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HIV Infection Risk, Prevention, and Testing Behaviors among Men Who Have Sex with Men National HIV Behavioral Surveillance 20 U.S. Cities, 2014

National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention
Division of HIV/AIDS Prevention



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Reducing the number of people who become infected with HIV is 1 of the 4 primary goals of the updated National HIV/AIDS Strategy of the United States (NHAS) [1]. This goal is to be achieved by implementing 3 important strategies for reducing HIV infections: (1) intensifying HIV prevention efforts in communities where HIV is most heavily concentrated, including blacks or African Americans (hereafter referred to as blacks); Hispanics or Latinos; gay, bisexual, and other men who have sex with men (hereafter referred to as MSM); and persons who inject drugs (PWID); (2) expanding efforts to prevent HIV infection by using a combination of effective, evidence-based, scalable approaches; and (3) educating the general public about the threat of HIV infection and how to prevent it. State and local health departments, as well as federal agencies, are expected to monitor progress toward NHAS goals [1].

Consistent with the goals of NHAS, the Centers for Disease Control and Prevention (CDC) is pursuing efforts to reduce new HIV infections using a combination of effective, evidence-based, scalable approaches focused on populations at risk of acquiring or transmitting HIV infection in the United States. CDC's National HIV Behavioral Surveillance (NHBS) serves as a key component of this effort by providing data for monitoring behaviors among these populations at risk [2]. NHBS also helps state and local health departments in areas with high AIDS prevalence to monitor selected risk behaviors, HIV testing, use of prevention programs, and HIV prevalence in 3 populations at high risk of HIV infection: MSM, PWID, and heterosexual adults at increased risk of HIV infection [3].

Male-to-male sexual contact continues to be a common route of HIV transmission in the United States among adults and adolescents, accounting for over 68% of the estimated new HIV diagnoses in 2013, including those attributed to male-to-male contact and injection drug use [4]. This report summarizes findings from the fourth MSM cycle of NHBS data collection, which was conducted in 2014. Data from previous MSM cycles of NHBS have been published elsewhere [5–7].

Descriptive, unweighted data that can be used to describe HIV infection among MSM are provided in this report. Percentages of specific risk behaviors, HIV testing, and participation in prevention programs are also provided, and monitoring these outcomes among MSM is helpful for assessing risk behaviors and the use of prevention efforts over time and for identifying new HIV prevention opportunities for this population.

TABLE ORGANIZATION

The tables in this report are ordered by content. Tables 1 and 5–11 are stratified by HIV status; that is, data are presented separately for HIV-negative participants, HIV-positive participants who were unaware of their infection at the time of interview (HIV-positive–unaware), and HIV-positive participants who were aware of their infection at the time of interview (HIV-positive–aware). HIV-negative participants were those with a negative NHBS HIV test result who did not report a previous HIV-positive test result. HIV-positive–unaware participants were those who received a confirmed positive HIV test result during the NHBS survey but who reported that their previous HIV test results were negative or indeterminate, they did not know the results, or they had never been tested. HIV-positive–aware participants were those who received a confirmed positive HIV test result during the NHBS survey and who reported having previously tested positive for HIV.

A small percentage of the sample could not be classified by HIV status because they had no valid NHBS HIV test result, meaning they did not consent to the HIV test, had an indeterminate result, or reported a previous HIV-positive test result but had a negative NHBS HIV test result. For data completeness, data from these participants are reported in a “No valid NHBS HIV test result” column (Table 1) or row (Tables 5–11).

HIGHLIGHTS

Demographic Characteristics, HIV Prevalence, and HIV Testing

This report describes data from 9,640 MSM who participated in NHBS in 2014, of whom 42% were aged 29 years or younger, and 38% were white, 28% black, and 26% Hispanic or Latino (Table 1). Of HIV-positive-aware participants, however, 28% were aged 29 years or younger, and 41% were black. Overall, 74% of the sample had more than a high school education and the household income of 75% was above the federal poverty level; 79% of the sample had health insurance and 83% had visited a health care provider in the 12 months before interview.

HIV prevalence and awareness of HIV infection (termed “awareness”) are presented in Table 2. Awareness of infection can lead to a reduction in risk behaviors and reduced likelihood of transmitting HIV to others [8]. It is also the first step to linking HIV-positive persons to medical care and services, which can lead to improved clinical outcomes [9] and further reduction in transmission potential [10]. In 2014, 22% of MSM with a valid NHBS HIV test result tested positive for HIV; of those, 75% were aware of their infection.

By race and ethnicity, HIV prevalence and awareness of infection were as follows: blacks—prevalence, 36%, awareness, 67%; Hispanics or Latinos—prevalence, 17%, awareness, 75%; and whites—prevalence, 15%, awareness, 90%.

CDC recommends that persons at increased risk of HIV infection, including MSM, undergo HIV testing at least annually [11]. Among participants who did not report a previous HIV-positive test result or who had received their first HIV-positive test result less than 12 months before interview, 71% reported that they had been tested for HIV in the 12 months before interview, and 94% reported that they had ever been tested (Table 3). These data represent continued increases in HIV testing among MSM with 62% in 2008 [5], 66% in 2011 [6], and 71% in 2014 reporting having an HIV test in the previous 12 months.

Among participants who reported an HIV test in the 12 months before interview, 53% reported their most recent test was performed in a clinical setting (Table 4). Testing in nonclinical settings varied by race: 43% of black MSM and 46% of Hispanic MSM reported their most recent HIV test was conducted in

a nonclinical setting, while 36% of white MSM reported a nonclinical setting for their most recent HIV test.

Sexual Behaviors

Research suggests that many persons modify their behaviors to protect their partners after HIV diagnosis [8]. Among MSM, condomless vaginal and anal sex with females was reported least often by HIV-positive-aware participants (3% vaginal, 2% anal) compared with HIV-positive-unaware (12% vaginal, 5% anal) and HIV-negative participants (9% vaginal, 3% anal) (Table 5). However, condomless anal sex with male partners was not reported less often by HIV-positive-aware MSM (67%) than by HIV-positive-unaware (65%), or HIV-negative MSM (65%). Further, the highest percentage of condomless anal sex with casual partners (44%) was reported by HIV-positive-aware MSM (Table 6), as well as the highest percentage of any bacterial sexually transmitted infection (STI) associated with condomless sex (Table 9).

Relatively high reports of condomless sex among HIV-positive-aware MSM do not necessarily contradict previous findings that persons modify their behaviors after HIV diagnosis [8]. Because we do not know their level of risk before diagnosis, it is possible that the HIV-positive-aware MSM in this sample had higher risk before diagnosis and reduced their risk behaviors after diagnosis to a level similar to that of HIV-negative MSM. For example, 29% of HIV-positive-unaware MSM reported having had condomless anal sex with a partner of discordant or unknown HIV status during their most recent sexual encounter. Among HIV-positive-aware MSM, 18% reported condomless anal sex with a discordant or unknown partner, which is comparable to that reported by HIV-negative MSM (15%) (Table 11). Similarly, when asked about their most recent sexual encounter, 26% of HIV-negative MSM and 20% of HIV-positive-aware MSM reported only having had oral sex while only 14% of HIV-positive-unaware MSM reported only having had oral sex during their most recent sexual encounter (Table 7). Further, HIV-positive MSM may be relying on other prevention strategies to protect their partners, such as antiretroviral treatment, or preexposure prophylaxis (PrEP) among their HIV-negative partners, or perceived risk reduction strategies such as serosorting, or seropositioning.

Despite the existence of other HIV prevention options, correct and consistent condom use is one of the primary means of protection from HIV infection [12]. The high percentages of MSM who engaged in condomless sex reported here are consistent with other findings suggesting that condomless sex is becoming more common among MSM [13] and underscore the importance of using effective, evidence-based, scalable combination HIV prevention strategies among MSM that include access to and use of condoms, preexposure prophylaxis, risk-reduction counseling, and HIV testing [2, 14].

Receipt of HIV Prevention Materials and Services

The receipt of free condoms and participation in HIV behavioral interventions are reported in Table 8. Overall, 74% of the sample reported receiving free condoms and 26% reported participating in an HIV behavioral intervention. The percentages of MSM who received condoms were similar across HIV status; however, the percentage of MSM who reported participating in an HIV behavioral intervention was highest for HIV-positive-aware participants (40%) in general, and for HIV-positive-aware MSM aged 18–24 years (62%) in particular.

Sexually Transmitted Infections

Having an STI can increase the likelihood of acquiring and transmitting HIV [15]. The percentage of MSM who reported a diagnosis of any a bacterial STI (chlamydia, gonorrhea, or syphilis) during the 12 months before interview was 13% overall, and was highest among HIV-positive-aware MSM (23%), and lowest among HIV-negative MSM (11%). The highest percentages of lifetime diagnosis of genital warts or human papillomavirus (19%) and genital herpes (12%) were among HIV-positive-aware MSM (Table 9).

Rates of syphilis among MSM have been increasing since 2000; MSM who are HIV-positive account for about half of cases [16]. HIV-positive-aware MSM reported the highest rates of syphilis diagnosis (14%), followed by HIV-positive-unaware MSM (9%), and HIV-negative MSM (3%).

Drug and Alcohol Use

Drug and alcohol use, particularly binge drinking, injection drug use, and methamphetamine use, have been associated with sexual risk behavior among

MSM [17]. Binge drinking was reported more often by HIV-negative MSM (56%), and less often by HIV-positive participants (HIV-positive-unaware: 46%; HIV-positive-aware: 44%). Use of any injection drugs was reported more often by HIV-positive-aware MSM (7%) than by HIV-negative (2%) or HIV-positive-unaware MSM (2%). Noninjection use of methamphetamine was reported more often by HIV-positive MSM (HIV-positive-unaware: 10%; HIV-positive-aware: 17%) and less often by HIV-negative MSM (6%) (Table 10).

Additional Outcomes

Table 11 presents data on additional outcomes related to the risk of HIV transmission and acquisition among MSM. Outcomes reported in Table 11 are of current relevance to HIV among MSM and may not be reported in future reports.

The median number of male sex partners reported in the 12 months before interview was 4 (Q1–Q3: 2–8), ranging from 3 (Q1–Q3: 2–7) among HIV-positive-unaware participants to 4 (Q1–Q3: 2–10) among HIV-positive-aware participants.

Exchange of sex is a recognized risk factor for HIV infection [18]. In 2014, 10% of MSM reported giving or receiving things like money or drugs in exchange for sex with a casual partner in the 12 months before interview. The percentage of participants reporting exchange of sex with a casual partner was highest among HIV-positive-unaware participants, (19%), and lowest among HIV-negative MSM, (9%).

In 2014, after the publication of scientific evidence that anti-HIV medication taken by HIV-negative persons can prevent HIV infection, CDC released clinical guidance recommending the use of PrEP for persons at increased risk of acquiring HIV, including MSM [14]. Data in this report, collected in 2014, may serve as a baseline for acceptance of PrEP among MSM. In this sample, 3% of MSM reported taking anti-HIV medicines in the past 12 months before sex to prevent HIV infection.

Receipt of HIV Care and Treatment

Achieving viral suppression through antiretroviral treatment can improve clinical outcomes and reduce the likelihood of transmitting HIV to others [9]. In 2015, NHAS changed its linkage-to-care goal from increasing the percentage of newly diagnosed persons linked to care within 3 months of diagnosis to increas-

ing the percentage of newly diagnosed persons linked to care within 1 month of diagnosis [1]. In 2014, among self-reported HIV-positive MSM, 98% reported having ever visited a health care provider for HIV, 82% reported that they did so within 3 months after diagnosis, and 91% reported visiting a health care provider for HIV care in the 6 months before interview. Current use of antiretroviral therapy was reported by 87% of self-reported HIV-positive MSM (Table 12).

NHBS conducts rotating cycles of behavioral surveys among MSM, persons who inject drugs (PWID), and heterosexual adults at increased risk of HIV infection [3]; data are collected in annual cycles from 1 risk group per year so that each population is surveyed once every 3 years. The same general eligibility criteria are used in each cycle: age 18 years or older, current residence in a participating city, no previous participation in NHBS during the current survey cycle, ability to complete the survey in either English or Spanish, and ability to provide informed consent. In addition to these basic eligibility criteria, participation in the 2014 NHBS cycle was limited to persons who (1) were male at birth, (2) reported their gender as male, and (3) reported oral or anal sex with a male partner during their lifetime.

A standardized questionnaire is used to collect information about behavioral risks for HIV infection, HIV testing, and use of HIV prevention services. The anonymous, in-person survey is administered by a trained interviewer using a portable computer. The goal of each participating city is to interview 500 eligible members of the population of interest. All participants are offered an anonymous HIV test, which is linked to the survey data through a unique survey identifier.

Activities for NHBS were approved by CDC [19, 20] and by local institutional review boards (IRBs) for each of the 20 participating cities.

PARTICIPATING CITIES

State and local health departments eligible to participate in NHBS are those in jurisdictions that include a metropolitan statistical area (MSA) or a specified division with high prevalence of HIV. In 2014, NHBS was conducted in 20 MSAs (see list at the end of the report), which represented approximately 60% of all persons living with HIV in urban areas with a population of at least 500,000 at year's end 2012 [4]. Throughout this report, MSAs and divisions are referred to by the name of the principal city.

SAMPLING METHOD

Participants in the 2014 NHBS cycle were recruited using venue-based, time-space sampling (VBS) [21]. The primary steps were identifying venues frequented by MSM, determining the best time for sampling at each venue and the number of sampling events to be conducted each month, and recruiting men at the sampling event [6].

DATA COLLECTION

Persons recruited for the interview were escorted to a private area for eligibility screening. For those who met eligibility requirements, trained interviewers obtained informed consent and conducted face-to-face interviews, which took approximately 30 minutes and consisted of questions concerning participants' demographic characteristics, HIV testing history, sexual and drug use behaviors, STI testing and diagnosis, and use of HIV prevention services and programs. As a token of appreciation for the time spent taking part in the interview, participants received \$20–\$30 (amount determined locally). For participants who consented to the anonymous HIV testing, local testing procedures were followed, and an additional incentive was provided.

HIV testing was performed for participants who consented; blood or oral specimens were collected for rapid testing in the field or laboratory-based testing. A nonreactive rapid test result was considered HIV-negative; a reactive rapid test result was considered HIV-positive if confirmed by Western blot or indirect immunofluorescence assay. Participants also received \$10–\$25 for HIV testing.

Each participating city's goal was to interview 500 eligible men who also reported having sex with another man in the 12 months before the interview.

DATA ANALYSIS

This surveillance report presents descriptive data; no statistical tests were performed. In addition, these data are cross-sectional; we did not attempt to infer causal relationships.

Data for this report are not weighted. The purpose of this report is to provide a detailed summary of surveillance data collected as part of the 2014 NHBS cycle; unweighted data provide an efficient and transparent way to do so. Further, unweighted analysis allows for detailed reporting of outcomes among small subgroups of the population of interest.

Inclusion for this report is limited to participants who (1) were eligible for and consented to the interview and (2) reported having sex with another man in the 12 months before interview.

In total, 41,719 men were approached for participation at 586 venues; 14,103 were screened to participate in NHBS in 2014. Of those, 3,646 persons did not meet NHBS eligibility criteria or did not provide consent and were excluded from the survey. An additional 88 interviews were excluded from this report due to incomplete survey data, survey responses of questionable validity, or data lost during electronic upload. Finally, 729 eligible persons who did not report having sex with a male in the 12 months before interview were excluded from this report.

The full analysis sample for this report includes 2014 NHBS cycle participants who consented to and completed the survey (n=9,640, Table 1). Additional inclusion criteria were applied for certain analyses of HIV infection and of HIV-associated behaviors; details of each analysis sample can be found in the footnotes of each table.

SUPPLEMENTAL MATERIAL

Infographic: HIV infection, risk, prevention, and testing behaviors among men who have sex with men (MSM)—National HIV Behavioral Surveillance (NHBS), 20 U.S. cities, 2014 ([PDF file is attached](#); also available at <http://www.cdc.gov/hiv/pdf/library/reports/surveillance/cdc-hiv-hssr-nhbs-msm-infographic.pdf>).

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Table 1. Selected characteristics of men who have sex with men—National HIV Behavioral Surveillance, 20 U.S. cities, 2014

	HIV-negative ^a		HIV-positive				No valid NHBS HIV test result ^d		Total	
	No.	%	Unaware ^b		Aware ^c		No.	%	No.	%
			No.	%	No.	%				
Age at interview (yr)										
18–24	1,576	23.0	87	18.6	160	11.3	139	15.4	1,962	20.4
25–29	1,598	23.3	106	22.6	240	16.9	167	18.5	2,111	21.9
30–39	1,733	25.3	135	28.8	376	26.5	243	26.9	2,487	25.8
40–49	1,054	15.4	83	17.7	364	25.6	185	20.4	1,686	17.5
≥50	886	12.9	57	12.2	280	19.7	171	18.9	1,394	14.5
Race/ethnicity										
American Indian/Alaska Native	43	0.6	1	0.2	11	0.8	9	1.0	64	0.7
Asian	144	2.1	2	0.4	4	0.3	25	2.8	175	1.8
Black/African American	1,537	22.4	286	61.1	580	40.8	250	27.6	2,653	27.5
Hispanic/Latino ^e	1,935	28.3	102	21.8	299	21.1	188	20.8	2,524	26.2
Native Hawaiian/Other Pacific Islander	37	0.5	1	0.2	5	0.4	6	0.7	49	0.5
White	2,796	40.8	49	10.5	438	30.8	386	42.7	3,669	38.1
Multiple races	319	4.7	24	5.1	78	5.5	34	3.8	455	4.7
Education										
Less than high school	256	3.7	34	7.3	96	6.8	33	3.6	419	4.3
High school diploma or equivalent	1,452	21.2	150	32.1	343	24.2	136	15.0	2,081	21.6
Some college or technical degree	2,124	31.0	180	38.5	558	39.3	228	25.2	3,090	32.1
College degree or more	3,014	44.0	104	22.2	423	29.8	508	56.1	4,049	42.0
Household income^f										
At or below the federal poverty level	1,501	21.9	186	39.7	458	32.3	129	14.3	2,274	23.6
Above the federal poverty level	5,250	76.7	276	59.0	951	67.0	757	83.6	7,234	75.0
Health insurance										
Yes	5,246	76.6	338	72.2	1,198	84.4	782	86.4	7,564	78.5
No	1,587	23.2	130	27.8	221	15.6	122	13.5	2,060	21.4
Visited a health care provider, past 12 months										
Yes	5,420	79.2	370	79.1	1,371	96.5	800	88.4	7,961	82.6
No	1,424	20.8	98	20.9	49	3.5	105	11.6	1,676	17.4
Homeless,^g past 12 months										
Yes	542	7.9	78	16.7	180	12.7	37	4.1	837	8.7
No	6,305	92.1	390	83.3	1,240	87.3	868	95.9	8,803	91.3
Incarcerated,^h past 12 months										
Yes	401	5.9	55	11.8	94	6.6	26	2.9	576	6.0
No	6,444	94.1	413	88.2	1,326	93.4	879	97.1	9,062	94.0

Table 1. Selected characteristics of men who have sex with men—National HIV Behavioral Surveillance, 20 U.S. cities, 2014 (cont)

City	HIV-negative ^a		HIV-positive				No valid NHBS HIV test result ^d		Total	
	No.	%	Unaware ^b		Aware ^c		No.	%	No.	%
			No.	%	No.	%				
Atlanta, GA	315	4.6	54	11.5	108	7.6	30	3.3	507	5.3
Baltimore, MD	315	4.6	55	11.8	82	5.8	45	5.0	497	5.2
Boston, MA	249	3.6	10	2.1	11	0.8	32	3.5	302	3.1
Chicago, IL	343	5.0	7	1.5	79	5.6	90	9.9	519	5.4
Dallas, TX	320	4.7	23	4.9	125	8.8	32	3.5	500	5.2
Denver, CO	381	5.6	8	1.7	60	4.2	66	7.3	515	5.3
Detroit, MI	341	5.0	54	11.5	56	3.9	61	6.7	512	5.3
Houston, TX	371	5.4	32	6.8	94	6.6	12	1.3	509	5.3
Los Angeles, CA	436	6.4	29	6.2	56	3.9	3	0.3	524	5.4
Miami, FL	389	5.7	44	9.4	91	6.4	10	1.1	534	5.5
Nassau-Suffolk, NY	285	4.2	7	1.5	11	0.8	36	4.0	339	3.5
New Orleans, LA	342	5.0	22	4.7	101	7.1	52	5.7	517	5.4
New York City, NY	284	4.1	4	0.9	48	3.4	172	19.0	508	5.3
Newark, NJ	168	2.5	8	1.7	42	3.0	29	3.2	247	2.6
Philadelphia, PA	454	6.6	62	13.2	102	7.2	38	4.2	656	6.8
San Diego, CA	374	5.5	3	0.6	121	8.5	40	4.4	538	5.6
San Francisco, CA	257	3.8	3	0.6	65	4.6	63	7.0	388	4.0
San Juan, PR	462	6.7	18	3.8	24	1.7	11	1.2	515	5.3
Seattle, WA	398	5.8	6	1.3	75	5.3	24	2.7	503	5.2
Washington, DC	363	5.3	19	4.1	69	4.9	59	6.5	510	5.3
Total	6,847	100	468	100	1,420	100	905	100	9,640	100

Abbreviation: NHBS, National HIV Behavioral Surveillance (footnotes only).

Note. "Past 12 months" refers to the 12 months preceding interview.

^a Participant with a negative NHBS HIV test result who did not report a previous HIV-positive test result.

^b Participant with a confirmed positive NHBS HIV test result who did not report a previous HIV-positive test result, including those who had not been previously tested or did not know the results of previous HIV tests.

^c Participant with a confirmed positive NHBS HIV test result who reported a previous HIV-positive test result.

^d Participant who did not have a valid positive or negative NHBS test result, including those who did not consent to the HIV test, had an indeterminate result, or reported a previous HIV-positive test result but had a negative HIV test result.

^e Hispanics/Latinos can be of any race.

^f Poverty level is based on household income and household size.

^g Homeless defined as living on the street, in a shelter, in a single-room-occupancy hotel, or in a car.

^h Incarcerated defined as having been held in a detention center, jail, or prison for more than 24 hours.

**Table 2. HIV prevalence and awareness of infection among men who have sex with men—
National HIV Behavioral Surveillance, 20 U.S. cities, 2014**

	HIV prevalence ^a		HIV awareness ^b		Total No.
	No.	%	No.	%	
Age at interview (yr)					
18–24	247	13.5	160	64.8	1,823
25–29	346	17.8	240	69.4	1,944
30–39	511	22.8	376	73.6	2,244
40–49	447	29.8	364	81.4	1,501
≥50	337	27.6	280	83.1	1,223
Race/ethnicity					
American Indian/Alaska Native	12	21.8	11	91.7	55
Asian	6	4.0	4	66.7	150
Black/African American	866	36.0	580	67.0	2,403
Hispanic/Latino ^c	401	17.2	299	74.6	2,336
Native Hawaiian/Other Pacific Islander	6	14.0	5	83.3	43
White	487	14.8	438	89.9	3,283
Multiple races	102	24.2	78	76.5	421
City					
Atlanta, GA	162	34.0	108	66.7	477
Baltimore, MD	137	30.3	82	59.9	452
Boston, MA	21	7.8	11	52.4	270
Chicago, IL	86	20.0	79	91.9	429
Dallas, TX	148	31.6	125	84.5	468
Denver, CO	68	15.1	60	88.2	449
Detroit, MI	110	24.4	56	50.9	451
Houston, TX	126	25.4	94	74.6	497
Los Angeles, CA	85	16.3	56	65.9	521
Miami, FL	135	25.8	91	67.4	524
Nassau-Suffolk, NY	18	5.9	11	61.1	303
New Orleans, LA	123	26.5	101	82.1	465
New York City, NY	52	15.5	48	92.3	336
Newark, NJ	50	22.9	42	84.0	218
Philadelphia, PA	164	26.5	102	62.2	618
San Diego, CA	124	24.9	121	97.6	498
San Francisco, CA	68	20.9	65	95.6	325
San Juan, PR	42	8.3	24	57.1	504
Seattle, WA	81	16.9	75	92.6	479
Washington, DC	88	19.5	69	78.4	451
Total	1,888	21.6	1,420	75.2	8,735

Abbreviation: NHBS, National HIV Behavioral Surveillance (footnotes only).

Note. Data include all participants with a valid positive or negative NHBS HIV test result.

^a "HIV prevalence" refers to the percentage of participants with a confirmed positive NHBS HIV test result among the total number of participants tested in NHBS.

^b Percentage denominator is the number of participants with a confirmed positive HIV test result.

^c Hispanics/Latinos can be of any race.

Table 3. HIV testing among men who have sex with men—National HIV Behavioral Surveillance, 20 U.S. cities, 2014

	Ever		Tested in past 12 months		Total No.
	No.	%	No.	%	
Age at interview (yr)					
18–24	1,634	88.4	1,386	75.0	1,849
25–29	1,827	95.9	1,466	77.0	1,905
30–39	2,036	96.4	1,547	73.3	2,111
40–49	1,237	95.4	839	64.7	1,296
≥50	1,020	94.3	626	57.9	1,082
Race/ethnicity					
American Indian/Alaska Native	46	92.0	36	72.0	50
Asian	158	93.5	128	75.7	169
Black/African American	2,005	94.0	1,564	73.4	2,132
Hispanic/Latino ^a	2,072	92.8	1,540	69.0	2,233
Native Hawaiian/Other Pacific Islander	43	100.0	36	83.7	43
White	3,019	94.8	2,251	70.7	3,184
Multiple races	364	94.5	273	70.9	385
City					
Atlanta, Georgia	371	92.8	276	69.0	400
Baltimore, Maryland	390	93.3	285	68.2	418
Boston, Massachusetts	276	95.2	202	69.7	290
Chicago, Illinois	415	95.8	334	77.1	433
Dallas, Texas	347	92.0	257	68.2	377
Denver, Colorado	425	94.4	290	64.4	450
Detroit, Michigan	414	89.8	276	59.9	461
Houston, Texas	393	92.9	315	74.5	423
Los Angeles, California	448	94.9	370	78.4	472
Miami, Florida	437	95.4	345	75.3	458
Nassau–Suffolk, New York	296	90.8	207	63.5	326
New Orleans, Louisiana	407	94.4	311	72.2	431
New York, New York	422	95.5	341	77.1	442
Newark, New Jersey	191	92.7	142	68.9	206
Philadelphia, Pennsylvania	540	93.4	441	76.3	578
San Diego, California	399	96.6	299	72.4	413
San Francisco, California	293	98.7	239	80.5	297
San Juan, Puerto Rico	440	89.2	275	55.8	493
Seattle, Washington	413	96.3	299	69.7	429
Washington, DC	437	98.0	360	80.7	446
Total	7,754	94.1	5,864	71.1	8,243

Note. "Past 12 months" refers to the 12 months before interview. Data include all participants who did not report a previous HIV-positive test result and participants who received their first HIV-positive test result less than 12 months before interview. Participants who reported diagnosis of HIV infection more than 12 months before interview are excluded.

^a Hispanics/Latinos can be of any race.

Table 4. Setting of most recent HIV test among men who have sex with men and who were tested for HIV during the 12 months before interview—National HIV Behavioral Surveillance, 20 U.S. cities, 2014

	Clinical setting ^a		Nonclinical setting ^b		Total No.
	No.	(%)	No.	(%)	
Age (yr)					
18–24	660	47.6	629	45.4	1,386
25–29	755	51.5	619	42.2	1,466
30–39	832	53.8	620	40.1	1,547
40–49	454	54.1	319	38.0	839
≥50	401	64.1	181	28.9	626
Race/ethnicity					
American Indian/Alaska Native	19	52.8	14	38.9	36
Asian	81	63.3	41	32.0	128
Black/African American	790	50.5	671	42.9	1,564
Hispanic/Latino ^c	744	48.3	706	45.8	1,540
Native Hawaiian/Other Pacific Islander	16	44.4	18	50.0	36
White	1,283	57.0	806	35.8	2,251
Multiple races	150	54.9	99	36.3	273
City					
Atlanta, Georgia	129	46.7	132	47.8	276
Baltimore, Maryland	194	68.1	74	26.0	285
Boston, Massachusetts	152	75.2	40	19.8	202
Chicago, Illinois	207	62.0	96	28.7	334
Dallas, Texas	107	41.6	121	47.1	257
Denver, Colorado	177	61.0	88	30.3	290
Detroit, Michigan	145	52.5	105	38.0	276
Houston, Texas	140	44.4	152	48.3	315
Los Angeles, California	102	27.6	251	67.8	370
Miami, Florida	113	32.8	213	61.7	345
Nassau–Suffolk, New York	145	70.0	51	24.6	207
New Orleans, Louisiana	155	49.8	134	43.1	311
New York, New York	241	70.7	80	23.5	341
Newark, New Jersey	57	40.1	83	58.5	142
Philadelphia, Pennsylvania	171	38.8	241	54.6	441
San Diego, California	200	66.9	84	28.1	299
San Francisco, California	142	59.4	91	38.1	239
San Juan, Puerto Rico	76	27.6	169	61.5	275
Seattle, Washington	177	59.2	97	32.4	299
Washington, DC	272	75.6	66	18.3	360
Total	3,102	52.9	2,368	40.4	5,864

Abbreviation: HMO, health maintenance organization (footnotes only).

Note. Data report setting of most recent HIV test. Data exclude participants who did not report an HIV test in 12 months before interview or who reported receiving an HIV-positive test result more than 12 months before interview.

^a Clinical settings include private doctor’s office (including HMO), emergency department, hospital (inpatient), public health clinic or community health center, family planning or obstetrics clinic, correctional facility, or drug treatment program.

^b Nonclinical settings include HIV counseling and testing site, HIV street outreach program or mobile unit, needle exchange program, or home.

^c Hispanics/Latinos can be of any race.

Table 5. Sexual behavior with female and male sex partners during the 12 months before interview among men who have sex with men—National HIV Behavioral Surveillance, 20 U.S. cities, 2014

	Female sex partner								Male sex partner				Total No.
	Vaginal sex		Condomless vaginal sex		Anal sex		Condomless anal sex		Anal sex		Condomless anal sex		
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
HIV-negative MSM^a	807	11.8	581	8.5	330	4.8	223	3.3	6,049	88.3	4,476	65.4	6,847
Age at interview (yr)													
18–24	226	14.3	153	9.7	77	4.9	43	2.7	1,471	93.3	1,071	68.0	1,576
25–29	164	10.3	114	7.1	62	3.9	40	2.5	1,494	93.5	1,145	71.7	1,598
30–39	216	12.5	163	9.4	101	5.8	70	4.0	1,567	90.4	1,173	67.7	1,733
40–49	122	11.6	94	8.9	53	5.0	42	4.0	894	84.8	642	60.9	1,054
≥50	79	8.9	57	6.4	37	4.2	28	3.2	623	70.3	445	50.2	886
Race/ethnicity													
American Indian/Alaska Native	9	20.9	5	11.6	5	11.6	3	7.0	37	86.0	26	60.5	43
Asian	4	2.8	2	1.4	2	1.4	1	0.7	127	88.2	93	64.6	144
Black/African American	294	19.1	215	14.0	121	7.9	80	5.2	1,360	88.5	889	57.8	1,537
Hispanic/Latino ^b	225	11.6	159	8.2	94	4.9	59	3.0	1,774	91.7	1,327	68.6	1,935
Native Hawaiian/Other Pacific Islander	3	8.1	2	5.4	0	0.0	0	0.0	30	81.1	24	64.9	37
White	224	8.0	164	5.9	96	3.4	71	2.5	2,407	86.1	1,873	67.0	2,796
Multiple races	43	13.5	32	10.0	11	3.4	9	2.8	281	88.1	222	69.6	319
HIV-positive—unaware MSM^c	86	18.4	57	12.2	31	6.6	23	4.9	437	93.4	305	65.2	468
Age at interview (yr)													
18–24	12	13.8	8	9.2	2	2.3	1	1.1	85	97.7	60	69.0	87
25–29	14	13.2	6	5.7	5	4.7	3	2.8	100	94.3	72	67.9	106
30–39	30	22.2	19	14.1	10	7.4	9	6.7	127	94.1	92	68.1	135
40–49	17	20.5	13	15.7	7	8.4	5	6.0	76	91.6	54	65.1	83
≥50	13	22.8	11	19.3	7	12.3	5	8.8	49	86.0	27	47.4	57
Race/ethnicity													
American Indian/Alaska Native	0	0.0	0	0.0	0	0.0	0	0.0	1	100.0	0	0.0	1
Asian	0	0.0	0	0.0	0	0.0	0	0.0	1	50.0	0	0.0	2
Black/African American	61	21.3	40	14.0	22	7.7	18	6.3	267	93.4	184	64.3	286
Hispanic/Latino ^b	15	14.7	12	11.8	7	6.9	5	4.9	95	93.1	70	68.6	102
Native Hawaiian/Other Pacific Islander	0	0.0	0	0.0	0	0.0	0	0.0	1	100.0	1	100.0	1
White	7	14.3	4	8.2	1	2.0	0	0.0	46	93.9	33	67.3	49
Multiple races	2	8.3	1	4.2	0	0.0	0	0.0	23	95.8	16	66.7	24

Table 5. Sexual behavior with female and male sex partners during the 12 months before interview among men who have sex with men—National HIV Behavioral Surveillance, 20 U.S. cities, 2014 (cont)

	Female sex partner								Male sex partner				Total No.
	Vaginal sex		Condomless vaginal sex		Anal sex		Condomless anal sex		Anal sex		Condomless anal sex		
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
HIV-positive—aware MSM^d	96	6.8	44	3.1	37	2.6	21	1.5	1,298	91.4	950	66.9	1,420
Age at interview (yr)													
18–24	15	9.4	5	3.1	8	5.0	6	3.8	155	96.9	111	69.4	160
25–29	14	5.8	9	3.8	6	2.5	5	2.1	227	94.6	169	70.4	240
30–39	27	7.2	11	2.9	6	1.6	3	0.8	361	96.0	279	74.2	376
40–49	28	7.7	14	3.8	9	2.5	6	1.6	335	92.0	238	65.4	364
≥50	12	4.3	5	1.8	8	2.9	1	0.4	220	78.6	153	54.6	280
Race/ethnicity													
American Indian/Alaska Native	1	9.1	1	9.1	0	0.0	0	0.0	9	81.8	4	36.4	11
Asian	0	0.0	0	0.0	0	0.0	0	0.0	4	100.0	3	75.0	4
Black/African American	54	9.3	25	4.3	22	3.8	13	2.2	537	92.6	354	61.0	580
Hispanic/Latino ^b	16	5.4	7	2.3	6	2.0	5	1.7	277	92.6	203	67.9	299
Native Hawaiian/Other Pacific Islander	1	20.0	0	0.0	0	0.0	0	0.0	5	100.0	4	80.0	5
White	14	3.2	6	1.4	4	0.9	2	0.5	391	89.3	325	74.2	438
Multiple races	9	11.5	5	6.4	5	6.4	1	1.3	70	89.7	53	67.9	78
No valid NHBS HIV test result^e	76	8.4	33	3.6	23	2.5	13	1.4	774	85.5	474	52.4	905
Total	1,065	11.0	715	7.4	421	4.4	280	2.9	8,558	88.8	6,205	64.4	9,640

Abbreviations: MSM, men who have sex with men; NHBS, National HIV Behavioral Surveillance.

Note. All participants in this analysis reported at least 1 male sex partner during the 12 months before interview. Some participants also reported 1 or more female sex partners during the 12 months before interview.

^a Participants with a negative NHBS HIV test result who did not report a previous HIV-positive test result.

^b Hispanics/Latinos can be of any race.

^c Participants with a confirmed positive NHBS HIV test result who did not report a previous HIV-positive test result, including those who had not been previously tested or did not know the results of previous HIV tests.

^d Participants with a confirmed positive NHBS HIV test result who reported a previous HIV-positive test result.

^e Participants who did not have a valid positive or negative NHBS HIV test result, including those who did not consent to the HIV test, had an indeterminate result, or reported a previous HIV-positive test result but had a negative NHBS HIV test result.

Table 6. Anal sex with male partners during the 12 months before interview among men who have sex with men, by partner type—National HIV Behavioral Surveillance, 20 U.S. cities, 2014

	Main male partner				Casual male partner				Main and casual partners—sex of any type ^a		Total No.
	Anal sex		Condomless anal sex		Anal sex		Condomless anal sex		No.	%	
	No.	%	No.	%	No.	%	No.	%			
HIV-negative MSM^b	3,939	57.5	3,043	44.4	4,461	65.2	2,520	36.8	2,351	34.3	6,847
Age at interview (yr)											
18–24	1,072	68.0	799	50.7	1,067	67.7	528	33.5	668	42.4	1,576
25–29	1,033	64.6	825	51.6	1,126	70.5	642	40.2	665	41.6	1,598
30–39	1,013	58.5	797	46.0	1,148	66.2	674	38.9	594	34.3	1,733
40–49	500	47.4	376	35.7	668	63.4	404	38.3	274	26.0	1,054
≥50	321	36.2	246	27.8	452	51.0	272	30.7	150	16.9	886
Race/ethnicity											
American Indian/Alaska Native	22	51.2	17	39.5	28	65.1	13	30.2	13	30.2	43
Asian	77	53.5	60	41.7	100	69.4	54	37.5	50	34.7	144
Black/African American	851	55.4	548	35.7	995	64.7	509	33.1	486	31.6	1,537
Hispanic/Latino ^c	1,184	61.2	929	48.0	1,300	67.2	718	37.1	710	36.7	1,935
Native Hawaiian/Other Pacific Islander	20	54.1	16	43.2	25	67.6	15	40.5	15	40.5	37
White	1,565	56.0	1,295	46.3	1,797	64.3	1,076	38.5	955	34.2	2,796
Multiple races	205	64.3	166	52.0	191	59.9	121	37.9	115	36.1	319
HIV-positive—unaware MSM^d	288	61.5	200	42.7	325	69.4	186	39.7	176	37.6	468
Age at interview (yr)											
18–24	61	70.1	40	46.0	65	74.7	32	36.8	41	47.1	87
25–29	76	71.7	54	50.9	67	63.2	40	37.7	43	40.6	106
30–39	81	60.0	62	45.9	97	71.9	56	41.5	51	37.8	135
40–49	45	54.2	31	37.3	58	69.9	39	47.0	27	32.5	83
≥50	25	43.9	13	22.8	38	66.7	19	33.3	14	24.6	57
Race/ethnicity											
American Indian/Alaska Native	0	0.0	0	0.0	1	100.0	0	0.0	0	0.0	1
Asian	0	0.0	0	0.0	1	50.0	0	0.0	0	0.0	2
Black/African American	190	66.4	127	44.4	190	66.4	106	37.1	113	39.5	286
Hispanic/Latino ^c	56	54.9	42	41.2	77	75.5	51	50.0	38	37.3	102
Native Hawaiian/Other Pacific Islander	1	100.0	1	100.0	1	100.0	0	0.0	1	100.0	1
White	25	51.0	18	36.7	36	73.5	22	44.9	15	30.6	49
Multiple races	16	66.7	12	50.0	16	66.7	6	25.0	9	37.5	24

Table 6. Anal sex with male partners during the 12 months before interview among men who have sex with men, by partner type—National HIV Behavioral Surveillance, 20 U.S. cities, 2014 (cont)

	Main male partner				Casual male partner				Main and casual partners—sex of any type ^a		Total No.
	Anal sex		Condomless anal sex		Anal sex		Condomless anal sex		No.	%	
	No.	%	No.	%	No.	%	No.	%			
HIV-positive—aware MSM^e	850	59.9	609	42.9	974	68.6	623	43.9	526	37.0	1,420
Age at interview (yr)											
18–24	122	76.3	81	50.6	115	71.9	56	35.0	82	51.3	160
25–29	173	72.1	124	51.7	168	70.0	106	44.2	114	47.5	240
30–39	242	64.4	189	50.3	282	75.0	186	49.5	163	43.4	376
40–49	195	53.6	134	36.8	250	68.7	172	47.3	110	30.2	364
≥50	118	42.1	81	28.9	159	56.8	103	36.8	57	20.4	280
Race/ethnicity											
American Indian/Alaska Native	5	45.5	3	27.3	9	81.8	2	18.2	5	45.5	11
Asian	1	25.0	1	25.0	4	100.0	3	75.0	1	25.0	4
Black/African American	373	64.3	238	41.0	379	65.3	198	34.1	215	37.1	580
Hispanic/Latino ^c	168	56.2	121	40.5	210	70.2	140	46.8	101	33.8	299
Native Hawaiian/Other Pacific Islander	5	100.0	4	80.0	3	60.0	2	40.0	3	60.0	5
White	247	56.4	205	46.8	315	71.9	240	54.8	171	39.0	438
Multiple races	48	61.5	34	43.6	50	64.1	37	47.4	28	35.9	78
No valid NHBS HIV test result^f	524	57.9	323	35.7	526	58.1	246	27.2	276	30.5	905
Total	5,601	58.1	4,175	43.3	6,286	65.2	3,575	37.1	3,329	34.5	9,640

Abbreviations: MSM, men who have sex with men; NHBS, National HIV Behavioral Surveillance.

^a Participants who reported oral or anal sex with at least 1 male main partner and at least 1 male casual partner during the 12 months before interview.

^b Participants with a negative NHBS HIV test result who did not report a previous HIV-positive test result.

^c Hispanics/Latinos can be of any race.

^d Participants with a confirmed positive NHBS HIV test result who did not report a previous HIV-positive test result, including those who had not been previously tested or did not know the results of previous HIV tests.

^e Participants with a confirmed positive NHBS HIV test result who reported a previous HIV-positive test result.

^f Participants who did not have a valid positive or negative NHBS HIV test result, including those who did not consent to the HIV test, had an indeterminate result, or reported a previous HIV-positive test result but had a negative NHBS HIV test result.

Table 7. Most recent sexual encounter with a male partner among men who have sex with men—National HIV Behavioral Surveillance, 20 U.S. cities, 2014

	Insertive ^a anal sex only				Receptive ^b anal sex only				Both insertive ^a and receptive ^b anal sex				Oral sex only ^{c,d}		Total
	Total ^c		Condomless		Total ^c		Condomless		Total ^c		Condomless ^e				
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.
HIV-negative MSM^f	2,392	34.9	1,273	18.6	1,627	23.8	926	13.5	1,058	15.5	644	9.4	1,763	25.7	6,847
Age at interview (yr)															
18–24	520	33.0	246	15.6	485	30.8	267	16.9	314	19.9	172	10.9	256	16.2	1,576
25–29	580	36.3	281	17.6	441	27.6	238	14.9	273	17.1	171	10.7	303	19.0	1,598
30–39	664	38.3	381	22.0	392	22.6	219	12.6	245	14.1	154	8.9	429	24.8	1,733
40–49	383	36.3	215	20.4	177	16.8	116	11.0	130	12.3	84	8.0	363	34.4	1,054
≥50	245	27.7	150	16.9	132	14.9	86	9.7	96	10.8	63	7.1	412	46.5	886
Race/ethnicity															
American Indian/Alaska Native	16	37.2	9	20.9	6	14.0	5	11.6	10	23.3	3	7.0	11	25.6	43
Asian	33	22.9	12	8.3	52	36.1	28	19.4	16	11.1	10	6.9	43	29.9	144
Black/African American	668	43.5	304	19.8	324	21.1	154	10.0	238	15.5	111	7.2	306	19.9	1,537
Hispanic/Latino ^g	696	36.0	356	18.4	483	25.0	268	13.9	357	18.4	222	11.5	397	20.5	1,935
Native Hawaiian/Other Pacific Islander	6	16.2	2	5.4	14	37.8	11	29.7	7	18.9	6	16.2	10	27.0	37
White	858	30.7	523	18.7	642	23.0	395	14.1	386	13.8	265	9.5	907	32.4	2,796
Multiple races	103	32.3	63	19.7	95	29.8	60	18.8	41	12.9	25	7.8	79	24.8	319
HIV-positive—unaware MSM^h	166	35.5	76	16.2	124	26.5	58	12.4	114	24.4	64	13.7	64	13.7	468
Age at interview (yr)															
18–24	25	28.7	10	11.5	23	26.4	8	9.2	33	37.9	17	19.5	6	6.9	87
25–29	32	30.2	15	14.2	32	30.2	15	14.2	30	28.3	13	12.3	12	11.3	106
30–39	58	43.0	29	21.5	35	25.9	17	12.6	25	18.5	17	12.6	17	12.6	135
40–49	30	36.1	15	18.1	24	28.9	12	14.5	15	18.1	12	14.5	14	16.9	83
≥50	21	36.8	7	12.3	10	17.5	6	10.5	11	19.3	5	8.8	15	26.3	57
Race/ethnicity															
American Indian/Alaska Native	0	0.0	0	0.0	0	0.0	0	0.0	1	100.0	1	100.0	0	0.0	1
Asian	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	100.0	2
Black/African American	112	39.2	50	17.5	67	23.4	31	10.8	70	24.5	36	12.6	37	12.9	286
Hispanic/Latino ^g	30	29.4	14	13.7	29	28.4	13	12.7	29	28.4	19	18.6	14	13.7	102
Native Hawaiian/Other Pacific Islander	0	0.0	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0	0	0.0	1
White	14	28.6	7	14.3	18	36.7	10	20.4	10	20.4	5	10.2	7	14.3	49
Multiple races	8	33.3	4	16.7	9	37.5	4	16.7	4	16.7	3	12.5	3	12.5	24

Table 7. Most recent sexual encounter with a male partner among men who have sex with men—National HIV Behavioral Surveillance, 20 U.S. cities, 2014 (cont)

	Insertive ^a anal sex only				Receptive ^b anal sex only				Both insertive ^a and receptive ^b anal sex				Oral sex only ^{c,d}		Total No.
	Total ^c		Condomless		Total ^c		Condomless		Total ^c		Condomless ^e		No.	%	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%			
HIV-positive—aware MSMⁱ	368	25.9	177	12.5	461	32.5	266	18.7	304	21.4	176	12.4	284	20.0	1,420
Age at interview (yr)															
18–24	43	26.9	18	11.3	50	31.3	19	11.9	57	35.6	20	12.5	10	6.3	160
25–29	59	24.6	24	10.0	94	39.2	60	25.0	55	22.9	30	12.5	31	12.9	240
30–39	111	29.5	62	16.5	121	32.2	74	19.7	87	23.1	56	14.9	57	15.2	376
40–49	96	26.4	44	12.1	116	31.9	67	18.4	67	18.4	46	12.6	84	23.1	364
≥50	59	21.1	29	10.4	80	28.6	46	16.4	38	13.6	24	8.6	102	36.4	280
Race/ethnicity															
American Indian/Alaska Native	3	27.3	1	9.1	2	18.2	0	0.0	2	18.2	0	0.0	4	36.4	11
Asian	0	0.0	0	0.0	4	100.0	3	75.0	0	0.0	0	0.0	0	0.0	4
Black/African American	180	31.0	69	11.9	176	30.3	75	12.9	132	22.8	56	9.7	92	15.9	580
Hispanic/Latino ^g	84	28.1	37	12.4	103	34.4	65	21.7	63	21.1	42	14.0	48	16.1	299
Native Hawaiian/Other Pacific Islander	0	0.0	0	0.0	2	40.0	2	40.0	1	20.0	0	0.0	2	40.0	5
White	79	18.0	59	13.5	149	34.0	111	25.3	90	20.5	70	16.0	119	27.2	438
Multiple races	21	26.9	11	14.1	22	28.2	8	10.3	15	19.2	8	10.3	19	24.4	78
No valid NHBS HIV test result^j	308	34.0	122	13.5	202	22.3	98	10.8	137	15.1	58	6.4	256	28.3	905
Total	3,234	33.5	1,648	17.1	2,414	25.0	1,348	14.0	1,613	16.7	942	9.8	2,367	24.6	9,640

Abbreviations: MSM, men who have sex with men; NHBS, National HIV Behavioral Surveillance.

^a Participant placed his penis in the anus of his partner.

^b Participant's partner placed his penis in the anus of the participant.

^c The categories—insertive anal sex only, receptive anal sex only, both insertive and receptive anal sex, and oral sex only—are mutually exclusive.

^d Participant reported only oral sex at last sex.

^e Participant reported both receptive and insertive anal sex at last sex and reported not using a condom during 1 or more of those anal sex acts.

^f Participants with a negative NHBS HIV test result who did not report a previous HIV-positive test result.

^g Hispanics/Latinos can be of any race.

^h Participants with a confirmed positive NHBS HIV test result who did not report a previous HIV-positive test result, including those who had not been previously tested or did not know the results of previous HIV tests.

ⁱ Participants with a confirmed positive NHBS HIV test result who reported a previous HIV-positive test result.

^j Participants who did not have a valid positive or negative NHBS HIV test result, including those who did not consent to the HIV test, had an indeterminate result, or reported a previous HIV-positive test result but had a negative NHBS HIV test result.

Table 8. Receipt of HIV prevention materials and services during the 12 months before interview among men who have sex with men—National HIV Behavioral Surveillance, 20 U.S. cities, 2014

	Free condoms		Individual ^a - or group ^b -level intervention		Total No.
	No.	%	No.	%	
HIV-negative MSM^c	5,051	73.8	1,590	23.2	6,847
Age at interview (yr)					
18–24	1,208	76.6	512	32.5	1,576
25–29	1,217	76.2	389	24.3	1,598
30–39	1,278	73.7	382	22.0	1,733
40–49	761	72.2	173	16.4	1,054
≥50	587	66.3	134	15.1	886
Race/ethnicity					
American Indian/Alaska Native	35	81.4	10	23.3	43
Asian	108	75.0	24	16.7	144
Black/African American	1,124	73.1	501	32.6	1,537
Hispanic/Latino ^d	1,512	78.1	464	24.0	1,935
Native Hawaiian/Other Pacific Islander	30	81.1	11	29.7	37
White	1,976	70.7	490	17.5	2,796
Multiple races	237	74.3	77	24.1	319
HIV-positive—unaware MSM^e	359	76.7	123	26.3	468
Age at interview (yr)					
18–24	65	74.7	30	34.5	87
25–29	81	76.4	32	30.2	106
30–39	101	74.8	27	20.0	135
40–49	63	75.9	14	16.9	83
≥50	49	86.0	20	35.1	57
Race/ethnicity					
American Indian/Alaska Native	1	100.0	1	100.0	1
Asian	2	100.0	0	0.0	2
Black/African American	219	76.6	76	26.6	286
Hispanic/Latino ^d	77	75.5	29	28.4	102
Native Hawaiian/Other Pacific Islander	1	100.0	0	0.0	1
White	38	77.6	6	12.2	49
Multiple races	18	75.0	8	33.3	24
HIV-positive—aware MSM^f	1,089	76.7	570	40.1	1,420
Age at interview (yr)					
18–24	137	85.6	99	61.9	160
25–29	191	79.6	124	51.7	240
30–39	296	78.7	147	39.1	376
40–49	266	73.1	131	36.0	364
≥50	199	71.1	69	24.6	280
Race/ethnicity					
American Indian/Alaska Native	9	81.8	5	45.5	11
Asian	4	100.0	4	100.0	4
Black/African American	461	79.5	289	49.8	580
Hispanic/Latino ^d	243	81.3	119	39.8	299
Native Hawaiian/Other Pacific Islander	4	80.0	1	20.0	5
White	307	70.1	114	26.0	438
Multiple races	58	74.4	35	44.9	78
No valid NHBS HIV test result^g	641	70.8	225	24.9	905
Total	7,140	74.1	2,508	26.0	9,640

Abbreviations: MSM, men who have sex with men; NHBS, National HIV Behavioral Surveillance.

^a Individual-level intervention defined as a one-on-one conversation with an outreach worker, a counselor, or a prevention program worker about ways to prevent HIV; excludes conversations that were part of HIV testing.

^b Group-level intervention defined as a small-group discussion that is part of an organized session about ways to prevent HIV; excludes informal discussions with friends.

^c Participants with a negative NHBS HIV test result who did not report a previous HIV-positive test result.

^d Hispanics/Latinos can be of any race.

^e Participants with a confirmed positive NHBS HIV test result who did not report a previous HIV-positive test result, including those who had not been previously tested or did not know the results of previous HIV tests.

^f Participants with a confirmed positive NHBS HIV test result who reported a previous HIV-positive test result.

^g Participants who did not have a valid positive or negative NHBS HIV test result, including those who did not consent to the HIV test, had an indeterminate result, or reported a previous HIV-positive test result but had a negative NHBS HIV test result.

Table 9. Diagnosis of sexually transmitted infections among men who have sex with men—National HIV Behavioral Surveillance, 20 U.S. cities, 2014

	Diagnosed, past 12 months								Diagnosed, ever				Total No.
	Any bacterial STI ^a		Chlamydia		Gonorrhea		Syphilis		Genital warts or HPV		Genital herpes		
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
HIV-negative MSM^b	767	11.2	329	4.8	453	6.6	222	3.2	532	7.8	284	4.1	6,847
Age at interview (yr)													
18–24	227	14.4	97	6.2	142	9.0	61	3.9	68	4.3	37	2.3	1,576
25–29	213	13.3	92	5.8	126	7.9	60	3.8	101	6.3	41	2.6	1,598
30–39	202	11.7	91	5.3	121	7.0	55	3.2	156	9.0	78	4.5	1,733
40–49	82	7.8	32	3.0	43	4.1	28	2.7	97	9.2	57	5.4	1,054
≥50	43	4.9	17	1.9	21	2.4	18	2.0	110	12.4	71	8.0	886
Race/ethnicity													
American Indian/Alaska Native	7	16.3	4	9.3	5	11.6	2	4.7	1	2.3	1	2.3	43
Asian	20	13.9	11	7.6	9	6.3	3	2.1	7	4.9	4	2.8	144
Black/African American	193	12.6	84	5.5	103	6.7	70	4.6	63	4.1	40	2.6	1,537
Hispanic/Latino ^c	195	10.1	78	4.0	98	5.1	65	3.4	105	5.4	71	3.7	1,935
Native Hawaiian/Other Pacific Islander	5	13.5	4	10.8	5	13.5	1	2.7	2	5.4	1	2.7	37
White	290	10.4	121	4.3	190	6.8	64	2.3	331	11.8	153	5.5	2,796
Multiple races	51	16.0	24	7.5	37	11.6	16	5.0	19	6.0	12	3.8	319
HIV-positive—unaware MSM^d	77	16.5	23	4.9	45	9.6	41	8.8	26	5.6	18	3.8	468
Age at interview (yr)													
18–24	19	21.8	4	4.6	11	12.6	10	11.5	2	2.3	1	1.1	87
25–29	16	15.1	5	4.7	8	7.5	6	5.7	3	2.8	4	3.8	106
30–39	30	22.2	10	7.4	19	14.1	18	13.3	8	5.9	7	5.2	135
40–49	9	10.8	3	3.6	6	7.2	4	4.8	6	7.2	3	3.6	83
≥50	3	5.3	1	1.8	1	1.8	3	5.3	7	12.3	3	5.3	57
Race/ethnicity													
American Indian/Alaska Native	0	0.0	0	0.0	0	0.0	0	0.0	1	100.0	0	0.0	1
Asian	0	0.0	0	0.0	0	0.0	0	0.0	1	50.0	0	0.0	2
Black/African American	48	16.8	15	5.2	30	10.5	26	9.1	11	3.8	8	2.8	286
Hispanic/Latino ^c	17	16.7	4	3.9	10	9.8	9	8.8	6	5.9	5	4.9	102
Native Hawaiian/Other Pacific Islander	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1
White	6	12.2	2	4.1	4	8.2	1	2.0	6	12.2	4	8.2	49
Multiple races	6	25.0	2	8.3	1	4.2	5	20.8	1	4.2	1	4.2	24

Table 9. Diagnosis of sexually transmitted infections among men who have sex with men—National HIV Behavioral Surveillance, 20 U.S. cities, 2014 (cont)

	Diagnosed, past 12 months								Diagnosed, ever				Total No.
	Any bacterial STI ^a		Chlamydia		Gonorrhea		Syphilis		Genital warts or HPV		Genital herpes		
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
HIV-positive—aware MSM^e	324	22.8	124	8.7	148	10.4	203	14.3	274	19.3	172	12.1	1,420
Age at interview (yr)													
18–24	45	28.1	19	11.9	21	13.1	26	16.3	9	5.6	5	3.1	160
25–29	73	30.4	29	12.1	34	14.2	48	20.0	43	17.9	19	7.9	240
30–39	109	29.0	41	10.9	58	15.4	66	17.6	73	19.4	37	9.8	376
40–49	67	18.4	27	7.4	25	6.9	48	13.2	79	21.7	59	16.2	364
≥50	30	10.7	8	2.9	10	3.6	15	5.4	70	25.0	52	18.6	280
Race/ethnicity													
American Indian/Alaska Native	1	9.1	0	0.0	0	0.0	1	9.1	4	36.4	2	18.2	11
Asian	2	50.0	2	50.0	0	0.0	0	0.0	3	75.0	1	25.0	4
Black/African American	107	18.4	37	6.4	45	7.8	75	12.9	69	11.9	58	10.0	580
Hispanic/Latino ^c	88	29.4	36	12.0	35	11.7	55	18.4	51	17.1	33	11.0	299
Native Hawaiian/Other Pacific Islander	2	40.0	1	20.0	0	0.0	2	40.0	1	20.0	1	20.0	5
White	103	23.5	40	9.1	53	12.1	59	13.5	128	29.2	62	14.2	438
Multiple races	19	24.4	7	9.0	14	17.9	11	14.1	16	20.5	15	19.2	78
No valid NHBS HIV test result^f	94	10.4	36	4.0	43	4.8	37	4.1	94	10.4	45	5.0	905
Total	1,262	13.1	512	5.3	689	7.1	503	5.2	926	9.6	519	5.4	9,640

Abbreviations: STI, sexually transmitted infection; HPV, human papillomavirus; MSM, men who have sex with men; NHBS, National HIV Behavioral Surveillance.

Note. "Past 12 months" refers to the 12 months before interview.

^a Any bacterial STI includes having been diagnosed with gonorrhea, chlamydia, or syphilis in the 12 months before interview.

^b Participants with a negative NHBS HIV test result who did not report a previous HIV-positive test result.

^c Hispanics/Latinos can be of any race.

^d Participants with a confirmed positive NHBS HIV test result who did not report a previous HIV-positive test result, including those who had not been previously tested or did not know the results of previous HIV tests.

^e Participants with a confirmed positive NHBS HIV test result who reported a previous HIV-positive test result.

^f Participants who did not have a valid positive or negative NHBS HIV test result, including those who did not consent to the HIV test, had an indeterminate result, or reported a previous HIV-positive test result but had a negative NHBS HIV test result.

Table 10. Drug use during the 12 months before interview and binge drinking during the 30 days before interview among men who have sex with men—National HIV Behavioral Surveillance, 20 U.S. cities, 2014

	Used drug	
	No.	%
HIV-negative MSM^a		
Binge drinking (past 30 days) ^b	3,852	56.3
Any injection drugs	152	2.2
Any noninjection drugs (excludes binge drinking)	3,812	55.7
Marijuana	3,214	46.9
Cocaine	1,332	19.5
Ecstasy	819	12.0
Pain killer ^c	566	8.3
Downer ^d	511	7.5
Methamphetamine	435	6.4
Crack	297	4.3
Hallucinogen	447	6.5
Heroin	102	1.5
HIV-positive—unaware MSM^e		
Binge drinking (past 30 days) ^b	217	46.4
Any injection drugs	10	2.1
Any noninjection drugs (excludes binge drinking)	271	57.9
Marijuana	235	50.2
Cocaine	78	16.7
Ecstasy	36	7.7
Pain killer ^c	39	8.3
Downer ^d	26	5.6
Methamphetamine	48	10.3
Crack	37	7.9
Hallucinogen	11	2.4
Heroin	13	2.8
HIV-positive—aware MSM^f		
Binge drinking (past 30 days) ^b	625	44.0
Any injection drugs	102	7.2
Any noninjection drugs (excludes binge drinking)	868	61.1
Marijuana	678	47.7
Cocaine	255	18.0
Ecstasy	146	10.3
Pain killer ^c	87	6.1
Downer ^d	90	6.3
Methamphetamine	240	16.9
Crack	81	5.7
Hallucinogen	55	3.9
Heroin	16	1.1

Disclaimer: The use of trade names is for identification only and does not imply endorsement by the Department of Health and Human Services or the Centers for Disease Control and Prevention.

Abbreviations: MSM, men who have sex with men; NHBS, National HIV Behavioral Surveillance [footnotes only].

Note. Denominator is the total number of MSM in the category; HIV-negative MSM: n = 6,847; HIV-positive—unaware MSM: n = 468; HIV-positive—aware MSM: n = 1,420. Responses are not mutually exclusive; percentages may not add to 100. Unless otherwise stated, data refer to noninjection drug use.

^a Participants with a negative NHBS HIV test result who did not report a previous HIV-positive test result.

^b Defined as 5 or more drinks at one sitting during the 30 days before interview.

^c Such as Oxycontin, Vicodin, or Percocet.

^d Such as Valium, Ativan, or Xanax.

^e Participants with a confirmed positive NHBS HIV test result who did not report a previous HIV-positive test result, including those who had not been previously tested or did not know the results of previous HIV tests.

^f Participants with a confirmed positive NHBS HIV test result who reported a previous HIV-positive test result.

Table 11. Additional outcomes among men who have sex with men—National HIV Behavioral Surveillance, 20 U.S. cities, 2014

	Number of sex partners ^a Median (Q1–Q3)	Exchange sex among casual partners ^b		Condomless sex with an HIV-discordant partner at last sex ^c		Took anti-HIV medicines before sex ^d		Total No.
		No.	%	No.	%	No.	%	
HIV-negative MSM^e	4 (2–8)	620	9.1	1,025	15.0	237	3.5	6,847
Age at interview (yr)								
18–24	3 (2–7)	143	9.1	255	16.2	40	2.5	1,576
25–29	4 (2–8)	125	7.8	221	13.8	64	4.0	1,598
30–39	4 (2–10)	141	8.1	245	14.1	69	4.0	1,733
40–49	3 (2–8)	114	10.8	183	17.4	33	3.1	1,054
≥50	3 (1–8)	97	10.9	121	13.7	31	3.5	886
Race/ethnicity								
American Indian/Alaska Native	3 (1–5)	2	4.7	3	7.0	1	2.3	43
Asian	4 (2–9)	5	3.5	16	11.1	2	1.4	144
Black/African American	3 (2–5)	237	15.4	253	16.5	36	2.3	1,537
Hispanic/Latino ^f	3 (2–7)	153	7.9	323	16.7	47	2.4	1,935
Native Hawaiian/Other Pacific Islander	4 (2–7)	2	5.4	2	5.4	1	2.7	37
White	4 (2–10)	195	7.0	370	13.2	142	5.1	2,796
Multiple races	4 (2–8)	22	6.9	54	16.9	8	2.5	319
HIV-positive—unaware MSM^g	3 (2–7)	88	18.8	134	28.6	9	1.9	468
Age at interview (yr)								
18–24	3 (2–6)	10	11.5	24	27.6	3	3.4	87
25–29	3 (2–6)	13	12.3	23	21.7	1	0.9	106
30–39	3 (2–7)	29	21.5	43	31.9	2	1.5	135
40–49	3 (2–10)	23	27.7	31	37.3	1	1.2	83
≥50	3 (2–6)	13	22.8	13	22.8	2	3.5	57
Race/ethnicity								
American Indian/Alaska Native	1 (1–1)	0	0.0	1	100.0	0	0.0	1
Asian	1.5 (1–2)	0	0.0	0	0.0	0	0.0	2
Black/African American	3 (2–5)	61	21.3	83	29.0	7	2.4	286
Hispanic/Latino ^f	4 (2–10)	13	12.7	31	30.4	1	1.0	102
Native Hawaiian/Other Pacific Islander	6 (6–6)	0	0.0	0	0.0	0	0.0	1
White	5 (2–12)	9	18.4	11	22.4	0	0.0	49
Multiple races	3.5 (2–7)	4	16.7	7	29.2	1	4.2	24

Table 11. Additional outcomes among men who have sex with men—National HIV Behavioral Surveillance, 20 U.S. cities, 2014 (cont)

	Number of sex partners ^a	Exchange sex among casual partners ^b		Condomless sex with an HIV-discordant partner at last sex ^c		Took anti-HIV medicines before sex ^d		Total No.
		Median (Q1–Q3)	No.	%	No.	%	No.	
HIV-positive–aware MSM^h	4 (2–10)	179	12.6	260	18.3	—	—	1,420
Age at interview (yr)								
18–24	3 (2–7)	22	13.8	27	16.9	—	—	160
25–29	4 (2–10)	32	13.3	45	18.8	—	—	240
30–39	5 (2–15)	48	12.8	86	22.9	—	—	376
40–49	4 (2–10)	41	11.3	61	16.8	—	—	364
≥50	3 (1–9.5)	36	12.9	41	14.6	—	—	280
Race/ethnicity								
American Indian/Alaska Native	3 (2–5)	0	0.0	0	0.0	—	—	11
Asian	10.5 (4–57.5)	0	0.0	1	25.0	—	—	4
Black/African American	3 (2–6)	100	17.2	85	14.7	—	—	580
Hispanic/Latino ^f	4 (2–13)	28	9.4	73	24.4	—	—	299
Native Hawaiian/Other Pacific Islander	5 (1–27)	0	0.0	1	20.0	—	—	5
White	5 (2–20)	42	9.6	90	20.5	—	—	438
Multiple races	3.5 (1–20)	8	10.3	9	11.5	—	—	78
No valid NHBS HIV test resultⁱ	3 (2–8)	53	5.9	93	10.3	24	2.7	905
Total	4 (2–8)	940	9.8	1,512	15.7	270	2.8	9,640

Abbreviations: Q, quartile; MSM, men who have sex with men; NHBS, National HIV Behavioral Surveillance.

^a Number of male partners reported by participants during the 12 months before interview.

^b “Exchange sex” refers to having given or received things like money or drugs, during the 12 months before interview, in exchange for sex with a casual partner.

^c “Condomless sex” refers to whether the participant reported engaging in anal sex without a condom. “HIV-discordant partner” refers to a partner of different or unknown HIV status. “Last sex” refers to the most recent sexual encounter with a male partner.

^d The question for this variable was “In the past 12 months, have you taken anti-HIV medicines before sex because you thought it would keep you from getting HIV?”

^e Participants with a negative NHBS HIV test result who did not report a previous HIV-positive test result.

^f Hispanics/Latinos can be of any race.

^g Participants with a confirmed positive NHBS HIV test result who did not report a previous HIV-positive test result, including those who had not been previously tested or did not know the results of previous HIV tests.

^h Participants with a confirmed positive NHBS HIV test result who reported a previous HIV-positive test result.

ⁱ Participants who did not have a valid positive or negative NHBS HIV test result, including those who did not consent to the HIV test, had an indeterminate result, or reported a previous HIV-positive test result but had a negative NHBS HIV test result.

Table 12. Receipt of HIV care and treatment among self-reported HIV-positive men who have sex with men—National HIV Behavioral Surveillance, 20 U.S. cities, 2014

	Visited health care provider about HIV								Total No.
	Ever		Within 3 months after diagnosis		During past 6 months		Currently taking anti-HIV medicines		
	No.	%	No.	%	No.	%	No.	%	
Age at interview (yr)									
18–24	165	95.4	145	83.8	156	90.2	135	78.0	173
25–29	254	95.5	218	82.0	240	90.2	208	78.2	266
30–39	411	97.6	348	82.7	383	91.0	363	86.2	421
40–49	402	98.5	345	84.6	376	92.2	377	92.4	408
≥50	316	99.4	248	78.0	295	92.8	299	94.0	318
Race/ethnicity									
American Indian/Alaska Native	14	100.0	10	71.4	14	100.0	14	100.0	14
Asian	6	100.0	5	83.3	6	100.0	6	100.0	6
Black/African American	601	97.2	495	80.1	561	90.8	511	82.7	618
Hispanic/Latino ^a	323	96.4	278	83.0	309	92.2	297	88.7	335
Native Hawaiian/ Other Pacific Islander	7	100.0	7	100.0	6	85.7	4	57.1	7
White	512	98.3	441	84.6	473	90.8	479	91.9	521
Multiple races	80	100.0	65	81.3	76	95.0	66	82.5	80
City									
Atlanta, GA	111	96.5	93	80.9	97	84.3	92	80.0	115
Baltimore, MD	86	98.9	67	77.0	84	96.6	75	86.2	87
Boston, MA	13	92.9	11	78.6	13	92.9	12	85.7	14
Chicago, IL	92	98.9	73	78.5	85	91.4	85	91.4	93
Dallas, TX	129	97.7	107	81.1	123	93.2	114	86.4	132
Denver, CO	67	97.1	54	78.3	56	81.2	57	82.6	69
Detroit, MI	61	100.0	57	93.4	58	95.1	51	83.6	61
Houston, TX	97	96.0	86	85.1	90	89.1	84	83.2	101
Los Angeles, CA	57	100.0	48	84.2	54	94.7	55	96.5	57
Miami, FL	87	93.5	72	77.4	82	88.2	76	81.7	93
Nassau-Suffolk, NY	15	100.0	13	86.7	14	93.3	13	86.7	15
New Orleans, LA	108	98.2	93	84.5	100	90.9	100	90.9	110
New York City, NY	77	97.5	60	75.9	72	91.1	70	88.6	79
Newark, NJ	46	97.9	40	85.1	45	95.7	41	87.2	47
Philadelphia, PA	103	96.3	84	78.5	97	90.7	87	81.3	107
San Diego, CA	131	100.0	117	89.3	127	96.9	126	96.2	131
San Francisco, CA	92	97.9	82	87.2	88	93.6	87	92.6	94
San Juan, PR	24	92.3	19	73.1	24	92.3	22	84.6	26
Seattle, WA	79	100.0	66	83.5	74	93.7	70	88.6	79
Washington, DC	73	96.1	62	81.6	67	88.2	65	85.5	76
Total	1,548	97.6	1,304	82.2	1,450	91.4	1,382	87.1	1,586

Abbreviation: NHBS, National HIV Behavioral Surveillance (footnotes only).

Note. Data include all participants who reported having ever received an HIV-positive test result, regardless of NHBS HIV test result. "Past 6 months" refers to the 6 months before interview.

^a Hispanics/Latinos can be of any race.

Appendix: Measurement Notes

SOCIODEMOGRAPHIC CHARACTERISTICS

- Age: Calculated from the reported date of birth; age categories were chosen for epidemiologic relevance and consistency of reporting across all 3 National HIV Behavioral Surveillance (NHBS) populations.
- Race/ethnicity: Participants reported 1 or more race categories (American Indian or Alaska Native, Asian, black or African American, Native Hawaiian or other Pacific Islander, and white). Hispanic or Latino ethnicity was asked separately; participants reporting Hispanic or Latino ethnicity were considered Hispanic or Latino, regardless of reported race. Participants reporting multiple races (but not Hispanic or Latino ethnicity) were classified as multiple races.
- Education: Highest level of education completed.
- Household income: Participants were asked about their combined monthly or yearly household income (in US\$) from all sources during the 12 months before interview. The number of persons meeting the current federal poverty threshold was determined by using the U.S. Department of Health and Human Services poverty guidelines that corresponded to the calendar year for which income was asked. These guidelines, issued yearly for the United States, are one of the indicators used for determining eligibility for many federal and state programs. The 2014 guidelines [1] were used for participants interviewed in 2014. Because the poverty guidelines are not defined for the territory of Puerto Rico, the guidelines for the 48 contiguous states and Washington, DC were applied for this jurisdiction. Participants were asked to report their income by selecting from a list of income ranges. If the participant's income range and household size resulted in an ambiguous determination of poverty level, the participant's household income was assumed to be the low point of the income range.
- Health insurance: Currently having some form of health insurance.
- Homeless: Living on the street, in a shelter, in a single-room-occupancy hotel, or in a vehicle at any time during the 12 months before interview.

- Incarcerated: Having been held in a detention center, jail, or prison for more than 24 hours during the 12 months before interview.
- City: Throughout this report, eligible metropolitan statistical areas (MSAs) and divisions are referred to by the name of the principal city. State and local health departments eligible to participate in NHBS are those in jurisdictions that included an MSA or a specified division within an MSA with high prevalence of HIV. In 2014, NHBS was conducted in 20 MSAs (see list at the end of the report), which represented approximately 60% of all persons living with HIV in urban areas with a population of at least 500,000.

HIV STATUS

HIV testing was performed for participants who consented to testing; blood or oral specimens were collected for either rapid testing in the field or laboratory-based testing.

- HIV-negative: Nonreactive NHBS HIV test result and no report of a previous HIV-positive test result.
- HIV-positive: Reactive rapid NHBS HIV test result confirmed by Western blot or indirect immunofluorescence assay, or a positive result by Western blot or indirect immunofluorescence assay without a rapid HIV test.
- HIV-positive-aware: Combination of a confirmed positive NHBS HIV test result and the participant's report of having previously tested HIV-positive.
- HIV-positive-unaware: Combination of a confirmed positive NHBS HIV test result and the participant's report of having never previously tested HIV-positive (including those whose previous test results were negative or indeterminate, those who had not received HIV test results, and those who had never tested).
- No valid NHBS HIV test result: Includes participants who did not consent to NHBS HIV testing, had an indeterminate result, or reported a previous HIV-positive test result but had a negative

NHBS HIV test result. For data completeness, participants who did not have a valid test result were included in this report but listed separately in all tables that report outcomes by HIV status.

HIV TESTING

- Ever tested: Having had an HIV test during one's lifetime.
- Tested in past 12 months: Having had an HIV test during the 12 months before interview.
- Clinical setting: Participants reported the location of their most recent HIV test—private doctor's office (including health maintenance organization), emergency department, hospital (inpatient), public health clinic or community health center, family planning or obstetrics clinic, correctional facility, or drug treatment program.
- Nonclinical setting: Participants reported the location of their most recent HIV test—HIV counseling and testing site, HIV street outreach program or mobile unit, needle exchange program, or home.
- "Other" locations could not be classified and are excluded from the clinical/nonclinical setting classification.

SEXUAL BEHAVIORS

- Any sex: Includes vaginal, oral, or anal sex.
- Vaginal sex: Penis inserted into a partner's vagina.
- Oral sex: Penis inserted into a partner's mouth.
- Anal sex: Penis inserted into a partner's anus.
- Insertive anal sex: Participant's penis inserted into a partner's anus.
- Receptive anal sex: Partner's penis inserted into the participant's anus.
- Condomless sex: Vaginal or anal sex during which a condom either is not used or is not used throughout the sex act.
- Main partner: Person with whom the participant has sex and to whom he feels most committed (e.g., boyfriend, husband, significant other, or life partner).
- Casual partner: Person with whom the participant has sex, but to whom he does not feel committed or whom he does not know very well.

- Both insertive and receptive anal sex, condomless: participant reported both receptive and insertive anal sex during his most recent sexual encounter and reported not using a condom during one or more of those anal sex acts.

RECEIPT OF PREVENTION MATERIALS

- Free condoms: Having received free condoms during the 12 months before interview, not including those given by a friend, relative, or sex partner.
- Individual- or group-level intervention: A composite measure based on having received individual- or group-level HIV interventions. An individual-level intervention is a one-on-one conversation with an outreach worker, a counselor, or a prevention program worker about ways to prevent HIV, excluding conversations that were part of HIV testing. A group-level intervention is a small-group discussion (as part of an organized session) about ways to prevent HIV, excluding informal discussions with friends.

SEXUALLY TRANSMITTED INFECTIONS

- Chlamydia: Having received a diagnosis of chlamydia during the 12 months before interview.
- Gonorrhea: Having received a diagnosis of gonorrhea during the 12 months before interview.
- Syphilis: Having received a diagnosis of syphilis during the 12 months before interview.
- Any bacterial STI: Having received a diagnosis of chlamydia, gonorrhea, or syphilis during the 12 months before interview.
- Genital warts or human papillomavirus (HPV): Having received a diagnosis of genital warts or HPV during one's lifetime.
- Genital herpes: Having received a diagnosis of genital herpes during one's lifetime.

SUBSTANCE USE

Participants were asked about their use of drugs (excluding those prescribed for them) during the 12 months before interview and their use of alcohol during the 30 days before interview. Participants were not limited in the number of substances they could report. Participants were considered to have used a

substance if they reported using that substance with any frequency other than “never.”

- Any injection drug: Having injected any drug (excluding those prescribed for him) during the 12 months before interview.
- Any noninjection drug: Having used any drug, excluding alcohol, by means other than injection during the 12 months before interview.
- Binge drinking: Having consumed 5 or more drinks at one sitting during the 30 days before interview.
- Pain killer: Having used pain killers, such as Oxycontin, Vicodin, or Percocet, by means other than injection during the 12 months before interview.
- Downer: Having used downers (benzodiazepines), such as Valium, Ativan, or Xanax, by means other than injection during the 12 months before interview.
- Hallucinogen: Having used hallucinogens, such as LSD or mushrooms, by means other than injection during the 12 months before interview.

ADDITIONAL OUTCOMES

Table 11 includes outcomes that were of particular interest at the time of publication but that were not included in other tables.

- Number of sex partners: Median number of male sex partners in the 12 months before interview; first and third quartiles (25th and 75th percentiles) are also reported.
- Exchange sex: Having given or received things like money or drugs, during the 12 months before interview, in exchange for sex with a casual partner.
- Condomless sex with an HIV-discordant partner at last sex: A composite measure based on self-reported HIV status of the participant (positive, negative, or unknown), the participant’s knowledge of the HIV status of his most recent male sex partner (positive, negative, or unknown), and whether the participant reported engaging in anal sex without a condom during his most recent sexual encounter. A partner was considered to be of discordant HIV status if the participant reported that one member of the partnership was known to be HIV-positive and the other was known to be

HIV-negative, or if he did not know the HIV status of at least one member of the partnership (participant or partner). The result of the NHBS HIV test (completed after the interview) was not factored into this measure.

- Took anti-HIV medicines before sex: Having taken, at any point during the 12 months before interview, anti-HIV medicines before sex to keep from getting HIV.

RECEIPT OF HIV CARE

Participants who reported having received a positive HIV test result before interview were asked about their receipt of HIV care. Specifically, participants were asked the date of their first HIV-positive test result; whether they had ever visited a doctor, nurse, or other health care provider for a medical evaluation or care related to their HIV infection; the date of their first visit to a health care provider for HIV care after learning they had HIV; the date of their most recent visit to a health care provider for HIV care; and whether they were currently taking any anti-HIV medicines.

- Visited health care provider for HIV, ever: Having ever visited a health care provider for care related to HIV infection.
- Visited health care provider for HIV, within 3 months after diagnosis: Having visited a health care provider for HIV care within 3 months after the date of their first HIV-positive test result.
- Visited health care provider for HIV, in the past 6 months: Having visited a health care provider for HIV care less than 6 months before date of interview.
- Currently taking anti-HIV medicines: Taking antiretroviral medicines at the time of interview.

REFERENCES

1. U.S. Department of Health and Human Services. 2014 poverty guidelines. <http://aspe.hhs.gov/2014-poverty-guidelines>. Published 2014. Accessed December 11, 2015.

Participating Metropolitan Statistical Areas, 2014

Principal city	Metropolitan statistical area division
Atlanta, Georgia	Atlanta–Sandy Springs–Marietta, Georgia
Baltimore, Maryland	Baltimore–Towson, Maryland
Boston, Massachusetts	Boston, Massachusetts–New Hampshire (Boston Division)
Chicago, Illinois	Chicago, Illinois–Indiana–Wisconsin (Chicago Division)
Dallas, Texas	Dallas, Texas (Dallas Division)
Denver, Colorado	Denver–Aurora, Colorado
Detroit, Michigan	Detroit, Michigan (Detroit Division)
Houston, Texas	Houston–Baytown–Sugar Land, Texas
Los Angeles, California	Los Angeles, California (Los Angeles Division)
Miami, Florida	Miami Florida (Miami Division)
Nassau–Suffolk, New York	New York, New York–New Jersey–Pennsylvania (Nassau Division)
New Orleans, Louisiana	New Orleans–Metairie–Kenner, Louisiana
New York, New York	New York, New York–New Jersey–Pennsylvania (New York–White Plains–Wayne Division)
Newark, New Jersey	New York, New York–New Jersey–Pennsylvania (Newark Division)
Philadelphia, Pennsylvania	Philadelphia, Pennsylvania–New Jersey–Delaware–Maryland (Philadelphia Division)
San Diego, California	San Diego–Carlsbad–San Marcos, California
San Francisco, California	San Francisco, California (San Francisco Division)
San Juan, Puerto Rico	San Juan–Caguas–Guaynabo, Puerto Rico
Seattle, Washington	Seattle, Washington (Seattle Division)
Washington, DC	Washington, District of Columbia (DC)–Virginia–Maryland–West Virginia (Washington Division)