

HIV Infection, Risk, Prevention, and Testing Behaviors Among Heterosexuals at
Increased Risk of HIV Infection

National HIV Behavioral Surveillance in Norfolk-Newport News-Virginia Beach
Metropolitan Statistical Area, 2016

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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.

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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.¹ 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), injection drug users (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 2016, Virginia conducted NHBS activities in the Norfolk-Newport News-Virginia Beach Metropolitan Statistical Area (Norfolk MSA) for the HET cycle.

Sample Recruitment and Eligibility

General eligibility criteria across all three cycles include: 18 years of age or older, current resident in a participating city, 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 2016 HET cycle include: 60 years of age or younger, reported having sex with a partner of the opposite gender in the 12 months prior to the interview, and did not identify as transgender. Participants were considered high-risk heterosexuals if they had not injected drugs during the past 12 months and if they reported low socioeconomic status, defined as either

no more than high school education or income below the Federal poverty line.²

2016 NHBS participants were recruited through a process called respondent-driven sampling (RDS), in which participants recruit other people they know to participate. All interviews were conducted at one of two field sites (Norfolk or Newport News) from September-December 2016. Virginia NHBS screened 670 individuals for participation in the project; 548 (82%) were eligible and completed the survey. Among those who completed the survey, 542 (99%) received an HIV test and 479 (87%) were considered high-risk heterosexuals. Data for those 479 participants are included in this report.

Sociodemographic Characteristics

Among the 479 high-risk heterosexual participants, 54% were female and 46% were male (Table 1). The majority of participants were black (90%), 2% were white, 2% were Hispanic, and 7% reported some other race. Thirty-three percent of participants were aged 50 years or older, 23% were 40-49 years of age, 17% were 30-39 years of age, 14% were 18-24 years of age, and 13% were 25-29 years of age. For education level, the majority of participants had completed high school or received a GED (57%), 28% had less than a high school education, and 16% had received any education beyond high school. Twenty-eight percent of participants were employed full time, 23% were unable to work for health reasons, 20% were unemployed, and 17% were employed part time. The majority of participants were never married (60%). In terms of finances, 74% of participants were below the federal poverty level. In

the previous 12 months, 18% of participants reported being homeless. Among participants who reported ever being incarcerated for more than 24 hours, 20% reported being incarcerated in the previous 12 months. The two most common responses for current county of residence were Norfolk (53%) and Newport News (38%).

Health Insurance Coverage and Health Care Utilization

The majority of participants reported that they had health insurance or health care coverage (55%) at the time of the survey (Table 2). Among participants with health insurance, the most commonly reported types of insurance included Medicaid (61%), followed by private (21%), and Medicare (13%). Types of insurance are not mutually exclusive; therefore, participants can report more than one type. Ninety 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 hospital emergency room (39%), doctor's office or HMO (32%), clinic or health center (28%), and some other location (2%). The majority of participants reported visiting a health care provider in the 12 months prior to the interview (83%). 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, 33% had a visit two to five years ago, and 7% had a visit more than five years ago. Twenty-four 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 (78%; Table 3). Among those who reported drinking alcohol, 44% reported binge drinking in the past 30 days. For males, the median largest number of alcoholic drinks consumed on a single occasion was four drinks (range, 1.0-20.0); for females, the median was two drinks (range, 1.0-30.0; Table 4).

More than half of participants reported non-injection drug use in the past 12 months (56%; Table 3). Marijuana was the most commonly used non-injection drug among those who reported any non-injection drug use (90%).

Sexual Behavior

Among females, the median number of sexual partners in the past 12 months was one (range, 1.0-50.0); among males, the median number of sexual partners was two (range, 1.0-50.0; Table 5).

The majority of females reported only main sexual partners (59%), 35% of females reported both main and casual sex partners, and 6% reported only casual sex partners (Table 6). Forty-three percent of males reported only main sexual partners, 41% of males reported main and casual sex partners, and 16% reported only casual sex partners. More females reported having unprotected sex in the past 12 months compared to males (92% and 88%, respectively); however, more males reported exchanging sex for money or drugs than females (17% and 11%, respectively). Forty-three percent of females reported having sex with a partner whose HIV status was either positive or unknown and 10% of females

had a partner who injected drugs. Forty percent of males reported having sex with a partner whose HIV status was either positive or unknown and 6% of males had a partner who injected drugs.

HIV/STI Testing

The majority of participants reported having ever received an HIV test (80%); however, only 39% of these participants reported recently receiving an HIV test in the past 12 months (Table 7). Among participants with a recent HIV test (n=148), the three most common locations of the test were in a public health clinic or community health center (24%), some other location (22%), and a private doctor's office (20%). Among participants who did not report a recent HIV test (n=331), 70% indicated 'no particular reason', 15% believed they were at low risk for HIV infection, 9% were afraid of finding out they had HIV, 4% reported not having time, and 3% reported some other reason for not testing. Only 34% of participants received gonorrhea, chlamydia, and/or syphilis testing in the past 12 months.

HIV Prevalence

Among participants who have ever been tested for HIV, 2% (n=8) of participants reported ever testing positive for HIV (Table 8). Among these eight participants, six (75%) were told where to get care within 30 days of their first positive HIV test result, all eight (100%) have seen a health care provider for their HIV infection, and six (75%) are currently taking antiretroviral medicines. All HIV-positive participants 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 four (50%) of the participants, detectable, but less than 5,000 viral copies/mL for three (38%) of the participants, and greater than 10,000 viral copies/mL for one (13%) of the participants.

HIV Prevention

Twenty-eight percent of participants reported receiving free condoms in the past 12 months (Table 9). The three most commonly cited locations where participants received free condoms were doctor's office, health center, clinic or hospital (44%), HIV/AIDS-focused organization (19%), and other community organization (18%). Ten 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=471), 20 (4%) had heard of pre-exposure prophylaxis (PrEP) before the interview. Of these 20 participants, 3 (15%) reported having a discussion with a health care provider about taking PrEP. No participants reported taking PrEP in the past 12 months.

References

[1] Centers for Disease Control and Prevention (CDC). National HIV Behavioral Surveillance (NHBS). <https://www.cdc.gov/hiv/statistics/systems/nhbs/index.html>

[2] Dinunno, E.O., Oster, A.M., Sionean, C., Denning, P., and Lansky, A. (2012). Piloting a system for behavioral surveillance among heterosexuals at increased risk of HIV in the United States. *Open AIDS Journal*. 6: 169-176.

Suggested Citation:

Shields, G., Diepstra, K., Buyu, C., and Kienzle, J. (2019). HIV Infection, Risk, Prevention, and Testing Behaviors Among Heterosexuals at Increased Risk of HIV Infection--National HIV Behavioral Surveillance in Norfolk-Newport News-Virginia Beach Metropolitan Statistical Area, 2016. <http://www.vdh.virginia.gov/disease-prevention/disease-prevention/virginia-hiv-surveillance-program/national-hiv-behavioral-surveillance/>. Published March 12, 2019. Accessed [enter date].

Table 1. Participant characteristics - NHBS Heterosexuals at Increased Risk of HIV Infection, Norfolk MSA, 2016

	n	%
Gender		
Male	221	46.1
Female	258	53.9
Race		
Black	429	89.6
White	11	2.3
Hispanic	8	1.7
Other	31	6.5
Age at time of interview (years)		
18-24	69	14.4
25-29	60	12.5
30-39	81	16.9
40-49	112	23.4
50+	157	32.8
Education		
Less than high school	132	27.6
High school diploma or GED	271	56.6
Some college or technical degree	65	13.6
College degree or more	11	2.3
Employment status		
Employed full time	133	27.8
Employed part time	80	16.7
Homemaker	14	2.9
Full-Time student	15	3.1
Retired	4	0.8
Unable to work for health reasons	109	22.8
Unemployed	97	20.3
Other	27	5.6
Marital status		
Never married	285	59.5
Married or living together	83	17.3
Separated, divorced, or widowed	111	23.2
Living below federal poverty line^a		
Yes	351	73.6
No	126	26.4

Table 1. Participant characteristics - NHBS Heterosexuals at Increased Risk of HIV Infection, Norfolk MSA, 2016 (continued)

	n	%
Household income (annual)		
\$0 to \$4,999	76	15.9
\$5,000 to \$9,999	102	21.4
\$10,000 to \$14,999	113	23.7
\$15,000 to \$24,999	94	19.7
\$25,000 +	92	19.3
Homeless, past 12 months^b		
Yes	86	18.0
No	393	82.1
Incarcerated, past 12 months^c		
Yes	54	19.9
No	217	80.1
Current county of residence		
Chesapeake City	9	1.9
Hampton City	19	4.0
Newport News City	182	38.0
Norfolk City	253	52.8
Portsmouth City	4	0.8
Suffolk City	1	0.2
Virginia Beach City	11	2.3

^a Poverty guidelines as established by HHS in 2015. More information regarding HHS poverty guidelines can be found at <https://aspe.hhs.gov/frequently-asked-questions-related-poverty-guidelines-and-poverty>

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

^c Having been held in a detention center, jail, or prison for more than 24 hours. Data includes participants that reported ever being incarcerated

Table 2. Health insurance and health care utilization - NHBS Heterosexuals at Increased Risk of HIV Infection, Norfolk MSA, 2016

	n	%
Current health insurance/coverage		
Yes	264	55.1
No	215	44.9
Type of health insurance/coverage^a		
Medicaid	161	61.0
Private	56	21.2
Medicare	35	13.3
Veterans Administration	13	4.9
Other government plan	3	1.1
Other	10	3.8
Usual source of care		
Yes	431	90.0
No	48	10.0
Location of usual source of care^b		
Hospital emergency room	166	38.5
Doctor office or HMO	136	31.6
Clinic or health center	121	28.1
Other	8	1.9
Health care visit, past 12 months		
Yes	398	83.1
No	81	16.9
Time since last health care visit^c		
More than 1 year, but less than 2 years ago	48	59.3
2 to 5 years ago	27	33.3
More than 5 years ago	6	7.4
Unable to afford needed medical care		
Yes	113	23.6
No	366	76.4

^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 Heterosexuals at Increased Risk of HIV Infection,
Norfolk MSA, 2016

	n	%
At least one alcoholic drink, past 30 days		
Yes	375	78.3
No	104	21.7
Binge drinking, past 30 days^a		
Yes	165	44.1
No	209	55.9
Non-injection drug use, past 12 months		
Yes	270	56.4
No	209	43.6
Most frequently reported non-injection drug type^b		
Marijuana	242	89.6

^a Binge drinking defined as 4 or more drinks for females and 5 or more drinks for males in one sitting

^b Data includes participants that reported non-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 Heterosexuals at Increased Risk of HIV Infection, Norfolk MSA, 2016

	median	mean	SD	range
Males	4.0	4.8	3.3	1.0-20.0
Females	2.0	3.5	3.7	1.0-30.0

Table 5. Median and range of sexual partners- NHBS Heterosexuals at Increased Risk of HIV Infection, Norfolk MSA, 2016

	median	mean	SD	range
Males	2.0	4.0	5.5	1.0-50.0
Females	1.0	2.4	3.8	1.0-50.0

Table 6. Sexual behavior in the past 12 months - NHBS Heterosexuals at Increased Risk of HIV Infection, Norfolk MSA, 2016

	Males (n=221)		Females (n=258)	
	n	%	n	%
Type of partner for vaginal or anal sex				
Main only ^a	95	43.0	152	59.4
Main and casual	90	40.7	89	34.8
Casual only ^b	36	16.3	15	5.9
Unprotected sex				
Yes	194	87.8	238	92.3
No	27	12.2	20	7.8
Exchange sex^c				
Yes	38	17.2	27	10.5
No	183	82.8	231	89.5
Sex with partner whose HIV status is positive or unknown				
Yes	88	39.8	112	43.4
No	133	60.2	146	56.6
Sex with partner who injects drugs				
Yes	13	5.9	26	10.1
No	208	94.1	232	89.9

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

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

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

Table 7. HIV/STI testing - NHBS Heterosexuals at Increased Risk of HIV Infection, Norfolk MSA, 2016

	n	%
Ever tested for HIV		
Yes	379	79.5
No	98	20.6
HIV test, past 12 months^a		
Yes	148	39.1
No	231	60.9
Location of recent HIV test^b		
Public health clinic or community health center	35	23.7
Private doctor's office	29	19.6
Family planning or obstetrics clinic	17	11.5
Hospital (inpatient)	10	6.8
Correctional facility or jail/prison	7	4.7
Emergency room	7	4.7
HIV counseling and testing site	5	3.4
HIV/AIDS street outreach program or mobile unit	3	2.0
Drug treatment program	2	1.4
Other	33	22.3
Reason for not receiving HIV test, past 12 months^c		
No particular reason	212	69.5
Thought he/she was at low risk for HIV infection	46	15.1
Afraid of finding out he/she had HIV	27	8.9
Did not have time	11	3.6
Some other reason	9	3.0
Tested for STI, past 12 months^d		
Yes	160	33.5
No	318	66.5

^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 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 Heterosexuals at Increased Risk of HIV Infection, Norfolk MSA, 2016

	n	%
Ever tested positive for HIV^a		
Yes	8	2.1
No	370	97.9
Told where to get HIV care within 30 days of first positive HIV test^b		
Yes	6	75.0
No	2	25.0
Seen health care provider for HIV infection^b		
Yes	8	100.0
No	0	0.0
Currently taking antiretroviral medication^b		
Yes	6	75.0
No	2	25.0
Ever had HIV viral load (VL) test^b		
Yes	8	100.0
No	0	0.0
Result of most recent VL test^b		
Undetectable ^c	4	50.0
Detectable, but less than 5,000 viral copies/mL	3	37.5
Greater than 10,000 viral copies/mL	1	12.5

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

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

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

Table 9. HIV prevention activities- NHBS Heterosexuals at Increased Risk of HIV Infection, Norfolk MSA, 2016

	n	%
Received free condoms, past 12 months		
Yes	135	28.2
No	344	71.8
Location received free condoms^a		
Doctor's office, health center, clinic, or hospital	59	43.7
HIV/AIDS-focused organization	25	18.5
Other community organization	24	17.8
Participated in discussion about HIV prevention, past 12 months		
Yes	46	9.6
No	433	90.4
Ever heard of PrEP before interview^b		
Yes	20	4.3
No	451	95.8
Discussed taking PrEP with health care provider, past 12 months^c		
Yes	3	15.0
No	17	85.0
Taken PrEP, past 12 months^c		
Yes	0	0.0
No	20	100.0

^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 are HIV-negative

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