIV/STI testing- NHBS Men Who Have Sex with Men, Hampton Roads MSA, 2021.....</b>	<b>11</b>
<b>Table 8. HIV prevalence- NHBS Men Who Have Sex with Men, Hampton Roads MSA, 2021.....</b>	<b>12</b>
<b>Table 9. HIV prevention activities- NHBS Men Who Have Sex with Men, Hampton Roads MSA, 2021.....</b>	<b>13</b>

National HIV Behavioral Surveillance (NHBS) is a national surveillance project that collects behavioral data and conducts anonymous HIV testing among persons at increased risk for acquiring HIV. A standardized questionnaire is used to collect data relating to sociodemographic information, behavioral risk factors for HIV, HIV testing behaviors, receipt of prevention services, and use of prevention strategies.<sup>1</sup> NHBS collects data in 22 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 2021, 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 2021 MSM cycle include: born and self-identify as male, and reported having oral or anal sex with another man in the past 12 months.<sup>2</sup>

2021 NHBS participants were recruited through a process called respondent driven sampling, in which participants recruit other people they know to participate. All interviews were conducted remotely, by videoconference call, from July-November 2021. Virginia NHBS screened 296 individuals for participation in the project;

285 (96%) were eligible and completed the survey. Among those who completed the survey, 263 (92%) were considered MSM participants. Data for those 263 participants are included in this report.

### **Sociodemographic Characteristics**

Among the 263 MSM participants, 60% were black, 21% were white, 8% were Hispanic, and 12% reported some other race (Table 1). Thirty-seven percent of participants were 30-39 years of age, 19% were 50 years or older, 18% were 25-29 years of age, 15% were 40-49 years of age, and 12% were 18-24 years of age. For education level, 37% of participants completed some college or a technical degree, 32% completed high school or received a GED, 28% completed a college degree or more, and 4% had less than a high school education. Fifty-seven percent of participants were employed full time, 12% were employed part time, 13% were unemployed, and 3% were full-time students. In terms of finances, 30% of participants reported an annual income of \$60,000 or more, 20% reported an annual income of \$0 to \$14,999, 19% reported an annual income of \$25,000 to \$39,999, 17% reported an annual income of \$40,000 to \$59,999, and 15% reported an annual income of \$15,000 to \$24,999. In the previous 12 months, 13% of participants reported being homeless. Among participants who reported ever being incarcerated, 17% reported being incarcerated in the past 12 months. The two most common responses for current county of residence were Norfolk City (44%) and Virginia Beach City (15%).

### **Health Insurance Coverage and Health Care Utilization**

The majority of participants reported that they had health insurance or health care coverage (91%) at the time of the survey

(Table 2). Among participants with health insurance, the most commonly reported types of insurance included private (39%), followed by Medicaid (37%), Medicare (12%), and TRICARE/ CHAMPUS (8%). Types of insurance are not mutually exclusive; therefore, participants can report more than one type. Ninety-seven percent of participants reported having a usual source of care where they can go when sick or need health-related help. The locations for usual sources of care included doctor's office or HMO (55%), clinic or health center (25%), hospital emergency room (16%), and some other location (4%). The majority of participants reported visiting a health care provider in the 12 months prior to the interview (94%). Among participants who did not visit a health care provider in the previous 12 months, 59% had a visit between one to two years ago and 41% had a visit two to five years ago. Thirteen percent of participants reported not receiving necessary medical care in the past 12 months because they were unable to afford it.

### **Substance Use**

The majority of participants reported having at least one alcoholic drink in the past 30 days (83%; Table 3). Among those who reported drinking alcohol, 27% reported binge drinking in the past 30 days. The median largest number of alcoholic drinks consumed on a single occasion was three drinks (range, 1.0-15.0; Table 4).

Nearly two-thirds of participants reported non-injection drug use in the past 12 months (64%; Table 3). Marijuana was the most commonly used non-injection drug among those who reported any non-injection drug use (94%). Eight percent of participants reported injection drug use in their lifetime, with methamphetamine being the most commonly injected drug type among

participants who have injected drugs in the past 12 months (92%).

### **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 (53%), 36% reported only main partners, and 11% reported both main and casual partners (Table 6). Seventy-one percent of participants reported engaging in condomless sex and 14% reported exchanging sex for money or drugs in the past 12 months. Forty-one percent of participants reported having sex with a partner whose HIV status is positive or unknown and 10% of participants reported having sex with a partner who injects drugs.

### **HIV/STI Testing**

The majority of participants reported having ever received an HIV test (98%), and 43% of these participants reported receiving an HIV test in the past 12 months (Table 7). Among participants with a recent HIV test (n=110), the three most common locations of the test were in an HIV counseling and testing site (29%), a public health clinic or community health center (27%), and a private doctor's office (16%). Among participants who have never tested positive for HIV and did not report a recent HIV test (n=47), 51% believed they were at low risk for HIV infection, 28% reported no particular reason, 11% were afraid of finding out they had HIV, 9% reported some other reason for not testing, and 2% reported not having time. More than half of participants received gonorrhea, chlamydia, and/or syphilis testing in the past 12 months (59%).

### **HIV Prevalence**

Thirty-nine percent (n=100) of participants who have ever received an HIV test reported testing positive for HIV (Table 8). Among those 100 participants, 86% were told where to get care within 30 days of their first positive HIV test result and 98% 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 99% reported having ever had an HIV viral load (VL) test. Results of the most recent VL test were undetectable (less than 200 viral copies/mL) for 85% of participants, detectable, but less than 5,000 viral copies/mL for 8% of participants, and between 5,000 and 10,000 viral copies/mL for 4% of participants. Three percent of participants did not know the results of their most recent VL test.

### **HIV Prevention**

Fifty-eight percent of participants reported receiving free condoms in the past 12 months (Table 9). The two most commonly cited locations where participants received free condoms were HIV/AIDS-focused organization (46%) and gay, lesbian, bisexual, transgender, or queer organization (44%). Thirty-one 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=163), 97% 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 (51%) and 34% of participants reported taking PrEP in the past 12 months. Among participants taking PrEP, 62% reported taking PrEP every day, 26% reported taking PrEP almost every day, and 11% reported taking PrEP less often.

### **References**

- [1] Centers for Disease Control and Prevention (CDC). National HIV Behavioral Surveillance (NHBS). Updated January 30, 2023. Accessed February 6, 2023. <https://www.cdc.gov/hiv/statistics/systems/nhbs/index.html>.
- [2] Centers for Disease Control and Prevention. National HIV Behavioral Surveillance System Round 6: Model Surveillance Protocol. Updated December 18, 2020. Accessed February 6, 2023. <https://www.cdc.gov/hiv/statistics/systems/nhbs/methods-questionnaires.html>.

### **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, 2021. Published March 27, 2023. 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, 2021

	n	%
<b>Race</b>		
Black	157	59.7
White	55	20.9
Hispanic	20	7.6
Other	31	11.8
<b>Age at time of interview (years)</b>		
18-24	31	11.8
25-29	46	17.5
30-39	98	37.3
40-49	38	14.5
50+	50	19.0
<b>Education</b>		
Less than high school	10	3.8
High school diploma or GED	83	31.6
Some college or technical degree	97	36.9
College degree or more	73	27.8
<b>Employment status</b>		
Employed full time	149	56.7
Employed part time	32	12.2
Full-Time student	8	3.0
Retired	11	4.2
Unable to work for health reasons	15	5.7
Unemployed	35	13.3
Homemaker	1	0.4
Other	12	4.6
<b>Household income (annual)</b>		
\$0 to \$14,999	52	20.0
\$15,000 to \$24,999	40	15.4
\$25,000 to \$39,999	48	18.5
\$40,000 to \$59,999	43	16.5
\$60,000 +	77	29.6
<b>Homeless, past 12 months<sup>a</sup></b>		
Yes	34	12.9
No	229	87.1

Table 1. Participant characteristics - NHBS men who have sex with men,  
Hampton Roads MSA, 2021 (continued)

	n	%
<b>Incarcerated, past 12 months<sup>b</sup></b>		
Yes	14	16.9
No	69	83.1
<b>Current county of residence</b>		
Chesapeake City	17	6.5
Hampton City	25	9.5
Isle of Wight County	3	1.1
Newport News City	31	11.8
Norfolk City	115	43.7
Poquoson City	1	0.4
Portsmouth City	21	8.0
Suffolk City	9	3.4
Virginia Beach City	39	14.8
York County	2	0.8

<sup>a</sup> Includes living on the street, in a shelter, in a Single Room Occupancy hotel (SRO), or in a car

<sup>b</sup> 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, 2021

	n	%
<b>Current health insurance/coverage</b>		
Yes	238	90.5
No	25	9.5
<b>Type of health insurance/coverage<sup>a</sup></b>		
Private	92	38.7
Medicaid	87	36.6
Medicare	29	12.2
TRICARE/CHAMPUS	19	8.0
Other government plan	14	5.9
Veterans Administration	8	3.4
Other	7	2.9
<b>Usual source of care</b>		
Yes	253	96.6
No	9	3.4
<b>Location of usual source of care<sup>b</sup></b>		
Doctor office or HMO	139	54.9
Clinic or health center	63	24.9
Hospital emergency room	40	15.8
Other	9	3.6
Does not go to one place most often	2	0.8
<b>Health care visit, past 12 months</b>		
Yes	246	93.5
No	17	6.5
<b>Time since last health care visit<sup>c</sup></b>		
More than 1 year, but less than 2 years ago	10	58.8
2 to 5 years ago	7	41.2
<b>Unable to afford needed medical care</b>		
Yes	33	12.6
No	230	87.5

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

<sup>b</sup> Data includes participants that have a usual source of care

<sup>c</sup> 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, 2021

	n	%
<b>At least one alcoholic drink, past 30 days</b>		
Yes	218	82.9
No	45	17.1
<b>Binge drinking, past 30 days<sup>a</sup></b>		
Yes	58	26.6
No	160	73.4
<b>Non-injection drug use, past 12 months</b>		
Yes	168	63.9
No	95	36.1
<b>Most frequently reported non-injection drug type<sup>b</sup></b>		
Marijuana	158	94.1
<b>Injection drug use, lifetime</b>		
Yes	20	7.6
No	243	92.4
<b>Most frequently reported injection drug type<sup>c</sup></b>		
Methamphetamine	12	92.3

<sup>a</sup> Binge drinking defined as 5 or more drinks for males in one sitting; Data includes participants that reported drinking alcohol in the past 30 days

<sup>b</sup> Data includes participants that reported non-injection drug use in the past 12 months

<sup>c</sup> Data includes participants that 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, 2021

median	mean	SD	range
3.0	3.7	2.6	1.0-15.0

Table 5. Median and range of sexual partners- NHBS men who have sex with men, Hampton Roads MSA, 2021

median	mean	SD	range
3.0	7.0	12.7	1.0-100.0

Table 6. Sexual behavior in the past 12 months - NHBS men who have sex with men, Hampton Roads MSA, 2021

	n	%
<b>Type of partner for anal sex</b>		
Casual only <sup>a</sup>	125	52.5
Main only <sup>b</sup>	86	36.1
Main and casual	27	11.3
<b>Condomless sex</b>		
Yes	187	71.1
No	76	28.9
<b>Exchange sex<sup>c</sup></b>		
Yes	36	13.7
No	227	86.3
<b>Sex with partner whose HIV status is positive or unknown</b>		
Yes	109	41.4
No	154	58.6
<b>Sex with partner who injects drugs</b>		
Yes	25	9.5
No	238	90.5

<sup>a</sup> Casual partner is defined as someone the participant is not committed to or does not know very well

<sup>b</sup> Main partner is defined as someone to whom the participant is committed

<sup>c</sup> 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, 2021

	n	%
<b>Ever tested for HIV</b>		
Yes	258	98.1
No	5	1.9
<b>HIV test, past 12 months<sup>a</sup></b>		
Yes	110	42.6
No	148	57.4
<b>Location of recent HIV test<sup>b</sup></b>		
HIV counseling and testing site	32	29.1
Public health clinic or community health center	30	27.3
Private doctor's office	18	16.4
HIV/AIDS street outreach program or mobile unit	13	11.8
At home	5	4.6
Emergency room	3	2.7
Family planning or obstetrics clinic	2	1.8
Hospital (inpatient)	1	0.9
Other	6	5.5
<b>Reason for not receiving HIV test, past 12 months<sup>c</sup></b>		
Thought he was at low risk for HIV infection	24	51.1
No particular reason	13	27.7
Afraid of finding out he had HIV	5	10.6
Did not have time	1	2.1
Some other reason	4	8.5
<b>Tested for STI, past 12 months<sup>d</sup></b>		
Yes	154	58.6
No	109	41.4

<sup>a</sup> Data includes participants that reported ever receiving an HIV test

<sup>b</sup> Data includes participants that reported an HIV test in the past 12 months

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

<sup>d</sup> STI= Sexually transmitted infection. This includes gonorrhea, chlamydia, and syphilis

Table 8. HIV prevalence - NHBS men who have sex with men,  
Hampton Roads MSA, 2021

	n	%
<b>Ever tested positive for HIV<sup>a</sup></b>		
Yes	100	38.9
No	157	61.1
<b>Told where to get HIV care within 30 days of first positive HIV test<sup>b</sup></b>		
Yes	85	85.9
No	14	14.1
<b>Seen health care provider for HIV infection<sup>b</sup></b>		
Yes	98	98.0
No	2	2.0
<b>Currently taking antiretroviral medication<sup>c</sup></b>		
Yes	94	95.9
No	4	4.1
<b>Ever had HIV viral load (VL) test<sup>c</sup></b>		
Yes	97	99.0
No	1	1.0
<b>Result of most recent VL test<sup>d</sup></b>		
Undetectable <sup>e</sup>	82	84.5
Detectable, but less than 5,000 viral copies/mL	8	8.3
5,000 to 10,000 viral copies/mL	4	4.1
Do not know	3	3.1

<sup>a</sup> Data includes participants that reported ever receiving an HIV test

<sup>b</sup> Data includes participants that reported ever testing positive for HIV

<sup>c</sup> Data includes participants that reported seeing a health care provider

<sup>d</sup> Data includes participants that reported ever receiving VL test

<sup>e</sup> Undetectable viral load defined as < 200 copies/mL

Table 9. HIV prevention activities- NHBS men who have sex with men,  
Hampton Roads MSA, 2021

	n	%
<b>Received free condoms, past 12 months</b>		
Yes	152	57.8
No	111	42.2
<b>Location received free condoms<sup>a</sup></b>		
HIV/AIDS-focused organization	70	46.1
Gay, lesbian, bisexual, transgender, or queer organization	67	44.1
Doctor's office, health center, clinic, or hospital	48	31.6
<b>Participated in discussion about HIV prevention, past 12 months</b>		
Yes	82	31.2
No	181	68.8
<b>Ever heard of pre-exposure prophylaxis (PrEP) before interview<sup>b</sup></b>		
Yes	158	96.9
No	5	3.1
<b>Discussed taking PrEP with health care provider, past 12 months<sup>c</sup></b>		
Yes	80	50.6
No	78	49.4
<b>Taken PrEP, past 12 months<sup>c</sup></b>		
Yes	53	33.5
No	105	66.5
<b>Frequency of PrEP use, past 12 months<sup>d</sup></b>		
Every day	33	62.3
Almost every day	14	26.4
Less often	6	11.3

<sup>a</sup> Three 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

<sup>b</sup> Data includes participants that never tested positive for HIV

<sup>c</sup> Data includes participants that had heard of PrEP before the interview

<sup>d</sup> Data includes participants that used PrEP in the past 12 months