

BESURE 2024

HIV Infection Risk, Prevention, and Testing Behaviors Among Persons Who Inject Drugs

Baltimore HIV Behavioral Surveillance Special Report



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Lowering the annual number of new HIV infections is a major HIV prevention goal [1]. This goal can be achieved by implementing three important strategies for reducing HIV infections: (1) intensifying HIV prevention efforts in communities where HIV is most heavily concentrated, including gay, bisexual, and other men who have sex with men (hereafter referred to as MSM); Black or African American persons; Hispanics or Latino persons; and persons who inject drugs (PWID); (2) expanding efforts to prevent HIV infection by using a combination of effective, evidence-based, scalable approaches (including substance use treatment and access to sterile needles and syringes); 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 HIV prevention goals [1].

The Centers for Disease Control and Prevention’s (CDC’s) National HIV Behavioral Surveillance (NHBS) serves as a key component of its high-impact prevention (HIP) approach to reducing the spread of HIV in the United States [2]. NHBS provides data for monitoring behaviors among populations at risk of acquiring or transmitting HIV infection and identifies the populations for whom scientifically proven, cost-effective, and scalable interventions are most appropriate. Monitoring key indicators among members of high-risk populations is critical to achieving the goals of the Ending the HIV Epidemic: A Plan for America initiative [3] and CDC’s HIP approach. The new initiative is aimed at reducing new HIV infections by 90 percent by 2030 by implementing evidence-based strategies for specific populations in geographic areas most affected by HIV. NHBS has previously proven effective at monitoring key indicators, such as risk behaviors, HIV testing, and linkage to care; access to, and use of, prevention interventions, including preexposure prophylaxis (PrEP) and syringe services programs (SSPs); and prevalence of HIV and other infections in areas with high HIV prevalence among 3 populations at high risk of HIV infection: MSM, PWID, and heterosexually active persons at increased risk for HIV infection [4, 5].

In Baltimore, NHBS is operated as a partnership

between Maryland Department of Health (MDH) and Johns Hopkins Bloomberg School of Public Health (JHSPH). The project is locally known as BESURE, the Behavioral Surveillance Research study. BESURE is reflective of the Baltimore Metropolitan Statistical Area (MSA), which consists of Baltimore City, Baltimore, Anne Arundel, Carroll, Howard, Harford, and Queen Anne’s counties.

This report summarizes findings from the sixth BESURE data collection among PWID, which was conducted in 2024. Data from previous years of national data collection among PWID have been published elsewhere [6–9]. Previous BESURE PWID data are available here and by request from Principal Investigators. This report provides descriptive, unweighted data that can be used to describe HIV infection among PWID and the percentages of PWID reporting specific risk behaviors, HIV testing, and participation in prevention programs. Monitoring these outcomes is useful for assessing risk behaviors, use of prevention efforts over time, and identifying new HIV prevention opportunities for this population.

REPORT CHANGES

CDC routinely assesses NHBS reports to ensure the content and methods meet the information needs of the nation. In an effort to reflect these changes, BESURE also made the following reporting changes from the previous report on PWID:

- The eligibility criteria for NHBS participation were modified in 2022. Previously, potential participants were eligible to participate if they self-reported injecting drugs in the past 12 months and had physical evidence of recent injection or demonstrated knowledge of injection drug use. In 2024, participants were not asked for physical evidence of recent injection. Instead, potential participants were eligible to participate if they self-reported injecting drugs in the past 12 months and demonstrated knowledge of injection drug use.
- Table 2 was added to present social determinants of health among PWID.
- A new indicator, “unprotected sex with an HIV-discordant partner at last sex,” was developed and presented for the first time in a report on PWID.

This indicator accounts for sex without the participant’s use of either condoms or HIV medications (i.e., PrEP among those without HIV or antiretrovirals among those with HIV) with a sex partner of different or unknown HIV status. Some modifications to “measure definitions” are made routinely to more accurately describe the outcome or characteristic of interest; measure definitions are described in the Appendix: Measurement Notes section of this report.

TABLE ORGANIZATION

The tables in this report are ordered by content and designed to align with those published by the CDC to report national NHBS data. Tables 1 and 6-14 are stratified by HIV status; that is, data are presented separately for HIV-negative participants and HIV-positive participants (HIV status determined from BESURE HIV test results). A small percentage of the sample (31/597, 5.2%) could not be classified by HIV status because they had no valid BESURE HIV test result; that is, they did not consent to the HIV test, or they had an indeterminate result. For data completeness, data from these participants are reported in a “No valid BESURE HIV test results” row (Tables 6-14).

Unless otherwise noted in tables, measurement notes, or the following highlights, the period for all outcomes is in the 12 months before the interview.

HIGHLIGHTS

Demographic Characteristics, HIV Prevalence, and HIV Testing

This report describes data from 597 PWID who participated in BESURE in 2024, of whom 66 percent identified as male and 35 percent identified as female; no PWID identified as transgender (Table 1). Thirty-six percent of BESURE PWID2024 participants were White and 55 percent were Black or African American; 71 percent were aged ≥ 40 years (Table 1). Eighty percent of participants had household income below the federal poverty level; 76 percent had received a high school education or less, and 54 percent reported being unemployed. Almost all participants had health insurance (95%); 15 percent had not visited a healthcare provider in the past 12 months. Sixty-three percent of

participants reported being homeless; 17 percent reported having been incarcerated in the past 12 months (Table 1).

CDC recommends that those at increased risk of HIV infection, including PWID, undergo HIV testing at least annually [10]. Seven percent of male and 14 percent of female participants aged 40 or older with a valid BESURE HIV test result tested positive for HIV (Table 3). Among participants who reported a previous HIV positive test result or who received their first HIV-positive test result less than 12 months before the interview, 60 percent reported that they had been tested for HIV in the 12 months before the interview, and 96 percent reported that they had ever been tested (Table 4). Most PWID (71%) who received an HIV test in the 12 months before the interview said the HIV test was conducted in a clinical setting (Table 5).

Sexual Behaviors

Although exposure to HIV through injection practices is a primary concern, sexual risk factors also play an important role in transmission to and from PWID. Exchange sex and condomless sex with an HIV-discordant partner were common. Seventeen percent of male PWID and more than a quarter (32%) of female PWID reported exchange sex with a casual partner. Giving or receiving money or drugs in exchange for sex is a recognized risk factor for HIV infection [28]. Condomless sex with an HIV-discordant partner at last sex was reported by 24 percent of male PWID and 21 percent of female PWID (Tables 6 and 7).

Condomless sex was common among all PWID. Among female PWID, 66 percent reported condomless vaginal sex, and 16 percent reported condomless anal sex. Similarly, 62 percent of male PWID reported condomless vaginal sex and 18 percent reported condomless anal sex with an opposite-sex partner, and four percent with a same-sex partner (Tables 6 and 7). As research suggests [12, 13], partner type may be an important factor in condom use. The percentages of PWID who engaged in condomless sex underscore the importance of using effective, evidence-based scalable combination HIV prevention strategies that include access to and use of condoms, PrEP, and risk-reduction counseling among PWID [14–16].

Injection Drug Use

PWID who engage in frequent or unsafe injection drug use are at increased risk of acquiring and transmitting HIV and other bloodborne infections, including hepatitis B virus

infection and hepatitis C virus (HCV) infection [17–21]. Approximately 94 percent of participants reported injecting heroin within the 12 months prior to the interview, and a majority (77%) reported daily heroin injection (Table 8). Among the HIV-positive PWID, 88 percent reported having injected heroin within the 12 months before the interview, with 63 percent injecting heroin daily. Among HIV-negative PWID, 94 percent reported injecting heroin in the past 12 months, with 78 percent of these participants injecting heroin daily. Sixty-six percent reported speedball (heroin and cocaine together) injection in the past 12 months (Table 8).

One-time use of sterile needles and syringes remains the safest, most effective way to limit HIV transmission during drug injection [22]. Receptive syringe sharing (using a syringe that has been used by another person) was reported by approximately 16 percent of HIV-negative PWID. HIV-negative PWID aged 30-39 reported the highest receptive syringe sharing (Table 9).

Among HIV-negative PWID, the percentage that reported sharing syringes or other injection equipment (e.g., cookers, cotton, water) was highest among PWID aged 40 and over (58%). Twenty-five percent of HIV-negative PWID reported distributive syringe sharing and 37 percent reported distributive sharing of other injection equipment such as cotton, cookers, and water (Table 9).

Receipt of HIV Prevention

Syringe service programs, or SSPs, are community-based prevention programs that can provide a range of services, including linkage to substance use disorder treatment; access to and disposal of, sterile syringes and injection equipment; and vaccination, testing, and linkage to care and treatment for infectious diseases. Receiving sterile syringes from SSPs reduces barriers to safer injection practices among PWID and increases access to other prevention services, including substance use disorder treatment [23]. Most (70%) of participants reported receiving syringes from SSPs, while only seven percent reported receiving syringes from storefronts like a pharmacy or drugstore (Table 10).

In 2014, CDC released clinical guidance recommending the use of PrEP for individuals at

increased risk of acquiring HIV [24]. In 2024, 50 percent of HIV-negative PWID were aware of PrEP (Table 10). Access to safe syringe disposal (such as through SSPs) can decrease the number of used syringes in the community and reduce accidental needle sticks. Only 31 percent of PWID reported always disposing of their used syringes safely, which could suggest a need for additional safe disposal options across the Baltimore MSA (Table 10).

Sexually Transmitted Infections and Hepatitis C Virus Infections

Sexually transmitted infections (STIs) can increase the likelihood of acquiring and transmitting HIV [25]. In 2024, four percent of all PWID received diagnosis of a bacterial STI in the past 12 months and three percent had ever been diagnosed with genital herpes (Table 11).

HCV testing is recommended at least once for anyone who has ever injected drugs; HCV testing is recommended at least annually for persons who currently inject drugs, and who are thus at continued risk of infection [26]. Lifetime testing for HCV among all PWID was high (84%). Further, substantial proportions of participants reported a diagnosis of hepatitis C. Notably, 46 percent of HIV-positive PWID, and 30 percent of HIV-negative PWID reported an HCV diagnosis (Table 12). Diagnoses of HCV infection may be more common among PWID known to be HIV-positive because of increased screening for this group. Moreover, HIV-positive PWID may be more likely to be coinfecting with HCV [27].

Substance Use

Table 13 presents data on non-injection drug use. HIV-positive PWID reported lower non-injection use (29%) than HIV-negative PWID (49%). Binge drinking was reported by about one third of HIV-negative PWID (36%) and HIV-positive PWID (33%).

Opioid Use

Opioid use continues to be a major public health concern in the United States. It is estimated that 130 Americans die every day from prescription or illicit opioid overdose [29]. Medication for opioid use disorder (MOUD) is an effective, evidence-based treatment for opioid use disorder that decreases opioid use, opioid-related overdoses, and infectious disease transmission [30–32]. Table 14 presents data on opioid use-related outcomes, including MOUD and

nonfatal opioid overdoses, among participants who reported injection or non-injection use of heroin or other opioids not prescribed for them.

Treatment for substance use disorder is an important method of HIV risk reduction because it can reduce injection-related risk of HIV transmission, and treatment programs can provide access to HIV testing and treatment. Among all participants, 68 percent received MOUD for opioids in the 12 months before the interview (Table 14). Among HIV-positive PWID, half (50%) reported having used MOUD in the 12 months before the interview, and 69 percent of HIV-negative PWID. Nearly one quarter (21%) of all participants reported an unmet need for medication-assisted treatment. One third (30%) of participants reported experiencing an overdose; the majority of whom were HIV-negative participants (Table 14).

Receipt of HIV Care

Achieving viral suppression through antiretroviral treatment can improve clinical outcomes and reduce the likelihood of HIV transmission [33]. In 2015, the national goal for linkage to care changed from increasing the percentage of people with newly diagnosed HIV linked to care within three months of diagnosis to increasing the percentage linked to care within one month of diagnosis [1]. In 2024, all HIV-positive PWID identified by the BESURE HIV test reported having ever visited a healthcare provider for HIV, 50 percent reported that they did so within one month of diagnosis, and 96 percent reported visiting a healthcare provider for HIV care in the six months before interview. Current use of antiretroviral therapy (ART) was reported by 86 percent of self-reported HIV-positive PWID (Table 15).

Technical Notes

In accordance with the NHBS national protocol, BESURE conducts rotating cycles of biobehavioral surveys among MSM, PWID, and heterosexually active persons at increased risk of HIV infection [5]; data are collected in annual cycles from one risk group per year so that each population is surveyed once every three years. The same general eligibility criteria are used in each cycle: age 18 years or older, current residence in Baltimore MSA, no previous participation in BESURE during the current survey cycle, be able to complete the survey in either English or Spanish, and be able to provide informed consent. In addition to these basic NHBS eligibility criteria, participation in the 2024 BESURE cycle was limited to individuals who reported injecting a drug that was not prescribed for them in the past 12 months.

A standardized questionnaire was used to collect information about behavioral risks for HIV infection, HIV testing, and use of HIV prevention services. The anonymous, in-person survey was conducted by a trained interviewer using a portable computer. All participants were offered an anonymous HIV test, which is linked to the survey data through a unique survey identifier.

Activities for BESURE were approved by the CDC [34, 35] and by the Johns Hopkins University and Maryland Department of Health institutional review boards (IRBs).

SAMPLING METHOD

The stigma associated with injection drug use presents challenges to sampling strategies for surveillance and research efforts among PWID. Participants in the 2024 BESURE cycle were recruited by using respondent-driven sampling (RDS) [37, 38]. Recruitment began with a small number of initial participants, selected through referrals from people familiar with the local population of PWID or through outreach to areas where PWID could be found. Initial participants who completed the eligibility screener and were found eligible were administered the survey, and those who completed the survey were asked to recruit up to five persons whom they knew personally and who injected drugs. Those persons, in turn, completed the survey and were asked

to recruit others by using a system of coded coupons. This recruitment process continued until the sampling period ended. Participants received incentives to participate in the survey and for recruiting others.

DATA COLLECTION

Potential participants who brought a valid coupon to a BESURE field site were escorted to a private area for eligibility screening. For those who met eligibility requirements, trained interviewers obtained informed consent and conducted virtual interviews, which took approximately 40 minutes and consisted of questions concerning participants' demographic characteristics, HIV testing history, sexual and substance use behaviors, HCV testing and diagnosis of HCV infection, STI testing and diagnosis, and use of HIV prevention services and programs. In exchange for the time spent taking part in the interview, participants received \$50.

HIV testing was offered to participants who consented; blood specimens were collected for rapid testing in the field or laboratory-based testing. A non-reactive rapid test result was considered HIV-negative; a reactive rapid test result was considered HIV-positive if supported by supplemental laboratory-based testing. In exchange for participating in HIV testing, participants received \$25.

Participants who agreed to recruit others received an additional incentive of \$10 for each recruit (up to five) who completed the interview. The intended sample size was 500 PWID who reported injecting a drug that was not prescribed for them in the past 12 months.

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. Estimates based on small numbers should be interpreted with caution because they are considered unreliable.

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 BESURE 2024 cycle; unweighted data provides 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.

Six hundred and sixty-one people were recruited to participate in BESURE in 2024. Of those, 152 were excluded from the survey because they did not meet BESURE eligibility criteria. Twelve interviews were not included due to incomplete survey data or survey responses of questionable validity.

The full analysis sample for this report includes 2024 BESURE cycle participants who consented to and completed the survey (n=597, Table 1). Additional inclusion criteria were applied for certain analyses of HIV infection, HIV-associated behaviors, and opioid use-related outcomes; details of each analysis sample can be found in the footnotes of each table.

DATA SUPPRESSION

In order to protect the confidentiality of BESURE study participants, data are suppressed in the following instances: 1) all data describing one person; 2) if any cell is suppressed, additional cells are also suppressed as necessary to prevent back calculation of the suppressed cell(s).

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Table 1. Persons who inject drugs, by HIV status and selected characteristics - National HIV Behavioral Surveillance System, 2024

	NHBS HIV Test Result							
	Negative ^a		Positive ^b		No valid NHBS HIV test ^c result		Total	
	No.	%	No.	%	No.	%	No.	%
Sex at birth								
Male	358	66.1	13	54.2	20	64.5	391	65.5
Female	184	33.9	11	45.8	11	35.5	206	34.5
Age at interview (yrs)								
18 - 24	***	***	***	***	***	***	3	0.5
25 - 29	***	***	0	0.0	***	***	22	3.7
30 - 39	135	24.9	***	***	10	32.3	147	24.6
40 - 49	142	26.2	4	16.7	9	29.0	155	26.0
50+	243	44.8	18	75.0	9	29.0	270	45.2
Race and ethnicity								
American Indian or Alaska Native	4	0.7	***	***	***	***	6	1.0
Black	299	55.2	20	83.3	11	35.5	330	55.3
Hispanic or Latino ^d	16	3.0	0	0.0	0	0.0	16	2.7
Native Hawaiian or Pacific Islander	2	0.4	0	0.0	0	0.0	2	0.3
White	199	36.7	***	***	15	48.4	217	36.3
Multiple races	19	3.5	***	***	***	***	23	3.9
Education								
Less than high school graduate	151	27.9	11	45.8	8	25.8	170	28.5
High school diploma or equivalent	256	47.2	10	41.7	12	38.7	278	46.6
Some college or technical degree	112	20.7	3	12.5	11	35.5	126	21.1
College degree or postgraduate education	23	4.2	0	0.0	0	0.0	23	3.9
Federal Poverty level - 2022 DHHS guidelines^e								
Below federal poverty level	433	79.9	21	87.5	23	74.2	477	79.9
Above federal poverty level	107	19.7	3	12.5	6	19.4	116	19.4
Unemployed								
Yes	299	55.2	5	20.8	21	67.7	325	54.4
No	243	44.8	19	79.2	10	32.3	272	45.6
Disability status								
Yes	343	63.3	16	66.7	18	58.1	377	63.1
No	195	36.0	7	29.2	13	41.9	215	36.0
Has health insurance								
Yes	512	94.5	24	100.0	29	93.5	565	94.6
No	28	5.2	0	0.0	2	6.5	30	5.0
Visited a health care provider, past 12 months								
Yes	461	85.1	24	100.0	22	71.0	507	84.9
No	80	14.8	0	0.0	9	29.0	89	14.9
Homeless during past 12 months^f								
Yes	341	62.9	7	29.2	27	87.1	375	62.8
No	201	37.1	17	70.8	4	12.9	222	37.2
Incarcerated, past 12 months^g								
Yes	93	17.2	***	***	***	***	104	17.4
No	449	82.8	***	***	***	***	493	82.6
Total	542	100.0	24	100.0	31	100.0	597	100.0

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

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

^b Participants who had a reactive rapid NHBS HIV test result that was supported by a second rapid test, supplemental laboratory-based testing, or self-report of a previous HIV-positive test result.

^c 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 laboratory result, had discordant rapid test results, or reported a previous HIV-positive test result but had a negative NHBS HIV test result.

^d Hispanic or Latino persons can be of any race.

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

^f Living on the street, in a shelter, in a single-room-occupancy hotel, or in a car.

^g Having been held in a detention center, jail, or prison for more than 24 hours.

***Cells describing one person have been suppressed. Secondary data suppression has been used as needed to ensure that suppressed data cannot be recalculated from visible figures. See Data Suppression section.

Table 2. Social Determinants of Health indicators among persons who inject drugs, by selected characteristics - National HIV Behavioral Surveillance System, 2024

	Less than high school education		Income at or below the federal poverty level ^a		Unemployed		No current health insurance		Did not visit a health care provider, past 12 months		Homeless, past 12 months ^b		Incarcerated, past 12 months ^c		Total
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
Sex at birth															
Male	111	28.4	307	78.5	202	51.7	19	4.9	62	15.9	258	66.0	77	19.7	391
Female	59	28.6	170	82.5	123	59.7	11	5.3	27	13.1	117	56.8	27	13.1	206
Age at interview (yrs)															
18 - 24	***	***	2	66.7	3	100.0	0	0.0	0	0.0	2	66.7	0	0.0	3
25 - 29	***	***	19	86.4	14	63.6	3	13.6	8	36.4	18	81.8	4	18.2	22
30 - 39	37	25.2	116	78.9	99	67.3	8	5.4	24	16.3	110	74.8	44	29.9	147
40 - 49	34	21.9	121	78.1	94	60.6	5	3.2	20	12.9	115	74.2	33	21.3	155
50+	91	33.7	219	81.1	115	42.6	14	5.2	37	13.7	130	48.1	23	8.5	270
Race and ethnicity															
American Indian or Alaska Native	***	***	6	100.0	4	66.7	0	0.0	***	***	***	***	***	***	6
Black	109	33.0	278	84.2	169	51.2	19	5.8	45	13.6	175	53.0	43	13.0	330
Hispanic or Latino ^d	4	25.0	9	56.3	8	50.0	3	18.8	5	31.3	14	87.5	4	25.0	16
Native Hawaiian or Pacific Islander	2	100.0	2	100.0	0	0.0	***	***	***	***	***	***	***	***	2
White	53	24.4	162	74.7	132	60.8	7	3.2	33	15.2	164	75.6	50	23.0	217
Multiple races	***	***	18	78.3	10	43.5	***	***	3	13.0	17	73.9	6	26.1	23
NHBS HIV Test Result															
Negative ^e	151	27.9	433	79.9	299	55.2	28	5.2	80	14.8	341	62.9	93	17.2	542
Positive ^f	11	45.8	21	87.5	5	20.8	0	0.0	0	0.0	7	29.2	***	***	24
No valid NHBS HIV test result ^g	8	25.8	23	74.2	21	67.7	2	6.5	9	29.0	27	87.1	***	***	31
Total	170	28.5	477	79.9	325	54.4	30	5.0	89	14.9	375	62.8	104	17.4	597

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

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

^b Living on the street, in a shelter, in a single-room-occupancy hotel, or in a car.

^c Having been held in a detention center, jail, or prison for more than 24 hours.

^d Hispanic or Latino persons can be of any race.

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

^f Participants with a reactive rapid NHBS HIV test result that was supported by a second rapid test, supplemental laboratory-based testing, or self-report of 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 laboratory result, had discordant rapid test results, or reported a previous HIV-positive test result but had a negative NHBS HIV test result.

***Cells describing one person have been suppressed. Secondary data suppression has been used as needed to ensure that suppressed data cannot be recalculated from visible figures. See Data Suppression section.

Table 3. HIV prevalence of infection among persons who inject drugs by selected characteristics - National HIV Behavioral Surveillance System, 2024

	Sex at birth								
	Male			Female			Full sample		
	HIV-Positive		Total	HIV-Positive		Total	HIV-Positive		Total
	No.	%	No.	No.	%	No.	No.	%	No.
Age at interview (yrs)									
18 - 24	0	0.0	***	0	0.0	***	0	0.0	3
25 - 29	0	0.0	***	0	0.0	***	0	0.0	19
30 - 39	2	2.1	97	0	0.0	40	2	1.5	137
40 - 49	2	2.2	90	2	3.6	56	4	2.7	146
50+	9	5.2	172	9	10.1	89	18	6.9	261
Race and ethnicity									
American Indian or Alaska Native	***	***	2	***	***	3	***	***	5
Black	***	***	216	***	***	103	20	6.3	319
Hispanic or Latino ^b	0	0.0	13	0	0.0	3	0	0.0	16
Native Hawaiian or Pacific Islander	0	0.0	2	0	0.0	0	0	0.0	2
White	***	***	124	***	***	78	***	***	202
Multiple races	0	0.0	13	0	0.0	6	0	0.0	19
Total	13	3.5	371	11	5.6	195	24	4.2	566

^a Participants who had a reactive rapid NHBS HIV test result that was supported by a second rapid test, supplemental laboratory-based testing, or self-report of a previous HIV-positive test result.

^b Hispanic or Latino persons can be of any race.

***Cells describing one person have been suppressed. Secondary data suppression has been used as needed to ensure that suppressed data cannot be recalculated from visible figures. See Data Suppression section.

Table 4. HIV testing among injection drug users recommended for annual HIV testing by selected characteristics - National HIV Behavioral Surveillance System, 2024

	Ever tested for HIV		HIV test, past 12 months ^a		Total
	No.	%	No.	%	No.
Sex at birth					
Male	364	96.0	231	60.9	379
Female	187	95.4	114	58.2	196
Age at interview (yrs)					
18 - 24	2	66.7	2	66.7	3
25 - 29	19	86.4	11	50.0	22
30 - 39	142	97.9	97	66.9	145
40 - 49	146	96.7	99	65.6	151
50+	242	95.3	136	53.5	254
Race and ethnicity					
American Indian or Alaska Native	5	100.0	***	***	5
Black	302	96.8	189	60.6	312
Hispanic or Latino ^b	16	100.0	8	50.0	16
Native Hawaiian or Pacific Islander	2	100.0	***	***	2
White	201	93.9	131	61.2	214
Multiple races	22	95.7	13	56.5	23
Total	551	95.8	345	60.0	575

Note. CDC recommends that all persons who inject drugs be tested for HIV at least annually. 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.

“Past 12 months” refers to the 12 months preceding the interview date.

a Includes people diagnosed with HIV.

b Hispanic or Latino persons can be of any race.

***Cells describing one person have been suppressed. Secondary data suppression has been used as needed to ensure that suppressed data cannot be recalculated from visible figures. See Data Suppression section.

Table 5. Setting of most recent HIV test among persons who inject drugs tested for HIV in the 12 months preceding interview by selected characteristics - National HIV Behavioral Surveillance System, 2024

	Clinical setting ^a		Nonclinical setting ^b		Total tested
	No.	%	No.	%	No.
Sex at birth					
Male	52	22.5	166	71.9	231
Female	29	25.4	78	68.4	114
Age at interview (yrs)					
18 - 24	***	***	***	***	2
25 - 29	***	***	***	***	11
30 - 39	27	27.8	65	67.0	97
40 - 49	19	19.2	74	74.7	99
50+	28	20.6	99	72.8	136
Race and ethnicity					
American Indian or Alaska Native	0	0.0	***	***	***
Black	49	25.9	132	69.8	189
Hispanic or Latino	2	25.0	6	75.0	8
Native Hawaiian or Pacific Islander	0	0.0	***	***	***
White	27	20.6	95	72.5	131
Multiple races	3	23.1	8	61.5	13
Total	81	23.5	244	70.7	345

^a Clinical setting is defined here as a private doctor's office (including health maintenance organizations), emergency department, hospital (inpatient), public health clinic or community health center, family planning or obstetrics clinic, correctional facility (jail or prison), or drug treatment program.

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

***Cells describing one person have been suppressed. Secondary data suppression has been used as needed to ensure that suppressed data cannot be recalculated from visible figures. See Data Suppression section.

Table 6. Sexual behavior in the 12 months preceding interview among male persons who inject drugs by HIV status and selected characteristics - National HIV Behavioral Surveillance System, 2024

	Number of opposite sex partners, past 12 months	With female sex partners, past 12 months				With male sex partners, past 12 months						With female or male sex partners				Total males				
		Vaginal sex		Condomless vaginal sex		Anal sex		Condomless anal sex		Oral or anal		Anal sex		Condomless anal sex			Condomless sex with HIV-discordant partner at last sex		Exchange sex with casual partners, past 12 months	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%		No.	%	No.	%
	Median	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.
HIV-negative^a	1	264	73.7	224	62.6	80	22.3	65	18.2	18	5.0	13	3.6	11	3.1	84	23.5	60	16.8	358
Age at interview(yrs)																				
18 - 24	1	***	***	***	***	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	***	***	***
25 - 29	1	***	***	***	***	3	27.3	3	27.3	***	***	***	***	0	0.0	4	36.4	***	***	***
30 - 39	2	74	77.9	67	70.5	24	25.3	22	23.2	9	9.5	7	7.4	6	6.3	25	26.3	17	17.9	95
40 - 49	1	70	79.5	60	68.2	22	25.0	16	18.2	***	***	***	***	***	***	23	26.1	8	9.1	88
50+	1	112	68.7	89	54.6	31	19.0	24	14.7	8	4.9	5	3.1	4	2.5	32	19.6	34	20.9	163
Race and ethnicity																				
American Indian or Alaska Native	1	***	***	***	***	***	***	***	***	0	0.0	0	0.0	0	0.0	***	***	0	0.0	2
Black	1	152	74.5	125	61.3	45	22.1	32	15.7	5	2.5	5	2.5	5	2.5	49	24.0	41	20.1	204
Hispanic or Latino	2	8	61.5	8	61.5	4	30.8	4	30.8	4	30.8	4	30.8	3	23.1	5	38.5	5	38.5	13
Native Hawaiian or Pacific Islander	2	***	***	***	***	***	***	***	***	0	0.0	0	0.0	0	0.0	***	***	0	0.0	2
White	1	91	74.0	79	64.2	24	19.5	22	17.9	7	5.7	2	1.6	***	***	26	21.1	10	8.1	123
Multiple races	1	10	76.9	9	69.2	6	46.2	6	46.2	2	15.4	2	15.4	2	15.4	2	15.4	4	30.8	13
HIV-positive^b	1	9	69.2	6	46.2	2	15.4	2	15.4	2	15.4	2	15.4	***	***	4	30.8	2	15.4	13
Age at interview(yrs)																				
30 - 39	1	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	0	0.0	2
40 - 49	2	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	2
50+	1	6	66.7	3	33.3	***	***	***	***	0	0.0	0	0.0	0	0.0	2	22.2	***	***	9
Race and ethnicity																				
Black	1	***	***	***	***	2	16.7	2	16.7	2	16.7	2	16.7	***	***	3	25.0	2	16.7	***
White	1	***	***	***	***	0	0.0	0	0.0	0	0.0	0	0.0	***	***	***	***	0	0.0	***

Table 6. Sexual behavior in the 12 months preceding interview among male persons who inject drugs by HIV status and selected characteristics - National HIV Behavioral Surveillance System, 2024

	Number of opposite sex partners past 12 months	With female sex partners, past 12 months						With male sex partners, past 12 months						With female or male sex partners				Total males		
		Vaginal sex		Condomless vaginal sex		Anal sex		Condomless anal sex		Oral or anal		Anal sex		Condomless anal sex		Condomless sex with HIV-discordant partner			Exchange sex with casual partners	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%		No.	%
No valid NHBS HIV test result^c	2	15	75.0	12	60.0	4	20.0	3	15.0	4	20.0	3	15.0	3	15.0	6	30.0	6	30.0	20
Age at interview(yrs)																				
25 - 29	2	2	66.7	2	66.7	0	0.0	0	0.0	***	***	***	***	***	***	***	***	***	***	3
30 - 39	1	5	71.4	4	57.1	***	***	***	***	***	***	***	***	***	***	3	42.9	2	28.6	7
40 - 49	2	3	100.0	3	100.0	2	66.7	***	***	***	***	0	0.0	0	0.0	1	33.3	2	66.7	3
50+	1	5	71.4	3	42.9	***	***	***	***	***	***	***	***	***	***	***	***	***	***	7
Race and ethnicity																				
American Indian or Alaska Native	10	***	***	***	***	***	***	***	***	0	0.0	0	0.0	0	0.0	***	***	***	***	***
Black	1	6	75.0	4	50.0	***	***	***	***	***	***	***	***	***	***	2	25.0	***	***	8
White	2	7	70.0	6	60.0	***	***	***	***	2	20.0	2	20.0	2	20.0	3	30.0	3	30.0	10
Multiple races	2	***	***	***	***	***	***	0	0.0	***	***	***	***	***	***	***	***	***	***	***
Total	1	288	73.7	242	61.9	86	22.0	70	17.9	24	6.1	18	4.6	15	3.8	94	24.0	68	17.4	391

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

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

^b Participants who had a reactive rapid NHBS HIV test result that was supported by a second rapid test, supplemental laboratory-based testing, or self-report of a previous HIV-positive test result.

^c Participants who did not have a valid positive or negative NHBS HIV test result include those who did not consent to the HIV test, had an indeterminate laboratory test result, had discordant rapid test results, or reported a previous HIV-positive test result but had a negative NHBS HIV test result.

***Cells describing one person have been suppressed. Secondary data suppression has been used as needed to ensure that suppressed data cannot be recalculated from visible figures. See Data Suppression section.

Table 7. Sexual behavior in the 12 months preceding interview among female persons who inject drugs with male sex partners by HIV status and selected characteristics - National HIV Behavioral Surveillance System, 2024

	Number of opposite sex partners, past 12 months	Vaginal sex, past 12 months		Condomless vaginal sex, past 12 months		Anal opposite sex, past 12 months		Condomless anal opposite sex, past 12 months		Condomless sex with HIV-discordant partner, at last sex		Exchange sex with casual partners, past 12 months		Total females
	Median	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.
HIV-negative^a	1	143	77.7	124	67.4	33	17.9	31	16.8	37	20.1	60	32.6	184
Age at interview(yrs)														
18 - 24	2	***	***	***	***	***	***	***	***	***	***	***	***	2
25 - 29	3	***	***	***	***	***	***	***	***	***	***	***	***	8
30 - 39	1	36	90	34	85	8	20	6	15	8	20	15	37.5	40
40 - 49	1	47	87	41	75.9	12	22.2	12	22.2	12	22.2	19	35.2	54
50+	1	53	66.3	42	52.5	12	15	12	15	13	16.3	21	26.3	80
Race and ethnicity														
American Indian or Alaska Native	6	2	100	2	100	***	***	***	***	***	***	***	***	2
Black	1	69	72.6	58	61.1	14	14.7	13	13.7	20	21.1	30	31.6	95
Hispanic or Latino ^b	3	3	100	2	66.7	***	***	***	***	***	***	2	66.7	3
White	1	63	82.9	56	73.7	17	22.4	17	22.4	14	18.4	26	34.2	76
Multiple races	1	4	66.7	4	66.7	0	0.0	0	0.0	2	33.3	***	***	6
HIV-positive^c	1	6	54.5	4	36.4	2	18.2	***	***	3	27.3	2	18.2	11
Age at interview(yrs)														
40 - 49	1	***	***	***	***	0	0.0	***	***	0	0.0	0	0.0	2
50+	1	***	***	***	***	2	22.2	***	***	3	33.3	2	22.2	9
Race and ethnicity														
American Indian or Alaska Native	1	***	***	***	***	0	0.0	***	***	0	0.0	***	***	***
Black	1	5	62.5	3	37.5	2	25	***	***	3	37.5	2	25	8
White	0	***	***	***	***	0	0.0	***	***	0	0.0	***	***	***
No valid NHBS HIV test result^d	1	9	81.8	8	72.7	2	18.2	***	***	4	36.4	3	27.3	11
Age at interview(yrs)														
30 - 39	6	2	66.7	2	66.7	0	0.0	0	0.0	***	***	***	***	3
40 - 49	1	5	83.3	4	66.7	***	***	***	***	2	33.3	***	***	6
50+	4	2	100	2	100	***	***	***	***	***	***	***	***	2
Race and ethnicity														
Black	2	2	66.7	2	66.7	***	***	***	***	***	***	***	***	3
White	1	4	80	3	60	***	***	***	***	2	40	2	40	5
Multiple races	1	3	100	3	100	***	***	***	***	***	***	***	***	3
Total	1	158	76.7	136	66	37	18	33	16	44	21.4	65	31.6	206

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

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

^b Hispanic or Latino persons can be of any race.

^c Participants who had a reactive rapid NHBS HIV test result that was supported by a second rapid test, supplemental laboratory-based testing, or self-report of a previous HIV-positive test result.

^d Participants who did not have a valid positive or negative NHBS HIV test result include those who did not consent to the HIV test, had an indeterminate laboratory test result, had discordant rapid test results, or reported a previous HIV-positive test result but had a negative NHBS HIV test result.

***Cells describing one person have been suppressed. Secondary data suppression has been used as needed to ensure that suppressed data cannot be recalculated from visible figures. See Data Suppression section.

Table 8. Frequency of injection of selected drugs among persons who inject drugs by HIV status and selected characteristics - National HIV Behavioral Surveillance System, 2024

	Years since first injection	Heroin				Speedball				Powder or crack cocaine				Methamphetamine				Painkillers				Other drug		Total
		Injected, past 12 months		Injected daily		Injected, past 12 months		Injected daily		Injected, past 12 months		Injected daily		Injected, past 12 months		Injected daily		Injected, past 12 months		Injected, past 12 months				
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.		
HIV-negative^a	20 (10-31)	509	93.9	421	77.7	355	65.5	211	38.9	277	51.1	135	24.9	45	8.3	11	2.0	82	15.1	17	3.1	46	8.5	542
Sex at birth																								
Male	21 (10-33)	338	94.4	276	77.1	237	66.2	137	38.3	184	51.4	86	24.0	28	7.8	4	1.1	51	14.2	10	2.8	34	9.5	358
Female	18 (10-29)	171	92.9	145	78.8	118	64.1	74	40.2	93	50.5	49	26.6	17	9.2	7	3.8	31	16.8	7	3.8	12	6.5	184
Age at interview(yrs)																								
18 - 24	3 (3-5)	3	100.0	2	66.7	***	***	***	***	0	0.0	0	0.0	0	0.0	***	***	2	66.7	***	***	0	0.0	3
25 - 29	8 (6-11)	17	89.5	16	84.2	***	***	***	***	12	63.2	9	47.4	4	21.1	2	10.5	4	21.1	***	***	2	10.5	19
30 - 39	11 (5-16)	126	93.3	108	80.0	91	67.4	50	37.0	76	56.3	33	24.4	20	14.8	4	3.0	21	15.6	4	3.0	16	11.9	135
40 - 49	19 (11-25)	136	95.8	112	78.9	81	57.0	41	28.9	70	49.3	28	19.7	12	8.5	4	2.8	19	13.4	7	4.9	13	9.2	142
50+	32 (22-39)	227	93.4	183	75.3	170	70.0	115	47.3	119	49.0	65	26.7	9	3.7	***	***	36	14.8	5	2.1	15	6.2	243
Race and ethnicity																								
American Indian or Alaska Native	15 (9-25)	4	100.0	2	50.0	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	4
Black	25 (12-35)	276	92.3	225	75.3	195	65.2	141	47.2	126	42.1	73	24.4	14	4.7	2	0.7	38	12.7	11	3.7	9	3.0	299
Hispanic or Latino ^b	19 (9-30)	16	100.0	12	75.0	13	81.3	5	31.3	10	62.5	5	31.3	2	12.5	***	***	5	31.3	***	***	4	25.0	16
Native Hawaiian or Pacific Islander	16 (10-22)	2	100.0	2	100.0	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	2
White	15 (9-23)	190	95.5	162	81.4	130	65.3	54	27.1	127	63.8	50	25.1	24	12.1	7	3.5	33	16.6	5	2.5	32	16.1	199
Multiple races	16 (7-23)	18	94.7	16	84.2	12	63.2	8	42.1	10	52.6	5	26.3	3	15.8	0	0.0	4	21.1	0	0.0	0	0.0	19
HIV-positive^c	37 (27-44)	21	87.5	15	62.5	15	62.5	9	37.5	11	45.8	7	29.2	***	***	0	0.0	***	***	0	0.0	***	***	24
Sex at birth																								
Male	37 (19-43)	11	84.6	9	69.2	6	46.2	2	15.4	4	30.8	3	23.1	***	***	0	0.0	***	***	0	0.0	***	***	13
Female	37 (29-45)	10	90.9	6	54.5	9	81.8	7	63.6	7	63.6	4	36.4	***	***	0	0.0	***	***	0	0.0	***	***	11
Age at interview(yrs)																								
30 - 39	16 (12-19)	2	100.0	***	***	0	0.0	0	0.0	0	0.0	***	***	***	***	0	0.0	0	0.0	0	0.0	0	0.0	2
40 - 49	22 (14-27)	3	75.0	***	***	3	75.0	2	50.0	2	50.0	***	***	***	***	0	0.0	***	***	0	0.0	***	***	4
50+	41 (36-45)	16	88.9	11	61.1	12	66.7	7	38.9	9	50.0	6	33.3	0	0.0	0	0.0	***	***	0	0.0	***	***	18

Table 8. Frequency of injection of selected drugs among persons who inject drugs by HIV status and selected characteristics - National HIV Behavioral Surveillance System, 2024

	Years since first injection	Heroin				Speedball				Powder or crack cocaine				Methamphetamine				Painkillers				Other drug		Total	
		Injected, past 12 months		Injected daily		Injected, past 12 months		Injected daily		Injected, past 12 months		Injected daily		Injected, past 12 months		Injected daily		Injected, past 12 months		Injected, past 12 months					
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.			
Race and ethnicity																									
American Indian or Alaska Native	20 (20-20)	***	***	***	***	***	***	***	***	***	***	***	***	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	***	
Black	38 (32-45)	17	85.0	12	60.0	12	60.0	7	35.0	9	45.0	6	30.0	***	***	0	0.0	***	***	0	0.0	***	***	20	
White	29 (24-41)	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	0	0.0	***	***	***	
No valid NHBS HIV test result^d	14 (6-29)	28	90.3	23	74.2	22	71.0	11	35.5	20	64.5	10	32.3	5	16.1	***	***	6	19.4	2	6.5	5	16.1	31	
Sex at birth																									
Male	15 (8-29)	18	90.0	16	80.0	15	75.0	8	40.0	13	65.0	7	35.0	***	***	***	***	4	20.0	***	***	2	10.0	20	
Female	12 (5-25)	10	90.9	7	63.6	7	63.6	3	27.3	7	63.6	3	27.3	***	***	***	***	2	18.2	***	***	3	27.3	11	
Age at interview(yrs)																									
25 - 29	11 (6-14)	3	100.0	3	100.0	2	66.7	***	***	2	66.7	0	0.0	***	***	0	0.0	***	***	0	0.0	***	***	3	
30 - 39	9 (5-15)	8	80.0	6	60.0	8	80.0	3	30.0	7	70.0	4	40.0	2	20.0	***	***	3	30.0	***	***	***	***	10	
40 - 49	19 (11-25)	9	100.0	7	77.8	5	55.6	***	***	6	66.7	3	33.3	***	***	***	***	***	***	***	***	***	4	44.4	9
50+	34 (29-43)	8	88.9	7	77.8	7	77.8	5	55.6	5	55.6	3	33.3	***	***	0	0.0	2	22.2	0	0.0	0	0.0	9	
Race and ethnicity																									
American Indian or Alaska Native	19 (19-19)	***	***	***	***	***	***	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	***	
Black	29 (9-35)	8	72.7	7	63.6	8	72.7	7	63.6	8	72.7	6	54.5	0	0.0	***	***	3	27.3	***	***	***	***	11	
White	13 (6-23)	15	100.0	12	80.0	11	73.3	***	***	10	66.7	3	20.0	5	33.3	***	***	3	20.0	***	***	3	20.0	15	
Multiple races	8 (4-22)	***	***	***	***	***	***	***	***	2	50.0	***	***	0	0.0	0	0.0	0	0.0	0	0.0	***	***	***	
Total	21 (10-32)	558	93.5	459	76.9	392	65.7	231	38.7	308	51.6	152	25.5	51	8.5	12	2.0	89	14.9	19	3.2	52	8.7	597	

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

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

^b Hispanic or Latino persons can be of any race.

^c Participants who had a reactive rapid NHBS HIV test result that was supported by a second rapid test, supplemental laboratory-based testing, or self-report of a previous HIV-positive test result.

^d Participants who did not have a valid positive or negative NHBS HIV test result include those who did not consent to the HIV test, had an indeterminate laboratory test result, had discordant rapid test results, or reported a previous HIV-positive test result but had a negative NHBS HIV test result.

***Cells describing one person have been suppressed. Secondary data suppression has been used as needed to ensure that suppressed data cannot be recalculated from visible figures. See Data Suppression section.

Table 9. Receptive sharing of injection equipment among persons who inject drugs in the 12 months preceding interview by HIV status and selected characteristics - National HIV Behavioral Surveillance System, 2024

	Receptive sharing						Distributive sharing				Total No.
	Syringes ^a		Injection equipment (IDU) ^b		Syringes to divide drugs ^c		Any equipment ^d		Shared syringes ^e		
	No.	%	No.	%	No.	%	No.	%	No.	%	
HIV-negative^f	85	15.7	179	33.0	106	19.6	199	36.7	137	25.3	542
Sex at birth											
Male	56	15.6	111	31.0	68	19.0	125	34.9	86	24.0	358
Female	29	15.8	68	37.0	38	20.7	74	40.2	51	27.7	184
Age at interview (yrs)											
18 – 24	***	***	***	***	***	***	***	***	***	***	3
25 – 29	***	***	***	***	***	***	***	***	***	***	19
30 – 39	38	28.1	59	43.7	41	30.4	63	46.7	46	34.1	135
40 – 49	26	18.3	43	30.3	27	19.0	49	34.5	38	26.8	142
50+	17	7.0	66	27.2	32	13.2	75	30.9	48	19.8	243
Race and ethnicity											
American Indian or Alaska Native	***	***	2	50.0	***	***	***	***	***	***	4
Black	25	8.4	72	24.1	42	14.0	80	26.8	57	19.1	299
Hispanic or Latino ^g	6	37.5	7	43.8	3	18.8	8	50.0	7	43.8	16
Native Hawaiian or Pacific Islander	***	***	0	0.0	***	***	***	***	***	***	2
White	50	25.1	92	46.2	56	28.1	100	50.3	66	33.2	199
Multiple races	***	***	6	31.6	2	10.5	6	31.6	5	26.3	19
HIV-positive^h	2	8.3	8	33.3	6	25.0	8	33.3	2	8.3	24
Sex at birth											
Male	0	0.0	3	23.1	2	15.4	3	23.1	0	0.0	13
Female	2	18.2	5	45.5	4	36.4	5	45.5	2	18.2	11
Age at interview (yrs)											
30 – 39	0	0.0	***	***	***	***	***	***	0	0.0	2
40 – 49	0	0.0	***	***	***	***	***	***	0	0.0	4
50+	2	11.1	7	38.9	5	27.8	7	38.9	2	11.1	18
Race and ethnicity											
American Indian or Alaska Native	0	0.0	***	***	***	***	***	***	0	0.0	***
Black	2	10.0	7	35.0	5	25.0	7	35.0	2	10.0	20
White	0	0.0	***	***	***	***	***	***	0	0.0	***
No valid NHBS HIV test resultⁱ	7	22.6	12	38.7	9	29.0	12	38.7	9	29.0	31
Sex at birth											
Male	5	25.0	9	45.0	7	35.0	9	45.0	5	25.0	20
Female	2	18.2	3	27.3	2	18.2	3	27.3	4	36.4	11
Age at interview (yrs)											
25 – 29	***	***	2	66.7	***	***	2	66.7	***	***	3
30 – 39	3	30.0	3	30.0	3	30.0	3	30.0	3	30.0	10
40 – 49	***	***	2	22.2	***	***	2	22.2	***	***	9
50+	2	22.2	5	55.6	4	44.4	5	55.6	3	33.3	9

Table 9. Receptive sharing of injection equipment among persons who inject drugs in the 12 months preceding interview by HIV status and selected characteristics - National HIV Behavioral Surveillance System, 2024

	Receptive sharing						Distributive sharing		Total No.		
	Syringes ^a		Injection equipment (IDU) ^b		Syringes to divide drugs ^c		Any equipment ^d			Shared syringes ^e	
	No.	%	No.	%	No.	%	No.	%		No.	%
Race and ethnicity											
American Indian or Alaska Native	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	***
Black	2	18.2	4	36.4	3	27.3	4	36.4	***	***	11
White	3	20.0	5	33.3	4	26.7	5	33.3	5	33.3	15
Multiple races	2	50.0	3	75.0	2	50.0	3	75.0	***	***	***
Total	94	15.7	199	33.3	121	20.3	219	36.7	148	24.8	597

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

^a Used a needle that had already been used by someone else for injection.

^b Used a cooker (e.g., spoon, bottle cap) or cotton (to filter particles from drug solution) that had already been used by someone else or shared water for rinsing.

^c Divided a drug solution by using a syringe that had already been used by someone else for injection.

^d Used a needle that had already been used by someone else for injection, used a cooker or cotton that had already been used by someone else, shared water for rinsing, or divided a drug solution by using a syringe that had already been used by someone else for injection.

^e A participant giving their needle to someone else to use after they had already used it for injection.

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

^g Hispanic or Latino persons can be of any race.

^h Participants who had a reactive rapid NHBS HIV test result that was supported by a second rapid test, supplemental laboratory-based testing, or self-report of 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 laboratory result, had discordant rapid test results, or reported a previous HIV-positive test result but had a negative NHBS HIV test result.

***Cells describing one person have been suppressed. Secondary data suppression has been used as needed to ensure that suppressed data cannot be recalculated from visible figures. See Data Suppression section.

Table 10. Receipt of HIV prevention materials and services in the 12 months preceding interview among persons who inject drugs by HIV status and selected characteristics - National HIV Behavioral Surveillance System, 2024

	Source of new sterile needles														Total No.
	Pharmacy or drug store		Needle or syringe exchange program		Drug treatment		Safe syringe disposal		Aware of HIV Pre-exposure prophylaxis		Used HIV Pre-exposure prophylaxis		Received free condoms		
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
HIV-negative^a	36	6.6	374	69.0	297	54.8	169	31.2	270	49.8	6	1.1	301	55.5	542
Sex at birth															
Male	21	5.9	250	69.8	193	53.9	102	28.5	171	47.8	6	1.7	200	55.9	358
Female	15	8.2	124	67.4	104	56.5	67	36.4	99	53.8	0	0.0	101	54.9	184
Age at interview (yrs)															
18 – 24	***	***	***	***	***	***	0	0.0	0	0.0	0	0.0	0	0.0	3
25 – 29	***	***	***	***	***	***	3	15.8	11	57.9	***	***	12	63.2	19
30 – 39	10	7.4	99	73.3	75	55.6	52	38.5	82	60.7	***	***	71	52.6	135
40 – 49	10	7.0	105	73.9	85	59.9	49	34.5	86	60.6	2	1.4	79	55.6	142
50+	14	5.8	157	64.6	123	50.6	65	26.7	91	37.4	3	1.2	139	57.2	243
Race and ethnicity															
American Indian or Alaska Native	***	***	3	75.0	2	50.0	***	***	***	***	0	0.0	***	***	4
Black	14	4.7	196	65.6	150	50.2	89	29.8	132	44.1	3	1.0	170	56.9	299
Hispanic or Latino ^b	***	***	12	75.0	7	43.8	3	18.8	7	43.8	0	0.0	11	68.8	16
Native Hawaiian or Pacific Islander	***	***	2	100.0	***	***	***	***	***	***	***	***	***	***	2
White	18	9.0	146	73.4	122	61.3	67	33.7	113	56.8	2	1.0	108	54.3	199
Multiple races	2	10.5	15	78.9	14	73.7	8	42.1	15	78.9	***	***	8	42.1	19
HIV-positive^c	0	0.0	18	75.0	7	29.2	7	29.2	2	8.3	0	0.0	17	70.8	24
Sex at birth															
Male	0	0.0	9	69.2	4	30.8	5	38.5	***	***	0	0.0	9	69.2	13
Female	0	0.0	9	81.8	3	27.3	2	18.2	***	***	0	0.0	8	72.7	11
Age at interview (yrs)															
30 – 39	0	0.0	***	***	***	***	***	***	***	***	0	0.0	2	100.0	2
40 – 49	0	0.0	***	***	***	***	***	***	0	0.0	0	0.0	3	75.0	4
50+	0	0.0	15	83.3	5	27.8	4	22.2	***	***	0	0.0	12	66.7	18
Race and ethnicity															
American Indian or Alaska Native	0	0.0	***	***	***	***	***	***	0	0.0	0	0.0	***	***	***
Black	0	0.0	15	75.0	6	30.0	5	25.0	***	***	0	0.0	15	75.0	20
White	0	0.0	***	***	***	***	***	***	***	***	0	0.0	***	***	***

Table 10. Receipt of HIV prevention materials and services in the 12 months preceding interview among persons who inject drugs by HIV status and selected characteristics - National HIV Behavioral Surveillance System, 2024

	Source of new sterile needles														Total No.
	Pharmacy or drug store		Needle or syringe exchange program		Drug treatment		Safe syringe disposal		Aware of HIV Pre-exposure prophylaxis		Used HIV Pre-exposure prophylaxis		Received free condoms		
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
No valid NHBS HIV test result^d	3	9.7	23	74.2	13	41.9	10	32.3	13	41.9	0	0.0	18	58.1	31
Sex at birth															
Male	***	***	15	75.0	7	35.0	6	30.0	7	35.0	0	0.0	11	55.0	20
Female	***	***	8	72.7	6	54.5	4	36.4	6	54.5	0	0.0	7	63.6	11
Age at interview (yrs)															
25 – 29	0	0.0	3	100.0	***	***	***	***	2	66.7	0	0.0	0	0.0	3
30 – 39	***	***	6	60.0	5	50.0	***	***	2	20.0	0	0.0	7	70.0	10
40 – 49	***	***	7	77.8	4	44.4	3	33.3	5	55.6	0	0.0	4	44.4	9
50+	***	***	7	77.8	***	***	4	44.4	4	44.4	0	0.0	7	77.8	9
Race and ethnicity															
American Indian or Alaska Native	***	***	***	***	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	***
Black	***	***	8	72.7	6	54.5	3	27.3	3	27.3	0	0.0	9	81.8	11
White	2	13.3	11	73.3	4	26.7	5	33.3	6	40.0	0	0.0	6	40.0	15
Multiple races	0	0.0	***	***	3	75.0	2	50.0	4	100.0	0	0.0	3	75.0	***
Total	39	6.5	415	69.5	317	53.1	186	31.2	285	47.7	6	1.0	336	56.3	597

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

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

^b Hispanic or Latino persons can be of any race.

^c Participants who had a reactive rapid NHBS HIV test result that was supported by a second rapid test, supplemental laboratory-based testing, or self-report of a previous HIV-positive test result.

^d Participants who did not have a valid positive or negative NHBS HIV test result include those who did not consent to the HIV test, had an indeterminate laboratory test result, had discordant rapid test results, or reported a previous HIV-positive test result but had a negative NHBS HIV test result.

***Cells describing one person have been suppressed. Secondary data suppression has been used as needed to ensure that suppressed data cannot be recalculated from visible figures. See Data Suppression section.

Table 11. Diagnosis of sexually transmitted diseases among persons who inject drugs by HIV status and selected characteristics - National HIV Behavioral Surveillance System, 2024

	Bacterial STD, past 12 months		Chlamydia, past 12 months		Gonorrhea, past 12 months		Syphilis, past 12 months		Ever diagnosed genital warts		Ever diagnosed genital herpes		Total No.
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
HIV-negative^a	21	3.9	10	1.8	9	1.7	7	1.3	5	0.9	15	2.8	542
Sex at birth													
Male	10	2.8	4	1.1	6	1.7	2	0.6	***	***	5	1.4	358
Female	11	6.0	6	3.3	3	1.6	5	2.7	***	***	10	5.4	184
Age at interview (yrs)													
18 - 24	***	***	***	***	0	0.0	***	***	0	0.0	0	0.0	3
25 - 29	***	***	***	***	0	0.0	***	***	0	0.0	3	15.8	19
30 - 39	7	5.2	4	3.0	4	3.0	***	***	0	0.0	5	3.7	135
40 - 49	6	4.2	2	1.4	2	1.4	3	2.1	2	1.4	4	2.8	142
50+	7	2.9	3	1.2	3	1.2	3	1.2	3	1.2	3	1.2	243
Race and ethnicity													
American Indian or Alaska Native	***	***	***	***	0	0.0	0	0.0	0	0.0	***	***	4
Black	13	4.3	6	2.0	8	2.7	3	1.0	***	***	9	3.0	299
Hispanic or Latino ^b	2	12.5	***	***	***	***	***	***	***	***	***	***	16
Native Hawaiian or Pacific Islander	***	***	***	***	***	***	***	***	***	***	***	***	2
White	5	2.5	2	1.0	***	***	3	1.5	4	2.0	5	2.5	199
Multiple races	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	19
HIV-positive^c	***	***	0	0.0	0	0.0	***	***	2	8.3	3	12.5	24
Sex at birth													
Male	***	***	0	0.0	0	0.0	***	***	0	0.0	***	***	13
Female	***	***	0	0.0	0	0.0	***	***	2	18.2	***	***	11
Age at interview (yrs)													
30 - 39	***	***	0	0.0	0	0.0	***	***	0	0.0	***	***	2
40 - 49	***	***	0	0.0	0	0.0	***	***	0	0.0	***	***	4
50+	***	***	0	0.0	0	0.0	0	0.0	2	11.1	2	11.1	18
Race and ethnicity													
American Indian or Alaska Native	0	0.0	0	0.0	0	0.0	***	***	0	0.0	***	***	***
Black	***	***	0	0.0	0	0.0	***	***	2	10.0	2	10.0	20
White	0	0.0	0	0.0	0	0.0	***	***	0	0.0	***	***	***
No valid NHBS HIV test result^d	0	0.0	0	0.0	0	0.0	0	0.0	***	***	2	6.5	31
Sex at birth													
Male	0	0.0	0	0.0	0	0.0	0	0.0	***	***	0	0.0	20
Female	0	0.0	0	0.0	0	0.0	0	0.0	***	***	2	18.2	11
Age at interview (yrs)													
25 - 29	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	3
30 - 39	0	0.0	0	0.0	0	0.0	0	0.0	***	***	0	0.0	10
40 - 49	0	0.0	0	0.0	0	0.0	0	0.0	***	***	2	22.2	9
50+	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	9
Race and ethnicity													
American Indian or Alaska Native	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	***
Black	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	11
White	0	0.0	0	0.0	0	0.0	0	0.0	***	***	***	***	15
Multiple races	0	0.0	0	0.0	0	0.0	0	0.0	***	***	***	***	***
Total	22	3.7	10	1.7	9	1.5	8	1.3	8	1.3	20	3.4	597

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

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

b Hispanic or Latino persons can be of any race.

c Participants who had a reactive rapid NHBS HIV test result that was supported by a second rapid test, supplemental laboratory-based testing, or self-report of a previous HIV-positive test result.

d Participants who did not have a valid positive or negative NHBS HIV test result include those who did not consent to the HIV test, had an indeterminate laboratory test result, had discordant rapid test results, or reported a previous HIV-positive test result but had a negative NHBS HIV test result.

***Cells describing one person have been suppressed. Secondary data suppression has been used as needed to ensure that suppressed data cannot be recalculated from visible figures. See Data Suppression section.

Table 12. Lifetime testing and diagnosis of Hepatitis C among persons who inject drugs by HIV status and selected characteristics - National HIV Behavioral Surveillance System, 2024

	Ever tested for Hepatitis C		Hepatitis C diagnosis		Total
	No.	%	No.	%	No.
HIV-negative^a	454	83.8	160	29.5	542
Sex at birth					
Male	296	82.7	109	30.4	358
Female	158	85.9	51	27.7	184
Age at interview (yrs)					
18 – 24	***	***	0	0.0	3
25 – 29	***	***	3	15.8	19
30 – 39	118	87.4	47	34.8	135
40 – 49	128	90.1	41	28.9	142
50+	192	79.0	69	28.4	243
Race and ethnicity					
American Indian or Alaska Native	4	100.0	2	50.0	4
Black	239	79.9	56	18.7	299
Hispanic or Latino ^b	14	87.5	7	43.8	16
Native Hawaiian or Pacific Islander	2	100.0	0	0.0	2
White	177	88.9	89	44.7	199
Multiple races	17	89.5	6	31.6	19
HIV-positive^c	21	87.5	11	45.8	24
Sex at birth					
Male	12	92.3	4	30.8	13
Female	9	81.8	7	63.6	11
Age at interview (yrs)					
30 – 39	2	100.0	0	0.0	2
40 – 49	3	75.0	2	50.0	4
50+	16	88.9	9	50.0	18
Race and ethnicity					
American Indian or Alaska Native	***	***	0	0.0	***
Black	17	85.0	9	45.0	20
White	***	***	2	66.7	***
No valid NHBS HIV test result^d	27	87.1	10	32.3	31
Sex at birth					
Male	18	90.0	6	30.0	20
Female	9	81.8	4	36.4	11
Age at interview (yrs)					
25 – 29	3	100.0	***	***	3
30 – 39	9	90.0	3	30.0	10
40 – 49	7	77.8	4	44.4	9
50+	8	88.9	***	***	9
Race and ethnicity					
American Indian or Alaska Native	***	***	***	***	***
Black	9	81.8	2	18.2	11
White	15	100.0	7	46.7	15
Multiple races	3	75.0	***	***	***
Total	502	84.1	181	30.3	597

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

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

^b Hispanic or Latino persons can be of any race.

^c Participants who had a reactive rapid NHBS HIV test result that was supported by a second rapid test, supplemental laboratory-based testing, or self-report of a previous HIV-positive test result.

^d Participants who did not have a valid positive or negative NHBS HIV test result include those who did not consent to the HIV test, had an indeterminate laboratory test result, had discordant rapid test results, or reported a previous HIV-positive test result but had a negative NHBS HIV test result.

***Cells describing one person have been suppressed. Secondary data suppression has been used as needed to ensure that suppressed data cannot be recalculated from visible figures. See Data Suppression section.

Table 13. Binge drinking^a and non-injection drug use in the 12 months preceding interview among persons who inject drugs by HIV status - National HIV Behavioral Surveillance System, 2024

Non-injection use, past 12 months	Used drug	
	No.	%
HIV-negative^b	542	100.0
Binge drinking past 30 days	197	36.3
Any non-injection drug use	265	48.9
Cocaine	144	26.6
Crack	208	38.4
Downers	135	24.9
Ecstasy	50	9.2
Heroin	217	40.0
Marijuana	0	0.0
Methamphetamine	50	9.2
Pain killers	115	21.2
HIV-positive^c	24	100.0
Binge drinking past 30 days	8	33.3
Any non-injection drug use	7	29.2
Cocaine	3	12.5
Crack	7	29.2
Downers	4	16.7
Ecstasy	0	0.0
Heroin	7	29.2
Marijuana	0	0.0
Methamphetamine	0	0.0
Pain killers	3	12.5
No valid NHBS HIV test result^d	31	100.0
Binge drinking past 30 days	12	38.7
Any non-injection drug use	20	64.5
Cocaine	9	29.0
Crack	17	54.8
Downers	9	29.0
Ecstasy	5	16.1
Heroin	16	51.6
Marijuana	0	0.0
Methamphetamine	6	19.4
Pain killers	10	32.3

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

^a Binge drinking is defined as an individual consuming 5 or more drinks (males) or 4 or more drinks (females) in about 2 hours in the 30 days before interview.

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

^c Participants who had a reactive rapid NHBS HIV test result that was supported by a second rapid test, supplemental laboratory-based testing, or self-report of a previous HIV-positive test result.

^d Participants who did not have a valid positive or negative NHBS HIV test result include those who did not consent to the HIV test, had an indeterminate laboratory test result, had discordant rapid test results, or reported a previous HIV-positive test result but had a negative NHBS HIV test result.

Table 14. Opioid related indicators among persons who inject drugs by selected characteristics - National HIV Behavioral Surveillance System, 2024

	Drug treatment – Used MOUD, ^a past 12 months		Drug treatment – Unmet need for MOUD		Overdosed, past 12 months		Total
	No.	%	No.	%	No.	%	No.
HIV-negative^b	370	69.4	109	20.5	163	30.6	533
Sex at birth							
Male	243	69.2	72	20.5	101	28.8	351
Female	127	69.8	37	20.3	62	34.1	182
Age at interview (yrs)							
18 - 24	3	100.0	2	66.7	0	0.0	3
25 - 29	14	73.7	2	10.5	9	47.4	19
30 - 39	93	69.4	19	14.2	32	23.9	134
40 - 49	110	78.6	30	21.4	45	32.1	140
50+	150	63.3	56	23.6	77	32.5	237
Race and ethnicity							
American Indian or Alaska Native	3	75.0	***	***	***	***	4
Black	185	62.9	70	23.8	80	27.2	294
Hispanic or Latino	11	68.8	5	31.3	5	31.3	16
Native Hawaiian or Pacific Islander	***	***	***	***	***	***	2
White	154	78.6	29	14.8	66	33.7	196
Multiple races	13	72.2	***	***	9	50.0	18
HIV-positive^c	11	50.0	4	18.2	6	27.3	22
Sex at birth							
Male	6	54.5	***	***	2	18.2	11
Female	5	45.5	3	27.3	4	36.4	11
Age at interview (yrs)							
30 - 39	0	0.0	0	0.0	0	0.0	2
40 - 49	2	66.7	***	***	***	***	3
50+	9	52.9	3	17.6	5	29.4	17
Race and ethnicity							
American Indian or Alaska Native	0	0.0	0	0.0	0	0.0	***
Black	9	50.0	2	11.1	5	27.8	18
White	2	66.7	2	66.7	***	***	***
No valid NHBS HIV test result^d	20	64.5	9	29.0	8	25.8	31
Sex at birth							
Male	13	65.0	7	35.0	4	20.0	20
Female	7	63.6	2	18.2	4	36.4	11
Age at interview (yrs)							
25 - 29	***	***	0	0.0	0	0.0	3
30 - 39	6	60.0	2	20.0	***	***	10
40 - 49	6	66.7	2	22.2	4	44.4	9
50+	7	77.8	5	55.6	3	33.3	9
Race and ethnicity							
American Indian or Alaska Native	0	0.0	0	0.0	0	0.0	***
Black	9	81.8	6	54.5	4	36.4	11
White	8	53.3	***	***	2	13.3	15
Multiple races	3	75.0	2	50.0	2	50.0	***
Total	401	68.4	122	20.8	177	30.2	586

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

^a Medication for opioid use disorder, such as methadone, buprenorphine, Suboxone or Subutex.

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

^c Participants who had a reactive rapid NHBS HIV test result that was supported by a second rapid test, supplemental laboratory-based testing, or self-report of a previous HIV-positive test result.

^d Participants who did not have a valid positive or negative NHBS HIV test result include those who did not consent to the HIV test, had an indeterminate laboratory test result, had discordant rapid test results, or reported a previous HIV-positive test result but had a negative NHBS HIV test result.

***Cells describing one person have been suppressed. Secondary data suppression has been used as needed to ensure that suppressed data cannot be recalculated from visible figures. See Data Suppression section.

Table 15. Receipt of HIV care and treatment among self-reported HIV-positive persons who inject drugs by selected characteristics - National HIV Behavioral Surveillance, 2024

	Ever seen health care provider for HIV		HIV care visit within 1 month of diagnosis		HIV care visit within past 6 months		Currently taking antiretrovirals		Total
	No.	%	No.	%	No.	%	No.	%	No.
Sex at birth									
Male	12	100.0	8	66.7	11	91.7	10	83.3	12
Female	10	100.0	3	30.0	10	100.0	9	90.0	10
Age at interview (yrs)									
30 - 39	2	100.0	2	100.0	2	100.0	***	***	2
40 - 49	4	100.0	2	50.0	4	100.0	***	***	4
50+	16	100.0	7	43.8	15	93.8	14	87.5	16
Race and ethnicity									
American Indian or Alaska Native	***	***	***	***	***	***	***	***	***
Black	18	100.0	9	50.0	17	94.4	16	88.9	18
White	***	***	***	***	***	***	***	***	***
Total	22	100.0	11	50.0	21	95.5	19	86.4	22

***Cells describing one person have been suppressed. Secondary data suppression has been used as needed to ensure that suppressed data cannot be recalculated from visible figures. See Data Suppression section.

SOCIODEMOGRAPHIC CHARACTERISTICS

- Age at interview (yrs): Calculated from the reported date of birth; age categories were chosen for epidemiologic relevance and consistency of reporting across all three National HIV Behavioral Surveillance (NHBS) populations.
- Race and ethnicity: Participants reported one 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 by the participant.
- Household income: Participants were asked about their combined monthly or yearly household income (in U.S. dollars) from all sources for the calendar year prior to the interview. Poverty was determined by using the U.S. Department of Health and Human Services (HHS) poverty guidelines for 2021 [1]. These guidelines are issued yearly for the United States and are one of the indicators used for determining eligibility for many federal and state programs. The 2021 guidelines [1] were used for participants interviewed in 2022. Participants were asked to identify the range of their income by selecting from a list of income ranges and the number of dependents supported by that income. 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 car at any time in the 12 months prior to the interview.
- Incarcerated: Having been held in a detention center, jail, or prison, for more than 24 hours in the 12 months prior to the interview.

- City: Throughout this report, the Baltimore MSA is referred to as Baltimore, but is inclusive of Baltimore City, Baltimore, Anne Arundel, Carroll, Howard, Harford, and Queen Anne's counties.
- State and local health departments eligible to participate in NHBS are those in jurisdictions that include an MSA or a specified division within an MSA with a high prevalence of HIV.

HIV STATUS

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

- HIV-negative: Participants with a valid negative BESURE HIV test result.
- HIV-positive: Participants who had a reactive rapid BESURE HIV test result supported by supplemental laboratory-based testing.
- No valid BESURE HIV test result: Participants who did not have a valid positive or negative BESURE HIV test result, including those who did not consent to the HIV test, had an indeterminate laboratory result or reported a previous HIV-positive test result but had a negative BESURE HIV test result.

HIV TESTING

- Ever tested: Having had an HIV test at any time during one's lifetime.
- Tested in past 12 months: Having had an HIV test in the 12 months prior to the interview.
- Clinical setting: Participants reported the location of their most recent HIV test—private doctor's office (including health maintenance organizations), emergency department, hospital (inpatient), public health clinic or community health center, family planning or obstetrics clinic, correctional facility (jail or prison), 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, SSP, or their home.
- "Unknown" locations could not be classified and are therefore excluded from the clinical/nonclinical setting classification.

SEXUAL BEHAVIORS

- Number of opposite sex partners: Median number of opposite sex partners in the 12 months prior to the interview; the first and third quartiles (25th and 75th percentiles) are also reported.
- Vaginal sex: Penis inserted into a partner's vagina.
- Anal sex: Penis inserted into a partner's anus.
- Condomless sex: Vaginal or anal sex during which a condom is either not used at all or is not used at any time throughout the sex act.
- 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 or her most recent sex partner (positive, negative, or unknown), and whether the participant reported engaging in vaginal or anal sex without a condom during his or her most recent sexual encounter. A partner was considered to be of discordant or unknown 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 or she did not know the HIV status of at least one member of the partnership (participant or partner). The result of the BESURE HIV test completed after the interview was not factored into this measure.
- Exchange sex: For females, this refers to receiving money or drugs from a male casual partner in exchange for sex in the 12 months prior to the interview. For males, this refers to giving money or drugs to a female casual partner in exchange for sex, or giving or receiving money or drugs in exchange for sex with a male casual partner in the 12 months prior to the interview.

INJECTION DRUG USE AND BEHAVIOIRS

Participants were asked about the frequency of their injection of specific drugs (excluding drugs prescribed to them) in the 12 months prior to the interview. Participants were also asked about sharing syringes and injection equipment.

- Duration of injection: Number of years since the participant first injected drugs not prescribed to themselves, based on the participant's reported age at first injection.

- Injected in the past 12 months: The participant reported injecting the specified drug at least once in the 12 months prior to the interview.
- Injected daily: The participant reported injecting the specified drug daily in the 12 months prior to the interview.
- Heroin: Injection of heroin alone.
- Speedball: Injection of heroin and cocaine together through a single injection.
- Powder or crack cocaine: Injection of crack or powdered cocaine.
- Methamphetamine: Injection of methamphetamine.
- Painkillers: Injection of painkillers not prescribed for the participant, such as OxyContin, Dilaudid, morphine, Percocet, or Demerol.
- Other drug: Injection of any drug not prescribed for the participant, excluding those listed above.
- Sharing of syringes: Injecting with a syringe or needle that had already been used by someone else for injection.
- Sharing of injection equipment: Using a cooker or cotton (used to filter particles from drug solution) that had already been used by someone else or using shared water for rinsing or injection.
- Sharing of syringes to divide drugs: Dividing a drug solution by using a syringe that had already been used by someone else for injection.
- Sharing syringes or other equipment: Any combination of the three measures listed above.
- Distributive sharing: A participant giving their syringe or needle to someone else to use after the participant had already used it for injection.

RECEIPT OF HIV PREVENTION MATERIALS

- Syringes from SSPs: Having received any new, sterile syringes from SSPs in the 12 months prior to the interview.
- Syringes from pharmacy: Having received any new, sterile syringes from a pharmacy or drug store in the 12 months prior to the interview.
- Injection equipment from SSPs: Having received injection equipment from SSPs in the 12 months prior to the interview. Injection equipment includes items such as cookers, cotton, or water for rinsing needles; this does NOT include syringes or needles.
- Safe syringe disposal: Having disposed of syringes by putting them in a medical waste

container or by exchanging them at an SSP, and having indicated no unknown or unsafe disposal method was indicated in the 12 months prior to the interview.

- Awareness of HIV PrEP: Ever heard of PrEP, an antiretroviral medicine taken for months or years by a person who is HIV-negative to reduce the risk of HIV acquisition.
- Used HIV PrEP: Having taken PrEP at any point in the 12 months prior to the interview to reduce the risk of HIV acquisition.
- Received free condoms: Having received free condoms in the 12 months prior to the interview, not including those given by a friend, relative, or sex partner.

HEPATITIS C VIRUS INFECTION

- Ever tested for hepatitis C: Having had a hepatitis C test during one's lifetime.
- Hepatitis C diagnosis: Having been told by a doctor, nurse, or other health care provider that the participant had hepatitis C infection.

NON-INJECTION SUBSTANCE USE

Participants were asked about their non-injection use of drugs (excluding drugs prescribed for them) in the 12 months prior to the interview and their use of alcohol during the 30 days prior to the 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."

- Binge drinking: Consumed five or more drinks (males) or four or more drinks (females) in about two hours in the 30 days prior to the interview.
- Any non-injection drug: Used any drug by a route of administration other than injection, excluding alcohol, in the 12 months prior to the interview.
- Cocaine: Used powdered cocaine by a non-injection route of administration in the 12 months prior to the interview.
- Crack: Used crack cocaine by a non-injection route of administration in the 12 months prior to the interview.
- Downers: Used downers (benzodiazepines), such as Klonopin, Valium, Ativan, or Xanax, by a non-injection route of administration in the 12 months prior to the interview.
- Ecstasy: Used X or ecstasy in the 12 months prior

to the interview.

- Heroin: Used heroin (smoked or snorted) in the 12 months prior to the interview.
- Marijuana: Used marijuana in the 12 months prior to the interview.
- Methamphetamine: Used methamphetamines, including meth, crystal meth, speed, or crank, by means other than injection in the 12 months prior to the interview.
- Painkillers: Used painkillers, such as OxyContin, Vicodin, morphine, or Percocet, in the 12 months prior to the interview.

OPIOID USE-RELATED OUTCOMES

Opioid use-related indicators were assessed for participants who reported injection or non-injection use of heroin or other opioids not prescribed for them in the 12 months prior to the interview.

- Accessed MAT: Having taken medications like methadone, buprenorphine, Suboxone, or Subutex to treat drug use in the 12 months prior to the interview.
- Unmet need for MAT: Participant reported trying but being unable to obtain medicines such as methadone, buprenorphine, Suboxone, or Subutex to treat drug use in the 12 months prior to the interview.
- Nonfatal opioid overdose: Having passed out, turned blue, or stopped breathing from using heroin or painkillers in the 12 months prior to the interview.

RECEIPT OF HIV CARE

Participants who reported having received a positive HIV test result prior to the interview were asked about their receipt of HIV care. Specifically, participants were asked: the date of their first HIV-positive test result; if 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 antiretroviral medicines.

- Ever received HIV care: Having ever visited a health care provider specifically for HIV care.
- Within 1 month of diagnosis: Having visited a health care provider for HIV care within one month after the date of their first HIV-positive test result.

- Within the past 6 months: Having visited a health care provider for HIV care in the 6 months prior to the date of interview.
- Currently taking antiretrovirals (ARVs): Taking antiretroviral medicines at the time of interview.

REFERENCE

1. Department of Health and Human Services. 2021 poverty guidelines. <https://aspe.hhs.gov/2021-poverty-guidelines>. Published 2021. Accessed April 25, 2024