

HIV Infection and Risk, Prevention, and Testing Behaviors Among Injecting Drug Users — National HIV Behavioral Surveillance System, 20 U.S. Cities, 2009



U.S. Department of Health and Human Services
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HIV Infection and Risk, Prevention, and Testing Behaviors Among Injecting Drug Users — National HIV Behavioral Surveillance System, 20 U.S. Cities, 2009

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Abstract

Problem/Condition: At the end of 2009, an estimated 1,148,200 persons aged ≥ 13 years were living with human immunodeficiency virus (HIV) infection in the United States. Despite the recent decreases in HIV infection attributed to injection drug use, 8% of new HIV infections in 2010 occurred among injecting drug users (IDUs).

Reporting Period: June–December 2009.

Description of System: The National HIV Behavioral Surveillance System (NHBS) collects HIV prevalence and risk behavior data in selected metropolitan statistical areas (MSAs) from three populations at high risk for HIV infection: men who have sex with men, IDUs, and heterosexual adults at increased risk for HIV infection. Data for NHBS are collected in rotating cycles. For the 2009 NHBS cycle, IDUs were recruited in 20 participating MSAs using respondent-driven sampling, a peer-referral sampling method. Participants were eligible if they were aged ≥ 18 years, lived in a participating MSA, were able to complete a behavioral survey in English or Spanish, and reported that they had injected drugs during the past 12 months. Consenting participants completed an interviewer-administered (face-to-face), anonymous standardized questionnaire about HIV-associated behaviors, and all participants were offered anonymous HIV testing. Analysis of 2009 NHBS data represents the first large assessment of HIV prevalence among IDUs in the United States in >10 years.

Results: This report summarizes two separate analyses using unweighted data from 10,200 eligible IDUs in 20 MSAs from the second collection cycle of NHBS in 2009. Both an HIV infection analysis and a behavioral analysis were conducted. Different denominators were used in each analysis because of the order and type of exclusion criteria applied.

For the HIV infection analysis, of the 10,200 eligible participants, 10,090 had a valid HIV test result, of whom 906 (9%) tested positive for HIV (range: 2%–19% by MSA). When 509 participants who reported receiving a previous positive HIV test result were excluded from this analysis, 4% (397 of 9,581 participants) tested HIV-positive.

For the behavioral analysis, because knowledge of HIV status might influence risk behaviors, 548 participants who reported a previous HIV-positive test result were excluded from the 10,200 eligible participants. All subsequent analyses were conducted for the remaining 9,652 participants. The most commonly injected drugs during the past 12 months among these participants were heroin (90%), speedball (heroin and cocaine combined) (58%), and cocaine or crack (49%). Large percentages of participants reported receptive sharing of syringes (35%); receptive sharing of other injection equipment, such as cookers, cotton, or water (58%); and receptive sharing of syringes to divide drugs (35%). Many participants reported having unprotected sex with opposite-sex partners during the past 12 months: 70% of men and 73% of women had unprotected vaginal sex, and 25% of men and 21% of women had unprotected anal sex. A combination of unsafe injection- and sex-related behaviors during the past 12 months was commonly reported; 41% of participants who reported unprotected vaginal sex with one or more opposite-sex partners, and 53% of participants who reported unprotected anal sex

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with one or more opposite-sex partners also reported receptive sharing of syringes. More women than men reported having sex in exchange for money or drugs (31% and 18%, respectively). Among men, 10% had oral or anal sex with one or more male partners during the past 12 months. Many participants (74%) reported noninjection drug use during the past 12 months, and 41% reported binge drinking during the past 30 days. A large percentage of participants (74%) had ever been tested for hepatitis C, 41% had received a hepatitis C virus infection diagnosis, and 29% had received a vaccination against hepatitis A virus, hepatitis B virus, or both. Most (88%) had been tested for HIV during their lifetime, and 49% had been tested during the past 12 months. Approximately half of participants received free HIV prevention materials during the past 12 months, including condoms (50%) and sterile syringes (44%) and other injection equipment (41%). One third of participants had been in an alcohol or a drug treatment program, and 21% had participated in an individual- or a group-level HIV behavioral intervention.

Interpretation: IDUs in the United States continue to engage in sexual and drug-use behaviors that increase their risk for HIV infection. The large percentage of participants in this study who reported engaging in both unprotected sex and receptive sharing of syringes supports the need for HIV prevention programs to address both injection and sex-related risk behaviors among IDUs. Although most participants had been tested for HIV infection previously, less than half had been tested in the past year as recommended by CDC. In addition, many participants had not been vaccinated against hepatitis A and B as recommended by CDC. Although all participants had injected drugs during the past year, only a small percentage had recently participated in an alcohol or a drug treatment program or in a behavioral intervention, suggesting an unmet need for drug treatment and HIV prevention services.

Public Health Action: To reduce the number of HIV infections among IDUs, additional efforts are needed to decrease the number of persons who engage in behaviors that increase their risk for HIV infection and to increase their access to HIV testing, alcohol and drug treatment, and other HIV prevention programs. The National HIV/AIDS Strategy for the United States delineates a coordinated response to reduce HIV incidence and HIV-related health disparities among IDUs and other disproportionately affected groups. CDC's high-impact HIV prevention approach provides an essential step toward achieving these goals by using combinations of scientifically proven, cost-effective, and scalable interventions among populations at greatest risk. NHBS data can be used to monitor progress toward the national strategy goals and to guide national and local planning efforts to maximize the impact of HIV prevention programs.

Introduction

At the end of 2009, an estimated 1,148,200 persons aged ≥ 13 years in the United States were living with human immunodeficiency virus (HIV) infection (1), and an estimated 47,500 were newly infected in 2010 (2). Among new HIV infections in 2010, approximately 61% were attributed to male-to-male sexual contact, 25% to heterosexual contact, 8% to injection drug use, and 3% to male-to-male sexual contact and injection drug use (2). Although injecting drug users (IDUs) comprise an estimated 2.6% of the U.S. population, they account for 22% of all persons living with HIV infection (3). The number of persons living with HIV infection, particularly among groups at increased risk for infection, might continue to increase without an improved and coordinated response to HIV in the United States (4). The National HIV/AIDS Strategy for the United States, released in July 2010, addresses the urgent need to reduce HIV incidence, improve access to care and health outcomes for persons living with HIV, reduce HIV-related disparities and health inequities, and improve coordination of HIV programs across federal, state, territorial, tribal, and local governments (4).

One of the goals of the National HIV/AIDS Strategy is to decrease by 25% the annual number of new infections by 2015. This goal is to be achieved by implementing three critical steps to reduce HIV incidence: intensifying HIV prevention efforts in communities where HIV is most heavily concentrated (including among blacks, Hispanics/Latinos, men who have sex with men [MSM], and persons who inject drugs); expanding efforts to prevent HIV infection by using a combination of effective, evidence-based, and scalable approaches (including drug treatment and access to sterile needles and syringes); and educating the general public about HIV infection and how to prevent it. State and local health departments as well as federal agencies are expected to monitor progress toward the goals of the National HIV/AIDS Strategy.

The National HIV Behavioral Surveillance System (NHBS) was designed to help state and local health departments in reporting areas with high AIDS prevalence monitor selected risk behaviors, HIV testing experiences, use of prevention programs, and HIV prevalence in three populations at high risk for HIV infection: MSM, IDUs, and heterosexual adults at increased risk for HIV (5,6). NHBS is a key source of data for monitoring behaviors among populations at risk for

HIV infection in the United States and is used by CDC to characterize HIV infection in these populations. Findings from NHBS can be used to enhance the understanding of HIV risk and testing behaviors and identify gaps in prevention efforts. At the state and local levels, NHBS data are used to renew and maintain efforts to prevent HIV infection as well as other bloodborne and sexually transmitted diseases (STDs). Thus, NHBS serves as a key component of CDC's comprehensive approach for reducing the spread of HIV in the United States and provides data necessary for CDC's high-impact prevention approach (7) toward achieving the goals of the National HIV/AIDS Strategy. This approach emphasizes the use of combinations of scientifically proven, cost-effective, and scalable interventions among populations at greatest risk for HIV infection.

This report summarizes results from the second NHBS data collection cycle among IDUs (NHBS-IDU2), which was conducted during June–December 2009. Data from the first cycle among IDUs (NHBS-IDU1), conducted during May 2005–February 2006, were reported previously (8), as were weighted estimates of HIV prevalence and selected risk behaviors from NHBS-IDU2 (9). This report provides unweighted data that can be used to describe the prevalence of HIV infection among IDUs and the percentage of IDUs reporting specific risk behaviors, HIV testing, and participation in prevention programs. Monitoring these NHBS data are useful for assessing risk behaviors over time and for identifying HIV prevention opportunities in this population.

Methods

NHBS conducts rotating cycles of annual behavioral surveys among MSM, IDUs, and heterosexual adults at increased risk for HIV infection (5). A period of data collection with a specific population is referred to as a cycle, and cycles are numbered consecutively (e.g., NHBS-IDU1 and NHBS-IDU2). The same general eligibility criteria are used in each cycle: aged ≥ 18 years, a current resident of the metropolitan statistical area (MSA) or specified MSA division, not a previous NHBS participant 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 general NHBS eligibility requirements, participants in NHBS-IDU2 must have 1) reported injecting a drug that was not prescribed to them during the past 12 months and 2) presented physical evidence of recent injection (e.g., track marks) or adequately described their injection practices.

For each survey cycle, an anonymous standardized questionnaire is used to collect information about behavioral risks for HIV

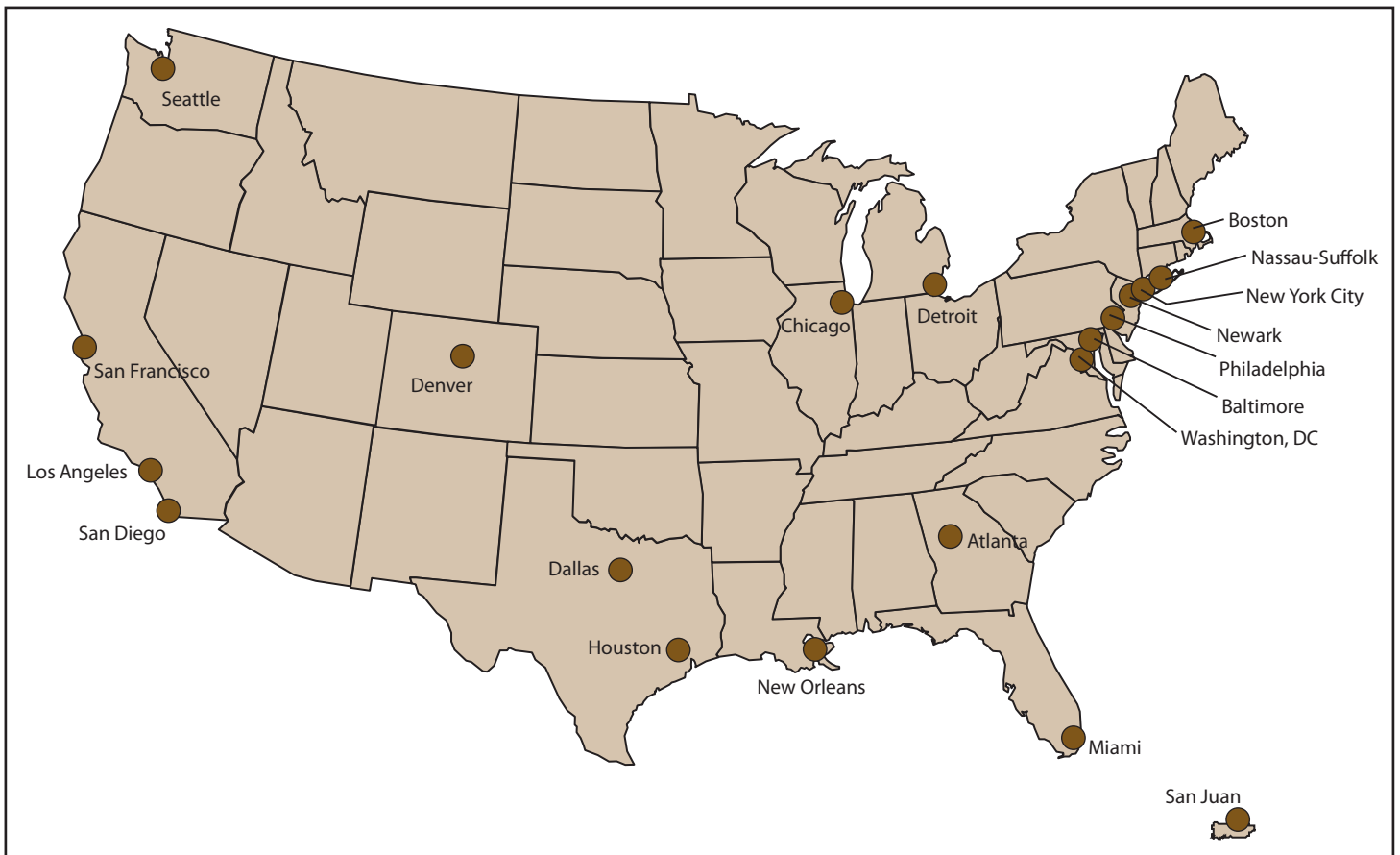
infection, HIV testing, and use of HIV treatment and prevention services. The face-to-face survey is administered by a trained interviewer using a handheld computer. All participants are offered an anonymous HIV test, and HIV test results are linked to the survey data. All participating state and local jurisdictions obtained appropriate human subject protections approval before conducting the NHBS-IDU2 survey.

Participating Areas

State and local health departments that were eligible to participate in NHBS-IDU2 were those whose jurisdictions included an MSA or a specified MSA division with the highest AIDS prevalence in 2006 (CDC, unpublished data, 2006). These eligible MSAs represented approximately 60% of all persons living with diagnosed HIV infection ever classified as stage 3 (AIDS) in urban areas with a population size of $\geq 500,000$ at the end of 2009 (10). Throughout this report, MSAs are referred to by the name of the primary principal city (Figure 1).

The NHBS-IDU2 survey was conducted in the following MSAs (or if a metropolitan division is indicated, the survey was conducted within that specific division of the MSA): 1) Atlanta-Sandy Springs-Marietta, Georgia; 2) Baltimore-Towson, Maryland; 3) Boston-Cambridge-Quincy, Massachusetts-New Hampshire: Boston-Quincy Division; 4) Chicago-Joliet-Naperville, Illinois-Indiana-Wisconsin: Chicago-Joliet-Naperville Division; 5) Dallas-Fort Worth-Arlington, Texas: Dallas-Plano-Irving Division; 6) Denver-Aurora-Broomfield, Colorado; 7) Detroit-Warren-Livonia, Michigan: Detroit-Livonia-Dearborn Division; 8) Houston-Sugar Land-Baytown, Texas; 9) Los Angeles-Long Beach-Santa Ana, California: Los Angeles-Long Beach-Glendale Division; 10) Miami-Ft. Lauderdale-Pompano Beach, Florida: Miami Division; 11) New Orleans-Metairie-Kenner, Louisiana; 12) New York-Northern New Jersey-Long Island, New York-New Jersey-Pennsylvania: New York-White Plains-Wayne Division; 13) New York-Northern New Jersey-Long Island, New York-New Jersey-Pennsylvania: Nassau-Suffolk Division; 14) New York-Northern New Jersey-Long Island, New York-New Jersey-Pennsylvania: Newark-Union Division; 15) Philadelphia-Camden-Wilmington, Pennsylvania, New Jersey, Delaware, Maryland: Philadelphia Division; 16) San Diego-Carlsbad-San Marcos, California; 17) San Francisco-Oakland-Fremont, California: San Francisco-San Mateo-Redwood City Division; 18) San Juan-Caguas-Guaynabo, Puerto Rico; 19) Seattle-Tacoma-Bellevue, Washington: Seattle-Bellevue-Everett Division; 20) Washington-Arlington-Alexandria, District of Columbia (DC)-Virginia-Maryland-West Virginia: Washington-Arlington-Alexandria Division.

FIGURE 1. Participating metropolitan statistical areas — National HIV Behavioral Surveillance System: Injecting Drug Users, 20 U.S. cities, 2009



Sampling Method

Each NHBS cycle begins with formative research in each MSA to describe the characteristics of the study population of interest, understand the context of HIV risk behavior in the MSA, gain community support, and finalize study logistics (e.g., field site locations) (11). Participants for the NHBS-IDU2 cycle were recruited using respondent-driven sampling (RDS) (12). RDS started with a limited number of initial participants who were chosen by referrals from persons who knew the local population of IDUs or through outreach to areas where IDUs 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 they knew personally who inject drugs to participate in the survey. These persons, in turn, completed the survey and were asked to recruit others, using a system of coded coupons. This recruitment process continued until the sample size had been reached or the sampling period ended. Participants received incentives for participating in the survey as well as for recruiting others.

Data Collection

Persons who brought a valid coupon to an NHBS-IDU2 field site were escorted to a private area for eligibility screening. Trained interviewers obtained informed consent from those who met NHBS-IDU2 eligibility. They then conducted face-to-face interviews, which took approximately 40 minutes to complete and consisted of questions concerning participants' demographic characteristics, HIV testing history, sexual and drug-use behaviors, hepatitis testing and vaccination, STD testing and diagnosis, and use of HIV treatment and prevention services. In exchange for their time to complete the survey, participants received approximately \$25 in cash or a gift certificate (amount determined locally). HIV testing was performed for participants who consented to testing by collecting blood or oral specimens for either 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 approximately \$25 in cash or a gift certificate for HIV testing. Participants who agreed to recruit others received an additional

cash incentive or a gift certificate of approximately \$10 for each new participant (up to five) they recruited who successfully completed the interview. The goal of each participating MSA was to interview 500 persons who had injected drugs during the 12 months before the NHBS interview.

Data Analysis

This surveillance summary presents data on HIV infection and key HIV-associated behaviors to monitor HIV prevention efforts for IDUs in the 20 MSAs or MSA divisions where data were collected during June–December 2009. The data are descriptive; no statistical tests were performed. Comparisons were guided based on differences of $\geq 5\%$, which were deemed meaningful in the public health context given the NHBS sample size. In addition, because these data are cross-sectional, no causal relationships are inferred.

Data for this report are not weighted. Weighting methods for RDS data are still under development and are limited to estimation of outcomes with sufficient local sample sizes. This report follows the previously published unweighted analysis of NHBS-IDU1 data (8) to provide a detailed summary of surveillance data collected as part of NHBS-IDU2 for use nationally and locally. Consistent reporting of unweighted surveillance data over time efficiently and transparently summarizes these data. An unweighted analysis also allows more detailed reporting of outcomes stratified by less prevalent groups that would otherwise need to be combined into an “other” category (for the purpose of weighting). For example, key behavioral outcomes in this surveillance summary are reported for each of the 20 participating MSAs, and behaviors for less prevalent racial/ethnic groups are examined, including American Indian/Alaska Natives and Asian/Native Hawaiian/Other Pacific Islanders. Weighted estimates of key behavioral outcomes and HIV prevalence were published elsewhere (9). To ensure that anonymous data reporting standards of CDC and all state and local health departments were met, data were suppressed for cells with five or fewer participants.

Analysis exclusion criteria are presented (Figure 2); criteria were not mutually exclusive and were applied in the order listed. All analyses in this report exclude data for participants who did not meet NHBS-IDU2 eligibility criteria and who lost data during electronic uploads, did not consent to the survey, had incomplete survey data, had survey responses with questionable validity, or who did not identify as male or female. Additional and different exclusion criteria were applied for analyses of HIV infection and of HIV-associated behaviors.

Analysis of HIV Infection

The prevalence of HIV infection is reported for 10,090 participants who had a valid HIV test result; this sample excludes 110 of the 10,200 eligible participants who did not consent to HIV testing, had indeterminate test results or who had discordant test results (i.e., reported a previous positive HIV test result but had a negative HIV test result at the time of the survey). HIV infection also is reported for the 9,581 participants with a valid HIV test result who did not report a previous positive HIV test result at the time of the survey, which is a measure of undiagnosed infection. Among these participants, analyses determined time since last HIV test and the percentage of HIV infection by time since the last HIV test.

Analysis of HIV-Associated Behaviors

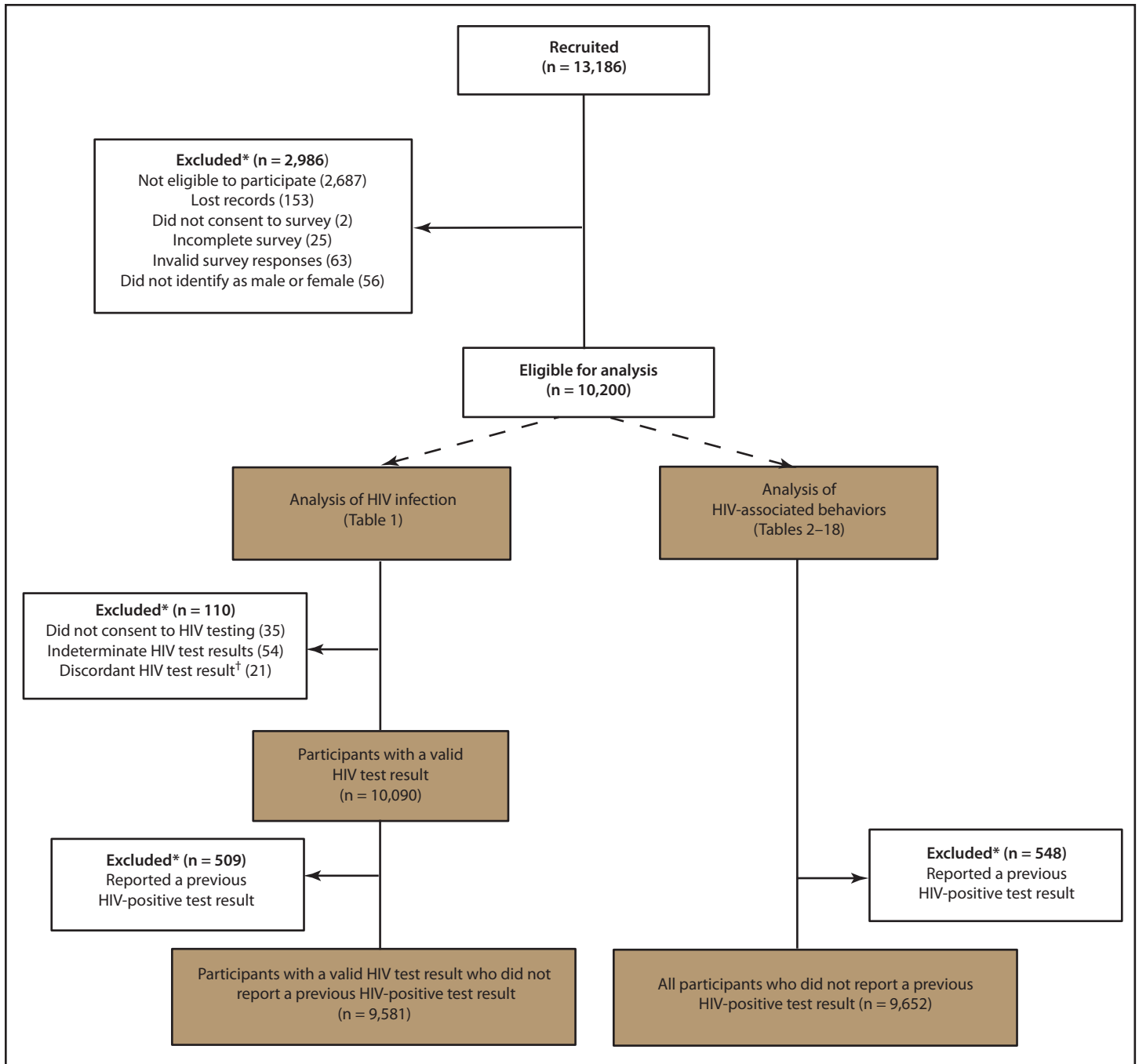
Multiple studies have found that knowledge of personal HIV status might influence risk behaviors (13,14). Therefore, to assess behaviors related to HIV infection and experiences with HIV prevention services, 548 participants who reported a previous HIV-positive test result were excluded from the 10,200 eligible participants. All analyses of HIV-associated behaviors were conducted among 9,652 participants who did not report a previous positive HIV test result. These participants included those who did not have a valid HIV test result but provided information about their behaviors.

Measures

Characteristics of Participants

For both analyses, data on characteristics of participants included sex, race/ethnicity, age group, education level, annual household income, health insurance status, contact with a health-care provider, homelessness, arrest history, history of alcohol or drug treatment program, and MSA of residence. Responses for race/ethnicity were categorized into mutually exclusive categories: non-Hispanic white (hereafter referred to as white); non-Hispanic black or African American (hereafter referred to as black); Hispanic or Latino; American Indian/Alaska Native; Asian/Native Hawaiian/Other Pacific Islander; and other racial group, which included persons of multiple races. Persons of Hispanic or Latino ethnicity might be of any race and were categorized as Mexican, Puerto Rican, Cuban, Dominican, other, or multiple ancestries. Education level was categorized as less than high school, high school diploma or equivalent (e.g., general educational development [GED] diploma), or greater than high school. Household income was categorized as 1) at or below the federal poverty level or 2) above the federal poverty level. The federal poverty level is based on

FIGURE 2. Exclusion criteria and analysis samples — National HIV Behavioral Surveillance System: Injecting Drug Users, 20 U.S. cities, 2009



Abbreviations: HIV = human immunodeficiency virus; NHBS-IDU2 = National HIV Behavioral Surveillance System, Injecting Drug Users, second cycle.

* Reasons for exclusion were not mutually exclusive and were applied hierarchically in the order listed.

† Participants reported a previous positive HIV test result but had a negative HIV test result at the time of the survey.

household income and household size (15). Participants were asked to report all household income (i.e., the total amount of money from all persons living in the household earned in the last year from all sources before taxes, or if homeless, the

total amount of money earned or received) and the number of persons in the household (defined as the number of persons who depended on that income, including the participant). To calculate poverty, each participant's responses to household

income and the number of persons in the household were compared with the federal poverty income level threshold for persons with the same household size. Health insurance was categorized as none, public only (e.g., Medicare, Medicaid, or Veterans Administration coverage), private only (e.g., health insurance obtained through a private insurance policy or employer, TRICARE, CHAMPUS, or membership in a health maintenance organization), or other or multiple coverage. Contact with a health-care provider was based on participants' responses to a question about seeing a doctor, nurse, or other health-care provider. Consistent with the Stewart B. McKinney Homeless Act of 1987 (42 U.S.C. §11331 et seq.), homelessness was defined as living on the street, in a shelter, in a single room occupancy hotel, or in a car or temporarily staying with friends or relatives. Arrest history was defined as having been arrested and booked (i.e., formally processed and put in a jail or detention center). Alcohol treatment and drug treatment were measured jointly; treatment programs included outpatient, residential, detoxification, methadone treatment, or 12-step programs.

Injection Drug Use

Participants were asked about the types of drugs they injected during the past 12 months that had not been prescribed to them. Injection was defined as intravenous, intramuscular, or subcutaneous. For each drug listed, participants selected the frequency of injecting the drug, which ranged from "didn't use" to "more than once a day." On the basis of these responses, variables were created to describe any use of the following drugs: heroin, speedball (i.e., heroin and cocaine combined and injected together in the same syringe), cocaine or crack, methamphetamine, and other/multiple (all other drugs or combinations other than heroin and cocaine). The same questions and corresponding responses about frequency of injecting different types of drugs also were used to create the variable for drugs injected most frequently, which includes the following five mutually exclusive categories: heroin, heroin and cocaine (i.e., injected separately with equal frequency or combined as speedball), cocaine or crack, methamphetamine, and other (all other drugs or combinations). Frequency variables were 1) injected in past 12 months (any injection of each any of the drugs or drug combinations during the past 12 months) and 2) injected daily (injecting one or more times per day), a variable that was assessed both as a measure of frequency of injection and to distinguish regular from sporadic use.

Sharing injection paraphernalia is a key risk behavior for transmission of bloodborne infections, including HIV and hepatitis C virus (HCV). Furthermore, sharing different types of equipment (e.g., syringes or cookers) might carry different risks for transmission (16–20). Participants in this study were

asked about receptive sharing of injection paraphernalia during the past 12 months. Receptive sharing of syringes was defined as having injected with a needle and syringe that someone else had previously used to inject. Receptive sharing of injection equipment was defined as having used the same cooker, cotton, or water (for rinsing needles or preparing drugs) previously used by someone else. Receptive sharing of syringes to divide drugs was defined as having divided a drug solution with a syringe that someone else had previously used to inject (21). Any receptive sharing was defined as having engaged in any of these three receptive sharing behaviors.

Sexual Behavior

Information about sex practices during the past 12 months is presented in terms of key risk behaviors for sexual transmission of HIV among IDUs and their sex partners. Having any sex included oral, vaginal, or anal sex. Male participants were asked about vaginal and anal sex behaviors with their female and male sex partners, and female participants were asked about vaginal and anal sex behaviors with male partners. For men, anal sex with another man included either insertive or receptive anal sex. Sex partners were categorized as main, casual, or exchange partners. A main partner was someone to whom the participant felt most committed (e.g., boyfriend or girlfriend, spouse, significant other, or life partner). A casual partner was someone to whom the participant did not feel committed or did not know very well. An exchange partner was one with whom the participant had sex in exchange for something such as money or drugs (i.e., exchange sex). Participants could report having more than one or any combination of main, casual, or exchange partners during the past 12 months. Unprotected vaginal or anal sex was defined as having sex without a condom.

To assess sexual risk behavior among male and female participants during the past 12 months, responses to questions about vaginal and anal sex and the number of opposite-sex partners were combined for men and women into the following summary variables: had unprotected vaginal sex with an opposite-sex partner, had unprotected anal sex with an opposite-sex partner, and had more than one opposite-sex partner.

Alcohol and Noninjection Drug Use

Participants were asked about their alcohol consumption and use of noninjection drugs. Alcohol use was defined as drinking any alcohol such as beer, wine, malt liquor, or hard liquor 30 days before the interview. Heavy drinking was defined as drinking, on average, more than two alcoholic beverages (for men) or more than one alcoholic beverage (for females) per day in the 30 days before the interview. Binge drinking was defined as drinking five or more (for men) or four or more (for women) alcoholic beverages at one sitting at least once in

the 30 days before the interview. Participants who reported noninjection use of drugs that had not been prescribed for them during the past 12 months were asked about use of marijuana, crack, cocaine, heroin, methamphetamine, downers (e.g., Valium, Ativan, or Xanax), painkillers (e.g., Oxycontin, Vicodin, or Percocet) or any other noninjected drugs. Use of any noninjection drug was defined as use of one or more of the drugs listed.

STDs and Hepatitis

Participants were asked whether they had been told during the past 12 months by a doctor, nurse, or other health-care provider that they had syphilis, gonorrhea, chlamydia, herpes, or any other STD. Participants who reported one or more of these STDs were categorized as having any STD. Participants also were asked whether they had ever been told by a doctor, a nurse, or another health-care provider that they had hepatitis or had received a hepatitis vaccine. Participants who reported a hepatitis diagnosis were asked about the type of viral hepatitis they had; the data presented in this report focus on diagnosis of hepatitis C. A hepatitis C diagnosis was defined as ever being told by a health-care provider that they had an HCV infection. Participants who had not been told by a health-care provider that they had an HCV infection were asked if they ever had a blood test to check for HCV infection. Hepatitis C testing was defined as having ever been told by a health-care provider that they had an HCV infection or having ever had a blood test to check for HCV infection. Hepatitis vaccination was defined as having ever received a hepatitis vaccine, regardless of the number of doses and type of vaccine (i.e., against hepatitis A virus [HAV], hepatitis B virus [HBV], or both).

Use of Prevention Services and Programs

HIV Testing

Participants were asked whether they had ever had an HIV test in their lifetime, whether they had received an HIV test during the past 12 months, and about the type of facility that administered the most recent HIV test. Participants who had ever had an HIV test in their lifetime were asked for the date (month and year) of the most recent HIV test. This information was used to determine the time since the last HIV test. Participants who reported not having had an HIV test during the past 12 months were asked to select from a list of reasons for not having been tested (i.e., thought they were at low risk for HIV infection; afraid of finding out they had HIV; lack of time, money, or transportation; or another reason). Participants who selected more than one reason were asked to indicate the most important reason for not having been tested.

Prevention Materials

Participants were asked whether they had received free HIV prevention materials (not including those given by a friend, relative, or sex partner) during the past 12 months and the type of organization that provided these materials. Prevention materials included condoms, sterile needles, and other injection equipment, such as a new cooker, cotton, or water.

Treatment and Behavioral Interventions for Alcohol and Drug Use

In one question, participants were asked about their participation in alcohol or drug treatment programs during the past 12 months (i.e., outpatient, inpatient, residential, drug detoxification programs, methadone treatment, or 12-step programs). Participants were also asked, in separate questions, about their involvement in individual- or group-level HIV-related behavioral interventions. An individual-level intervention was defined as a one-on-one conversation with an outreach worker, a counselor, or a prevention program worker about ways to prevent HIV. A group-level intervention was defined as an organized session with a small group of persons (excluding discussions with friends) to discuss ways to prevent HIV. Individual- and group-level behavioral interventions were defined based on the intervention types described in CDC's evaluation system (21). Conversations that took place solely as a part of obtaining HIV testing (e.g., pretest or posttest counseling) were not considered HIV behavioral interventions. Participants were asked to select all organizations that provided the behavioral interventions from a list of providers that included HIV/AIDS-focused community-based organizations, syringe exchange programs, outreach programs for injection drug use, drug treatment programs, and others.

Results

In 2009, a total of 13,186 persons were recruited to participate in NHBS-IDU2; of these, 2,687 (20%) were ineligible (Figure 2). Data also were excluded from all analyses for participants who had lost data during the electronic upload ($n = 153$), did not consent to the survey ($n = 2$), had incomplete survey data ($n = 25$), had survey responses with questionable validity ($n = 63$), or did not identify as male or female ($n = 56$). A total of 10,200 participants were eligible for analysis.

Analysis of HIV Infection

HIV infection data are presented for all participants 1) with a valid HIV test result and 2) who had a valid test result and did not report a previous positive HIV test result. Participants

were excluded if they did not consent to HIV testing ($n = 35$), had indeterminate HIV test results ($n = 54$), or had discordant test results ($n = 21$), for a total sample of 10,090 participants with a valid HIV test result. In addition, 509 participants who reported a previous positive HIV test result were excluded, for a total of 9,581 participants with a valid HIV test result who did not report a previous positive HIV test result.

Analysis of HIV-Associated Behaviors

HIV-associated behaviors are reported for all participants who did not report a previous positive HIV test result, regardless of whether they had a valid HIV test result. Participants who reported a previous positive HIV test result at the time of the survey ($n = 548$) were therefore excluded from this analysis, for a total of 9,652 participants.

HIV Infection

Of the 10,090 participants with a valid HIV test result, 906 (9%) tested positive for HIV (Table 1). HIV infection percentages ranged from 2% (Dallas, Texas, and San Diego, California) to 19% (Atlanta, Georgia). Percentages of persons with HIV infection were highest among blacks (11%) and Hispanic or Latinos (10%) and persons aged 40–49 years (11%). The percentage of participants with HIV infection was lower among participants without any health insurance (5%) than among those with public (12%), private (14%), or other/multiple (18%) types of health insurance. By type of drug injected, the percentage of participants with HIV infection was lowest among participants who reported most frequently injecting heroin (6%) and highest among those who most frequently injected methamphetamine (19%). HIV infection percentages did not vary by whether participants had been in treatment for drugs or alcohol ever or during the past 12 months (9% in all categories). Among men, HIV infection was higher among those who reported having male-to-male sex during the past 12 months than those who reported having male-to-male sex (but not during the past 12 months) and those who never had male-to-male sex (22%, 10%, and 7%, respectively). The percentage of participants with HIV infection was lower among participants who reported that their last HIV test was negative (2%) than those who had never obtained their test results (13%), never been tested (11%), and others (i.e., those who did know the results of their last test, reported an indeterminate test results, or refused to answer) (16%).

Of the 9,581 participants with a valid HIV test result who did not report a previous positive HIV test result, 397 (4%) tested positive for HIV. Patterns of HIV infection were similar overall for participants with a valid HIV test result and among

participants who had a valid HIV test result and did not report a previous HIV-positive test result. For the 9,581 participants who had a valid HIV test result and did not report a previous HIV-positive test result, the percentages of those with HIV infection were lower among participants who reported that their last HIV test was ≤ 3 months (2%), 4–6 months (2%), 7–12 months (3%), or ≥ 13 months (5%) than among those who had never been tested (11%). Across cities, percentages of participants with HIV infection among those with a valid HIV test result and who did not report a previous HIV positive test result ranged from 1% (Detroit, Michigan, and Seattle, Washington) to 13% (San Juan, Puerto Rico).

Characteristics of Participants

Of the 9,652 participants included in the analysis of HIV-associated behaviors, 72% were men and 28% were women, and the largest percentage by race/ethnicity was black (46%) (Table 2). Hispanic or Latino ethnicity was reported by 22% of all participants, and 62% of these participants reported their ancestry as Puerto Rican. Ten percent of participants were aged <30 years, 49% were aged 30–49 years, and 41% were aged ≥ 50 years. Approximately one third (34%) had not completed high school. Most (80%) of the participants had a household income at or below the federal poverty level in the last year. Most (71%) had visited a health-care provider during the past 12 months, although almost half (49%) had no health insurance. More than half (62%) of the participants had been homeless at some time during the past 12 months, including a substantial percentage (42%) who were homeless at the time of the survey. More than one third (36%) of the participants had been arrested during the past 12 months. Over half (59%) of the participants reported that heroin was the drug they injected most frequently, and an additional 25% reported most frequently injecting heroin and cocaine (i.e., injected separately with the same frequency or together as speedball). Three fourths of participants had been in a drug or alcohol treatment program at some time, and one third had been in drug or alcohol treatment during the past 12 months. The characteristics of male and female participants were largely similar, although a higher percentage of men reported Hispanic or Latino ethnicity and, during the past 12 months, to have had no health insurance, not visited a health-care provider, been homeless, and been arrested.

Injection Drug Use

During the past 12 months, 90% of participants reported injecting heroin, 58% reported injecting speedball, and 49% reported injecting cocaine or crack (Table 3). In all cities, heroin was the most commonly reported drug injected, ranging

from 70% (Houston, Texas) to 100% (Detroit, Michigan), except in San Juan, Puerto Rico, where 83% injected speedball. Daily injection drug use was most commonly reported among participants who injected heroin (73%) and least commonly reported among those who injected methamphetamine (16%) or other/multiple drugs (10%). Among participants who injected heroin, the percentage who injected daily was higher among participants aged 18–29 years (77%) than among those aged 40–49 years (72%), 50–59 years (70%), and ≥60 years (70%) and among participants with less than a high school education (75%) compared with those with more than a high school education (69%). Among participants who reported injecting speedball or cocaine or crack, the percentage of those who injected daily was higher among participants with less than a high school education than among those with more than a high school education and among participants whose household income was at or below federal poverty level compared with those whose household income was above the federal poverty level.

For drug categories other than heroin (and other/multiple because of suppressed data), the percentage of participants who injected daily was higher among participants with positive HIV test results than among those with negative results (Table 3). The largest difference in HIV test results among participants who injected daily was among those who injected speedball; 49% of participants who tested positive injected speedball daily, compared with 37% of those who tested negative.

A substantial percentage of participants reported each of three injection behaviors related to acquisition risk for HIV and other bloodborne viruses: receptive sharing of syringes (35%), receptive sharing of other injection equipment (58%), and receptive sharing of syringes to divide drugs (35%) (Table 4). The percentage of receptive sharing of syringes and equipment to inject drugs was highest among participants aged 18–29 years and those who had been arrested during the past year. Compared with white and Hispanic or Latino participants, black participants reported less frequent receptive sharing of syringes, other equipment, and syringes to divide drugs. Receptive sharing of syringes and other equipment decreased with age. Except for the “other drug most frequently injected” category, little variation was found in the percentage of participants reporting receptive syringe sharing by drug most frequently injected; however, a high percentage of participants who had most frequently injected heroin and cocaine (separately with the same frequency or together as speedball) receptively shared other injection equipment (63%). Participants who reported having unprotected vaginal sex, unprotected anal sex, or multiple opposite-sex partners in the past year more commonly engaged in any receptive sharing (67%, 76%, and 70%, respectively) than those

who did not engage in these sex behaviors (49%, 57%, and 53% respectively). Of all 9,652 participants, 78% reported unprotected vaginal or anal sex with opposite-sex partners and receptive sharing of any injection equipment.

Although only a slight variation was found based on HIV test results, the percentages of receptive sharing of syringes, of other injection equipment, and of syringes for dividing drugs were high among participants with positive HIV test results (35%, 60%, and 38%, respectively) (Table 4). Generally, no differences were observed based on HCV testing; however, the percentages of the three injection-related risk behaviors were higher among participants reporting a diagnosis of HCV infection than among those who did not.

Sexual Behavior

A total of 84% of men (Table 5) and 83% of women (Table 6) had oral, vaginal, or anal sex with an opposite-sex partner during the past 12 months.

Sexual Behavior Among Men

Among men, 70% reported engaging in unprotected vaginal sex with female partners, and this percentage decreased with age (Table 5). One third (33%) reported anal sex with female partners during the past 12 months, and one fourth (25%) reported unprotected anal sex. The percentage of men reporting anal sex with female partners decreased with age. More men who had been arrested during the past 12 months reported anal sex with female partners (37%) compared with men who had not been arrested (30%). A higher percentage of male participants reported unprotected vaginal or anal sex with main (48%) female partners than with casual (33%) or exchange (13%) female partners (Table 7).

Ten percent of men reported having oral or anal sex with a male partner during the past 12 months (Table 5), and 2.5% reported having oral or anal sex with a male partner exclusively (i.e., did not have female partners). Unprotected anal sex with a male partner was reported by 5% of men (Table 5). The percentage of men who reported having had anal sex with a male partner was highest among those who most frequently injected methamphetamine (21%) compared with other drugs (heroin alone, 5%; heroin and cocaine, 7%; cocaine or crack alone, 14%; other, 13%). The percentage of men who reported having anal sex with a male partner was higher among those with positive HIV test results (20%) than among those with negative results (7%).

Sexual Behavior Among Women

Among women, 73% reported engaging in unprotected vaginal sex with male partners during the past 12 months

(Table 6). The percentage who reported having unprotected vaginal sex decreased with age. Overall, 21% of female participants reported having unprotected anal sex during the past 12 months, and this percentage decreased with age. The percentage of women who reported unprotected vaginal and anal sex was higher among those who had been arrested during the past 12 months (79% and 26%, respectively) than among those who had not (70% and 19%, respectively). A higher percentage of women had unprotected vaginal or anal sex with main (57%) than with casual (19%) and exchange (21%) partners (Table 8). Among women who tested HIV-positive, 38% engaged in unprotected vaginal or anal sex with main partners, and 30% had unprotected vaginal or anal sex with exchange partners, compared with 58% and 21% of among women who tested HIV-negative, respectively.

Alcohol and Noninjection Drug Use

Alcohol and noninjection drug use was common among participants (Table 9). When asked about alcohol use during the 30 days before the interview, 66% of participants reported consuming alcohol, 41% reported binge drinking, and 28% reported heavy alcohol use. Most (74%) participants reported noninjection drug use during the past 12 months; 48% reported using marijuana, and 48% reported using crack during this time. Alcohol use was more commonly reported by black participants (73%) than whites (61%) and Hispanics or Latinos (58%), and noninjection drug use was most common among whites in all categories except noninjection use of heroin, crack, and methamphetamine. Noninjection drug use (of all drugs except crack) decreased with age, whereas alcohol use did not vary with age.

STDs and Hepatitis

A total of 679 (7%) participants had an STD diagnosed during the past 12 months (Table 10). Across cities, the percentage of any STD diagnosis ranged from 4% (Chicago, Illinois; San Francisco, California; and Seattle, Washington) to 24% (Nassau-Suffolk, New York). A total of 124 (1%) participants had received a diagnosis of syphilis, 118 (1%) with herpes, 216 (2%) with gonorrhea, and 208 (2%) with chlamydia (Tables 10 and 11). Of those with an STD diagnosis during the past 12 months, 151 (22%) reported two or more STD diagnoses. Diagnosis of any STD was also examined by sexual behaviors; participants who reported having sex with exchange partners during the past 12 months had a higher percentage of STD diagnoses (12%) than those who did not (5%).

Having ever received HCV testing (i.e., told that they had HCV infection or had ever been tested for HCV infection)

was reported by 74% of participants, and 41% reported having received a diagnosis of HCV infection (Table 12). Lifetime HCV testing increased with age and was reported in higher percentages among participants who were white, American Indian/Alaska Native, and other races/ethnicities than by those who were black or Hispanic or Latino. Variation in diagnoses of HCV infection by age and race/ethnicity were similar to those reported for lifetime HCV testing. The percentage of participants reporting an HCV infection diagnosis increased with age, ranging from 26% among participants aged 18–29 years to 53% among participants aged ≥ 60 years. Diagnosis of HCV infection varied by race/ethnicity, with American Indian/Alaska Native (55%), white (47%), and other (46%) participants reporting the highest percentages. Participants who reported most frequently injecting heroin or heroin and cocaine (injected separately with the same frequency or together as speedball) during the past 12 months had higher percentages of HCV infection diagnoses (42% and 43%, respectively) than those who most frequently injected cocaine/crack and methamphetamine (30% and 30%, respectively). Diagnosis of HCV infection was higher among participants who engaged in receptive sharing of syringes, of other injection equipment, and of syringes to divide drugs during the past 12 months (44%, 44%, and 45%, respectively) than among those who did not engage in these receptive sharing behaviors (39%, 36%, and 38%, respectively) (Table 12). Overall, 29% of participants reported receiving at least 1 dose of HAV vaccine, HBV vaccine, or both.

Use of Prevention Services and Programs

HIV Testing

Most participants (88%) had been tested for HIV infection during their lifetime, and many (49%) had been tested during the past 12 months (Table 13). Receipt of an HIV test during the past 12 months was reported in higher percentages among participants who reported the following characteristics than among those who did not: had a household income above the federal poverty level (53% versus 47%), visited a health-care provider during the past 12 months (55% versus 33%), and had been arrested during the past 12 months (56% versus 44%). Having had an HIV test during the past 12 months also varied by health insurance status; 54% of participants who had a public health insurance plan reported being tested in the past year, compared with 45% with private insurance and 44% with no health insurance (Table 13). Overall, the majority (92%) of participants who were tested during the past 12 months reported receiving their test results.

Among 4,689 participants who reported having had an HIV test during the past 12 months (for whom information was available), the top six types of facilities where they had received their most recent HIV test were: public health clinics or community health centers (14%); correctional facilities (jails or prisons) (14%); hospitals (inpatient) (12%); HIV/AIDS street outreach programs and mobile units (11%); drug treatment programs (11%); and HIV counseling and testing sites (10%) (Table 14). The most commonly reported type of facility in which men received their most recent HIV test was in a correctional setting (16%), whereas most women received their most recent HIV test in a public health clinic or community health center (15%).

Among 4,916 participants who reported not having had an HIV test during the past 12 months, the most frequently reported main reason was being afraid of finding out they had HIV (32%), followed by the thought that they were at low risk for HIV infection (25%) (Table 15). Although participants reported structural barriers to HIV testing during the past 12 months, such as lack of transportation and not having money or health insurance, these were not frequently reported as main reasons (1% and 6%, respectively) for not being tested (Table 15).

Prevention Materials

Forty-four percent of participants received free sterile syringes, 41% received other free injection equipment (e.g., cookers, cotton, or water), and 50% received free condoms (Table 16). Receipt of free syringes and other injection equipment during the past 12 months was reported in higher percentages by participants who most frequently injected heroin compared with other drugs or combinations of drugs and who injected more than once a day compared with less frequently (Table 17). Receipt of free sterile syringes was reported less frequently by participants who receptively shared syringes (38%) than by those who did not share syringes to inject drugs (47%). Likewise, receipt of other free injection equipment was reported less frequently by those who shared syringes (35%) than by those who did not (44%). In addition, receipt of free sterile syringes was reported less frequently by participants who shared syringes to divide drugs (40%) than by those who did not (46%), and receipt of other free injection equipment was reported less frequently by those who shared syringes to divide drugs (37%) than by those who did not (42%).

Treatment and Behavioral Interventions for Alcohol and Drug Use

Overall, 33% of participants reported being in an alcohol or a drug treatment program during the past 12 months

(Table 16). Participating in an alcohol or a drug treatment program was lower among black than white (28% versus 41%) participants and decreased with age. Less than one fourth (21%) of participants received either an individual-level (17%) or group-level (9%) behavioral intervention during the past 12 months. The percentage of those participating in individual- or group-level HIV behavioral interventions was lower among participants with no health insurance (17%) than among those with public (26%), private (27%), or other/multiple sources of health insurance (25%); the percentage was higher among those who participated in an alcohol or a drug treatment program during the past 12 months (33%) than among those who had never participated in such a program (12%). Among 1,633 participants receiving individual-level interventions, an HIV-focused community-based organization was the type of program from which the highest percentage (36%) of participants received these services, whereas among 904 persons reporting group-level interventions, a drug treatment program was the type of program from which the highest percentage (38%) received these services (Table 18).

Discussion

HIV Infection

The percentage of all participants in NHBS-IDU2 with HIV infection was 9%, ranging from 2% to 19% among MSAs. HIV testing was not conducted during the first cycle of NHBS-IDU; therefore, the analysis of NHBS-IDU2 data represents the first large assessment of HIV prevalence among IDUs in the United States in more than a decade. During 1993–1997, CDC conducted anonymous HIV testing among IDUs entering drug treatment centers in 14 MSAs (22) and found an HIV infection prevalence of 18% overall, ranging from 1% to 37% among MSAs. The two studies used different methods and sampled different populations of IDUs; therefore, the HIV infection estimates are not comparable between the studies.

In the NHBS-IDU2 study, HIV infection was highest among participants who most frequently injected methamphetamine and among men who reported male-to-male sex during the past 12 months. Methamphetamine use has been linked with high-risk sexual behavior among heterosexuals (23) and MSM (24). In this analysis, a high percentage of men who most frequently injected methamphetamine reported having had unprotected anal sex with another man during the past 12 months. The combination of male-to-male sex and drug injection contribute to the high HIV prevalence among MSM-IDUs (25). HIV prevention programs tailored to MSM-IDUs should consider the possible effects of methamphetamine use on risk-taking behaviors.

HIV infection was higher among participants who reported never having been tested for HIV than among those who did. CDC recommends that IDUs be tested for HIV at least annually (26,27). The high percentage of HIV infection among the NHBS-IDU2 participants who had never been tested suggests that substantial barriers to increasing awareness of HIV status remain, especially among those who are most at risk for infection. Continued efforts are needed to reach IDUs with HIV testing, provide results of HIV testing, provide prevention services, and reduce the stigma associated with HIV.

Injection Drug Use

Consistent with the first NHBS-IDU cycle conducted during 2005–2006 (8) and other national surveys of drug use (28,29), the majority of participants in this survey injected heroin, and most injected the drug daily. The percentage of participants who injected heroin daily was higher among younger age groups and among those with lower education levels. Injection behaviors that increase risk for HIV infection were common in this survey; 35% of participants reported receptive sharing of syringes, and 58% reported receptive sharing of other injection equipment (e.g., cookers, cotton, or water). These data are similar to findings from the first NHBS-IDU cycle in which 36% of participants reported sharing syringes, and 62% reported sharing other injection equipment (8).

IDUs who engage in frequent or unsafe injections are at increased risk for acquiring and transmitting HIV and other chronic bloodborne infections, including HBV and HCV (30–33). Using sterile needles and syringes and other injection equipment only once remains the safest, most effective way to limit HIV transmission (34). NHBS findings support the need to strengthen prevention efforts to discourage use of contaminated syringes and other equipment to prepare drugs to prevent transmission of bloodborne viruses among IDUs (16–19). Consistent with other studies of IDUs (35,36), young participants commonly engaged in risky injection behaviors, indicating that more targeted prevention efforts for younger IDUs might be needed. NHBS-IDU2 black participants engaged in less risky injection practices than white IDUs. However, blacks had a higher prevalence of HIV infection; additional research is needed to understand this finding (37,38). Previous studies also have found that those who inject cocaine and speedball are more likely to be infected with HIV and HCV (39–41). In NHBS-IDU2, participants who injected heroin and cocaine (injected separately with the same frequency or together as speedball) commonly engaged in receptive sharing of injection equipment other than syringes, a behavior that has been linked to HCV transmission (19,42). Participants who reported receiving a previous diagnosis of

HCV infection reported receptive sharing of syringes to inject or to divide drugs and receptive sharing of other injection equipment in higher percentages than those who did not report a previous HCV diagnosis. Previous studies have shown that awareness of HCV status might not deter injection risk practices (43–46).

Sexual Behavior

IDUs can be exposed to HIV not only through unsafe injection practices but also from unprotected sex with an HIV-infected person (47–50). NHBS-IDU2 data indicate that a substantial percentage of participants reported unprotected sex with main and casual partners. Some effective behavioral interventions for IDUs include messages on the risk of unprotected sex with all sex partners (51,52). Among male IDUs, unprotected anal sex with a male partner is associated with an increased risk for infection (47,48). In NHBS-IDU2, 10% of men reported any sex with another man, and 5% reported engaging in unprotected anal sex with a male partner; a higher percentage of men with positive HIV test results reported having unprotected anal sex with male partners than did men with negative HIV results. A combination of effective, scalable, and evidence-based approaches for IDUs that address male-to-male sex behaviors might reduce HIV infections among MSM/IDUs (53). In addition, because one in five women reported having unprotected anal sex, these women might benefit from messages about anal sex and risk associated with unprotected anal sex. Furthermore, approximately one third of female participants in NHBS-IDU2 reported having male exchange-sex partners, and of these, most reported having unprotected vaginal or anal sex with male exchange partners. Finally, a higher percentage of women with positive HIV test results engaged in unprotected exchange sex compared with women with negative HIV test results. Others have suggested that HIV prevention efforts among female sex workers must address drug use, including injection drug use, in addition to unsafe sex practices (54).

Alcohol and Noninjection Drug Use

Use of alcohol by IDUs has been associated with increased drug- and sex-related risk behaviors (55–57). Noninjection drug use, particularly crack (58), methamphetamine (59,60), and polydrug (60,61) use, also have been found to increase risk for HIV transmission among IDUs. In this survey, alcohol and noninjection drug use was reported by the majority of participants; noninjected crack was the most commonly reported drug used by participants after marijuana, and many reported using methamphetamine. HIV prevention

interventions for IDUs might benefit from strengthened efforts to reduce risk behaviors related to alcohol and noninjection drug use, in addition to reducing injection-related risks and improving access to and participation in alcohol and drug treatment programs.

STDs and Hepatitis

IDUs are at risk for STDs through risky sexual practices, and STDs can increase the likelihood of acquiring HIV (62). Other studies have found the prevalence of STDs (i.e., chlamydia, gonorrhea, and syphilis) among IDUs to range from approximately 1% to 6% (63–65). In this report, the percentage of participants reporting a diagnosis of any particular STD was 7%, which is lower than what was reported during the previous NHBS-IDU cycle (13%) (8). However, the percentage of STD diagnoses varied considerably by MSA (4%–24%). One fourth of IDUs who reported having an STD diagnosis during the past 12 months reported having received diagnoses for multiple STDs, suggesting concerning levels of high-risk sexual behaviors. Furthermore, the percentage of participants reporting an STD diagnosis was more than twice as high among participants who reported having had sex with exchange partners compared with those who did not. High levels of STD diagnoses among IDUs who engage in exchange sex also have been reported elsewhere (54,66). Screening recommendations for STDs are updated regularly (26). Although no specific STD screening recommendations exist for IDUs (other than for HBV), the CDC STD treatment guidelines recommend that high-intensity behavioral counseling, including assessment of injection drug use and engaging in exchange sex, be provided to all adolescents and adults at increased risk for STDs and HIV (26).

In the United States, surveillance for acute viral hepatitis in 2007 indicated that injection-drug use is the primary risk factor for 48% of persons infected with HCV (67). Engaging in unsafe drug injection practices increases the risk for acquiring and transmitting both HIV and HCV (68). In patients who are infected both with HIV and HCV, the HIV infection accelerates the progression of HCV-related disease (69,70). In this survey, 41% of participants reported a previous HCV diagnosis, which is considerably higher than the 1.6% estimated prevalence of HCV infection in the general U.S. population (71). Approximately one fourth of participants reported that they had neither received a diagnosis of HCV nor been tested for HCV, and half of participants who did not know their HCV status reported never being tested for HCV infection. Furthermore, approximately one third of the participants reported ever receiving at least 1 dose of a vaccine for HAV, HBV, or both. CDC recommends routine HCV

testing for persons who inject or ever injected drugs (72); these recommendations were expanded in 2012 to include one-time HCV testing for adults born during 1945–1965, regardless of their risk for infection (73).

Use of HIV Prevention Services and Programs

HIV Testing

HIV-infected persons must know their HIV infection status to seek and receive treatment, which can lower viral load, improve health outcomes, and reduce the likelihood of HIV transmission. Therefore, CDC recommends that IDUs be tested for HIV infection at least annually (26,27). In 2006, CDC revised its recommendations for HIV testing in health-care settings to promote routine, opt-out screening in all health-care settings to increase HIV screening of patients to detect HIV infection earlier in the course of infection and emphasized the importance of linking persons with previously undiagnosed infection to HIV care and prevention services (27). Although lifetime HIV testing rates among IDUs in this report were high, only approximately half of the participants reported having been tested during the past 12 months. Even more concerning, this number represents a decrease in HIV testing among IDUs when compared with NHBS-IDU1, in which 66% reported HIV testing during the past 12 months (8). To increase the percentage of IDUs who are tested annually, CDC expanded its enhanced HIV testing initiative for disproportionately affected populations, including IDUs, to support strategies that increase the percentage of HIV-infected persons in these populations who are aware of their infection and are linked to appropriate services (74).

Current recommendations include initiating HIV treatment early in the course of the infection, before symptoms develop (27). Prevention in IDUs includes seek, test, treat, and retain strategies (57). More than one third of participants in this survey reported having been arrested during the past 12 months, and jails and prisons were among the most commonly reported facilities where participants received HIV testing. Because of the relatively high rates of incarceration among IDUs noted in this and other analyses (75,76) and the difficulty in reaching this population, prisons play an important role in identifying, testing, and linking HIV-positive IDUs to treatment (77). The National Institutes of Health is supporting large research efforts to prevent and treat HIV/AIDS among persons in criminal justice systems across the United States (78).

Understanding the reasons that persons do not seek testing in both clinical and nonclinical settings is an important component of HIV prevention strategies. The top reasons

reported by NHBS-IDU2 participants for not being tested for HIV during the past 12 months were fear of finding out they had an HIV infection and a perception of being at low risk for HIV infection. Thus, efforts to increase annual HIV testing among IDUs would benefit from strengthening strategies that address fear and stigma associated with HIV testing and that increase awareness of personal risk. Although not reported as the main reason for not testing for HIV in the past 12 months, social and structural barriers (e.g., did not have money or health insurance) were commonly mentioned. Research to understand additional social and structural barriers to HIV testing might further inform efforts to increase annual HIV testing among IDUs. In addition, integrating the provision of HIV testing with the delivery of other prevention and health-care services for IDUs, including substance abuse treatment, syringe services programs, and risk reduction interventions, can increase access to and timeliness of HIV testing and treatment (79).

Prevention Materials

Access to prevention materials such as condoms and sterile injection equipment is an important tool in preventing HIV infection and is consistent with the National HIV/AIDS Strategy. The availability of condoms has been associated with increased condom use (80), and using sterile injection equipment only once remains the safest, most effective way to limit HIV transmission (34). Compared with NHBS-IDU1, a similar percentage of participants in this survey reported receipt of free sterile syringes (44% versus 41%) and free injection equipment (41% versus 38%); receipt of free condoms was lower in the current survey compared with NHBS-IDU1 (51% versus 57%) (8).

Treatment and Behavioral Interventions for Alcohol and Drug Use

Substance abuse treatment programs, including alcohol abuse, opiate dependence, methadone, and buprenorphine/naloxone, have been recognized as a mainstay for HIV prevention among IDUs (57). In addition, substance abuse treatment programs can serve as an entry point to HIV care and treatment and can lead to improved adherence to medical treatment regimens (81,82). However, only one third of participants in this survey reported having been in alcohol or drug treatment programs during the past year, which is similar to that reported in NHBS-IDU1 (36%) (8). Behavioral interventions can reduce risky sexual and drug use behaviors and thus decrease the likelihood of acquiring HIV (52). In this survey, 21% of participants reported participating in individual- or group-level behavioral interventions during the past year. Individual- and group-level behavioral interventions with demonstrated effectiveness can

play an important role in comprehensive HIV prevention strategies (83). To effectively respond to the evolving challenges of the HIV epidemic among IDUs and their sex partners, understanding trends in HIV risk behaviors and in use of HIV prevention programs in this population is essential. NHBS will be able to provide updated data regarding the delivery of the HIV prevention services and programs to the populations who need them most. A high-impact approach for expanded HIV prevention for IDUs is suggested, which includes a combination of cost-effective evidence-based biomedical, behavioral, and structural approaches that are able to increase access to and use of HIV testing, care, and treatment and to prevention services to achieve the greatest possible reductions in HIV incidence and HIV-related disparities. A combination prevention approach for IDUs also includes prevention and treatment of other infectious diseases, including STDs and HBV and HCV infections (84), thus integration of multiple service programs for IDUs might increase the effectiveness of HIV prevention efforts (79).

Limitations

The findings in this report are subject to several limitations. First, the survey design might be subject to selection bias because a single standard for obtaining a representative sample of IDUs in the United States has yet to be established. The RDS method is used to produce estimates for hard-to-reach populations when sampling frames of the individual members of those populations do not exist or are difficult to construct. However, the data in this report are not weighted to account for variations in recruitment pattern, network size, or likelihood of being selected to participate in the survey. Second, the data in this report might not be representative of all IDUs living in an MSA because some drug-injection networks might not have been reached during recruitment. For example, IDUs who are not socially connected to other IDUs might not be included in the sample. Third, findings from the MSAs included in this report might not be generalizable to the states in which they are located or to other cities in the United States. Fourth, findings in this report are subject to limitations of cross-sectional data, thus temporality cannot be established. Fifth, because the survey was administered by an interviewer, certain behaviors might have been underreported or overreported. For example, participants might have underreported socially undesirable behaviors (e.g., sharing syringes) or overreported socially desirable behaviors (e.g., condom use). Sixth, reported STD and HCV diagnoses in this survey are subject to availability and access to STD and hepatitis testing. For example, variations in the percentage of STD diagnoses by MSA might be related to local STD testing policies rather than reflecting true variations in STD rates. Seventh, receipt of hepatitis vaccination, HCV

diagnosis, and HCV testing might have been underreported or overreported depending on the participants' knowledge of the different hepatitis types, social desirability, and accuracy in recall. Furthermore, the survey did not ask about the number of vaccine doses received. Eighth, in some instances, stratification by some variables might have produced numbers that were too small for reliable interpretation. Ninth, because statistical tests were not performed, differences in behaviors between groups should be interpreted with caution. Finally, caution should be used when comparing these numbers with previous NHBS-IDU data (8,9). The percentages reported in this report might have been influenced by differences in the survey instruments (e.g., the definition of casual partner), in the use of weighted (9) versus unweighted data, and the participation of three MSAs in the first (8) but not the second NHBS-IDU cycle.

Conclusion

The White House Office of National AIDS Policy coordinates government efforts to reduce the number of HIV infections in the United States. A national strategy was developed in 2010 to address the domestic HIV epidemic (4). The primary objectives of the National HIV/AIDS Strategy are to reduce the incidence of HIV infection, increase access to care and optimize health outcomes for persons living with HIV infection, and reduce HIV-related health disparities. One important step in achieving the strategy's goal of a 25% reduction in new infections by 2015 is for HIV programs across the federal government and among state and local governments to coordinate intensified HIV prevention efforts in the communities where HIV infection rates are the highest (e.g., specific geographic areas and among populations at high risk for infection, such as IDUs) using a combination of effective evidence-based approaches. In addition, state and local health departments as well as federal agencies are expected to monitor progress toward the strategy's goals. A nationally united effort and strategy will help reduce the effects of HIV in groups at risk, including IDUs.

CDC's high-impact HIV prevention approach (available at <http://www.cdc.gov/hiv/strategy>) is a key approach toward achieving the goals of the national strategy. Consistent with the strategy, effective HIV prevention strategies for IDUs, include HIV testing and linkage to care, prevention and care for HIV-infected IDUs, and policies supporting access to sterile injection equipment. In addition to the National HIV/AIDS Strategy, recent efforts to improve health-care could serve as a structural intervention to prevent HIV infection. Ongoing changes in the U.S. health-care system offer opportunities to improve the use of clinical preventive services by persons who inject drugs.

The Patient Protection and Affordable Care Act of 2010 (as amended by the Healthcare and Education Reconciliation Act of 2010 and referred to collectively as the Affordable Care Act [ACA]) expands insurance coverage, consumer protections, and access to primary care and emphasizes prevention in addition to care and treatment (<http://aids.gov/federal-resources/policies/health-care-reform>). CDC is committed to exploring the integration of these services to further improve the delivery of health services to persons with multiple risks (available at <http://www.cdc.gov/nchhstp/programintegration>) and has prioritized the development of programs that take social determinants of health into consideration to promote health equity (available at <http://www.cdc.gov/socialdeterminants>).

Multiple indicators are relevant to HIV risk and prevention among IDUs of various backgrounds. A better understanding of the behaviors and circumstances associated with HIV transmission can improve the development of appropriate prevention responses. Data from NHBS can be used to monitor specific risk behaviors, HIV testing experiences, and use of prevention programs; identify the demographic and behavioral correlates of risk; and direct future prevention activities to reduce HIV transmission and acquisition. Thus, NHBS is a key component of CDC's comprehensive approach to reducing the spread of HIV in the United States and will continue to be the primary source of data for monitoring behaviors of populations at high risk for HIV infection.

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TABLE 1. Number and percentage of all participants* and participants who did not report a previous positive HIV test result† who tested positive for HIV infection, by selected characteristics — National HIV Behavioral Surveillance System: Injecting Drug Users, 20 U.S. cities, 2009

Characteristic	All participants			Participants who did not report a previous positive HIV test result		
	Total no. tested	HIV infection		Total no. tested	HIV infection	
		No.	(%)		No.	(%)
Sex						
Male	7,298	652	(9)	6,938	292	(4)
Female	2,792	254	(9)	2,643	105	(4)
Race/Ethnicity						
American Indian/Alaska Native	92	6	— [§]	87	—	—
Asian/Native Hawaiian/Other Pacific Islander	40	—	—	39	—	—
Black	4,687	501	(11)	4,400	214	(5)
Hispanic/Latino [¶]	2,173	211	(10)	2,077	115	(6)
White	2,762	164	(6)	2,659	61	(2)
Multiple races	321	22	(7)	305	6	(2)
Age group (yrs)						
18–29	1,010	41	(4)	990	21	(2)
30–39	1,813	154	(8)	1,742	83	(5)
40–49	3,143	343	(11)	2,944	144	(5)
50–59	3,471	328	(9)	3,281	138	(4)
≥60	653	40	(6)	624	11	(2)
Education						
<High school	3,442	356	(10)	3,250	164	(5)
High school diploma or equivalent	3,977	326	(8)	3,795	144	(4)
>High school	2,668	223	(8)	2,533	88	(3)
Household income**						
At or below federal poverty level	8,071	766	(9)	7,647	342	(4)
Above federal poverty level	1,960	136	(7)	1,878	54	(3)
Health insurance						
None	4,848	262	(5)	4,733	147	(3)
Public only	4,656	562	(12)	4,299	205	(5)
Private only	459	62	(14)	433	36	(8)
Other/Multiple	105	19	(18)	94	8	(9)
Visited health-care provider, past 12 months						
Yes	7,262	719	(10)	6,803	260	(4)
No	2,822	187	(7)	2,772	137	(5)
Homeless, past 12 months						
Yes	6,209	505	(8)	5,936	232	(4)
No	3,878	401	(10)	3,642	165	(5)
Arrested, past 12 months						
Yes	3,626	279	(8)	3,462	115	(3)
No	6,461	626	(10)	6,117	282	(5)
Drug injected most frequently, past 12 months						
Heroin	5,901	375	(6)	5,691	165	(3)
Heroin and cocaine ^{††}	2,556	314	(12)	2,390	148	(6)
Cocaine or crack	553	61	(11)	517	25	(5)
Methamphetamine	437	85	(19)	378	26	(7)
Other ^{§§}	622	70	(11)	585	33	(6)
Male-male sex (among males only)						
Never	5,853	407	(7)	5,642	196	(3)
≤12 months before interview	827	183	(22)	714	70	(10)
>12 months before interview	613	62	(10)	577	26	(5)
Alcohol or drug treatment program^{¶¶}						
≤12 months before interview	3,375	292	(9)	3,182	99	(3)
>12 months before interview	4,291	387	(9)	4,069	165	(4)
Never been in a treatment program	2,420	227	(9)	2,326	133	(6)
Previous HIV test result						
Negative	7,807	185	(2)	7,807	185	(2)
Positive	509	509	(100)	NA	NA	NA
Never obtained result	630	84	(13)	630	84	(13)
Never tested	1,070	115	(11)	1,070	115	(11)
Other ^{***}	69	11	(16)	69	11	(16)

TABLE 1. (continued) Number and percentage of all participants* and participants who did not report a previous positive HIV test result† who tested positive for HIV infection, by selected characteristics — National HIV Behavioral Surveillance System: Injecting Drug Users, 20 U.S. cities, 2009

Characteristic	All participants			Participants who did not report a previous positive HIV test result		
	Total no. tested	HIV infection		Total no. tested	HIV infection	
		No.	(%)		No.	(%)
Time since last HIV test†††						
≤3 months	NA	NA	NA	1,802	30	(2)
4–6 months	NA	NA	NA	1,227	21	(2)
7–12 months	NA	NA	NA	1,569	44	(3)
≥13 months	NA	NA	NA	3,466	162	(5)
Never tested	NA	NA	NA	1,070	115	(11)
Other§§§	NA	NA	NA	447	25	(6)
MSA						
Atlanta, Georgia	444	83	(19)	400	39	(10)
Baltimore, Maryland	513	82	(16)	469	38	(8)
Boston, Massachusetts	613	42	(7)	586	15	(3)
Chicago, Illinois	539	33	(6)	521	15	(3)
Dallas, Texas	619	12	(2)	612	—	—
Denver, Colorado	425	20	(5)	410	—	—
Detroit, Michigan	413	11	(3)	408	6	(1)
Houston, Texas	527	38	(7)	505	16	(3)
Los Angeles, California	516	24	(5)	505	13	(3)
Miami, Florida	604	83	(14)	542	21	(4)
New York, New York	516	64	(12)	482	30	(6)
Nassau-Suffolk, New York	197	20	(10)	188	11	(6)
New Orleans, Louisiana	609	34	(6)	593	18	(3)
Newark, New Jersey	416	54	(13)	379	17	(4)
Philadelphia, Pennsylvania	522	46	(9)	504	28	(6)
San Diego, California	611	15	(2)	611	15	(2)
San Francisco, California	525	74	(14)	478	27	(6)
San Juan, Puerto Rico	444	75	(17)	422	53	(13)
Seattle, Washington	497	34	(7)	469	6	(1)
Washington, DC	540	62	(11)	497	19	(4)
Total	10,090	906	(9)	9,581	397	(4)

Abbreviations: HIV = human immunodeficiency virus; MSA = metropolitan statistical area/division; NA = not applicable.

* Sample includes participants with a valid HIV test result who reported a previous positive HIV test result. Numbers might not add to totals because of missing data.

† Sample includes participants with a valid HIV test result who did not report a previous positive HIV test result. Numbers might not add to totals because of missing data.

§ Suppressed because of small sample size (five or fewer participants).

¶ Persons of Hispanic/Latino ethnicity might be of any race or combination of races.

** Poverty level is based on household income and household size.

†† Injected separately with equal frequency or combined as speedball.

§§ Other drugs injected alone or two or more drugs injected with the same frequency.

¶¶ Includes outpatient, residential, detoxification, and methadone treatment programs.

*** Includes those who did not know or refused to disclose their previous test result or reported an indeterminate test result.

††† Only reported for participants who did not report a previous positive HIV test result.

§§§ Includes those who did not know or refused to disclose the date of their previous HIV test result.

TABLE 2. Number and percentage of participants,* by sex and selected characteristics — National HIV Behavioral Surveillance System: Injecting Drug Users, 20 U.S. cities, 2009

Characteristic	Total males		Total females		Total	
	No.	(%)	No.	(%)	No.	(%)
Race/Ethnicity						
American Indian/Alaska Native	56	(1)	32	(1)	88	(1)
Asian/Native Hawaiian/Other Pacific Islander	30	(<1)	9	(<1)	39	(<1)
Black	3,239	(46)	1,197	(45)	4,436	(46)
Hispanic/Latino [†]	1,640	(23)	455	(17)	2,095	(22)
White	1,817	(26)	856	(32)	2,673	(28)
Other	202	(3)	104	(4)	306	(3)
Hispanic ancestry[§]						
Mexican	400	(24)	130	(29)	530	(25)
Puerto Rican	1,065	(65)	233	(51)	1,298	(62)
Cuban	53	(3)	17	(4)	70	(3)
Dominican	18	(1)	9	(2)	27	(1)
Other	79	(5)	50	(11)	129	(6)
Multiple	21	(1)	12	(3)	33	(2)
Age group (yrs)						
18–29	659	(9)	336	(13)	995	(10)
30–39	1,270	(18)	490	(18)	1,760	(18)
40–49	2,024	(29)	937	(35)	2,961	(31)
50–59	2,505	(36)	798	(30)	3,303	(34)
≥60	534	(8)	99	(4)	633	(7)
Education						
<High school	2,319	(33)	959	(36)	3,278	(34)
High school diploma or equivalent	2,872	(41)	953	(36)	3,825	(40)
>High school	1,799	(26)	747	(28)	2,546	(26)
Household income[¶]						
At or below federal poverty level	5,539	(79)	2,170	(82)	7,709	(80)
Above federal poverty level	1,425	(20)	461	(17)	1,886	(20)
Health insurance						
None	3,608	(52)	1,155	(43)	4,763	(49)
Public only	2,959	(42)	1,371	(52)	4,330	(45)
Private only	337	(5)	104	(4)	441	(5)
Other/Multiple	74	(1)	21	(1)	95	(1)
Visited health-care provider, past 12 months						
Yes	4,799	(69)	2,048	(77)	6,847	(71)
No	2,190	(31)	609	(23)	2,799	(29)
Homeless, past 12 months						
Yes	4,456	(64)	1,520	(57)	5,976	(62)
No	2,535	(36)	1,138	(43)	3,673	(38)
Arrested, past 12 months						
Yes	2,681	(38)	799	(30)	3,480	(36)
No	4,309	(62)	1,861	(70)	6,170	(64)
Drug injected most frequently, past 12 months						
Heroin	4,062	(58)	1,663	(63)	5,725	(59)
Heroin and cocaine**	1,802	(26)	614	(23)	2,416	(25)
Cocaine or crack	407	(6)	112	(4)	519	(5)
Methamphetamine	291	(4)	93	(3)	384	(4)
Other ^{††}	414	(6)	174	(7)	588	(6)
Alcohol or drug treatment program^{§§}						
≤12 months before interview	2,291	(33)	911	(34)	3,202	(33)
>12 months before interview	2,938	(42)	1,158	(44)	4,096	(42)
Never been in a treatment program	1,760	(25)	590	(22)	2,350	(24)

TABLE 2. (Continued) Number and percentage of participants,* by sex and selected characteristics — National HIV Behavioral Surveillance System: Injecting Drug Users, 20 U.S. cities, 2009

Characteristic	Total males		Total females		Total	
	No.	(%)	No.	(%)	No.	(%)
MSA						
Atlanta, Georgia	337	(5)	64	(2)	401	(4)
Baltimore, Maryland	341	(5)	130	(5)	471	(5)
Boston, Massachusetts	394	(6)	194	(7)	588	(6)
Chicago, Illinois	374	(5)	153	(6)	527	(5)
Dallas, Texas	423	(6)	197	(7)	620	(6)
Denver, Colorado	283	(4)	130	(5)	413	(4)
Detroit, Michigan	282	(4)	127	(5)	409	(4)
Houston, Texas	407	(6)	100	(4)	507	(5)
Los Angeles, California	372	(5)	134	(5)	506	(5)
Miami, Florida	422	(6)	120	(5)	542	(6)
New York, New York	372	(5)	113	(4)	485	(5)
Nassau-Suffolk, New York	114	(2)	77	(3)	191	(2)
New Orleans, Louisiana	491	(7)	103	(4)	594	(6)
Newark, New Jersey	259	(4)	122	(5)	381	(4)
Philadelphia, Pennsylvania	389	(6)	123	(5)	512	(5)
San Diego, California	431	(6)	181	(7)	612	(6)
San Francisco, California	323	(5)	159	(6)	482	(5)
San Juan, Puerto Rico	363	(5)	73	(3)	436	(5)
Seattle, Washington	300	(4)	174	(7)	474	(5)
Washington, DC	315	(5)	186	(7)	501	(5)
Total	6,992	(72)	2,660	(28)	9,652	(100)

Abbreviations: HIV = human immunodeficiency virus; MSA = metropolitan statistical area/division.

* Sample excludes participants who reported a previous positive HIV test result. Numbers may not add to totals because of missing data. Column percentages may not add to 100 because of rounding.

† Persons of Hispanic/Latino ethnicity might be of any race.

§ Among those who reported Hispanic/Latino race/ethnicity.

¶ Poverty level is based on household income and household size.

** Injected separately with equal frequency or combined as speedball.

†† Other drugs injected alone or two or more drugs injected with the same frequency.

§§ Includes outpatient, residential, detox, and methadone treatment programs.

Surveillance Summaries

TABLE 3. Number and percentage of participants* who reported injection-drug behaviors during the past 12 months, by type of drug,[†] frequency of injection, and selected characteristics — National HIV Behavioral Surveillance System: Injecting Drug Users, 20 U.S. cities, 2009

Characteristic	Heroin		Speedball [§]		Cocaine or crack		Methamphetamine		Other/Multiple		Total
	Injected in past 12 months	Injected daily [¶]	Injected in past 12 months	Injected daily	Injected in past 12 months	Injected daily	Injected in past 12 months	Injected daily	Injected in past 12 months	Injected daily	
	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	
Sex											
Male	6,249 (89)	4,475 (72)	4,161 (60)	1,595 (38)	3,495 (50)	1,005 (29)	963 (14)	163 (17)	953 (14)	85 (9)	6,992
Female	2,436 (92)	1,829 (75)	1,445 (54)	538 (37)	1,190 (45)	336 (28)	327 (12)	47 (14)	348 (13)	43 (12)	2,660
Race/Ethnicity											
American Indian/ Alaska Native	76 (86)	54 (71)	49 (56)	15 (31)	49 (56)	8 (16)	30 (34)	—** —	— —	— —	88
Asian/Native Hawaiian/ Other Pacific Islander	30 (77)	25 (83)	10 (26)	— —	11 (28)	— —	15 (38)	— —	— —	— —	39
Black	4,104 (93)	2,965 (72)	2,697 (61)	1,051 (39)	2,119 (48)	660 (31)	217 (5)	32 (15)	338 (8)	31 (9)	4,436
Hispanic/Latino ^{††}	1,818 (87)	1,424 (78)	1,278 (61)	742 (58)	877 (42)	373 (43)	226 (11)	45 (20)	192 (9)	23 (12)	2,095
White	2,378 (89)	1,650 (69)	1,391 (52)	284 (20)	1,474 (55)	267 (18)	712 (27)	118 (17)	703 (26)	62 (9)	2,673
Other	267 (87)	175 (66)	172 (56)	37 (22)	145 (47)	29 (20)	89 (29)	10 (11)	56 (18)	9 (16)	306
Age group (yrs)											
18–29	904 (91)	700 (77)	567 (57)	204 (36)	561 (56)	150 (27)	194 (19)	36 (19)	273 (27)	23 (8)	995
30–39	1,553 (88)	1,188 (76)	1,092 (62)	475 (43)	941 (53)	327 (35)	303 (17)	47 (16)	323 (18)	41 (13)	1,760
40–49	2,620 (88)	1,881 (72)	1,726 (58)	657 (38)	1,463 (49)	436 (30)	452 (15)	75 (17)	337 (11)	35 (10)	2,961
50–59	3,012 (91)	2,118 (70)	1,885 (57)	684 (36)	1,494 (45)	380 (25)	310 (9)	50 (16)	325 (10)	27 (8)	3,303
≥60	596 (94)	417 (70)	336 (53)	113 (34)	226 (36)	48 (21)	31 (5)	— —	43 (7)	— —	633
Education											
<High school	2,951 (90)	2,225 (75)	2,019 (62)	892 (44)	1,585 (48)	574 (36)	358 (11)	54 (15)	338 (10)	37 (11)	3,278
High school diploma or equivalent	3,456 (90)	2,502 (72)	2,186 (57)	823 (38)	1,863 (49)	521 (28)	529 (14)	96 (18)	507 (13)	51 (10)	3,825
>High school	2,276 (89)	1,576 (69)	1,400 (55)	418 (30)	1,236 (49)	246 (20)	402 (16)	60 (15)	456 (18)	40 (9)	2,546
Household income^{§§}											
At or below federal poverty level	6,942 (90)	5,039 (73)	4,521 (59)	1,803 (40)	3,688 (48)	1,122 (30)	996 (13)	166 (17)	948 (12)	96 (10)	7,709
Above federal poverty level	1,692 (90)	1,226 (72)	1,053 (56)	318 (30)	967 (51)	211 (22)	289 (15)	43 (15)	346 (18)	31 (9)	1,886
Arrested, past 12 months											
Yes	3,158 (91)	2,306 (73)	2,227 (64)	845 (38)	1,974 (57)	611 (31)	540 (16)	83 (15)	632 (18)	50 (8)	3,480
No	5,525 (90)	3,996 (72)	3,378 (55)	1,288 (38)	2,711 (44)	730 (27)	750 (12)	127 (17)	669 (11)	78 (12)	6,170
HIV test result											
Negative	8,296 (90)	6,034 (73)	5,287 (58)	1,977 (37)	4,455 (49)	1,257 (28)	1,227 (13)	194 (16)	1,263 (14)	125 (10)	9,185
Positive	332 (84)	226 (68)	275 (69)	135 (49)	204 (51)	73 (36)	56 (14)	14 (25)	35 (9)	— —	397

TABLE 3. (Continued) Number and percentage of participants* who reported injection-drug behaviors during the past 12 months, by type of drug,[†] frequency of injection, and selected characteristics — National HIV Behavioral Surveillance System: Injecting Drug Users, 20 U.S. cities, 2009

Characteristic	Heroin		Speedball [§]		Cocaine or crack		Methamphetamine		Other/Multiple		Total										
	Injected in past 12 months		Injected in past 12 months		Injected in past 12 months		Injected in past 12 months		Injected in past 12 months												
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)											
MSA																					
Atlanta, Georgia	343	(86)	181	(53)	258	(64)	81	(31)	237	(59)	58	(24)	51	(13)	10	(20)	69	(17)	—	—	401
Baltimore, Maryland	449	(95)	358	(80)	376	(80)	201	(53)	290	(62)	121	(42)	7	(1)	—	—	59	(13)	—	—	471
Boston, Massachusetts	572	(97)	422	(74)	390	(66)	89	(23)	421	(72)	80	(19)	36	(6)	—	—	184	(31)	19	(10)	588
Chicago, Illinois	515	(98)	470	(91)	212	(40)	37	(17)	154	(29)	25	(16)	10	(2)	—	—	29	(6)	—	—	527
Dallas, Texas	584	(94)	428	(73)	464	(75)	223	(48)	330	(53)	98	(30)	43	(7)	—	—	36	(6)	—	—	620
Denver, Colorado	350	(85)	245	(70)	229	(55)	77	(34)	209	(51)	49	(23)	131	(32)	27	(21)	73	(18)	—	—	413
Detroit, Michigan	408	(100)	376	(92)	95	(23)	22	(23)	75	(18)	24	(32)	—	—	—	—	21	(5)	—	—	409
Houston, Texas	370	(73)	137	(37)	267	(53)	64	(24)	354	(70)	96	(27)	97	(19)	11	(11)	66	(13)	10	(15)	507
Los Angeles, California	470	(93)	336	(71)	202	(40)	45	(22)	160	(32)	30	(19)	146	(29)	23	(16)	66	(13)	—	—	506
Miami, Florida	525	(97)	421	(80)	379	(70)	180	(47)	298	(55)	112	(38)	22	(4)	—	—	95	(18)	8	(8)	542
New York, New York	436	(90)	349	(80)	302	(62)	135	(45)	215	(44)	72	(33)	6	(1)	—	—	62	(13)	—	—	485
Nassau-Suffolk, New York	184	(96)	152	(83)	81	(42)	19	(23)	61	(32)	13	(21)	—	—	—	—	23	(12)	—	—	191
New Orleans, Louisiana	475	(80)	222	(47)	327	(55)	93	(28)	431	(73)	116	(27)	79	(13)	15	(19)	133	(22)	14	(11)	594
Newark, New Jersey	362	(95)	300	(83)	246	(65)	150	(61)	161	(42)	75	(47)	—	—	—	—	12	(3)	—	—	381
Philadelphia, Pennsylvania	495	(97)	420	(85)	308	(60)	113	(37)	270	(53)	97	(36)	21	(4)	—	—	46	(9)	11	(24)	512
San Diego, California	498	(81)	302	(61)	277	(45)	74	(27)	190	(31)	39	(21)	259	(42)	66	(25)	56	(9)	7	(13)	612
San Francisco, California	418	(87)	229	(55)	233	(48)	45	(19)	179	(37)	22	(12)	230	(48)	19	(8)	107	(22)	11	(10)	482
San Juan, Puerto Rico	283	(65)	223	(79)	363	(83)	327	(90)	201	(46)	136	(68)	13	(3)	8	(62)	13	(3)	—	—	436
Seattle, Washington	452	(95)	320	(71)	321	(68)	49	(15)	240	(51)	21	(9)	124	(26)	14	(11)	95	(20)	—	—	474
Washington, DC	496	(99)	413	(83)	276	(55)	109	(39)	209	(42)	57	(27)	9	(2)	—	—	56	(11)	7	(13)	501
Total	8,685	(90)	6,304	(73)	5,606	(58)	2,133	(38)	4,685	(49)	1,341	(29)	1,290	(13)	210	(16)	1,301	(13)	128	(10)	9,652

Abbreviations: HIV = human immunodeficiency virus; MSA = metropolitan statistical area/division.

* Sample excludes participants who reported a previous positive HIV test result. Numbers might not add to totals because of missing data.

[†] Participants may report the use of more than one drug because categories are not mutually exclusive.

[§] Heroin and cocaine combined and injected together in the same syringe.

[¶] Among participants who injected that drug in the past 12 months.

** Suppressed because of small sample size (five or fewer participants).

^{††} Persons of Hispanic/Latino ethnicity might be of any race or combination of races.

^{§§} Poverty level is based on household income and household size.

TABLE 4. Number and percentage of participants* who reported risky injection practices during the past 12 months, by selected characteristics — National HIV Behavioral Surveillance System: Injecting Drug Users, 20 U.S. cities, 2009

Characteristic	Receptive sharing of syringes [†]		Receptive sharing of injection equipment [§]		Receptive sharing of syringes or divide drugs [¶]		Any receptive sharing ^{**}		Total
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	
Sex									
Male	2,398	(34)	4,000	(57)	2,374	(34)	4,249	(61)	6,992
Female	1,022	(38)	1,588	(60)	987	(37)	1,696	(64)	2,660
Race/Ethnicity									
American Indian/Alaska Native	34	(39)	49	(56)	28	(32)	56	(64)	88
Asian/Native Hawaiian/ Other Pacific Islander	15	(38)	23	(59)	13	(33)	25	(64)	39
Black	1,255	(28)	2,400	(54)	1,408	(32)	2,544	(57)	4,436
Hispanic/Latino ^{††}	807	(39)	1,241	(59)	812	(39)	1,312	(63)	2,095
White	1,201	(45)	1,700	(64)	1,000	(37)	1,816	(68)	2,673
Other	105	(34)	166	(54)	96	(31)	182	(59)	306
Age group (yrs)									
18–29	521	(52)	706	(71)	421	(42)	745	(75)	995
30–39	741	(42)	1,097	(62)	696	(40)	1,174	(67)	1,760
40–49	1,060	(36)	1,695	(57)	1,034	(35)	1,802	(61)	2,961
50–59	970	(29)	1,803	(55)	1,060	(32)	1,916	(58)	3,303
≥60	128	(20)	287	(45)	150	(31)	308	(49)	633
Education									
<High school	1,264	(39)	1,961	(60)	1,282	(39)	2,088	(64)	3,278
High school diploma or equivalent	1,336	(35)	2,215	(58)	1,306	(34)	2,352	(61)	3,825
>High school	820	(32)	1,411	(55)	773	(30)	1,504	(59)	2,546
Household income^{§§}									
At or below federal poverty level	2,786	(36)	4,487	(58)	2,781	(36)	4,780	(62)	7,709
Above federal poverty level	611	(32)	1,069	(57)	557	(30)	1,129	(60)	1,886
Homeless, past 12 months									
Yes	2,536	(42)	3,806	(64)	2,437	(41)	4,047	(68)	5,976
No	883	(24)	1,780	(48)	923	(25)	1,896	(52)	3,673
Arrested, past 12 months									
Yes	1,461	(42)	2,222	(64)	1,389	(40)	2,364	(68)	3,480
No	1,959	(32)	3,365	(55)	1,971	(32)	3,580	(58)	6,170
Drug injected most frequently, past 12 months									
Heroin	1,930	(34)	3,205	(56)	1,818	(32)	3,399	(59)	5,725
Heroin and cocaine ^{¶¶}	875	(36)	1,510	(63)	972	(40)	1,594	(66)	2,416
Cocaine or crack	203	(39)	302	(58)	191	(37)	330	(64)	519
Methamphetamine	137	(36)	180	(47)	105	(27)	205	(53)	384
Other ^{***}	271	(46)	387	(66)	273	(46)	413	(70)	588
Hepatitis C testing^{†††}									
Yes	2,447	(34)	4,117	(58)	2,424	(34)	4,353	(61)	7,095
No	916	(38)	1,385	(58)	886	(37)	1,492	(63)	2,386
Hepatitis C diagnosis^{§§§}									
Yes	1,518	(39)	2,481	(63)	1,506	(38)	2,603	(66)	3,931
No	1,864	(33)	3,035	(54)	1,814	(32)	3,265	(58)	5,593
Had unprotected^{****} vaginal sex with opposite-sex partner, past 12 months									
Yes	2,775	(41)	4,290	(63)	2,659	(39)	4,554	(67)	6,809
No	635	(23)	1,287	(46)	694	(25)	1,377	(49)	2,817

TABLE 4. (Continued) Number and percentage of participants* who reported risky injection practices during the past 12 months, by selected characteristics — National HIV Behavioral Surveillance System: Injecting Drug Users, 20 U.S. cities, 2009

Characteristic	Receptive sharing of syringes [†]		Receptive sharing of injection equipment [§]		Receptive sharing of syringes to divide drugs [¶]		Any receptive sharing ^{**}		Total
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	
Had unprotected anal sex with opposite-sex partner, past 12 months									
Yes	1,227	(53)	1,657	(72)	1,152	(50)	1,745	(76)	2,307
No	2,182	(30)	3,917	(54)	2,197	(30)	4,183	(57)	7,314
Had more than one opposite-sex partner, past 12 months									
Yes	2,214	(45)	3,255	(65)	2,081	(42)	3,461	(70)	4,971
No	1,199	(26)	2,325	(50)	1,273	(27)	2,474	(53)	4,662
HIV test result									
Negative	3,264	(36)	5,323	(58)	3,195	(35)	5,657	(62)	9,185
Positive	139	(35)	238	(60)	152	(38)	255	(64)	397
MSA									
Atlanta, Georgia	126	(31)	218	(54)	117	(29)	232	(58)	401
Baltimore, Maryland	129	(27)	323	(69)	181	(38)	336	(71)	471
Boston, Massachusetts	417	(71)	474	(81)	339	(58)	498	(85)	588
Chicago, Illinois	126	(24)	267	(51)	110	(21)	281	(53)	527
Dallas, Texas	223	(36)	424	(68)	269	(43)	442	(71)	620
Denver, Colorado	166	(40)	232	(56)	139	(34)	252	(61)	413
Detroit, Michigan	113	(28)	157	(38)	111	(27)	179	(44)	409
Houston, Texas	244	(48)	335	(66)	223	(44)	360	(71)	507
Los Angeles, California	208	(41)	344	(68)	185	(37)	357	(71)	506
Miami, Florida	250	(46)	350	(65)	265	(49)	367	(68)	542
New York, New York	133	(27)	207	(43)	113	(23)	224	(46)	485
Nassau-Suffolk, New York	30	(16)	39	(20)	15	(8)	45	(24)	191
New Orleans, Louisiana	240	(40)	351	(59)	199	(34)	380	(64)	594
Newark, New Jersey	114	(30)	148	(39)	95	(25)	161	(42)	381
Philadelphia, Pennsylvania	148	(29)	297	(58)	158	(31)	312	(61)	512
San Diego, California	292	(48)	401	(66)	271	(44)	426	(70)	612
San Francisco, California	75	(16)	196	(41)	77	(16)	208	(43)	482
San Juan, Puerto Rico	119	(27)	238	(55)	170	(39)	262	(60)	436
Seattle, Washington	151	(32)	300	(63)	139	(29)	317	(67)	474
Washington, DC	116	(23)	287	(57)	185	(37)	306	(61)	501
Total	3,420	(35)	5,588	(58)	3,361	(35)	5,945	(62)	9,652

Abbreviations: HIV = human immunodeficiency virus; MSA = metropolitan statistical area/division.

* Sample excludes participants who reported a previous positive HIV test result. Numbers might not add to totals because of missing data.

[†] Used a needle and syringe that someone else had previously used to inject.

[§] Used cooker (e.g., spoon or bottle cap), cotton (used to filter particles from drug solution), or water (used for rinsing needles or preparing drugs) that had already been used by someone else.

[¶] Divided a drug solution with a syringe that someone else had previously used to inject.

** Used needles and syringes that had already been used by someone else to inject; used cooker, cotton, or water that had already been used by someone else; or divided a drug solution with a syringe that someone else had previously used to inject.

†† Persons of Hispanic/Latino ethnicity might be of any race or combination of races.

§§ Poverty level is based on household income and household size.

¶¶ Injected separately with equal frequency or combined as speedball.

*** Other drugs injected alone or two or more drugs injected with the same frequency.

††† Reported ever being told that they had hepatitis C infection by a health-care provider or ever having a blood test to check for hepatitis C infection.

§§§ Reported ever being told that they had hepatitis C infection by a health-care provider.

**** Neither participant nor the partner used a condom.

TABLE 5. Number and percentage of male participants* who reported sexual behaviors during the past 12 months, by selected characteristics — National HIV Behavioral Surveillance System: Injection Drug Users, 20 U.S. cities, 2009

Characteristic	Male participants with female sex partners					Male participants with male sex partners					Total							
	Any sex with females [†]		Unprotected [§] vaginal sex		Anal sex	Unprotected anal sex		Any sex with males [¶]		Unprotected anal sex								
	No.	(%)	No.	(%)		No.	(%)	No.	(%)	No.		(%)						
Racial/Ethnicity																		
American Indian/Alaska Native	37	(66)	37	(66)	35	(63)	12	(21)	10	(18)	6	(11)	— ^{††}	—	—	—	—	56
Asian/Native Hawaiian/ Other Pacific Islander	25	(83)	22	(73)	18	(60)	13	(43)	12	(40)	—	—	—	—	—	—	—	30
Black	2,790	(86)	2,734	(84)	2,271	(70)	862	(27)	632	(20)	226	(7)	166	(5)	116	(4)	—	3,239
Hispanic/Latino ^{§§}	1,355	(83)	1,340	(82)	1,127	(69)	761	(46)	589	(36)	199	(12)	158	(10)	111	(7)	—	1,640
White	1,493	(82)	1,473	(81)	1,284	(71)	566	(31)	451	(25)	255	(14)	163	(9)	117	(6)	—	1,817
Other	161	(80)	156	(77)	128	(63)	58	(29)	44	(22)	28	(14)	21	(10)	12	(6)	—	202
Age group (yrs)																		
18–29	601	(91)	598	(91)	528	(80)	299	(45)	234	(36)	95	(14)	74	(11)	50	(8)	—	659
30–39	1,129	(89)	1,116	(88)	978	(77)	564	(44)	452	(36)	199	(16)	142	(11)	96	(8)	—	1,270
40–49	1,721	(85)	1,701	(84)	1,444	(71)	719	(36)	566	(28)	231	(11)	163	(8)	120	(6)	—	2,024
50–59	2,015	(80)	1,970	(79)	1,619	(65)	597	(24)	424	(17)	176	(7)	127	(5)	89	(4)	—	2,505
≥60	400	(75)	382	(72)	299	(56)	94	(18)	63	(12)	20	(4)	12	(2)	9	(2)	—	534
Education																		
< High school	1,933	(83)	1,897	(82)	1,586	(68)	810	(35)	637	(27)	232	(10)	174	(8)	123	(5)	—	2,319
High school diploma or equivalent	2,447	(85)	2,404	(84)	2,046	(71)	911	(32)	685	(24)	273	(10)	191	(7)	138	(5)	—	2,872
> High school	1,486	(83)	1,466	(81)	1,236	(69)	552	(31)	417	(23)	215	(12)	152	(8)	103	(6)	—	1,799
Household income^{¶¶}																		
At or below federal poverty level	4,608	(83)	4,528	(82)	3,800	(69)	1,790	(32)	1,374	(25)	573	(10)	413	(7)	287	(5)	—	5,539
Above federal poverty level	1,238	(87)	1,220	(86)	1,051	(74)	477	(33)	360	(25)	146	(10)	103	(7)	75	(5)	—	1,425
Arrested, past 12 months																		
Yes	2,329	(87)	2,302	(86)	1,998	(75)	1,001	(37)	775	(29)	341	(13)	240	(9)	157	(6)	—	2,681
No	3,537	(82)	3,465	(80)	2,870	(67)	1,272	(30)	964	(22)	380	(9)	278	(6)	207	(5)	—	4,309
Drug injected most frequently, past 12 months																		
Heroin	3,357	(83)	3,303	(81)	2,745	(68)	1,136	(28)	855	(21)	307	(8)	213	(5)	140	(3)	—	4,062
Heroin and cocaine ^{***}	1,552	(86)	1,529	(85)	1,310	(73)	690	(38)	527	(29)	179	(10)	131	(7)	91	(5)	—	1,802
Cocaine or crack	360	(88)	351	(86)	297	(73)	154	(38)	124	(30)	70	(17)	58	(14)	42	(10)	—	407
Methamphetamine	219	(75)	213	(73)	186	(64)	102	(35)	77	(26)	84	(29)	61	(21)	51	(18)	—	291
Other ^{†††}	365	(88)	358	(86)	318	(77)	181	(44)	147	(36)	79	(19)	54	(13)	39	(9)	—	414
HIV test result																		
Negative	5,612	(84)	5,518	(83)	4,684	(70)	2,170	(33)	1,667	(25)	644	(10)	454	(7)	314	(5)	—	6,646
Positive	217	(74)	212	(73)	162	(55)	93	(32)	62	(21)	70	(24)	59	(20)	46	(16)	—	292

TABLE 5. (Continued) Number and percentage of male participants* who reported sexual behaviors during the past 12 months, by selected characteristics — National HIV Behavioral Surveillance System: Injecting Drug Users, 20 U.S. cities, 2009

Characteristic	Male participants with female sex partners					Male participants with male sex partners					Total						
	Any sex with females [†]		Unprotected [§] vaginal sex		Anal sex	Any sex with males [¶]		Anal sex ^{**}		Unprotected anal sex							
	No.	(%)	No.	(%)		No.	(%)	No.	(%)								
MSA																	
Atlanta, Georgia	297	(88)	290	(86)	238	(71)	88	(26)	57	(17)	48	(14)	37	(11)	31	(9)	337
Baltimore, Maryland	288	(84)	283	(83)	237	(70)	82	(24)	62	(18)	6	(2)	—	—	—	—	341
Boston, Massachusetts	364	(92)	363	(92)	342	(87)	217	(55)	194	(49)	88	(22)	66	(17)	42	(11)	394
Chicago, Illinois	321	(86)	319	(85)	237	(63)	113	(30)	78	(21)	30	(8)	18	(5)	11	(3)	374
Dallas, Texas	363	(86)	357	(84)	315	(74)	71	(17)	53	(13)	—	—	—	—	—	—	423
Denver, Colorado	217	(77)	214	(76)	194	(69)	40	(14)	34	(12)	12	(4)	8	(3)	—	—	283
Detroit, Michigan	243	(86)	234	(83)	196	(70)	63	(22)	45	(16)	—	—	—	—	—	—	282
Houston, Texas	382	(94)	378	(93)	335	(82)	200	(49)	155	(38)	88	(22)	67	(16)	49	(12)	407
Los Angeles, California	302	(81)	296	(80)	254	(68)	116	(31)	81	(22)	41	(11)	34	(9)	27	(7)	372
Miami, Florida	357	(85)	348	(82)	288	(68)	179	(42)	145	(34)	89	(21)	68	(16)	44	(10)	422
New York, New York	309	(83)	305	(82)	249	(67)	185	(50)	136	(37)	23	(6)	19	(5)	11	(3)	372
Nassau-Suffolk, New York	96	(84)	92	(81)	66	(58)	20	(18)	12	(11)	—	—	—	—	—	—	114
New Orleans, Louisiana	434	(88)	430	(88)	383	(78)	176	(36)	137	(28)	61	(12)	44	(9)	31	(6)	491
Newark, New Jersey	227	(88)	223	(86)	176	(68)	67	(26)	48	(19)	10	(4)	6	(2)	—	—	259
Philadelphia, Pennsylvania	316	(81)	310	(80)	251	(65)	70	(18)	55	(14)	10	(3)	7	(2)	7	(2)	389
San Diego, California	375	(87)	371	(86)	322	(75)	181	(42)	136	(32)	26	(6)	20	(5)	15	(3)	431
San Francisco, California	237	(73)	226	(70)	190	(59)	91	(28)	67	(21)	85	(26)	48	(15)	35	(11)	323
San Juan, Puerto Rico	276	(76)	274	(75)	231	(64)	183	(50)	148	(41)	45	(12)	37	(10)	27	(7)	363
Seattle, Washington	212	(71)	207	(69)	174	(58)	65	(22)	48	(16)	38	(13)	22	(7)	17	(6)	300
Washington, DC	250	(79)	247	(78)	190	(60)	66	(21)	48	(15)	11	(3)	7	(2)	—	—	315
Total	5,866	(84)	5,767	(82)	4,868	(70)	2,273	(33)	1,739	(25)	721	(10)	518	(7)	364	(5)	6,992

Abbreviations: HIV = human immunodeficiency virus; MSA = metropolitan statistical area/division.

* Sample excludes participants who reported a previous positive HIV test result. Numbers might not add to totals because of missing data.

[†] Might include oral, vaginal, or anal sex.

[§] Neither participant nor the partner used a condom.

[¶] Might include oral or anal sex.

** Includes both insertive and receptive anal sex.

^{††} Suppressed because of small sample size (five or fewer participants).

^{§§} Persons of Hispanic/Latino ethnicity might be of any race or combination of races.

^{¶¶} Poverty level is based on household income and household size.

*** Injected separately with equal frequency or combined as speedball.

^{†††} Other drugs injected alone or two or more drugs injected with the same frequency.

TABLE 6. Number and percentage of female participants* who reported sexual behaviors with male partners during past the 12 months, by selected characteristics — National HIV Behavioral Surveillance System: Injecting Drug Users, 20 U.S. cities, 2009

Characteristic	Female participants with male sex partners										Total
	Any sex with males [†]		Vaginal sex		Unprotected [§] vaginal sex		Anal sex		Unprotected anal sex		
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	
Race/Ethnicity											
American Indian/Alaska Native	24	(75)	23	(72)	19	(59)	7	(22)	— [¶]	—	32
Asian/Native Hawaiian/ Other Pacific Islander	8	(89)	8	(89)	6	(67)	—	—	—	—	9
Black	944	(79)	931	(78)	820	(69)	231	(19)	186	(16)	1,197
Hispanic/Latino**	387	(85)	385	(85)	331	(73)	146	(32)	119	(26)	455
White	756	(88)	743	(87)	685	(80)	283	(33)	234	(27)	856
Other	91	(88)	91	(88)	75	(72)	27	(26)	21	(20)	104
Age group (yrs)											
18–29	319	(95)	318	(95)	300	(89)	139	(41)	118	(35)	336
30–39	461	(94)	456	(93)	424	(87)	190	(39)	160	(33)	490
40–49	796	(85)	781	(83)	674	(72)	238	(25)	188	(20)	937
50–59	583	(73)	576	(72)	494	(62)	123	(15)	94	(12)	798
≥60	56	(57)	55	(56)	49	(49)	10	(10)	8	(8)	99
Education											
<High school	812	(85)	802	(84)	720	(75)	264	(28)	213	(22)	959
High school diploma or equivalent	780	(82)	766	(80)	677	(71)	236	(25)	192	(20)	953
>High school	623	(83)	618	(83)	544	(73)	200	(27)	163	(22)	747
Household income^{††}											
At or below federal poverty level	1,795	(83)	1,774	(82)	1,576	(73)	573	(26)	459	(21)	2,170
Above federal poverty level	396	(86)	389	(84)	345	(75)	121	(26)	103	(22)	461
Arrested, past 12 months											
Yes	709	(89)	702	(88)	632	(79)	250	(31)	208	(26)	799
No	1,506	(81)	1,484	(80)	1,309	(70)	450	(24)	360	(19)	1,861
Drug injected most frequently, past 12 months											
Heroin	1,367	(82)	1,346	(81)	1,167	(70)	397	(24)	321	(19)	1,663
Heroin and cocaine ^{§§}	506	(82)	500	(81)	457	(74)	164	(27)	131	(21)	614
Cocaine or crack	98	(88)	97	(87)	87	(78)	36	(32)	31	(28)	112
Methamphetamine	86	(92)	86	(92)	81	(87)	32	(34)	26	(28)	93
Other ^{¶¶}	156	(90)	155	(89)	147	(84)	70	(40)	59	(34)	174
HIV test result											
Negative	2,120	(83)	2,092	(82)	1,861	(73)	672	(26)	550	(22)	2,539
Positive	82	(78)	81	(77)	69	(66)	26	(25)	16	(15)	105

TABLE 6. (Continued) Number and percentage of female participants* who reported sexual behaviors with male partners during past the 12 months, by selected characteristics — National HIV Behavioral Surveillance System: Injecting Drug Users, 20 U.S. cities, 2009

Characteristic	Female participants with male sex partners										Total
	Any sex with males [†]		Vaginal sex		Unprotected [§] vaginal sex		Anal sex		Unprotected anal sex		
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	
MSA											
Atlanta, Georgia	59	(92)	59	(92)	51	(80)	17	(27)	17	(27)	64
Baltimore, Maryland	109	(84)	109	(84)	99	(76)	38	(29)	34	(26)	130
Boston, Massachusetts	175	(90)	173	(89)	167	(86)	108	(56)	96	(49)	194
Chicago, Illinois	134	(88)	132	(86)	105	(69)	38	(25)	27	(18)	153
Dallas, Texas	156	(79)	153	(78)	140	(71)	24	(12)	22	(11)	197
Denver, Colorado	95	(73)	95	(73)	87	(67)	26	(20)	21	(16)	130
Detroit, Michigan	102	(80)	99	(78)	89	(70)	23	(18)	17	(13)	127
Houston, Texas	93	(93)	92	(92)	84	(84)	32	(32)	25	(25)	100
Los Angeles, California	105	(78)	105	(78)	97	(72)	34	(25)	29	(22)	134
Miami, Florida	108	(90)	107	(89)	94	(78)	39	(33)	32	(27)	120
New York, New York	93	(82)	91	(81)	79	(70)	40	(35)	32	(28)	113
Nassau-Suffolk, New York	63	(82)	63	(82)	53	(69)	23	(30)	15	(19)	77
New Orleans, Louisiana	97	(94)	96	(93)	89	(86)	28	(27)	22	(21)	103
Newark, New Jersey	100	(82)	100	(82)	80	(66)	23	(19)	19	(16)	122
Philadelphia, Pennsylvania	109	(89)	108	(88)	97	(79)	29	(24)	19	(15)	123
San Diego, California	157	(87)	156	(86)	138	(76)	50	(28)	43	(24)	181
San Francisco, California	122	(77)	120	(75)	105	(66)	35	(22)	25	(16)	159
San Juan, Puerto Rico	64	(88)	64	(88)	56	(77)	26	(36)	21	(29)	73
Seattle, Washington	130	(75)	124	(71)	111	(64)	28	(16)	20	(11)	174
Washington, DC	144	(77)	140	(75)	120	(65)	39	(21)	32	(17)	186
Total	2,215	(83)	2,186	(82)	1,941	(73)	700	(26)	568	(21)	2,660

Abbreviations: HIV = human immunodeficiency virus; MSA = metropolitan statistical area/division.

* Sample excludes participants who reported a previous positive HIV test result. Numbers might not add to totals because of missing data.

[†] Might include oral, vaginal, or anal sex.

[§] Neither the participant nor the partner used a condom.

[¶] Suppressed because of small sample size (five or fewer participants).

** Persons of Hispanic/Latino ethnicity might be of any race or combination of races.

†† Poverty level is based on household income and household size.

^{§§} Injected separately with equal frequency or combined as speedball.

^{¶¶} Other drugs injected alone or two or more drugs injected with the same frequency.

TABLE 7. Number and percentage of male participants* who reported sexual behaviors with female partners during the past 12 months, by partner type and selected characteristics — National HIV Behavioral Surveillance System: Injecting Drug Users, 20 U.S. cities, 2009

Characteristic	Female main partner				Female casual partner				Female exchange partner†				Total
	Vaginal or anal sex		Unprotected§ vaginal or anal sex		Vaginal or anal sex		Unprotected vaginal or anal sex		Vaginal or anal sex		Unprotected vaginal or anal sex		
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	
Race/Ethnicity													
American Indian/Alaska Native	22	(39)	21	(38)	21	(38)	20	(36)	8	(14)	—¶	—	56
Asian/Native Hawaiian/ Other Pacific Islander	15	(50)	13	(43)	14	(47)	11	(37)	7	(23)	6	(20)	30
Black	1,906	(59)	1,611	(50)	1,357	(42)	963	(30)	718	(22)	494	(15)	3,239
Hispanic/Latino**	866	(53)	749	(46)	699	(43)	552	(34)	262	(16)	187	(11)	1,640
White	936	(52)	843	(46)	884	(49)	689	(38)	252	(14)	182	(10)	1,817
Other	105	(52)	91	(45)	89	(44)	70	(35)	37	(18)	23	(11)	202
Age group (yrs)													
18–29	436	(66)	393	(60)	399	(61)	319	(48)	100	(15)	73	(11)	659
30–39	767	(60)	694	(55)	597	(47)	474	(37)	215	(17)	152	(12)	1,270
40–49	1,092	(54)	946	(47)	926	(46)	705	(35)	442	(22)	316	(16)	2,024
50–59	1,295	(52)	1,091	(44)	979	(39)	694	(28)	466	(19)	317	(13)	2,505
≥60	264	(49)	208	(39)	165	(31)	114	(21)	62	(12)	40	(7)	534
Education													
<High school	1,211	(52)	1,052	(45)	984	(42)	760	(33)	492	(21)	351	(15)	2,319
High school diploma or equivalent	1,638	(57)	1,404	(49)	1,244	(43)	941	(33)	492	(17)	345	(12)	2,872
>High school	1,005	(56)	876	(49)	838	(47)	605	(34)	301	(17)	202	(11)	1,799
Household income††													
At or below federal poverty level	2,909	(53)	2,511	(45)	2,429	(44)	1,850	(33)	1,069	(19)	759	(14)	5,539
Above federal poverty level	934	(66)	811	(57)	625	(44)	445	(31)	216	(15)	139	(10)	1,425
Arrested, past 12 months													
Yes	1,560	(58)	1,393	(52)	1,281	(48)	980	(37)	566	(21)	405	(15)	2,681
No	2,294	(53)	1,939	(45)	1,785	(41)	1,326	(31)	719	(17)	493	(11)	4,309
Drug injected most frequently, past 12 months													
Heroin	2,296	(57)	1,959	(48)	1,664	(41)	1,218	(30)	600	(15)	417	(10)	4,062
Heroin and cocaine§§	1,011	(56)	885	(49)	820	(46)	627	(35)	374	(21)	260	(14)	1,802
Cocaine or crack	191	(47)	166	(41)	220	(54)	167	(41)	145	(36)	104	(26)	407
Methamphetamine	124	(43)	110	(38)	133	(46)	106	(36)	52	(18)	37	(13)	291
Other¶¶	221	(53)	202	(49)	219	(53)	180	(43)	110	(27)	76	(18)	414
HIV test result													
Negative	3,700	(56)	3,218	(48)	2,942	(44)	2,224	(33)	1,211	(18)	852	(13)	6,646
Positive	133	(46)	98	(34)	96	(33)	68	(23)	71	(24)	43	(15)	292

TABLE 7. (Continued) Number and percentage of male participants* who reported sexual behaviors with female partners during the past 12 months, by partner type and selected characteristics — National HIV Behavioral Surveillance System: Injecting Drug Users, 20 U.S. cities, 2009

Characteristic	Female main partner				Female casual partner				Female exchange partner [†]				Total
	Vaginal or anal sex		Unprotected [§] vaginal or anal sex		Vaginal or anal sex		Unprotected vaginal or anal sex		Vaginal or anal sex		Unprotected vaginal or anal sex		
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	
MSA													
Atlanta, Georgia	158	(47)	128	(38)	152	(45)	113	(34)	141	(42)	94	(28)	337
Baltimore, Maryland	219	(64)	186	(55)	123	(36)	82	(24)	44	(13)	20	(6)	341
Boston, Massachusetts	217	(55)	210	(53)	248	(63)	229	(58)	106	(27)	92	(23)	394
Chicago, Illinois	245	(66)	190	(51)	159	(43)	85	(23)	38	(10)	20	(5)	374
Dallas, Texas	290	(69)	263	(62)	143	(34)	101	(24)	39	(9)	24	(6)	423
Denver, Colorado	145	(51)	140	(49)	102	(36)	71	(25)	12	(4)	6	(2)	283
Detroit, Michigan	184	(65)	148	(52)	105	(37)	75	(27)	46	(16)	37	(13)	282
Houston, Texas	210	(52)	184	(45)	266	(65)	211	(52)	177	(43)	143	(35)	407
Los Angeles, California	198	(53)	175	(47)	170	(46)	139	(37)	54	(15)	41	(11)	372
Miami, Florida	203	(48)	185	(44)	162	(38)	124	(29)	112	(27)	69	(16)	422
New York, New York	232	(62)	194	(52)	147	(40)	98	(26)	34	(9)	25	(7)	372
Nassau-Suffolk, New York	71	(62)	53	(46)	49	(43)	30	(26)	—	—	—	—	114
New Orleans, Louisiana	256	(52)	238	(48)	273	(56)	225	(46)	147	(30)	103	(21)	491
Newark, New Jersey	154	(59)	119	(46)	107	(41)	74	(29)	34	(13)	26	(10)	259
Philadelphia, Pennsylvania	229	(59)	185	(48)	140	(36)	100	(26)	54	(14)	35	(9)	389
San Diego, California	230	(53)	204	(47)	242	(56)	199	(46)	46	(11)	36	(8)	431
San Francisco, California	152	(47)	134	(41)	110	(34)	81	(25)	60	(19)	36	(11)	323
San Juan, Puerto Rico	136	(37)	119	(33)	162	(45)	136	(37)	70	(19)	50	(14)	363
Seattle, Washington	138	(46)	121	(40)	109	(36)	80	(27)	25	(8)	18	(6)	300
Washington, DC	187	(59)	156	(50)	97	(31)	53	(17)	44	(14)	22	(7)	315
Total	3,854	(55)	3,332	(48)	3,066	(44)	2,306	(33)	1,285	(18)	898	(13)	6,992

Abbreviations: HIV = human immunodeficiency virus; MSA = metropolitan statistical area/division.

* Sample excludes participants who reported a previous positive HIV test result. Numbers might not add to totals because of missing data.

[†] Exchange sex is defined as having sex with someone in exchange for things like money or drugs. Includes partners who gave money or drugs to the participant in exchange for sex, and partners who the participant gave things to in exchange for sex.

[§] Neither the participant nor the partner used a condom.

[¶] Suppressed because of small sample size (five or fewer participants).

** Persons of Hispanic/Latino ethnicity might be of any race or combination of races.

^{††} Poverty level is based on household income and household size.

^{§§} Injected separately with equal frequency or combined as speedball.

^{¶¶} Other drugs injected alone or two or more drugs injected with the same frequency.

TABLE 8. Number and percentage of female participants* who reported sexual behaviors with male partners during the past 12 months, by partner type and selected characteristics — National HIV Behavioral Surveillance System: Injecting Drug Users, 20 U.S. cities, 2009

Characteristic	Male main partner				Male casual partner				Male exchange [†] partner				Total
	Vaginal or anal sex		Unprotected [§] vaginal or anal sex		Vaginal or anal sex		Unprotected vaginal or anal sex		Vaginal or anal sex		Unprotected vaginal or anal sex		
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	
Race/Ethnicity													
American Indian/Alaska Native	19	(59)	16	(50)	7	(22)	— [¶]	—	8	(25)	—	—	32
Asian/Native Hawaiian/ Other Pacific Islander	8	(89)	6	(67)	—	—	—	—	—	—	—	—	9
Black	720	(60)	624	(52)	299	(25)	212	(18)	348	(29)	247	(21)	1,197
Hispanic/Latino**	276	(61)	253	(56)	100	(22)	67	(15)	167	(37)	110	(24)	455
White	609	(71)	566	(66)	247	(29)	192	(22)	276	(32)	185	(22)	856
Other	65	(63)	56	(54)	35	(34)	21	(20)	31	(30)	17	(16)	104
Age group (yrs)													
18–29	266	(79)	251	(75)	123	(37)	93	(28)	125	(37)	87	(26)	336
30–39	374	(76)	354	(72)	140	(29)	97	(20)	200	(41)	126	(26)	490
40–49	590	(63)	506	(54)	246	(26)	183	(20)	313	(33)	203	(22)	937
50–59	432	(54)	379	(47)	162	(20)	108	(14)	185	(23)	140	(18)	798
≥60	40	(40)	36	(36)	18	(18)	15	(15)	12	(12)	9	(9)	99
Education													
<High school	597	(62)	540	(56)	249	(26)	184	(19)	337	(35)	241	(25)	959
High school diploma or equivalent	610	(64)	542	(57)	232	(24)	164	(17)	295	(31)	201	(21)	953
>High school	495	(66)	444	(59)	208	(28)	148	(20)	203	(27)	123	(16)	747
Household income^{††}													
At or below federal poverty level	1,346	(62)	1,206	(56)	561	(26)	414	(19)	700	(32)	482	(22)	2,170
Above federal poverty level	337	(73)	301	(65)	122	(26)	79	(17)	130	(28)	79	(17)	461
Arrested, past 12 months													
Yes	550	(69)	504	(63)	257	(32)	176	(22)	339	(42)	221	(28)	799
No	1,152	(62)	1,022	(55)	432	(23)	320	(17)	496	(27)	344	(18)	1,861
Drug injected most frequently, past 12 months													
Heroin	1,064	(64)	938	(56)	405	(24)	279	(17)	483	(29)	310	(19)	1,663
Heroin and cocaine ^{§§}	376	(61)	344	(56)	151	(25)	105	(17)	210	(34)	154	(25)	614
Cocaine or crack	74	(66)	65	(58)	38	(34)	30	(27)	49	(44)	37	(33)	112
Methamphetamine	65	(70)	62	(67)	38	(41)	33	(35)	21	(23)	15	(16)	93
Other ^{¶¶}	123	(71)	117	(67)	57	(33)	49	(28)	70	(40)	47	(27)	174
HIV test result													
Negative	1,643	(65)	1,479	(58)	670	(26)	482	(19)	786	(31)	532	(21)	2,539
Positive	50	(48)	40	(38)	14	(13)	10	(10)	45	(43)	31	(30)	105

TABLE 8. (Continued) Number and percentage of female participants* who reported sexual behaviors with male partners during the past 12 months, by partner type and selected characteristics — National HIV Behavioral Surveillance System: Injecting Drug Users, 20 U.S. cities, 2009

Characteristic	Male main partner				Male casual partner				Male exchange [†] partner				Total
	Vaginal or anal sex		Unprotected [§] vaginal or anal sex		Vaginal or anal sex		Unprotected vaginal or anal sex		Vaginal or anal sex		Unprotected vaginal or anal sex		
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	
MSA													
Atlanta, Georgia	41	(64)	36	(56)	15	(23)	8	(13)	34	(53)	22	(34)	64
Baltimore, Maryland	90	(69)	82	(63)	35	(27)	21	(16)	46	(35)	31	(24)	130
Boston, Massachusetts	133	(69)	131	(68)	69	(36)	62	(32)	97	(50)	71	(37)	194
Chicago, Illinois	109	(71)	86	(56)	42	(27)	21	(14)	48	(31)	30	(20)	153
Dallas, Texas	132	(67)	122	(62)	44	(22)	34	(17)	35	(18)	23	(12)	197
Denver, Colorado	80	(62)	75	(58)	22	(17)	15	(12)	24	(18)	15	(12)	130
Detroit, Michigan	75	(59)	60	(47)	30	(24)	26	(20)	38	(30)	33	(26)	127
Houston, Texas	64	(64)	56	(56)	44	(44)	37	(37)	56	(56)	45	(45)	100
Los Angeles, California	79	(59)	74	(55)	43	(32)	33	(25)	38	(28)	26	(19)	134
Miami, Florida	79	(66)	75	(63)	35	(29)	22	(18)	67	(56)	38	(32)	120
New York, New York	78	(69)	70	(62)	16	(14)	9	(8)	19	(17)	10	(9)	113
Nassau-Suffolk, New York	50	(65)	40	(52)	22	(29)	17	(22)	14	(18)	12	(16)	77
New Orleans, Louisiana	73	(71)	67	(65)	45	(44)	33	(32)	35	(34)	23	(22)	103
Newark, New Jersey	87	(71)	70	(57)	18	(15)	9	(7)	28	(23)	17	(14)	122
Philadelphia, Pennsylvania	79	(64)	68	(55)	25	(20)	21	(17)	48	(39)	38	(31)	123
San Diego, California	108	(60)	98	(54)	70	(39)	55	(30)	38	(21)	28	(15)	181
San Francisco, California	98	(62)	90	(57)	39	(25)	21	(13)	39	(25)	22	(14)	159
San Juan, Puerto Rico	33	(45)	32	(44)	11	(15)	6	—	38	(52)	27	(37)	73
Seattle, Washington	99	(57)	94	(54)	31	(18)	25	(14)	49	(28)	24	(14)	174
Washington, DC	115	(62)	100	(54)	33	(18)	21	(11)	44	(24)	30	(16)	186
Total	1,702	(64)	1,526	(57)	689	(26)	496	(19)	835	(31)	565	(21)	2,660

Abbreviations: HIV = human immunodeficiency virus; MSA = metropolitan statistical area/division.

* Sample excludes participants who reported a previous positive HIV test result. Numbers might not add to totals because of missing data.

[†] Exchange sex is defined as having sex with someone in exchange for things like money or drugs. Includes partners who gave money or drugs to the participant in exchange for sex and partners to whom the participant gave things in exchange for sex.

[§] Neither the participant nor the partner used a condom.

[¶] Suppressed because of small sample size (five or fewer participants).

** Persons of Hispanic/Latino ethnicity might be of any race or combination of races.

†† Poverty level is based on household income and household size.

§§ Injected separately with equal frequency or combined as speedball.

¶¶ Other drugs injected alone or two or more drugs injected with the same frequency.

TABLE 9. Number and percentage of participants* who reported current, heavy, or binge drinking during the past 30 days and noninjection drug use during the past 12 months, by selected characteristics — National HIV Behavioral Surveillance System: Injecting Drug Users, United States, 2009

Characteristic	Alcohol use, past 30 days						Noninjection drug use, past 12 months										Total							
	Current [†]		Heavy [§]		Binge [¶]		Marijuana		Crack		Cocaine		Heroin		Methamphetamine			Downers**		Pain-killers ^{††}		Any ^{§§}		
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)		No.	(%)	No.	(%)	No.	(%)	
Race/Ethnicity																								
American Indian/Alaska Native	63	(72)	24	(27)	36	(41)	50	(57)	56	(64)	36	(41)	28	(32)	31	(35)	37	(42)	36	(41)	74	(84)	88	
Asian/Native Hawaiian/ Other Pacific Islander	22	(56)	7	(18)	12	(31)	24	(62)	11	(28)	13	(33)	12	(31)	14	(36)	20	(51)	14	(36)	34	(87)	39	
Black	3,242	(73)	1,413	(32)	1,911	(43)	1,898	(43)	2,215	(50)	1,613	(36)	1,733	(39)	243	(5)	1,230	(28)	1,263	(28)	3,164	(71)	4,436	
Hispanic/Latino ^{¶¶}	1,216	(58)	496	(24)	806	(38)	916	(44)	774	(37)	636	(30)	576	(27)	260	(12)	679	(32)	536	(26)	1,393	(66)	2,095	
White	1,633	(61)	658	(25)	1,055	(39)	1,525	(57)	1,433	(54)	1,150	(43)	934	(35)	668	(25)	1,443	(54)	1,282	(48)	2,246	(84)	2,673	
Other	197	(64)	89	(29)	121	(40)	172	(56)	167	(55)	117	(38)	101	(33)	82	(27)	126	(41)	123	(40)	252	(82)	306	
Age group (yrs)																								
18–29	620	(62)	224	(23)	418	(42)	644	(65)	476	(48)	456	(46)	367	(37)	209	(21)	536	(54)	441	(44)	825	(83)	995	
30–39	1,048	(60)	432	(25)	688	(39)	936	(53)	859	(49)	695	(39)	597	(34)	302	(17)	745	(42)	625	(36)	1,357	(77)	1,760	
40–49	2,041	(69)	942	(32)	1,309	(44)	1,372	(46)	1,541	(52)	1,126	(38)	1,114	(38)	448	(15)	1,066	(36)	1,010	(34)	2,233	(75)	2,961	
50–59	2,260	(68)	939	(28)	1,318	(40)	1,391	(42)	1,543	(47)	1,117	(34)	1,113	(34)	303	(9)	1,049	(32)	1,024	(31)	2,350	(71)	3,303	
≥60	413	(65)	153	(24)	211	(33)	250	(39)	241	(38)	176	(28)	197	(31)	36	(6)	144	(23)	159	(25)	408	(64)	633	
Education																								
<High school	2,112	(64)	999	(30)	1,408	(43)	1,452	(44)	1,525	(47)	1,113	(34)	1,088	(33)	366	(11)	1,099	(34)	960	(29)	2,322	(71)	3,278	
High school diploma or equivalent	2,567	(67)	1,049	(27)	1,561	(41)	1,846	(48)	1,879	(49)	1,416	(37)	1,328	(35)	518	(14)	1,432	(37)	1,283	(34)	2,856	(75)	3,825	
>High school	1,703	(67)	642	(25)	975	(38)	1,294	(51)	1,256	(49)	1,041	(41)	972	(38)	414	(16)	1,009	(40)	1,016	(40)	1,994	(78)	2,546	
Household income***																								
At or below federal poverty level	5,076	(66)	2,225	(29)	3,177	(41)	3,600	(47)	3,725	(48)	2,775	(36)	2,673	(35)	992	(13)	2,735	(35)	2,495	(32)	5,655	(73)	7,709	
Above federal poverty level	1,271	(67)	451	(24)	753	(40)	970	(51)	906	(48)	775	(41)	699	(37)	300	(16)	786	(42)	744	(39)	1,480	(78)	1,886	
Homeless, past 12 months																								
Yes	4,091	(68)	1,884	(32)	2,693	(45)	3,058	(51)	3,217	(54)	2,461	(41)	2,222	(37)	966	(16)	2,403	(40)	2,243	(38)	4,640	(78)	5,976	
No	2,290	(62)	806	(22)	1,250	(34)	1,534	(42)	1,442	(39)	1,108	(30)	1,165	(32)	332	(9)	1,136	(31)	1,015	(28)	2,532	(69)	3,673	
Arrested, past 12 months																								
Yes	2,445	(70)	1,091	(31)	1,587	(46)	1,861	(53)	1,951	(56)	1,546	(44)	1,407	(40)	577	(17)	1,489	(43)	1,383	(40)	2,802	(81)	3,480	
No	3,936	(64)	1,599	(26)	2,357	(38)	2,731	(44)	2,709	(44)	2,024	(33)	1,981	(32)	721	(12)	2,051	(33)	1,876	(30)	4,370	(71)	6,170	
Drug injected most frequently, past 12 months																								
Heroin	3,622	(63)	1,403	(25)	2,104	(37)	2,503	(44)	2,593	(45)	1,797	(31)	2,010	(35)	561	(10)	2,065	(36)	1,821	(32)	4,118	(72)	5,725	
Heroin and cocaine ^{†††}	1,632	(68)	699	(29)	1,030	(43)	1,131	(47)	1,175	(49)	1,016	(42)	889	(37)	191	(8)	878	(36)	781	(32)	1,742	(72)	2,416	
Cocaine or crack	422	(81)	233	(45)	320	(62)	323	(62)	349	(67)	315	(61)	153	(29)	81	(16)	188	(36)	202	(39)	444	(86)	519	
Methamphetamine	258	(67)	114	(30)	164	(43)	259	(67)	135	(35)	110	(29)	65	(17)	275	(72)	115	(30)	138	(36)	333	(87)	384	
Other ^{§§§}	437	(74)	239	(41)	321	(55)	367	(62)	399	(68)	327	(56)	267	(45)	188	(32)	289	(49)	311	(53)	523	(89)	588	
Alcohol or drug treatment program^{¶¶¶}																								
≤12 months before interview	2,034	(64)	760	(24)	1,255	(39)	1,583	(49)	1,713	(53)	1,313	(41)	1,230	(38)	445	(14)	1,381	(43)	1,231	(38)	2,521	(79)	3,202	
>12 months before interview	2,790	(68)	1,240	(30)	1,744	(43)	1,969	(48)	2,026	(49)	1,491	(36)	1,431	(35)	532	(13)	1,504	(37)	1,386	(34)	3,057	(75)	4,096	
Never been in a treatment program	1,556	(66)	689	(29)	944	(40)	1,040	(44)	919	(39)	766	(33)	726	(31)	321	(14)	653	(28)	640	(27)	1,592	(68)	2,350	
HIV test result																								
Negative	6,106	(66)	2,582	(28)	3,786	(41)	4,413	(48)	4,465	(49)	3,428	(37)	3,256	(35)	1,247	(14)	3,423	(37)	3,138	(34)	6,873	(75)	9,185	
Positive	246	(62)	96	(24)	140	(35)	154	(39)	175	(44)	127	(32)	117	(29)	44	(11)	99	(25)	107	(27)	257	(65)	397	

TABLE 9. (Continued) Number and percentage of participants* who reported current, heavy, or binge drinking during the past 30 days and noninjection drug use during the past 12 months, by selected characteristics — National HIV Behavioral Surveillance System: Injecting Drug Users, United States, 2009

Characteristic	Alcohol use in the past 30 days						Noninjection drug use in the past 12 months										Total						
	Current [†]		Heavy [§]		Binge [¶]		Marijuana		Crack		Cocaine		Heroin		Metham- phetamine			Downers ^{**}		Pain- killers ^{††}		Any ^{§§}	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)		No.	(%)	No.	(%)	No.	(%)
MSA																							
Atlanta, Georgia	307	(77)	156	(39)	214	(53)	234	(58)	241	(60)	199	(50)	157	(39)	51	(13)	101	(25)	144	(36)	329	(82)	401
Baltimore, Maryland	356	(76)	113	(24)	173	(37)	170	(36)	183	(39)	147	(31)	164	(35)	—****	—	94	(20)	113	(24)	290	(62)	471
Boston, Massachusetts	360	(61)	137	(23)	268	(46)	304	(52)	359	(61)	324	(55)	263	(45)	51	(9)	361	(61)	321	(55)	466	(79)	588
Chicago, Illinois	343	(65)	127	(24)	205	(39)	200	(38)	227	(43)	117	(22)	174	(33)	13	(2)	131	(25)	80	(15)	340	(65)	527
Dallas, Texas	455	(73)	150	(24)	229	(37)	279	(45)	251	(40)	229	(37)	223	(36)	49	(8)	207	(33)	144	(23)	426	(69)	620
Denver, Colorado	259	(63)	75	(18)	147	(36)	249	(60)	187	(45)	161	(39)	139	(34)	121	(29)	170	(41)	183	(44)	351	(85)	413
Detroit, Michigan	215	(53)	83	(20)	121	(30)	139	(34)	149	(36)	73	(18)	119	(29)	—	—	114	(28)	101	(25)	243	(59)	409
Houston, Texas	415	(82)	259	(51)	314	(62)	288	(57)	300	(59)	282	(56)	165	(33)	78	(15)	206	(41)	198	(39)	407	(80)	507
Los Angeles, California	337	(67)	135	(27)	216	(43)	247	(49)	235	(46)	147	(29)	168	(33)	160	(32)	176	(35)	214	(42)	395	(78)	506
Miami, Florida	374	(69)	180	(33)	227	(42)	278	(51)	318	(59)	287	(53)	263	(49)	29	(5)	277	(51)	222	(41)	449	(83)	542
New York, New York	264	(54)	88	(18)	157	(32)	169	(35)	155	(32)	127	(26)	96	(20)	10	(2)	170	(35)	97	(20)	304	(63)	485
Nassau-Suffolk, New York	93	(49)	37	(19)	56	(29)	79	(41)	94	(49)	82	(43)	81	(42)	—	—	52	(27)	61	(32)	151	(79)	191
New Orleans, Louisiana	476	(80)	299	(50)	362	(61)	381	(64)	349	(59)	342	(58)	263	(44)	92	(15)	258	(43)	300	(51)	516	(87)	594
Newark, New Jersey	232	(61)	90	(24)	145	(38)	136	(36)	192	(50)	143	(38)	186	(49)	6	(2)	143	(38)	101	(27)	285	(75)	381
Philadelphia, Pennsylvania	250	(49)	82	(16)	154	(30)	191	(37)	201	(39)	161	(31)	135	(26)	17	(3)	242	(47)	143	(28)	342	(67)	512
San Diego, California	454	(74)	219	(36)	286	(47)	324	(53)	186	(30)	177	(29)	198	(32)	274	(45)	184	(30)	245	(40)	489	(80)	612
San Francisco, California	311	(65)	123	(26)	161	(33)	277	(57)	311	(65)	124	(26)	141	(29)	187	(39)	153	(32)	155	(32)	400	(83)	482
San Juan, Puerto Rico	202	(46)	75	(17)	117	(27)	167	(38)	131	(30)	106	(24)	73	(17)	11	(3)	120	(28)	74	(17)	230	(53)	436
Seattle, Washington	287	(61)	95	(20)	150	(32)	299	(63)	356	(75)	180	(38)	133	(28)	130	(27)	255	(54)	219	(46)	433	(91)	474
Washington, DC	392	(78)	167	(33)	242	(48)	182	(36)	235	(47)	162	(32)	247	(49)	7	(1)	126	(25)	144	(29)	327	(65)	501
Total	6,382	(66)	2,690	(28)	3,944	(41)	4,593	(48)	4,660	(48)	3,570	(37)	3,388	(35)	1,298	(13)	3,540	(37)	3,259	(34)	7,173	(74)	9,652

Abbreviations: HIV = human immunodeficiency virus; MSA = metropolitan statistical area/division.

- * Sample excludes participants who reported a previous positive HIV test result. Numbers might not add to totals because of missing data.
- † Current drinking is defined as any alcohol during the past 30 days.
- § Heavy drinking is defined as more than two drinks on average per day during the past 30 days for males and more than one drink on average per day during the past 30 days for females.
- ¶ Binge drinking is defined as more than five drinks at one sitting during the past 30 days for males or more than four drinks at one sitting during the past 30 days for females.
- ** Downers such as Valium, Ativan, or Xanax.
- †† Painkillers such as Oxycontin, Vicodin, or Percocet.
- §§ Used any of the following drugs: marijuana, crack cocaine, cocaine (powder), heroin, methamphetamine, downers, painkillers, ecstasy, other cub drugs, hallucinogens, gamma hydroxyl butyrate (GHB), or poppers.
- ¶¶ Persons of Hispanic/Latino ethnicity might be of any race or combination of races.
- *** Poverty level is based on household income and household size.
- ††† Injected separately with equal frequency or combined as speedball.
- §§§ Other drugs injected alone or two or more drugs injected with the same frequency.
- ¶¶¶ Includes outpatient, residential, detoxification, and methadone treatment programs.
- **** Suppressed because of to small sample size (five or fewer participants).

TABLE 10. Number and percentage of participants* who reported receiving a diagnosis of any sexually transmitted disease, syphilis, or herpes during the past 12 months, by selected characteristics — National HIV Behavioral Surveillance System: Injecting Drug Users, 20 U.S. cities, 2009

Characteristic	Any STD [†]						Syphilis						Herpes						Total males	Total females	Total	
	Male		Female		Total		Male		Female		Total		Male		Female		Total					
	No.	(%) [§]	No.	(%) [¶]	No.	(%) ^{**}	No.	(%) [§]	No.	(%) [¶]	No.	(%) ^{**}	No.	(%) [§]	No.	(%) [¶]	No.	(%) ^{**}				
Race/Ethnicity																						
American Indian/Alaska Native	— ^{††}	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	56	32	88
Asian/Native Hawaiian/ Other Pacific Islander	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	30	9	39
Black	203	(6)	131	(11)	334	(8)	49	(2)	20	(2)	69	(2)	32	(1)	18	(2)	50	(1)	3,239	1,197	4,436	
Hispanic/Latino ^{§§}	77	(5)	47	(10)	124	(6)	23	(1)	15	(3)	38	(2)	18	(1)	8	(2)	26	(1)	1,640	455	2,095	
White	83	(5)	108	(13)	191	(7)	—	—	9	(1)	13	(0)	20	(1)	18	(2)	38	(1)	1,817	856	2,673	
Other	9	(4)	11	(11)	20	(7)	—	—	—	—	—	—	—	—	—	—	—	—	202	104	306	
Age group (yrs)																						
18–29	39	(6)	61	(18)	100	(10)	—	—	—	—	8	(1)	—	—	10	(3)	14	(1)	659	336	995	
30–39	60	(5)	56	(11)	116	(7)	9	(1)	11	(2)	20	(1)	15	(1)	10	(2)	25	(1)	1,270	490	1,760	
40–49	117	(6)	100	(11)	217	(7)	22	(1)	19	(2)	41	(1)	29	(1)	16	(2)	45	(2)	2,024	937	2,961	
50–59	130	(5)	82	(10)	212	(6)	37	(1)	11	(1)	48	(1)	21	(1)	10	(1)	31	(1)	2,505	798	3,303	
≥60	31	(6)	—	—	34	(5)	6	(1)	—	—	7	(1)	—	—	—	—	—	—	534	99	633	
Education																						
<High school	123	(5)	117	(12)	240	(7)	28	(1)	23	(2)	51	(2)	26	(1)	17	(2)	43	(1)	2,319	959	3,278	
High school diploma or equivalent	162	(6)	99	(10)	261	(7)	36	(1)	16	(2)	52	(1)	29	(1)	17	(2)	46	(1)	2,872	953	3,825	
>High school	92	(5)	86	(12)	178	(7)	14	(1)	7	(1)	21	(1)	17	(1)	12	(2)	29	(1)	1,799	747	2,546	
Household income^{¶¶}																						
At or below federal poverty level	307	(6)	255	(12)	562	(7)	65	(1)	42	(2)	107	(1)	62	(1)	38	(2)	100	(1)	5,539	2,170	7,709	
Above federal poverty level	67	(5)	46	(10)	113	(6)	12	(1)	—	—	16	(1)	10	(1)	8	(2)	18	(1)	1,425	461	1,886	
Health insurance																						
None	195	(5)	121	(10)	316	(7)	37	(1)	26	(2)	63	(1)	38	(1)	18	(2)	56	(1)	3,608	1,155	4,763	
Public only	161	(5)	162	(12)	323	(7)	36	—	16	—	52	(1)	31	—	24	—	55	—	2,959	1,371	4,330	
Private only	16	(5)	16	(15)	32	(7)	—	—	—	—	9	(2)	—	—	—	—	—	—	337	104	441	
Other/multiple	—	—	6	(29)	7	(7)	—	—	—	—	—	—	—	—	—	—	—	—	74	21	95	
Visited health-care provider, past 12 months																						
Yes	263	(5)	252	(12)	515	(8)	57	(1)	41	(2)	98	(1)	52	(1)	40	(2)	92	(1)	4,799	2,048	6,847	
No	114	(5)	50	(8)	164	(6)	21	(1)	—	—	26	(1)	20	(1)	6	(1)	26	(1)	2,190	609	2,799	
Homeless, past 12 months																						
Yes	245	(5)	203	(13)	448	(7)	47	(1)	27	(2)	74	(1)	58	(1)	29	(2)	87	(1)	4,456	1,520	5,976	
No	132	(5)	99	(9)	231	(6)	31	(1)	19	(2)	50	(1)	14	(1)	17	(1)	31	(1)	2,535	1,138	3,673	
Arrested, past 12 months																						
Yes	149	(6)	116	(15)	265	(8)	31	(1)	18	(2)	49	(1)	25	(1)	19	(2)	44	(1)	2,681	799	3,480	
No	228	(5)	186	(10)	414	(7)	47	(1)	28	(2)	75	(1)	47	(1)	27	(1)	74	(1)	4,309	1,861	6,170	
Drug injected most frequently, past 12 months																						
Heroin	203	(5)	153	(9)	356	(6)	39	(1)	17	(1)	56	(1)	37	(1)	19	(1)	56	(1)	4,062	1,663	5,725	
Heroin and cocaine ^{***}	89	(5)	84	(14)	173	(7)	24	(1)	22	(4)	46	(2)	17	(1)	10	—	27	(1)	1,802	614	2,416	
Cocaine or crack	20	(5)	17	(15)	37	(7)	—	—	—	—	—	—	—	—	—	10	(2)	407	112	519		
Methamphetamine	29	(10)	14	(15)	43	(11)	7	(2)	—	—	7	(2)	—	—	—	—	6	(2)	291	93	384	
Other ^{†††}	36	(9)	33	(19)	69	(12)	—	—	—	—	9	(2)	9	(2)	10	(6)	19	(3)	414	174	588	

Surveillance Summaries

TABLE 10. (Continued) Number and percentage of participants* who reported receiving a diagnosis of any sexually transmitted disease, syphilis, or herpes during the past 12 months, by selected characteristics — National HIV Behavioral Surveillance System: Injecting Drug Users, 20 U.S. cities, 2009

Characteristic	Any STD [†]						Syphilis						Herpes			Total males	Total females	Total			
	Male		Female		Total		Male		Female		Total		Male (%) [§]	Female (%) [¶]	Total (%) ^{**}						
	No.	(%) [§]	No.	(%) [¶]	No.	(%) ^{**}	No.	(%) [§]	No.	(%) [¶]	No.	(%) ^{**}									
Alcohol or drug treatment program^{§§§}																					
≤ 12 months before interview	145	(6)	134	(15)	279	(9)	25	(1)	15	(2)	40	(1)	33	(1)	22	(2)	55	(2)	2,291	911	3,202
> 12 months before interview	150	(5)	120	(10)	270	(7)	36	(1)	22	(2)	58	(1)	26	(1)	18	(2)	44	(1)	2,938	1,158	4,096
Never been in a treatment program	82	(5)	48	(8)	130	(6)	17	(1)	9	(2)	26	(1)	13	(1)	6	(1)	19	(1)	1,760	590	2,350
HIV test result																					
Negative	354	(5)	286	(11)	640	(7)	72	(1)	41	(2)	113	(1)	67	(1)	43	(2)	110	(1)	6,646	2,539	9,185
Positive	18	(6)	13	(12)	31	(8)	—	—	—	—	8	(2)	—	—	—	—	8	(2)	292	105	397
MSA																					
Atlanta, Georgia	18	(5)	11	(17)	29	(7)	—	—	—	—	—	—	8	(2)	—	—	12	(3)	337	64	401
Baltimore, Maryland	14	(4)	19	(15)	33	(7)	—	—	—	—	7	(1)	—	—	—	—	—	—	341	130	471
Boston, Massachusetts	33	(8)	36	(19)	69	(12)	—	—	—	—	—	—	—	—	—	—	7	(1)	394	194	588
Chicago, Illinois	14	(4)	—	—	19	(4)	—	—	—	—	—	—	—	—	—	—	—	—	374	153	527
Dallas, Texas	18	(4)	26	(13)	44	(7)	—	—	7	(4)	10	(2)	—	—	—	—	6	(1)	423	197	620
Denver, Colorado	10	(4)	11	(8)	21	(5)	—	—	—	—	—	—	—	—	—	—	—	—	283	130	413
Detroit, Michigan	39	(14)	24	(19)	63	(15)	6	(2)	—	—	9	(2)	—	—	—	—	—	—	282	127	409
Houston, Texas	16	(4)	15	(15)	31	(6)	—	—	—	—	7	(1)	—	—	—	—	6	(1)	407	100	507
Los Angeles, California	21	(6)	12	(9)	33	(7)	—	—	—	—	—	—	7	(2)	—	—	12	(2)	372	134	506
Miami, Florida	14	(3)	13	(11)	27	(5)	6	(1)	—	—	9	(2)	—	—	—	—	—	—	422	120	542
New York, New York	13	(3)	10	(9)	23	(5)	—	—	—	—	—	—	—	—	—	—	—	—	372	113	485
Nassau-Suffolk, New York	27	(24)	18	(23)	45	(24)	—	—	—	—	7	(4)	—	—	—	—	—	—	114	77	191
New Orleans, Louisiana	28	(6)	6	(6)	34	(6)	9	(2)	—	—	11	(2)	7	(1)	—	—	7	(1)	491	103	594
Newark, New Jersey	18	(7)	14	(11)	32	(8)	—	—	—	—	6	(2)	9	(3)	—	—	13	(3)	259	122	381
Philadelphia, Pennsylvania	14	(4)	16	(13)	30	(6)	—	—	—	—	—	—	—	—	—	—	—	—	389	123	512
San Diego, California	38	(9)	21	(12)	59	(10)	7	(2)	—	—	8	(1)	6	(1)	—	—	10	(2)	431	181	612
San Francisco, California	11	(3)	10	(6)	21	(4)	—	—	—	—	—	—	—	—	—	—	—	—	323	159	482
San Juan, Puerto Rico	12	(3)	11	(15)	23	(5)	6	(2)	8	(11)	14	(3)	—	—	—	—	—	—	363	73	436
Seattle, Washington	11	(4)	9	(5)	20	(4)	—	—	—	—	—	—	—	—	—	—	—	—	300	174	474
Washington, DC	8	(3)	15	(8)	23	(5)	—	—	—	—	—	—	—	—	—	—	—	—	315	186	501
Total	377	(5)	302	(11)	679	(7)	78	(1)	46	(2)	124	(1)	72	(1)	46	(2)	118	(1)	6,992	2,660	9,652

Abbreviations: HIV = human immunodeficiency virus; MSA = metropolitan statistical area/division; STD = sexually transmitted disease.
 * Sample excludes participants who reported a previous positive HIV test result. Numbers might not add to totals because of missing data.
 † Includes syphilis, gonorrhea, chlamydia, herpes, or other reported STDs.
 § The proportion is that of all male participants.
 ¶ The proportion is that of all female participants.
 ** The proportion is that of all participants.
 †† Suppressed because of small sample size (five or fewer participants).
 §§ Persons of Hispanic/Latino ethnicity might be of any race or combination of races.
 ¶¶ Poverty level is based on household income and household size.
 *** Injected separately with equal frequency or combined as speedball.
 ††† Other drugs injected alone or two or more drugs injected with the same frequency.
 §§§ Includes outpatient, residential, detoxification, and methadone treatment programs.

TABLE 11. Number and percentage of participants* who reported receiving a diagnosis of gonorrhea or chlamydia during the past 12 months, by selected characteristics — National HIV Behavioral Surveillance System: Injecting Drug Users, 20 U.S. cities, 2009

Characteristic	Gonorrhea						Chlamydia						Total males	Total females	Total
	Male		Female		Total		Male		Female		Total				
	No.	(%) [†]	No.	(%) [§]	No.	(%) [¶]	No.	(%) [†]	No.	(%) [§]	No.	(%) [¶]			
Race/Ethnicity															
American Indian/Alaska Native	—**	—	—	—	—	—	—	—	—	—	—	—	56	32	88
Asian/Native Hawaiian/Other Pacific Islander	—	—	—	—	—	—	—	—	—	—	—	—	30	9	39
Black	102	(3)	36	(3)	138	(3)	45	(1)	62	(5)	107	(2)	3,239	1,197	4,436
Hispanic/Latino ^{††}	28	(2)	12	(3)	40	(2)	15	(1)	13	(3)	28	(1)	1,640	455	2,095
White	15	(1)	17	(2)	32	(1)	27	(1)	40	(5)	67	(3)	1,817	856	2,673
Other	—	—	—	—	6	(2)	—	—	—	—	—	—	202	104	306
Age group (yrs)															
18–29	7	(1)	11	(3)	18	(2)	14	(2)	21	(6)	35	(4)	659	336	995
30–39	16	(1)	13	(3)	29	(2)	19	(1)	21	(4)	40	(2)	1,270	490	1,760
40–49	44	(2)	23	(2)	67	(2)	25	(1)	40	(4)	65	(2)	2,024	937	2,961
50–59	64	(3)	19	(2)	83	(3)	26	(1)	35	(4)	61	(2)	2,505	798	3,303
≥60	18	(3)	—	—	19	(3)	—	—	—	—	7	(1)	534	99	633
Education															
< High school	60	(3)	28	(3)	88	(3)	16	(1)	49	(5)	65	(2)	2,319	959	3,278
High school diploma or equivalent	58	(2)	22	(2)	80	(2)	45	(2)	36	(4)	81	(2)	2,872	953	3,825
> High school	31	(2)	17	(2)	48	(2)	28	(2)	34	(5)	62	(2)	1,799	747	2,546
Household income^{§§}															
At or below federal poverty level	132	(2)	60	(3)	192	(2)	67	(1)	109	(5)	176	(2)	5,539	2,170	7,709
Above federal poverty level	17	(1)	7	(2)	24	(1)	22	(2)	10	(2)	32	(2)	1,425	461	1,886
Health insurance															
None	85	(2)	26	(2)	111	(2)	44	(1)	50	(4)	94	(2)	3,608	1,155	4,763
Public only	58	—	38	—	96	(2)	40	—	62	—	102	(2)	2,959	1,371	4,330
Private only	—	—	—	—	7	(2)	—	—	—	—	8	(2)	337	104	441
Other/Multiple	—	—	—	—	—	—	—	—	—	—	—	—	74	21	95
Visited health-care provider, past 12 months															
Yes	100	(2)	51	(2)	151	(2)	59	(1)	94	(5)	153	(2)	4,799	2,048	6,847
No	49	(2)	16	(3)	65	(2)	30	(1)	25	(4)	55	(2)	2,190	609	2,799
Homeless, past 12 months															
Yes	80	(2)	49	(3)	129	(2)	59	(1)	82	(5)	141	(2)	4,456	1,520	5,976
No	69	(3)	18	(2)	87	(2)	30	(1)	37	(3)	67	(2)	2,535	1,138	3,673
Arrested, past 12 months															
Yes	49	(2)	25	(3)	74	(2)	42	(2)	47	(6)	89	(3)	2,681	799	3,480
No	100	(2)	42	(2)	142	(2)	47	(1)	72	(4)	119	(2)	4,309	1,861	6,170
Drug injected most frequently, past 12 months															
Heroin	94	(2)	27	(2)	121	(2)	38	(1)	61	(4)	99	(2)	4,062	1,663	5,725
Heroin and cocaine ^{¶¶}	31	(2)	26	(4)	57	(2)	26	(1)	32	(5)	58	(2)	1,802	614	2,416
Cocaine or crack	7	(2)	—	—	11	(2)	7	(2)	7	(6)	14	(3)	407	112	519
Methamphetamine	7	(2)	—	—	9	(2)	6	(2)	7	(8)	13	(3)	291	93	384
Other ^{***}	10	(2)	8	(5)	18	(3)	12	(3)	12	(7)	24	(4)	414	174	588

TABLE 11. (Continued) Number and percentage of participants* who reported receiving a diagnosis of gonorrhea or chlamydia during the past 12 months, by selected characteristics — National HIV Behavioral Surveillance System: Injecting Drug Users, 20 U.S. cities, 2009

Characteristic	Gonorrhea						Chlamydia						Total males	Total females	Total
	Male		Female		Total		Male		Female		Total				
	No.	(%) [†]	No.	(%) [§]	No.	(%) [¶]	No.	(%) [†]	No.	(%) [§]	No.	(%) [¶]			
Alcohol or drug treatment program^{†††}															
≤12 months before interview	43	(2)	28	(3)	71	(2)	43	(2)	49	(5)	92	(3)	2,291	911	3,202
>12 months before interview	68	(2)	27	(2)	95	(2)	31	(1)	49	(4)	80	(2)	2,938	1,158	4,096
Never been in a treatment program	38	(2)	12	(2)	50	(2)	15	(1)	21	(4)	36	(2)	1,760	590	2,350
HIV test result															
Negative	137	(2)	63	(2)	200	(2)	88	(1)	113	(4)	201	(2)	6,646	2,539	9,185
Positive	9	(3)	—	—	12	(3)	—	—	—	—	—	—	292	105	397
MSA															
Atlanta, Georgia	—	—	—	—	—	—	6	(2)	—	—	6	(1)	337	64	401
Baltimore, Maryland	—	—	—	—	—	—	—	—	—	—	9	(2)	341	130	471
Boston, Massachusetts	12	(3)	7	(4)	19	(3)	14	(4)	12	(6)	26	(4)	394	194	588
Chicago, Illinois	—	—	—	—	—	—	—	—	—	—	—	—	374	153	527
Dallas, Texas	9	(2)	7	(4)	16	(3)	—	—	11	(6)	16	(3)	423	197	620
Denver, Colorado	—	—	—	—	—	—	—	—	—	—	(6)	—	283	130	413
Detroit, Michigan	31	(11)	10	(8)	41	(10)	11	(4)	11	(9)	22	(5)	282	127	409
Houston, Texas	—	—	—	—	10	(2)	—	—	6	(6)	10	(2)	407	100	507
Los Angeles, California	—	—	—	—	9	(2)	6	(2)	—	—	11	(2)	372	134	506
Miami, Florida	6	(1)	—	—	10	(2)	—	—	6	(5)	7	(1)	422	120	542
New York, New York	6	(2)	—	—	6	(1)	—	—	—	—	7	(1)	372	113	485
Nassau-Suffolk, New York	21	(18)	8	(10)	29	(15)	—	—	10	(13)	13	(7)	114	77	191
New Orleans, Louisiana	8	(2)	—	—	8	(1)	—	—	—	—	—	—	491	103	594
Newark, New Jersey	—	—	—	—	6	(2)	—	—	6	(5)	8	(2)	259	122	381
Philadelphia, Pennsylvania	6	(2)	—	—	8	(2)	—	—	10	(8)	13	(3)	389	123	512
San Diego, California	15	(3)	7	(4)	22	(4)	10	(2)	12	(7)	22	(4)	431	181	612
San Francisco, California	—	—	—	—	—	—	—	—	—	—	8	(2)	323	159	482
San Juan, Puerto Rico	—	—	—	—	7	(2)	—	—	—	—	—	—	363	73	436
Seattle, Washington	—	—	—	—	—	—	—	—	—	—	8	(2)	300	174	474
Washington, DC	—	—	—	—	6	(1)	—	—	—	—	—	—	315	186	501
Total	149	(2)	67	(3)	216	(2)	89	(1)	119	(4)	208	(2)	6,992	2,660	9,652

Abbreviations: HIV = human immunodeficiency virus; MSA = metropolitan statistical area/division.

* Sample excludes participants who reported a previous positive HIV test result. Numbers might not add to totals because of missing data.

[†] The proportion is that of all male participants.

[§] The proportion is that of all female participants.

[¶] The proportion is that of all participants.

** Suppressed because of small sample size (five or fewer participants).

†† Persons of Hispanic/Latino ethnicity might be of any race or combination of races.

^{§§} Poverty level is based on household income and household size.

^{¶¶} Injected separately with equal frequency or combined as speedball.

*** Other drugs injected alone or two or more drugs injected with the same frequency.

††† Includes outpatient, residential, detoxification, and methadone treatment programs.

TABLE 12. Number and percentage of participants* who ever received a hepatitis C test or diagnosis, by selected characteristics — National HIV Behavioral Surveillance System: Injecting Drug Users, 20 U.S. cities, 2009

Characteristic	Hepatitis C test [†]		Hepatitis C diagnosis [§]		Total
	No.	(%)	No.	(%)	
Sex					
Male	5,075	(73)	2,760	(39)	6,992
Female	2,020	(76)	1,171	(44)	2,660
Race/Ethnicity					
American Indian/Alaska Native	76	(86)	48	(55)	88
Asian/Native Hawaiian/Other Pacific Islander	26	(67)	14	(36)	39
Black	3,125	(70)	1,579	(36)	4,436
Hispanic/Latino [¶]	1,489	(71)	889	(42)	2,095
White	2,124	(79)	1,257	(47)	2,673
Other	244	(80)	140	(46)	306
Age group (yrs)					
18–29	688	(69)	260	(26)	995
30–39	1,301	(74)	669	(38)	1,760
40–49	2,122	(72)	1,116	(38)	2,961
50–59	2,495	(76)	1,549	(47)	3,303
≥60	489	(77)	337	(53)	633
Education					
<High school	2,250	(69)	1,332	(41)	3,278
High school diploma or equivalent	2,808	(73)	1,547	(40)	3,825
>High school	2,035	(80)	1,050	(41)	2,546
Household income**					
At or below federal poverty level	5,586	(72)	3,186	(41)	7,709
Above federal poverty level	1,473	(78)	727	(39)	1,886
Health insurance					
None	3,193	(67)	1,527	(32)	4,763
Public only	3,486	(81)	2,206	(51)	4,330
Private only	322	(73)	143	(32)	441
Other/Multiple	76	(80)	44	(46)	95
Visited health-care provider, past 12 months					
Yes	5,438	(79)	3,160	(46)	6,847
No	1,652	(59)	768	(27)	2,799
Homeless, past 12 months					
Yes	4,366	(73)	2,424	(41)	5,976
No	2,727	(74)	1,505	(41)	3,673
Arrested, past 12 months					
Yes	2,614	(75)	1,425	(41)	3,480
No	4,479	(73)	2,504	(41)	6,170
Drug injected most frequently, past 12 months					
Heroin	4,243	(74)	2,382	(42)	5,725
Heroin and cocaine ^{††}	1,799	(74)	1,044	(43)	2,416
Cocaine or crack	345	(66)	155	(30)	519
Methamphetamine	260	(68)	114	(30)	384
Other ^{§§}	431	(73)	225	(38)	588
Alcohol or drug treatment program^{¶¶}					
≤12 months before interview	2,602	(81)	1,561	(49)	3,202
>12 months before interview	3,081	(75)	1,737	(42)	4,096
Never been in a treatment program	1,409	(60)	631	(27)	2,350
Receptive sharing of syringes,^{***} past 12 months					
Yes	2,447	(72)	1,518	(44)	3,420
No	4,557	(75)	2,362	(39)	6,106

TABLE 12. (Continued) Number and percentage of participants* who ever received a hepatitis C test or diagnosis, by selected characteristics — National HIV Behavioral Surveillance System: Injecting Drug Users, 20 U.S. cities, 2009

Characteristic	Hepatitis C test [†]		Hepatitis C diagnosis [§]		Total
	No.	(%)	No.	(%)	
Receptive sharing of injecting equipment,^{†††} past 12 months					
Yes	4,117	(74)	2,481	(44)	5,588
No	2,847	(73)	1,379	(36)	3,880
Receptive sharing of syringes to divide drug,^{§§§} past 12 months					
Yes	2,424	(72)	1,506	(45)	3,361
No	4,398	(74)	2,256	(38)	5,929
HIV test result					
Negative	6,811	(74)	3,777	(41)	9,185
Positive	234	(59)	134	(34)	397
MSA					
Atlanta, Georgia	259	(65)	83	(21)	401
Baltimore, Maryland	370	(79)	232	(49)	471
Boston, Massachusetts	494	(84)	339	(58)	588
Chicago, Illinois	333	(63)	124	(24)	527
Dallas, Texas	439	(71)	259	(42)	620
Denver, Colorado	329	(80)	201	(49)	413
Detroit, Michigan	237	(58)	136	(33)	409
Houston, Texas	357	(70)	133	(26)	507
Los Angeles, California	413	(82)	275	(54)	506
Miami, Florida	379	(70)	227	(42)	542
New York, New York	371	(76)	239	(49)	485
Nassau-Suffolk, New York	134	(70)	58	(30)	191
New Orleans, Louisiana	389	(65)	136	(23)	594
Newark, New Jersey	291	(76)	140	(37)	381
Philadelphia, Pennsylvania	397	(78)	250	(49)	512
San Diego, California	406	(66)	215	(35)	612
San Francisco, California	424	(88)	284	(59)	482
San Juan, Puerto Rico	289	(66)	136	(31)	436
Seattle, Washington	403	(85)	261	(55)	474
Washington, DC	381	(76)	203	(41)	501
Total	7,095	(74)	3,931	(41)	9,652

Abbreviations: HIV = human immunodeficiency virus; MSA = metropolitan statistical area/division.

* Sample excludes participants who reported a previous positive HIV test result. Numbers might not add to totals because of missing data.

[†] Reported ever being told that they had hepatitis C infection by a health-care provider or ever having a blood test to check for hepatitis C infection. Because hepatitis C testing information was not directly collected from all participants, calculating the proportion of HCV diagnosis among those tested is discouraged.

[§] Reported ever being told that they had hepatitis C infection by a health-care provider.

[¶] Persons of Hispanic/Latino ethnicity might be of any race.

** Poverty level is based on household income and household size.

^{††} Injected separately with equal frequency or combined as speedball.

^{§§} Other drugs injected alone or two or more drugs injected with the same frequency.

^{¶¶} Includes outpatient, residential, detox, and methadone treatment programs.

^{***} Used a needle and syringe that someone else had previously used to inject.

^{†††} Used cooker (e.g., spoon or bottle cap), cotton (used to filter particles from drug solution), or water (used for rinsing needles or preparing drugs) that had already been used by someone else.

^{§§§} Divided a drug solution with a syringe that someone else had previously used to inject.

TABLE 13. Number and percentage of participants* who reported testing for HIV infection, by selected characteristics — National HIV Behavioral Surveillance System: Injecting Drug Users, 20 U.S. cities, 2009

Characteristic	Ever tested		Tested during past 12 months		Total
	No.	(%)	No.	(%)	
Sex					
Male	6,100	(87)	3,291	(47)	6,992
Female	2,439	(92)	1,398	(53)	2,660
Race/Ethnicity					
American Indian/Alaska Native	81	(92)	40	(45)	88
Asian/Native Hawaiian/Other Pacific Islander	33	(85)	17	(44)	39
Black	3,970	(89)	2,212	(50)	4,436
Hispanic/Latino [†]	1,824	(87)	979	(47)	2,095
White	2,343	(88)	1,277	(48)	2,673
Other	276	(90)	160	(52)	306
Age group (yrs)					
18–29	827	(83)	517	(52)	995
30–39	1,577	(90)	904	(51)	1,760
40–49	2,649	(89)	1,484	(50)	2,961
50–59	2,920	(88)	1,517	(46)	3,303
≥60	566	(89)	267	(42)	633
Education					
<High school	2,803	(86)	1,497	(46)	3,278
High school diploma or equivalent	3,393	(89)	1,853	(48)	3,825
>High school	2,340	(92)	1,336	(52)	2,546
Household income[§]					
At or below federal poverty level	6,774	(88)	3,653	(47)	7,709
Above federal poverty level	1,714	(91)	1,002	(53)	1,886
Health insurance					
None	4,109	(86)	2,091	(44)	4,763
Public only	3,939	(91)	2,339	(54)	4,330
Private only	385	(87)	197	(45)	441
Other/Multiple	86	(91)	51	(54)	95
Homeless, past 12 months					
Yes	5,257	(88)	2,975	(50)	5,976
No	3,279	(89)	1,711	(47)	3,673
Visited health-care provider, past 12 months					
Yes	6,262	(91)	3,774	(55)	6,847
No	2,271	(81)	910	(33)	2,799
Arrested, past 12 months					
Yes	3,137	(90)	1,955	(56)	3,480
No	5,400	(88)	2,732	(44)	6,170
Drug injected most frequently, past 12 months					
Heroin	5,071	(89)	2,753	(48)	5,725
Heroin and cocaine [¶]	2,154	(89)	1,222	(51)	2,416
Cocaine or crack	442	(85)	240	(46)	519
Methamphetamine	328	(85)	171	(45)	384
Other ^{**}	525	(89)	291	(49)	588

TABLE 13. (Continued) Number and percentage of participants* who reported testing for HIV infection, by selected characteristics — National HIV Behavioral Surveillance System: Injecting Drug Users, 20 U.S. cities, 2009

Characteristic	Ever tested		Tested during past 12 months		Total
	No.	(%)	No.	(%)	
Alcohol or drug treatment program^{††}					
≤12 months before interview	2,956	(92)	1,886	(59)	3,202
>12 months before interview	3,697	(90)	1,861	(45)	4,096
Never been in a treatment program	1,882	(80)	939	(40)	2,350
HIV test result					
Negative	8,197	(89)	4,560	(50)	9,185
Positive	281	(71)	96	(24)	397
MSA					
Atlanta, Georgia	358	(89)	196	(49)	401
Baltimore, Maryland	446	(95)	301	(64)	471
Boston, Massachusetts	514	(87)	293	(50)	588
Chicago, Illinois	471	(89)	285	(54)	527
Dallas, Texas	548	(88)	207	(33)	620
Denver, Colorado	358	(87)	191	(46)	413
Detroit, Michigan	311	(76)	109	(27)	409
Houston, Texas	453	(89)	224	(44)	507
Los Angeles, California	455	(90)	230	(45)	506
Miami, Florida	488	(90)	303	(56)	542
New York, New York	443	(91)	288	(59)	485
Nassau-Suffolk, New York	143	(75)	56	(29)	191
New Orleans, Louisiana	478	(80)	267	(45)	594
Newark, New Jersey	348	(91)	233	(61)	381
Philadelphia, Pennsylvania	447	(87)	243	(47)	512
San Diego, California	504	(82)	175	(29)	612
San Francisco, California	466	(97)	305	(63)	482
San Juan, Puerto Rico	378	(87)	172	(39)	436
Seattle, Washington	442	(93)	230	(49)	474
Washington, DC	488	(97)	381	(76)	501
Total	8,539	(88)	4,689	(49)	9,652

Abbreviations: HIV = human immunodeficiency virus; MSA = metropolitan statistical area/division.

* Sample excludes participants who reported a previous positive HIV test result. Numbers might not add to totals because of missing data.

[†] Persons of Hispanic/Latino ethnicity might be of any race or combination of races.

[§] Poverty level is based on household income and household size.

[¶] Injected separately with equal frequency or combined as speedball.

** Other drugs injected alone or two or more drugs injected with the same frequency.

^{††} Includes outpatient, residential, detoxification, and methadone treatment programs.

TABLE 14. Number and percentage of facility types reported as most recent place of HIV testing among participants* tested during the past 12 months — National HIV Behavioral Surveillance System: Injecting Drug Users, 20 U.S. cities, 2009

Facility type	Male		Female		Total	
	No.	(%)	No.	(%)	No.	%
Public health clinic or community health center	450	(14)	212	(15)	662	(14)
Correctional facility (jail or prison)	523	(16)	128	(9)	651	(14)
Hospital (inpatient)	383	(12)	163	(12)	546	(12)
HIV/AIDS street outreach program/mobile unit	374	(11)	165	(12)	539	(11)
Drug treatment programs	356	(11)	166	(12)	522	(11)
HIV counseling and testing site	318	(10)	145	(10)	463	(10)
Private doctor office (including HMO)	184	(6)	96	(7)	280	(6)
Emergency room	143	(4)	72	(5)	215	(5)
Syringe exchange program	149	(5)	65	(5)	214	(5)
Sexually transmitted disease clinic	95	(3)	43	(3)	138	(3)
Other	255	(8)	117	(8)	372	(8)
Total	3,291	100	1,398	100	4,689	100

Abbreviations: AIDS = acquired immunodeficiency syndrome; HIV = human immunodeficiency virus; HMO = health maintenance organization.

* Sample excludes participants who reported a previous positive HIV test result. Numbers might not add to totals because of missing data. Column percentages might not add to 100% because of rounding.

TABLE 15. Number and percentage of participants,* by reason for not being tested for HIV during the past 12 months — National HIV Behavioral Surveillance System: Injecting Drug Users, 20 U.S. cities, 2009

Reason	A reason [†]		Main reason [§]	
	No.	(%)	No.	(%)
Afraid of finding out infected with HIV	1,993	(41)	1,573	(32)
Thought to be at low risk for HIV infection	1,866	(38)	1,221	(25)
Did not have time	1,326	(27)	550	(11)
Did not have money or insurance	1,024	(21)	283	(6)
Worried someone would find out about test result	1,056	(21)	174	(4)
Did not know where to get tested	839	(17)	195	(4)
Worried name would be reported to government	540	(11)	41	(1)
Afraid of losing job, insurance, family, housing, or friends	386	(8)	33	(1)
Could not get transportation	580	(12)	57	(1)
Does not like needles	245	(5)	31	(1)
Other reasons for not taking an HIV test	726	(15)	726	(15)
Total	4,916	—	4,916	—

Abbreviation: HIV = human immunodeficiency virus.

* Sample (N = 4,916) is limited to participants who were not tested during the past 12 months and excludes participants who reported a previous positive HIV test result.

[†] Participants were asked to indicate whether each reason had contributed to not getting an HIV test; answers are not mutually exclusive.

[§] Participants were asked to indicate which reason was the most important. Responses are mutually exclusive but might not add to total because of missing or unknown.

TABLE 16. Number and percentage of participants* who received HIV prevention materials or services during the past 12 months, by selected characteristics — National HIV Behavioral Surveillance System: Injecting Drug Users, 20 U.S. cities, 2009

Characteristic	Materials						Services										Total
	Free sterile syringes		Free injection equipment [†]		Free condoms		Alcohol or drug treatment program [§]		Individual-level intervention [¶]		Group-level intervention ^{**}		Individual- or group-level intervention		HIV testing		
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	
Sex																	
Male	3,043	(44)	2,765	(40)	3,467	(50)	2,291	(33)	1,146	(16)	615	(9)	1,428	(20)	3,291	(47)	6,992
Female	1,204	(45)	1,145	(43)	1,373	(52)	911	(34)	487	(18)	289	(11)	623	(23)	1,398	(53)	2,660
Race/Ethnicity																	
American Indian/Alaska Native	52	(59)	53	(60)	44	(50)	31	(35)	17	(19)	7	(8)	20	(23)	40	(45)	88
Asian/Native Hawaiian/Other Pacific Islander	17	(44)	15	(38)	19	(49)	12	(31)	6	(15)	— ^{††}	—	7	(18)	17	(44)	39
Black	1,711	(39)	1,502	(34)	2,225	(50)	1,264	(28)	760	(17)	454	(10)	963	(22)	2,212	(50)	4,436
Hispanic/Latino ^{§§}	1,055	(50)	1,013	(48)	1,079	(52)	688	(33)	327	(16)	160	(8)	400	(19)	979	(47)	2,095
White	1,243	(47)	1,170	(44)	1,280	(48)	1,085	(41)	456	(17)	243	(9)	575	(22)	1,277	(48)	2,673
Other	161	(53)	149	(49)	183	(60)	118	(39)	63	(21)	37	(12)	82	(27)	160	(52)	306
Age group (yrs)																	
18–29	476	(48)	461	(46)	523	(53)	459	(46)	186	(19)	92	(9)	234	(24)	517	(52)	995
30–39	840	(48)	780	(44)	883	(50)	676	(38)	311	(18)	145	(8)	381	(22)	904	(51)	1,760
40–49	1,278	(43)	1,176	(40)	1,513	(51)	929	(31)	496	(17)	272	(9)	617	(21)	1,484	(50)	2,961
50–59	1,391	(42)	1,259	(38)	1,637	(50)	954	(29)	555	(17)	332	(10)	706	(21)	1,517	(46)	3,303
≥60	262	(41)	234	(37)	284	(45)	184	(29)	85	(13)	63	(10)	113	(18)	267	(42)	633
Education																	
<High school	1,406	(43)	1,314	(40)	1,573	(48)	1,003	(31)	482	(15)	241	(7)	598	(18)	1,497	(46)	3,278
High school diploma or equivalent	1,650	(43)	1,532	(40)	1,914	(50)	1,271	(33)	662	(17)	365	(10)	832	(22)	1,853	(48)	3,825
>High school	1,189	(47)	1,062	(42)	1,351	(53)	927	(36)	488	(19)	297	(12)	620	(24)	1,336	(52)	2,546
Household income^{¶¶}																	
At or below federal poverty level	3,382	(44)	3,105	(40)	3,896	(51)	2,488	(32)	1,296	(17)	716	(9)	1,621	(21)	3,653	(47)	7,709
Above federal poverty level	842	(45)	783	(42)	919	(49)	697	(37)	327	(17)	183	(10)	417	(22)	1,002	(53)	1,886
Health insurance																	
None	1,774	(37)	1,607	(34)	2,184	(46)	1,313	(28)	637	(13)	321	(7)	791	(17)	2,091	(44)	4,763
Public only	2,197	(51)	2,048	(47)	2,367	(55)	1,708	(39)	874	(20)	519	(12)	1,112	(26)	2,339	(54)	4,330
Private only	219	(50)	197	(45)	220	(50)	138	(31)	98	(22)	50	(11)	118	(27)	197	(45)	441
Other/Multiple	41	(43)	45	(47)	57	(60)	41	(43)	19	(20)	12	(13)	24	(25)	51	(54)	95
Visited health-care provider, past 12 months																	
Yes	3,194	(47)	2,945	(43)	3,649	(53)	2,611	(38)	1,331	(19)	786	(11)	1,689	(25)	3,774	(55)	6,847
No	1,051	(38)	963	(34)	1,187	(42)	590	(21)	302	(11)	118	(4)	362	(13)	910	(33)	2,799
Homeless, past 12 months																	
Yes	2,720	(46)	2,510	(42)	3,229	(54)	2,079	(35)	1,092	(18)	647	(11)	1,392	(23)	2,975	(50)	5,976
No	1,525	(42)	1,398	(38)	1,609	(44)	1,122	(31)	540	(15)	256	(7)	658	(18)	1,711	(47)	3,673
Arrested, past 12 months																	
Yes	1,570	(45)	1,470	(42)	1,787	(51)	1,346	(39)	624	(18)	368	(11)	783	(23)	1,955	(56)	3,480
No	2,677	(43)	2,440	(40)	3,052	(49)	1,854	(30)	1,009	(16)	536	(9)	1,268	(21)	2,732	(44)	6,170
Drug injected most frequently, past 12 months																	
Heroin	2,705	(47)	2,508	(44)	2,775	(48)	1,868	(33)	918	(16)	501	(9)	1,157	(20)	2,753	(48)	5,725
Heroin and cocaine ^{***}	1,094	(45)	1,032	(43)	1,311	(54)	846	(35)	487	(20)	252	(10)	598	(25)	1,222	(51)	2,416
Cocaine or crack	110	(21)	87	(17)	258	(50)	165	(32)	75	(14)	54	(10)	102	(20)	240	(46)	519
Methamphetamine	133	(35)	104	(27)	177	(46)	96	(25)	54	(14)	36	(9)	69	(18)	171	(45)	384
Other ^{†††}	202	(34)	176	(30)	308	(52)	221	(38)	92	(16)	56	(10)	118	(20)	291	(49)	588

TABLE 16. (Continued) Number and percentage of participants* who received HIV prevention materials or services during the past 12 months, by selected characteristics — National HIV Behavioral Surveillance System: Injecting Drug Users, 20 U.S. cities, 2009

Characteristic	Materials						Services										Total
	Free sterile syringes		Free injection equipment [†]		Free condoms		Alcohol or drug treatment programs [§]		Individual-level intervention [¶]		Group-level intervention ^{**}		Individual- or group-level intervention		HIV testing		
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	
Alcohol or drug treatment program																	
≤12 months before interview	1,507	(47)	1,397	(44)	1,773	(55)	3,202	(100)	820	(26)	507	(16)	1,045	(33)	1,886	(59)	3,202
>12 months before interview	1,823	(45)	1,690	(41)	2,010	(49)	NA	NA	570	(14)	285	(7)	713	(17)	1,861	(45)	4,096
Never been in a treatment program	914	(39)	820	(35)	1,054	(45)	NA	NA	241	(10)	112	(5)	291	(12)	939	(40)	2,350
HIV test result																	
Negative	4,002	(44)	3,699	(40)	4,565	(50)	3,083	(34)	1,539	(17)	864	(9)	1,941	(21)	4,560	(50)	9,185
Positive	205	(52)	174	(44)	236	(59)	99	(25)	77	(19)	33	(8)	92	(23)	96	(24)	397
MSA																	
Atlanta, Georgia	186	(46)	147	(37)	226	(56)	91	(23)	55	(14)	56	(14)	85	(21)	196	(49)	401
Baltimore, Maryland	284	(60)	271	(58)	278	(59)	189	(40)	110	(23)	51	(11)	130	(28)	301	(64)	471
Boston, Massachusetts	285	(48)	289	(49)	330	(56)	346	(59)	167	(28)	118	(20)	223	(38)	293	(50)	588
Chicago, Illinois	349	(66)	336	(64)	285	(54)	161	(31)	72	(14)	20	(4)	80	(15)	285	(54)	527
Dallas, Texas	57	(9)	58	(9)	135	(22)	209	(34)	84	(14)	42	(7)	97	(16)	207	(33)	620
Denver, Colorado	61	(15)	114	(28)	176	(43)	168	(41)	126	(31)	96	(23)	158	(38)	191	(46)	413
Detroit, Michigan	131	(32)	79	(19)	115	(28)	99	(24)	20	(5)	7	(2)	22	(5)	109	(27)	409
Houston, Texas	33	(7)	16	(3)	256	(50)	118	(23)	84	(17)	62	(12)	121	(24)	224	(44)	507
Los Angeles, California	358	(71)	313	(62)	304	(60)	190	(38)	57	(11)	35	(7)	74	(15)	230	(45)	506
Miami, Florida	18	(3)	11	(2)	185	(34)	114	(21)	16	(3)	8	(1)	20	(4)	303	(56)	542
New York, New York	396	(82)	394	(81)	305	(63)	240	(49)	66	(14)	37	(8)	83	(17)	288	(59)	485
Nassau-Suffolk, New York	39	(20)	14	(7)	60	(31)	83	(43)	25	(13)	7	(4)	27	(14)	56	(29)	191
New Orleans, Louisiana	68	(11)	44	(7)	289	(49)	182	(31)	71	(12)	41	(7)	94	(16)	267	(45)	594
Newark, New Jersey	103	(27)	73	(19)	166	(44)	143	(38)	78	(20)	24	(6)	84	(22)	233	(61)	381
Philadelphia, Pennsylvania	304	(59)	292	(57)	235	(46)	195	(38)	106	(21)	45	(9)	139	(27)	243	(47)	512
San Diego, California	131	(21)	86	(14)	174	(28)	158	(26)	53	(9)	17	(3)	64	(10)	175	(29)	612
San Francisco, California	399	(83)	372	(77)	329	(68)	121	(25)	81	(17)	48	(10)	110	(23)	305	(63)	482
San Juan, Puerto Rico	318	(73)	292	(67)	296	(68)	83	(19)	111	(25)	47	(11)	124	(28)	172	(39)	436
Seattle, Washington	406	(86)	400	(84)	306	(65)	167	(35)	97	(20)	39	(8)	117	(25)	230	(49)	474
Washington, DC	321	(64)	309	(62)	390	(78)	145	(29)	154	(31)	104	(21)	199	(40)	381	(76)	501
Total	4,247	(44)	3,910	(41)	4,840	(50)	3,202	(33)	1,633	(17)	904	(9)	2,051	(21)	4,689	(49)	9,652

Abbreviations: HIV = human immunodeficiency virus; MSA = metropolitan statistical area/division; NA = not applicable.

* Sample excludes participants who reported a previous positive HIV test result. Numbers might not add to totals because of missing data.

[†] Free injection equipment was defined as kits that have items such as cookers, cotton, or water for rinsing needles for preparing drugs.

[§] Includes outpatient, residential, detoxification, and methadone treatment programs.

[¶] One-on-one conversation with an outreach worker, a counselor, or a prevention program worker about ways to prevent HIV excluding those that were part of HIV testing.

** Small-group discussion to discuss ways of preventing HIV that is part of an organized session and excludes discussions with friends.

†† Suppressed because of small sample size (five or fewer participants).

^{§§} Persons of Hispanic/Latino ethnicity might be of any race or combination of races.

^{¶¶} Poverty level is based on household income and household size.

*** Injected separately with equal frequency or combined as speedball.

††† Other drugs injected alone or two or more drugs injected with the same frequency.

TABLE 17. Number and percentage of participants* who received free sterile syringes or injection equipment during the past 12 months, by drug use behaviors — National HIV Behavioral Surveillance System: Injecting Drug Users, 20 U.S. cities, 2009

Drug use behaviors	Free sterile syringes		Free injection equipment [†]		Total
	No.	(%)	No.	(%)	
Drug injected most frequently, past 12 months					
Heroin	2,705	(47)	2,508	(44)	5,725
Heroin and cocaine [§]	1,094	(45)	1,032	(43)	2,416
Cocaine or crack	110	(21)	87	(17)	519
Methamphetamine	133	(35)	104	(27)	384
Other [¶]	202	(34)	176	(30)	588
Frequency of injection, past 12 months					
More than once a day	2,983	(49)	2,804	(46)	6,070
Once a day	499	(41)	444	(37)	1,203
More than once a week	501	(35)	429	(30)	1,419
Once a week	73	(28)	66	(25)	260
More than once a month	108	(26)	91	(22)	408
Once a month or less often	81	(30)	74	(27)	273
Receptive sharing of syringes,** past 12 months					
Yes	1,296	(38)	1,184	(35)	3,420
No	2,895	(47)	2,675	(44)	6,106
Receptive sharing injection equipment,†† past 12 months					
Yes	2,455	(44)	2,303	(41)	5,588
No	1,703	(44)	1,521	(39)	3,880
Receptive sharing of syringes to divide drugs,^{§§} past 12 months					
Yes	1,348	(40)	1,244	(37)	3,361
No	2,735	(46)	2,518	(42)	5,929
Total	4,247	(44)	3,910	(41)	9,652

Abbreviation: HIV = human immunodeficiency virus.

* Sample excludes participants who reported a previous positive HIV test result. Numbers might not add to totals because of missing data.

[†] Free injection equipment was defined as kits that have items like cookers, cotton, or water for rinsing needles for preparing drugs.

[§] Injected separately with equal frequency or combined as speedball.

[¶] Other drugs injected alone or two or more drugs injected with the same frequency.

** Used a needle and syringe that someone else had previously used to inject.

†† Used cooker (e.g., spoon or bottle cap), cotton (used to filter particles from drug solution), or water (used for rinsing needles or preparing drugs) that had already been used by someone else.

^{§§} Divided a drug solution with a syringe that someone else had previously used to inject.

TABLE 18. Number and percentage of participants* who received HIV prevention materials or services during the past 12 months, by type of provider — National HIV Behavioral Surveillance System: Injecting Drug Users, 20 U.S. cities, 2009

Provider type	Free sterile syringes		Free injection equipment [†]		Free condoms		Individual-level intervention [§]		Group-level intervention [¶]	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
HIV/AIDS-focused community-based organization	703	(17)	748	(19)	1,727	(36)	584	(36)	290	(32)
Syringe exchange program	3,916	(92)	3,600	(92)	2,370	(49)	510	(31)	154	(17)
IDU outreach program	802	(19)	873	(22)	896	(19)	343	(21)	185	(20)
Community health center/public health clinic	303	(7)	306	(8)	1,661	(34)	402	(25)	202	(22)
Drug treatment program	139	(3)	133	(3)	710	(15)	483	(30)	343	(38)
Gay, lesbian, bisexual, or transgender community health center or organization	—**	—	—	—	349	(7)	88	(5)	52	(6)
Business	—	—	—	—	353	(7)	27	(2)	18	(2)
School, college, or university	—	—	—	—	110	(2)	28	(2)	15	(2)
Gay Pride or similar event	—	—	—	—	137	(3)	18	(1)	11	(1)
Other	228	(5)	107	(3)	502	(10)	166	(10)	164	(18)
Total	4,247	—	3,910	—	4,840	—	1,633	—	904	—

Abbreviations: AIDS = acquired immunodeficiency syndrome; HIV = human immunodeficiency virus; IDU = injection drug use.

* Sample excludes participants who reported a previous positive HIV test result. Numbers might not add to totals because responses are not mutually exclusive or have missing data.

[†] Free injection equipment was defined as kits that have items like cookers, cotton, or water for rinsing needles for preparing drugs.

[§] One-on-one conversation with an outreach worker, a counselor, or a prevention program worker about ways to prevent HIV excluding those that were part of HIV testing.

[¶] Small-group discussion to discuss ways of preventing HIV that is part of an organized session and excludes discussions with friends.

** Suppressed because of small sample size (five or fewer participants).

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