

HIV

SURVEILLANCE REPORT

SPECIAL REPORT

HIV Infection, Risk, Prevention, and Testing Behaviors Among Transgender Women

National HIV Behavioral Surveillance
7 U.S. Cities, 2019–2020

No. 27



**Centers for Disease
Control and Prevention**
National Center for HIV/AIDS,
Viral Hepatitis, STD, and
TB Prevention

This HIV Surveillance Special Report is published by the Behavioral and Clinical Surveillance Branch of the Division of HIV/AIDS Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, Centers for Disease Control and Prevention (CDC), U.S. Department of Health and Human Services, Atlanta, Georgia.

This HIV Surveillance Special Report is not copyrighted and may be used and copied without permission. Citation of the source is, however, appreciated.

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

Suggested citation

Centers for Disease Control and Prevention. *HIV Infection, Risk, Prevention, and Testing Behaviors Among Transgender Women—National HIV Behavioral Surveillance, 7 U.S. Cities, 2019–2020*. HIV Surveillance Special Report 27. <http://www.cdc.gov/hiv/library/reports/hiv-surveillance.html>. Published April 2021. Accessed [date].

On the Web: <http://www.cdc.gov/hiv/library/reports/hiv-surveillance.html>

Confidential information, referrals, and educational material on HIV infection

CDC-INFO

1-800-232-4636 (in English, en Español)

1-888-232-6348 (TTY)

<http://www.cdc.gov/dcs/ContactUs/Form>

Corresponding author: Taylor Robbins, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, CDC, 1600 Clifton Rd., NE, US8-4, Atlanta, GA 30329. Telephone: 404-639-0016; Fax: 404-639-8640; E-mail: kyx4@cdc.gov.

Acknowledgments

This report was prepared by the following CDC staff and contractors: Taylor Robbins, Lindsay Trujillo, Evelyn Olansky, Kathryn Lee, Christine Agnew-Brune, Elana Morris, Susan Cha, Teresa Finlayson, Dafna Kanny, Anna Teplinskaya, Cyprian Wejnert, for the National HIV Behavioral Surveillance among Transgender Women (NHBS-Trans) Study Group.

We thank the NHBS-Trans study participants and the DHAP editorial staff (Michael Friend and Tonya Joyner) for their efforts in making this report possible.

NHBS-Trans Study Group

Atlanta, GA: Pascale Wortley, Genetha Mustaaftaa, Brittany Taylor

Los Angeles, CA: Ekow Kwa Sey, Gia Olaes, Yingbo Ma

New Orleans, LA: William T. Robinson, Narquis Barak, Jasmine Davis

New York City, NY: Sarah Braunstein, Alexis Rivera, Jasmine Lopez

Philadelphia, PA: Kathleen A. Brady, Tanner Nassau, Andrea Harrington

San Francisco, CA: Erin Wilson, Dillon Trujillo, Sofia Sicro

Seattle, WA: Sara Glick, Aleks Martin, Jennifer Reuer

CDC: Behavioral Surveillance Team

Contents

Commentary	4
Technical Notes	9
References	11
Tables	
1 Selected characteristics of transgender women—National HIV Behavioral Surveillance, 7 U.S. cities, 2019–2020	13
2 HIV prevalence among transgender women—National HIV Behavioral Surveillance, 7 U.S. cities, 2019–2020	15
3 HIV testing among transgender women—National HIV Behavioral Surveillance, 7 U.S. cities, 2019–2020	16
4 Setting of most recent HIV test among transgender women who were tested for HIV in the 12 months before interview—National HIV Behavioral Surveillance, 7 U.S. cities, 2019–2020	17
5a Anal sex among transgender women in the 12 months before interview—National HIV Behavioral Surveillance, 7 U.S. cities, 2019–2020	18
5b Vaginal sex among transgender women in the 12 months before interview—National HIV Behavioral Surveillance, 7 U.S. cities, 2019–2020	20
6a Receipt of HIV prevention materials and services in the 12 months before interview among transgender women—National HIV Behavioral Surveillance, 7 U.S. cities, 2019–2020	22
6b Receipt of HIV prevention materials and services in the 12 months before interview among transgender women, by area of residence—National HIV Behavioral Surveillance, 7 U.S. cities, 2019–2020	23
7 Receipt of HIV care and treatment among self-reported HIV-positive transgender women—National HIV Behavioral Surveillance, 7 U.S. cities, 2019–2020	24
8 Drug use in the 12 months before interview and binge drinking in the 30 days before interview among transgender women—National HIV Behavioral Surveillance, 7 U.S. cities, 2019–2020	25
9 Gender affirming medical treatment among transgender women—National HIV Behavioral Surveillance, 7 U.S. cities, 2019–2020	26
10 Additional sexual behavior outcomes among transgender women—National HIV Behavioral Surveillance, 7 U.S. cities, 2019–2020	28
11 Abuse and harassment among transgender women in the 12 months before interview—National HIV Behavioral Surveillance, 7 U.S. cities, 2019–2020	29
12 Suicidal ideation and behavior among transgender women in the 12 months before interview—National HIV Behavioral Surveillance, 7 U.S. cities, 2019–2020	30
Appendix: Measurement Notes	31
Participating Metropolitan Statistical Areas, 2019–2020	33

Lowering the number of new HIV infections among transgender women is a major HIV prevention goal [1]. This goal can be achieved by implementing three important strategies for reducing HIV infections: (1) intensifying HIV prevention efforts in populations where HIV is most heavily concentrated, including transgender women; gay, bisexual, and other men who have sex with men (hereafter referred to as MSM); black or African American persons; Hispanic or Latino persons; and persons who inject drugs (PWID); (2) expanding efforts to prevent HIV infection by using a combination of effective, evidence-based, scalable approaches (including preexposure prophylaxis [PrEP]) tailored specifically for populations at risk; and (3) educating the general public about the threat of HIV infection and how to prevent it, which can help address HIV stigma [1–3]. State and local health departments, as well as federal agencies, are expected to monitor progress toward HIV prevention goals [1].

The Centers for Disease Control and Prevention’s (CDC’s) National HIV Behavioral Surveillance (NHBS) serves as a key component of a high-impact prevention approach to reducing the spread of HIV in the United States [4]. NHBS provides data for monitoring behaviors among populations disproportionately burdened by HIV infection and for identifying the populations for whom scientifically proven, cost-effective, and scalable interventions are most appropriate. Monitoring key indicators among members of key populations is critical to achieving the goals of the Ending the HIV Epidemic: A Plan for America initiative [5]. This initiative is aimed at reducing new HIV infections by 90% by 2030 by implementing evidence-based strategies for specific populations in geographic areas most affected by HIV. NHBS has previously proven effective at monitoring key indicators, such as sexual and drug use behaviors; HIV testing and linkage to care; access to, and use of, prevention interventions, including PrEP and syringe services programs (SSP); and prevalence of HIV and other infections in areas with high HIV prevalence among 3 populations at high risk of HIV infection: MSM, PWID, and heterosexually active persons at increased risk for HIV infection [6, 7]. Transgender women are reported to be disproportionately affected

by HIV infection; however, little is known about the epidemiology of HIV infection among this population in the United States [8]. To address this gap in data, CDC sought to implement National HIV Behavioral Surveillance among Transgender Women (NHBS-Trans).

This report summarizes findings from the first NHBS-Trans data collection cycle, which was conducted in 2019–2020. Transgender women, especially transgender women of color, are disproportionately affected by HIV [8]. This report provides descriptive, unweighted data that can be used to describe HIV infection among transgender women and the percentages of transgender women reporting specific behaviors, HIV testing, access to care, participation in prevention programs, gender-affirming medical treatment, experiences of abuse and harassment, and suicidality. Collecting these data is useful for assessing risk, access to care and treatment, the use of prevention efforts, and other social structural factors affecting HIV prevention opportunities for this population.

TABLE ORGANIZATION

The tables in this report are ordered by content. Tables 1, 5A–6B and 8–12 are stratified by HIV status; that is, data are presented separately for HIV-negative participants and HIV-positive participants (HIV status was determined from the NHBS HIV test result). A small percentage of the sample (3.2%) could not be classified by HIV status because they had no valid NHBS HIV test result; that is, they did not consent to the HIV test, had an indeterminate result, had discordant rapid test results, or reported a previous HIV-positive test result but had a negative NHBS HIV test result. For data completeness, data from these participants are reported in a “No valid NHBS HIV test result” column (Table 1) or row (Tables 5A–6B and Tables 8–12). **Unless otherwise noted in the tables, measurement notes, or the following highlights, the period for all outcomes is in the 12 months before the interview.**

HIGHLIGHTS OF ANALYSES

Demographic Characteristics, HIV Prevalence, and HIV Testing

This report describes data from 1,608 transgender women who participated in NHBS in 2019 and early 2020, of whom 32% identified as a woman, 87% a transgender woman, <1% a transgender man, and 6% as a gender not listed in the survey (percentages do not sum to 100 as participants were allowed to select more than one gender identity). Overall, 1% were American Indian/Alaska Native, 2% were Asian, 35% were black/African American, 40% were Hispanic or Latina, 3% were Native Hawaiian/other Pacific Islander, 11% were white, and 8% were multiple races (Table 1). Among all participants, 17% had no health insurance, 7% had not visited a health care provider, and the household income of 63% of participants was at or below the federal poverty level. In the 12 months before the interview, 42% of participants had experienced homelessness and 17% had been incarcerated.

In 2019–2020, 42% of participants with a valid NHBS HIV test result tested positive for HIV (Table 2). By city, HIV prevalence was as follows: 58% in Atlanta, 33% in Los Angeles, 45% in New Orleans, 52% in New York City, 51% in Philadelphia, 41% in San Francisco, and 21% in Seattle. By race and ethnicity, HIV prevalence was 65% among American Indian/Alaska Natives, 20% among Asians, 62% among black/African Americans, 35% among Hispanics or Latinas, 17% among Native Hawaiian/other Pacific Islanders, 17% among whites, and 38% among participants who reported multiple races.

CDC recommends that persons at increased risk of HIV infection undergo HIV testing at least annually [9]. Of participants who did not report a previous HIV-positive test result or who had received their first HIV-positive test result less than 12 months before the interview, 82% reported that they had been tested for HIV in the 12 months before the interview, and 96% reported that they had ever been tested (Table 3).

Among participants who reported being tested for HIV in the 12 months before the interview, 63% reported their most recent test was performed in a clinical setting while 34% reported being tested in a nonclinical setting, such as an HIV counseling and testing site, an HIV street outreach program or mobile unit, a SSP, or at home (Table 4).

Sexual Behaviors

Condomless anal sex is associated with increased risk of HIV transmission [10]. Among HIV-negative participants, 30% reported condomless receptive anal sex and 27% reported both condomless insertive and receptive anal sex (Table 5A). Condomless receptive anal sex was highest among HIV-negative transgender women aged 25–29 years (37%) and 18–24 years (35%). Anal sex was less common among HIV-negative transgender women aged 50 years and older, with 48% reporting no anal sex. Among transgender women who were HIV-positive, <1% reported condomless insertive anal sex, 25% reported condomless receptive anal sex, and 23% reported both condomless insertive and receptive anal sex. Among HIV-positive transgender women, condomless receptive anal sex was highest among women aged 40–49 years (30%).

Vaginal sex was less common among transgender women. Among HIV-positive participants, 90% reported no vaginal sex, 3% reported condomless insertive vaginal sex, 2% reported receptive vaginal sex, and <1% reported both condomless insertive and receptive vaginal sex (Table 5B). Among HIV-negative participants, 83% reported no vaginal sex, 8% reported condomless insertive vaginal sex, 4% reported receptive vaginal sex, and 1% reported both insertive and receptive vaginal sex.

Sexual behaviors are an important mode of HIV transmission among transgender women. The percentage of transgender women who engaged in condomless anal sex underscores the importance of using effective, culturally specific, evidence-based HIV prevention strategies including peer-led, empowerment-based behavioral interventions [11, 12].

Receipt of HIV Prevention

The receipt of free condoms, participation in HIV individual- or group-level behavioral interventions, and PrEP awareness and use are reported in Table 6A. Overall, 81% of participants reported receiving free condoms and 63% reported participating in an HIV behavioral intervention. The percentages of transgender women who received condoms were the same across HIV status (82%); however, the percentage of transgender women who reported participating in an HIV behavioral intervention was highest for HIV-positive participants (67%) in general, and for HIV-positive Hispanic/Latina transgender women in particular (73%). Participation in HIV individual- or

group-level behavioral interventions among HIV-negative participants was most common in the following 3 cities: Los Angeles (69%), New York City (68%), and San Francisco (66%) (Table 6B).

CDC's clinical guidance recommends the use of PrEP for persons at increased risk of acquiring HIV, including sexually active transgender persons [13]. While PrEP awareness was common among HIV-negative transgender women (92%), PrEP use was less common (32%) (Table 6A). These findings are similar to those observed among MSM with 90% PrEP awareness and 35% PrEP use in 2017 [14]. Previous studies among transgender women reveal high knowledge of PrEP but very low uptake and cited several barriers, including medical mistrust due to experiences of transphobia, lack of trans-inclusive PrEP marketing, and a concern about drug interactions between hormones and PrEP [15, 16]. Across participating cities, PrEP awareness was highest in Philadelphia (96%) and PrEP use was most common in San Francisco (46%) and New York City (43%) (Table 6B).

Receipt of HIV Care and Treatment

Achieving viral suppression through antiretroviral treatment can improve clinical outcomes and reduce the likelihood of HIV transmission [17]. Increasing the percentage of persons with newly diagnosed HIV linked to care within 1 month of diagnosis has been a national HIV prevention goal since 2015 [1]. The Ending the HIV Epidemic initiative also seeks to increase viral suppression to 95% nationally by 2030 by linking newly diagnosed individuals to rapid start treatment programs and helping them to stay in care and on their medication [18, 19]. A consistently suppressed HIV viral load is associated with reduced morbidity and mortality and a lower probability of transmitting HIV to sex partners [20]. In 2019–2020, among self-reported HIV-positive transgender women, 95% reported having ever visited a health care provider for HIV, 63% reported that they did so within one month after diagnosis, and 89% reported visiting a health care provider for HIV care in the six months before interview. Current use of antiretroviral therapy was reported by 90% of self-reported HIV-positive transgender women (Table 7).

Substance Use

Table 8 presents data on drug use in the 12 months before interview and binge drinking in the 30 days before interview among transgender women. Prevalence of noninjection drug use was similar among HIV-negative and HIV-positive participants at 59% and 60%, respectively. Marijuana was the most commonly used noninjection drug among both HIV-negative transgender women (53%) and HIV-positive transgender women (52%), followed by noninjection use of cocaine and methamphetamines. Among HIV-negative transgender women, 22% used cocaine and 15% used methamphetamines. Among HIV-positive transgender women, 19% used cocaine and 20% used methamphetamines. Use of any injection drugs was more common among HIV-positive transgender women (9%) than among HIV-negative participants (5%). Binge drinking was more common among HIV-negative transgender women (19%) than among HIV-positive participants (10%).

These findings are important as substance use has been found to be associated with sexual risk among transgender women [21, 22]. A similar prevalence of methamphetamine use has been reported previously and was found to be associated with testing positive for HIV [21]. These findings warrant further exploration of substance use and sexual risk among transgender women and the need for tailored interventions.

Gender Affirming Medical Treatment

Table 9 presents data on gender-affirming medical treatment. Participants were asked about gender-affirming surgeries they have had or would like to have, including vaginoplasty, orchiectomy, and breast augmentation. Participants were also asked about hormone use for gender affirmation, including whether they were currently taking hormones at the time of the survey or wanted to take hormones (among women not taking hormones at time of survey). Among participants who reported no prior surgery, desire for gender affirming surgery was common among both HIV-negative transgender women (53%) and HIV-positive transgender women (51%) (Table 9). Among HIV-negative participants, 67% were taking hormones for gender affirmation at the time of the survey, 23% wanted to take hormones, and 8% did not want to take hormones. Among HIV-positive participants, 78% were taking hormones for gender affirma-

tion at the time of the survey, 15% wanted to take hormones, and 7% did not want to take hormones.

Access to gender-affirming medical treatment may improve uptake of HIV treatment and prevention. Previous studies have found that unmet needs for gender affirmation, including not being on hormones, may impact or delay HIV treatment [23, 24]. A study found that unmet surgical needs and not being on hormones were significantly associated with HIV treatment interruptions [23]. Similarly, another study found that hormone use lowered odds of not being on antiretroviral therapy (ART), suggesting a protective effect on treatment [24]. Thus, access to gender affirming care may be critical in improving HIV outcomes among transgender women.

Additional Sexual Behavior Outcomes

Table 10 presents data on additional sexual behavior outcomes among transgender women. Overall, prevalence of exchange sex (receiving money or drugs in exchange for sex) was 34% among participants. Giving or receiving money or drugs in exchange for sex is a recognized risk factor for HIV infection [25]. Prevalence of exchange sex was higher among younger transgender women than older transgender women. Among HIV-negative transgender women, 41% of participants aged 18–24 years exchanged sex compared to 22% of participants aged 50 years and older. Among HIV-positive transgender women, 46% of participants aged 18–24 years exchanged sex compared to 23% of participants aged 50 years and older. Exchange sex may be an important risk factor for HIV transmission among transgender women. One study found HIV prevalence to be 8 times higher in female sex workers who were transgender compared to cisgender sex workers; engaging in sex work due to a lack of job opportunities and engaging in sex work for >5 years were independently associated with HIV infection among transgender women [26].

Additionally, condomless sex with a partner of discordant or unknown HIV status at last sex was reported by 12% of HIV-negative transgender women and 28% of HIV-positive transgender women. A syndemics approach to health considers disease clustering, interactions between diseases, and how human health is affected by both physical and social environments [27]. A study that assessed how syndemics may impact HIV risk among transgender women found that compared to women experiencing no syn-

dem conditions, women experiencing four syndemic conditions (i.e., polydrug use, depression, childhood sexual abuse, and intimate partner violence) were more likely to report recent HIV transmission risk behavior, including condomless sex with an HIV-discordant partner and recent transactional sex events [28]. Understanding and addressing the role syndemic conditions play in the spread of HIV/AIDS may be important to consider for both treatment and prevention [27].

Comprehensive legislation that would prohibit discrimination based on gender identity and expression in employment would increase job opportunities for transgender women [29]. Addressing unmet need through antidiscrimination policies, in addition to expanding comprehensive HIV interventions tailored to the needs of transgender women, may be critical steps in reducing HIV burden among this population.

Abuse and Harassment

Reports of experiencing abuse and harassment were common among transgender women. Overall, 54% of transgender women experienced verbal abuse or harassment because of their gender identity or presentation (Table 11). Over a quarter of transgender women (27%) experienced physical abuse or harassment because of their gender identity, 15% reported physical abuse or harassment by a sexual partner, and 15% reported being physically forced or verbally threatened to have any sexual contact when they did not want to. Younger women reported higher prevalence of abuse and harassment because of their gender identity: 70% of HIV-negative participants aged 18–24 years reported verbal abuse or harassment compared to 45% of HIV-negative participants aged 50 years or older. Similarly, 62% of HIV-positive participants aged 18–24 years reported verbal abuse or harassment compared to 39% of HIV-positive participants aged 50 years and older. A meta-analysis study found a similarly high prevalence of abuse among transgender women; 56% reported mental or physical abuse and a much higher prevalence of sexual abuse (54%) than was reported here (15%) [2].

Suicidal Ideation and Behavior

Overall, 18% of participants reported having seriously thought about suicide (Table 12). Additionally, 7% made plans for suicide and 4% attempted suicide. Reported suicidal ideation and behavior was

higher among HIV-negative participants than HIV-positive participants. Among HIV-negative participants, 22% seriously thought about suicide, 9% made plans for suicide, and 6% attempted suicide. Among HIV-positive participants, 12% seriously thought about suicide, 4% made plans for suicide, and 3% attempted suicide.

Previously published estimates of suicidality among transgender persons are high. The 2015 U.S. Transgender Survey found that 40% of transgender people attempted suicide in their lifetime and 7% attempted suicide in the past year [30]. Gender affirmation may lower suicidality among transgender women. A study found that gender affirmation was significantly associated with lower odds of past-year suicidal ideation and psychological distress; gender affirmation also mitigated the association between discrimination and past-year suicidal ideation [31].

NHBS conducts rotating cycles of biobehavioral surveys among MSM, PWID, and heterosexually active persons at increased risk of HIV infection; data are collected in annual cycles from one risk group per year so that each population is surveyed once every 3 years [7]. In 2019–2020, NHBS conducted its first biobehavioral survey among transgender women. The same general NHBS eligibility criteria were used: aged 18 years or older, current residence in a participating city, no previous participation in NHBS during the current survey cycle, ability to complete the survey in either English or Spanish, and ability to provide informed consent. In addition to these basic NHBS eligibility criteria, participation in the 2019–2020 NHBS-Trans cycle was limited to persons who (1) reported a gender identity of woman or transgender woman, and (2) were assigned male or intersex at birth.

NHBS uses a standardized set of questions to collect information about behavioral risks for HIV infection, HIV testing, and use of HIV prevention services. For the NHBS-Trans questionnaire, new sections were added (e.g., Gender Identity and Medical Gender Affirmation) and existing sections were modified (e.g., Sexual Behaviors) to tailor the survey for use among transgender women. The anonymous, in-person survey is administered by a trained interviewer using a portable computer. All participants are offered an anonymous HIV test, which is linked to the survey data through a unique survey identifier.

Activities for NHBS were approved by CDC [32, 33] and by applicable institutional review boards (IRBs) in each participating city.

PARTICIPATING CITIES

State and local health departments eligible to participate in NHBS are among those whose jurisdictions include an MSA or a specified division with high prevalence of HIV. In 2019–2020, NHBS-Trans was conducted in 7 MSAs: Atlanta, GA; Los Angeles, CA; New Orleans, LA; New York City, NY; Philadelphia, PA; San Francisco, CA; Seattle, WA. Throughout this report, MSAs and divisions are referred to by the name of the principal city.

SAMPLING METHOD

Participants in the 2019–2020 NHBS-Trans cycle were recruited by using respondent-driven sampling (RDS) [34, 35]. Recruitment started with a limited number of initial participants, or “seeds,” who were chosen by referrals from people and community-based organizations who knew or were part of the local population of transgender women. The NHBS-Trans cycle primarily sought to assess the needs of transgender women belonging to racial and ethnic minority populations as HIV prevalence estimates are higher among black/African American transgender women compared with white transgender women [2, 8]. The 7 participating MSAs focused on recruiting black/Latina identifying persons as initial recruits or “seeds.” Initial recruits 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 5 transgender women whom they knew personally. Those persons, in turn, completed the survey and were asked to recruit others by using a system of coded coupons. This recruitment process continued until the sample size was reached or the sampling period ended. Participants received incentives for participating in the survey and for recruiting others.

DATA COLLECTION

Persons who brought a valid coupon to an NHBS field site were escorted to a private area for eligibility screening. For those who met eligibility requirements, trained interviewers obtained informed consent and conducted face-to-face interviews. The interview took approximately 40 minutes and consisted of questions concerning participants’ demographic characteristics, HIV testing history, sexual and substance use behaviors, social and medical gender affirmation, STI testing, and use of HIV prevention services and programs. In exchange for the time spent taking part in the interview, participants received approximately \$25 (exact amount determined locally).

HIV testing was performed for participants who consented; blood specimens were collected for rapid testing in the field or laboratory-based testing. A non-reactive rapid test result was considered HIV-

SUPPLEMENTAL MATERIAL

Infographic: HIV infection risk, prevention, and testing behaviors among transgender women—National HIV Behavioral Surveillance, 7 U.S. cities, 2019–2020 ([PDF file is attached](#); also available at <https://www.cdc.gov/hiv/pdf/library/reports/surveillance/cdc-hiv-surveillance-special-report-number-27-infographic.pdf>).

negative; a reactive rapid test result was considered HIV-positive if supported by a second rapid test or supplemental laboratory-based testing (among participants with newly diagnosed HIV infection). Participants received approximately \$25 for HIV testing (exact amount determined locally).

Participants who agreed to recruit others received an additional incentive of \$10–\$20 for each recruit (up to 5) who completed the interview (exact amount determined locally). Each participating city's goal was to interview 200 transgender women.

DATA ANALYSIS

This surveillance report presents descriptive data; no statistical tests were performed. In addition, these data are cross-sectional; we did not attempt to infer causal relationships. Reported numbers less than 12, and percentages based on these numbers, should be interpreted with caution because the numbers are considered unreliable.

Data for this report are not weighted. The purpose of this report is to provide a detailed summary of surveillance data collected as part of the 2019–2020 NHBS-Trans cycle; unweighted data provide an efficient and transparent way to do so. Further, unweighted analysis allows for detailed reporting of outcomes among small subgroups of the population of interest.

In total, 1,834 persons were recruited to participate in NHBS-Trans in 2019–2020. Of those, 132 were excluded from the survey because they did not meet NHBS eligibility criteria, did not provide consent, or their data were lost during electronic upload. An additional 94 interviews were excluded from this report due to incomplete survey data, survey responses of questionable validity, or because they did not meet basic inclusion criteria for analysis.

The full analysis sample for this report includes 2019–2020 NHBS-Trans cycle participants who consented to, completed the survey, identified as a transgender woman or woman, and were assigned male at birth ($n = 1,608$ Table 1). Participants who were assigned intersex at birth and identified as transgender women were also included in the analysis sample for this report. Additional inclusion criteria were applied for certain analyses of HIV infection, HIV-associated behaviors, and gender affirming medical treatment; details of each analysis sample can be found in the footnotes of each table.

References

1. HHS. HIV National Strategic Plan (2021–2025). <https://www.hiv.gov/federal-response/hiv-national-strategic-plan/hiv-plan-2021-2025>. Updated January 2021. Accessed March 29, 2021.
2. Becasen JS, Denard CL, Mullins MM, Higa DH, Sipe TA. Estimating the prevalence of HIV and sexual behaviors among the US transgender population: A systematic review and meta-analysis, 2006–2017. *Amer J Public Health* 2019;109(1):e1–e8. doi:10.2105/ajph.2018.304727
3. CDC. Toolkit for providing HIV prevention services to transgender women of color. <https://www.cdc.gov/hiv/effective-interventions/library/toolkit-transgender-women-of-color/implementation-materials/cdc-hiv-ei-two-c-toolkit.pdf>. Published August 2019. Accessed March 29, 2021.
4. CDC. High-Impact HIV Prevention: CDC’s approach to reducing HIV infections in the United States. <http://go.usa.gov/p9xw>. Accessed March 29, 2021.
5. Fauci AS, Redfield RR, Sigounas G, Weahkee MD, Giroir BP. Ending the HIV epidemic: A plan for the United States [editorial]. *JAMA* 2019;321(9):844–845. doi:10.1001/jama.2019.1343
6. DiNenno EA, Oster AM, Sionean C, Denning P, Lansky A. Piloting a system for behavioral surveillance among heterosexuals at increased risk of HIV in the United States. *Open AIDS J* 2012;6(suppl 1):169–176. doi:10.2174/1874613601206010169
7. Gallagher KM, Sullivan PS, Lansky A, Onorato IM. Behavioral surveillance among people at risk for HIV infection in the U.S.: The National HIV Behavioral Surveillance system. *Public Health Rep* 2007;122(suppl 1):32–38.
8. Herbst JH, Jacobs ED, Finlayson TJ, et al. Estimating HIV prevalence and risk behaviors of transgender persons in the US: a systematic review. *AIDS Behav* 2008;12(1):1–17. doi:10.1007/s10461-007-9299-3
9. CDC [Branson B, Handsfield HH, Lampe MA, et al]. Revised recommendations for HIV testing of adults, adolescents, and pregnant women in health-care settings. *MMWR* 2006;55(RR-14):1–17.
10. Patel P, Borkowf CB, Brooks JT, Lasry A, Lansky A, Mermin J. Estimating per-act HIV transmission risk: a systematic review. *AIDS* 2014;28(10):1509–1519. doi:10.1097/QAD.0000000000000298
11. Garofalo R, Kuhns LM, Reisner SL, Biello K, Mimiaga, MJ. Efficacy of an empowerment-based, group delivered HIV prevention intervention for young transgender women: The Project LifeSkills randomized clinical trial. *JAMA Pediatr* 2018;172(10):916–923. doi:10.1001/jamapediatrics.2018.1799
12. Operario D, Gamarel KE, Iwamoto M, et al. Couples-focused prevention program to reduce HIV risk among transgender women and their primary male partners: Feasibility and promise of the Couples HIV Intervention Program. *AIDS Behav* 2017; 21(8):2452–2463. doi:10.1007/s10461-016-1462-2
13. CDC. HIV testing, prevention and care for the transgender population. <https://www.cdc.gov/hiv/clinicians/transforming-health/health-care-providers/prevention-and-care-data.html>. Updated March 2021. Accessed March 29, 2021.
14. Finlayson T, Cha S, Xia M, et al. Changes in HIV pre-exposure prophylaxis awareness and use among men who have sex with men—20 urban areas, 2014 and 2017. *MMWR* 2018;68(27):597–603.
15. Poteat T, Wirtz A, Malik M, et al. A gap between willingness and uptake: Findings from mixed methods research on HIV prevention among black and Latina transgender women. *J Acquir Immune Defic Syndr* 2019;82(2):131–140. doi:10.1097/QAI.00000000000002112
16. Sevelius JM, Keatley J, Calma N, Arnold E. ‘I am not a man’: Trans-specific barriers and facilitators to PrEP acceptability among transgender women. *Glob Public Health* 2016;11(7–8):1060–1075. doi:10.1080/17441692.2016.1154085
17. CDC [Dybul M, Fauci AS, Bartlett JG, Kaplan JE, Pau AK]. Guidelines for using antiretroviral agents among HIV-infected adults and adolescents. *MMWR* 2002; 51(RR-7);1–56.
18. HHS. AHEAD: America’s HIV Epidemic Analysis Dashboard. <https://www.hiv.gov/federal-response/ending-the-hiv-epidemic/dashboard>. Updated February 2021. Accessed March 29, 2021.
19. HHS. Key strategies in the plan. <https://www.hiv.gov/federal-response/ending-the-hiv-epidemic/key-strategies>. Updated May 2020. Accessed March 29, 2021.
20. Cohen MS, Chen YQ, McCauley M, et al. Prevention of HIV-1 infection with early antiretroviral therapy. *N Engl J Med* 2011;365(6):493–505. doi:10.1056/NEJMoal105243

21. Santos GM, Rapues J, Wilson EC, et al. Alcohol and substance use among transgender women in San Francisco: Prevalence and association with human immunodeficiency virus infection. *Drug Alcohol Rev* 2014;33(3):287–295. doi:10.1111/dar.12116
22. Millar BM, English D, Moody RL, et al. Day-level associations between substance use and HIV risk behavior among a diverse sample of transgender women. *Transgend Health* 2018;3(1):210–219. doi:10.1089/trgh.2018.0032
23. Rosen JG, Malik M, Cooney EE, et al. Antiretroviral treatment interruptions among Black and Latina transgender women living with HIV: Characterizing co-occurring, multilevel factors using the Gender Affirmation Framework. *AIDS Behav* 2019;23(9):2588–2599. doi:10.1007/s10461-019-02581-x
24. Baguso GN, Turner CM, Santos GM, et al. Successes and final challenges along the HIV care continuum with transwomen in San Francisco. *J Int AIDS Soc* 2019;22(4):e25270. doi:10.1002/jia2.25270
25. Moyer VA. Screening for HIV: U.S. Preventive Services Task Force recommendation statement. *Ann Intern Med* 2013;159(1):51–60. doi:10.7326/0003-4819-159-1-201307020-00645
26. Sherman SG, Park JN, Galai N, et al. Drivers of HIV infection among cisgender and transgender female sex worker populations in Baltimore City: Results from the SAPPHERE study. *J Acquir Immune Defic Syndr* 2019;80(5):513–521. doi:10.1097/QAI.0000000000001959
27. Singer M, Bulled N, Ostrach B, Mendenhall E. Syndemics and the biosocial conception of health. *Lancet* 2017;389(10072):941–950. doi:10.1016/S0140-6736(17)30003-X
28. Parsons JT, Antebi-Gruszka N, Millar BM, Cain D, Gurung S. Syndemic conditions, HIV transmission risk behavior, and transactional sex among transgender women. *AIDS Behav* 2018;22(7):2056–2067. doi:10.1007/s10461-018-2100-y
29. Fitzgerald E, Elspeth Patterson S, Hickey D, Biko C, Tobin HJ. Meaningful work: Transgender experiences in the sex trade. https://www.transequality.org/sites/default/files/Meaningful%20Work-Full%20Report_FINAL_3.pdf. Published December 2015. Accessed March 29, 2021.
30. James SE, Herman JL, Rankin S, Keisling M, Mottet L, Anafi M. The Report of the 2015 U.S. Transgender Survey. Washington, DC: National Center for Transgender Equality; 2016. <https://www.transequality.org/sites/default/files/docs/USTS-Full-Report-FINAL.PDF>. Accessed March 29, 2021.
31. Lelutiu-Weinberger C, English D, Sandanapitchai P. The roles of gender affirmation and discrimination in the resilience of transgender individuals in the US. *Behav Med* 2020;46(3–4):175–188. doi:10.1080/08964289.2020.1725414
32. CDC. Guidelines for defining public health research and public health non-research—revised October 4, 1999. <https://www.cdc.gov/os/integrity/docs/defining-public-health-research-non-research-1999.pdf>. Published October 1999. Accessed March 29, 2021.
33. Protection of Human Subjects, CFR 45, Part 46. <https://www.hhs.gov/ohrp/regulations-and-policy/regulations/45-cfr-46/index.html>. Revised January 2009. Accessed December 21, 2020.
34. Lansky A, Abdul-Quader AS, Cribbin M, et al. Developing an HIV behavioral surveillance system for injecting drug users: the National HIV Behavioral Surveillance system. *Public Health Rep* 2007;122(suppl 1):48–55.
35. Heckathorn DD. Respondent-driven sampling II: Deriving valid population estimates from chain-referral samples of hidden populations. *Soc Probl* 2002;49(1):11–34. doi:10.1525/sp.2002.49.1.11

Table 1. Selected characteristics of transgender women—National HIV Behavioral Surveillance, 7 U.S. cities, 2019–2020

	HIV-negative ^a		HIV-positive ^b		No valid NHBS HIV test result ^c		Total	
	No.	%	No.	%	No.	%	No.	%
Age at interview (yr)								
18–24	158	17.5	26	3.9	6	12.8	190	11.8
25–29	200	22.2	99	15.0	7	14.9	306	19.0
30–39	253	28.0	193	29.3	15	31.9	461	28.7
40–49	145	16.1	149	22.6	13	27.7	307	19.1
≥50	145	16.1	192	29.1	6	12.8	343	21.3
Race/ethnicity								
American Indian/Alaska Native	6	0.7	11	1.7	0	0.0	17	1.1
Asian	24	2.7	6	0.9	0	0.0	30	1.9
Black/African American	209	23.2	339	51.4	21	44.7	569	35.4
Hispanic/Latina ^d	407	45.1	219	33.2	17	36.2	643	40.0
Native Hawaiian/other Pacific Islander	35	3.9	7	1.1	0	0.0	42	2.6
White	146	16.2	30	4.6	4	8.5	180	11.2
Multiple races	74	8.2	45	6.8	5	10.6	124	7.7
Gender identity^e								
Woman	288	31.9	207	31.4	14	29.8	509	31.7
Man	2	0.2	4	0.6	0	0.0	6	0.4
Transgender woman	786	87.1	577	87.6	41	87.2	1,404	87.3
Transgender man	4	0.4	7	1.1	0	0.0	11	0.7
Gender not listed	66	7.3	25	3.8	3	6.4	94	5.8
Education								
Less than high school	180	20.0	156	23.7	11	23.4	347	21.6
High school diploma or equivalent	317	35.1	257	39.0	22	46.8	596	37.1
Some college or technical degree	270	29.9	206	31.3	10	21.3	486	30.2
College degree or more	133	14.7	40	6.1	4	8.5	177	11.0
Household income^f								
At or below the federal poverty level	548	60.8	430	65.3	30	63.8	1,008	62.7
Above the federal poverty level	344	38.1	225	34.1	16	34.0	585	36.4
Health insurance								
Yes	698	77.4	599	90.9	40	85.1	1,337	83.1
No	204	22.6	59	9.0	7	14.9	270	16.8
Visited a health care provider, past 12 months								
Yes	828	91.8	633	96.1	41	87.2	1,502	93.4
No	74	8.2	26	3.9	6	12.8	106	6.6
Homeless,^g past 12 months								
Yes	369	40.9	286	43.4	16	34.0	671	41.7
No	532	59.0	373	56.6	31	66.0	936	58.2

Table 1. Selected characteristics of transgender women—National HIV Behavioral Surveillance, 7 U.S. cities, 2019–2020 (cont)

	HIV-negative ^a		HIV-positive ^b		No valid NHBS HIV test result ^c		Total	
	No.	%	No.	%	No.	%	No.	%
Incarcerated,^h past 12 months								
Yes	138	15.3	132	20.0	7	14.9	277	17.2
No	763	84.6	525	79.7	40	85.1	1,328	82.6
City								
Atlanta, GA	52	5.8	73	11.1	7	14.9	132	8.2
Los Angeles, CA	331	36.7	164	24.9	9	19.1	504	31.3
New Orleans, LA	87	9.6	70	10.6	8	17.0	165	10.3
New York City, NY	129	14.3	141	21.4	9	19.1	279	17.4
Philadelphia, PA	104	11.5	109	16.5	7	14.9	220	13.7
San Francisco, CA	114	12.6	80	12.1	4	8.5	198	12.3
Seattle, WA	85	9.4	22	3.3	3	6.4	110	6.8
Total	902	100	659	100	47	100	1,608	100

Abbreviation: NHBS, National HIV Behavioral Surveillance.

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

^a Participants with a valid negative NHBS HIV test result.

^b Participants with a reactive rapid NHBS HIV test result supported by a second rapid test or supplemental laboratory-based testing.

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

^d Hispanics/Latinas can be of any race.

^e Percentages do not sum to 100% because participants were able to select more than 1 gender identity. Gender identities are not mutually exclusive.

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

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

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

Table 2. HIV prevalence among transgender women—National HIV Behavioral Surveillance, 7 U.S. cities, 2019–2020

	HIV-positive ^a		Total No.
	No.	%	
Age at interview (yr)			
18–24	26	14.1	184
25–29	99	33.1	299
30–39	193	43.3	446
40–49	149	50.7	294
≥50	192	57.0	337
Race/ethnicity			
American Indian/Alaska Native	11	64.7	17
Asian	6	20.0	30
Black/African American	339	61.9	548
Hispanic/Latina ^b	219	35.0	626
Native Hawaiian/other Pacific Islander	7	16.7	42
White	30	17.0	176
Multiple races	45	37.8	119
City			
Atlanta, GA	73	58.4	125
Los Angeles, CA	164	33.1	495
New Orleans, LA	70	44.6	157
New York City, NY	141	52.2	270
Philadelphia, PA	109	51.2	213
San Francisco, CA	80	41.2	194
Seattle, WA	22	20.6	107
Total	659	42.2	1,561

Abbreviation: NHBS, National HIV Behavioral Surveillance [footnotes only].

Note. Data include participants with a valid NHBS HIV test result.

^a Participants with a reactive rapid NHBS HIV test result supported by a second rapid test or supplemental laboratory-based testing.

^b Hispanics/Latinas can be of any race.

Table 3. HIV testing among transgender women—National HIV Behavioral Surveillance, 7 U.S. cities, 2019–2020

	Ever tested		Tested in past 12 months ^a		Total No.
	No.	%	No.	%	
Age at interview (yr)					
18–24	155	92.8	144	86.2	167
25–29	218	94.8	196	85.2	230
30–39	283	96.3	241	82.0	294
40–49	170	99.4	146	85.4	171
≥50	158	96.9	114	69.9	163
Race/ethnicity					
American Indian/Alaska Native	6	100	6	100	6
Asian	23	95.8	14	58.3	24
Black/African American	254	96.9	215	82.1	262
Hispanic/Latina ^b	451	97.6	400	86.6	462
Native Hawaiian/other Pacific Islander	27	77.1	22	62.9	35
White	144	93.5	118	76.6	154
Multiple races	78	96.3	65	80.2	81
City					
Atlanta, GA	63	94.0	52	77.6	67
Los Angeles, CA	379	98.2	328	85.0	386
New Orleans, LA	91	94.8	81	84.4	96
New York City, NY	143	95.3	129	86.0	150
Philadelphia, PA	111	95.7	92	79.3	116
San Francisco, CA	121	100	105	86.8	121
Seattle, WA	77	85.6	55	61.1	90
Total	985	96.0	842	82.1	1,026

Note. Data include all participants who did not report a previous HIV-positive test result and participants who received their first HIV-positive test result less than 12 months before interview.

^a "Past 12 months" refers to the 12 months before interview.

^b Hispanics/Latinas can be of any race.

Table 4. Setting of most recent HIV test among transgender women who were tested for HIV in the 12 months before interview—National HIV Behavioral Surveillance, 7 U.S. cities, 2019–2020

	Clinical setting ^a		Nonclinical setting ^b		Total No.
	No.	%	No.	%	
Age at interview (yr)					
18–24	96	66.7	45	31.3	144
25–29	124	63.3	65	33.2	196
30–39	152	63.1	78	32.4	241
40–49	83	56.8	54	37.0	146
≥50	70	61.4	40	35.1	114
Race/ethnicity					
American Indian/Alaska Native	4	66.7	2	33.3	6
Asian	13	92.9	1	7.1	14
Black/African American	135	62.8	68	31.6	215
Hispanic/Latina ^c	229	57.3	158	39.5	400
Native Hawaiian/other Pacific Islander	17	77.3	4	18.2	22
White	76	64.4	37	31.4	118
Multiple races	51	78.5	11	16.9	65
City					
Atlanta, GA	28	53.8	19	36.5	52
Los Angeles, CA	176	53.7	143	43.6	328
New Orleans, LA	59	72.8	21	25.9	81
New York City, NY	92	71.3	32	24.8	129
Philadelphia, PA	57	62.0	35	38.0	92
San Francisco, CA	73	69.5	19	18.1	105
Seattle, WA	41	74.5	13	23.6	55
Total	526	62.5	282	33.5	842

Abbreviation: HMO, health maintenance organization [footnotes only].

Note. Data report setting of most recent HIV test or first positive HIV test for participants who received their first HIV-positive test result less than 12 months before interview. Percentages may not add to 100% because of missing data and “other” locations, which could not be classified as clinical or nonclinical settings.

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

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

^c Hispanics/Latinas can be of any race.

Table 5a. Anal sex among transgender women in the 12 months before interview—National HIV Behavioral Surveillance, 7 U.S. cities, 2019–2020

	Insertive ^a anal sex only				Receptive ^b anal sex only				Both insertive ^a and receptive ^b anal sex				No anal sex ^{c,d}		Total No.
	Total ^c		Condomless ^e		Total ^c		Condomless ^e		Total ^c		Condomless ^e		No.	%	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
HIV-negative^f	30	3.3	24	2.7	379	42.0	272	30.2	282	31.3	242	26.8	211	23.4	902
Age at interview (yr)															
18–24	3	1.9	3	1.9	73	46.2	55	34.8	52	32.9	45	28.5	30	19.0	158
25–29	6	3.0	5	2.5	97	48.5	73	36.5	67	33.5	58	29.0	30	15.0	200
30–39	13	5.1	9	3.6	88	34.8	67	26.5	101	39.9	86	34.0	51	20.2	253
40–49	5	3.4	4	2.8	62	42.8	41	28.3	47	32.4	41	28.3	31	21.4	145
≥50	3	2.1	3	2.1	58	40.0	35	24.1	15	10.3	12	8.3	69	47.6	145
Race/ethnicity															
American Indian/ Alaska Native	0	0.0	0	0.0	1	16.7	1	16.7	3	50.0	3	50.0	2	33.3	6
Asian	0	0.0	0	0.0	3	12.5	3	12.5	9	37.5	8	33.3	12	50.0	24
Black/African															
American	13	6.2	10	4.8	93	44.5	65	31.1	60	28.7	51	24.4	43	20.6	209
Hispanic/Latino ^g	7	1.7	6	1.5	189	46.4	129	31.7	144	35.4	122	30.0	67	16.5	407
Native Hawaiian/other Pacific Islander	2	5.7	2	5.7	16	45.7	15	42.9	11	31.4	11	31.4	6	17.1	35
White	4	2.7	3	2.1	47	32.2	34	23.3	40	27.4	36	24.7	55	37.7	146
Multiple races	4	5.4	3	4.1	30	40.5	25	33.8	15	20.3	11	14.9	25	33.8	74
HIV-positive^h	13	2.0	5	0.8	283	42.9	167	25.3	210	31.9	148	22.5	153	23.2	659
Age at interview (yr)															
18–24	0	0.0	0	0.0	9	34.6	6	23.1	11	42.3	9	34.6	6	23.1	26
25–29	4	4.0	1	1.0	43	43.4	27	27.3	41	41.4	29	29.3	11	11.1	99
30–39	5	2.6	3	1.6	71	36.8	45	23.3	80	41.5	59	30.6	37	19.2	193
40–49	4	2.7	1	0.7	74	49.7	45	30.2	38	25.5	28	18.8	33	22.1	149
≥50	0	0.0	0	0.0	86	44.8	44	22.9	40	20.8	23	12.0	66	34.4	192
Race/ethnicity															
American Indian/ Alaska Native	0	0.0	0	0.0	6	54.5	2	18.2	5	45.5	3	27.3	0	0.0	11
Asian	0	0.0	0	0.0	0	0.0	0	0.0	3	50.0	2	33.3	3	50.0	6
Black/African															
American	8	2.4	4	1.2	147	43.4	88	26.0	104	30.7	70	20.6	80	23.6	339
Hispanic/Latino ^g	3	1.4	0	0.0	98	44.7	54	24.7	71	32.4	51	23.3	47	21.5	219
Native Hawaiian/other Pacific Islander	0	0.0	0	0.0	2	28.6	1	14.3	3	42.9	3	42.9	2	28.6	7
White	0	0.0	0	0.0	14	46.7	12	40.0	6	20.0	5	16.7	10	33.3	30
Multiple races	2	4.4	1	2.2	15	33.3	10	22.2	18	40.0	14	31.1	10	22.2	45

Table 5a. Anal sex among transgender women in the 12 months before interview—National HIV Behavioral Surveillance, 7 U.S. cities, 2019–2020 (cont)

	Insertive ^a anal sex only				Receptive ^b anal sex only				Both insertive ^a and receptive ^b anal sex				No anal sex ^{c,d}		Total No.
	Total ^c		Condomless ^e		Total ^c		Condomless ^e		Total ^c		Condomless ^e		No.	%	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
No valid NHBS HIV test result^f	5	10.6	4	8.5	15	31.9	9	19.1	16	34.0	11	23.4	11	23.4	47
Total	48	3.0	33	2.1	677	42.1	448	27.9	508	31.6	401	24.9	375	23.3	1,608

Abbreviation: NHBS, National HIV Behavioral Surveillance.

^a The participant reported putting their penis in a sex partner's butt or back hole during the 12 months before interview.

^b The participant reported a sex partner putting their penis in the participant's butt or back hole during the 12 months before interview.

^c The categories—insertive anal sex, receptive anal sex, both insertive and receptive anal sex, and no anal sex—are mutually exclusive.

^d The participant reported neither insertive anal sex nor receptive anal sex with a sex partner during the 12 months before interview. Includes participants who had oral sex but not anal sex with a sex partner.

^e The participant reported condomless sex with a sex partner during the 12 months before interview.

^f Participants with a valid negative NHBS HIV test result.

^g Hispanics/Latinas can be of any race.

^h Participants with a reactive rapid NHBS HIV test result supported by a second rapid test or supplemental laboratory-based testing.

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

Table 5b. Vaginal sex among transgender women in the 12 months before interview—National HIV Behavioral Surveillance, 7 U.S. cities, 2019–2020

	Insertive ^a vaginal sex only				Receptive ^b vaginal sex only				Both insertive ^a and receptive ^b vaginal sex				No vaginal sex ^{c,d}		Total No.
	Total ^c		Condomless ^e		Total ^c		Condomless ^e		Total ^c		Condomless ^e		No.	%	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
HIV-negative^f	94	10.4	70	7.8	45	5.0	35	3.9	15	1.7	13	1.4	748	82.9	902
Age at interview (yr)															
18–24	16	10.1	10	6.3	1	0.6	1	0.6	3	1.9	3	1.9	138	87.3	158
25–29	31	15.5	23	11.5	7	3.5	6	3.0	5	2.5	4	2.0	157	78.5	200
30–39	28	11.1	24	9.5	12	4.7	11	4.3	5	2.0	4	1.6	208	82.2	253
40–49	12	8.3	8	5.5	13	9.0	10	6.9	1	0.7	1	0.7	119	82.1	145
≥50	7	4.8	5	3.4	12	8.3	7	4.8	1	0.7	1	0.7	125	86.2	145
Race/ethnicity															
American Indian/ Alaska Native	0	0.0	0	0.0	1	16.7	0	0.0	0	0.0	0	0.0	5	83.3	6
Asian	1	4.2	0	0.0	1	4.2	1	4.2	1	4.2	1	4.2	21	87.5	24
Black/African															
American	9	4.3	6	2.9	11	5.3	9	4.3	6	2.9	5	2.4	183	87.6	209
Hispanic/Latino ^g	35	8.6	25	6.1	17	4.2	15	3.7	4	1.0	4	1.0	351	86.2	407
Native Hawaiian/other Pacific Islander	1	2.9	1	2.9	3	8.6	3	8.6	1	2.9	0	0.0	30	85.7	35
White	39	26.7	32	21.9	8	5.5	6	4.1	0	0.0	0	0.0	99	67.8	146
Multiple races	8	10.8	5	6.8	4	5.4	1	1.4	3	4.1	3	4.1	59	79.7	74
HIV-positive^h	34	5.2	22	3.3	24	3.6	16	2.4	9	1.4	6	0.9	592	89.8	659
Age at interview (yr)															
18–24	4	15.4	4	15.4	0	0.0	0	0.0	0	0.0	0	0.0	22	84.6	26
25–29	7	7.1	5	5.1	1	1.0	0	0.0	1	1.0	0	0.0	90	90.9	99
30–39	14	7.3	7	3.6	4	2.1	4	2.1	4	2.1	4	2.1	171	88.6	193
40–49	7	4.7	4	2.7	8	5.4	5	3.4	1	0.7	1	0.7	133	89.3	149
≥50	2	1.0	2	1.0	11	5.7	7	3.6	3	1.6	1	0.5	176	91.7	192
Race/ethnicity															
American Indian/ Alaska Native	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	11	100	11
Asian	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	6	100	6
Black/African															
American	22	6.5	14	4.1	12	3.5	5	1.5	7	2.1	5	1.5	298	87.9	339
Hispanic/Latino ^g	7	3.2	5	2.3	9	4.1	8	3.7	2	0.9	1	0.5	201	91.8	219
Native Hawaiian/other Pacific Islander	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	7	100	7
White	5	16.7	3	10.0	0	0.0	0	0.0	0	0.0	0	0.0	25	83.3	30
Multiple races	0	0.0	0	0.0	3	6.7	3	6.7	0	0.0	0	0.0	42	93.3	45

Table 5b. Vaginal sex among transgender women in the 12 months before interview—National HIV Behavioral Surveillance, 7 U.S. cities, 2019–2020 (cont)

	Insertive ^a vaginal sex only				Receptive ^b vaginal sex only				Both insertive ^a and receptive ^b vaginal sex				No vaginal sex ^{c,d}		Total No.
	Total ^c		Condomless ^e		Total ^c		Condomless ^e		Total ^c		Condomless ^e		No.	%	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%			
No valid NHBS HIV test result^f	1	2.1	0	0.0	2	4.3	0	0.0	2	4.3	2	4.3	42	89.4	47
Total	129	8.0	92	5.7	71	4.4	51	3.2	26	1.6	21	1.3	1,382	85.9	1,608

Abbreviation: NHBS, National HIV Behavioral Surveillance.

^a The participant reported putting their penis in a sex partner’s vagina or front hole during the 12 months before interview.

^b The participant reported a sex partner putting their penis in the participant’s vagina or front hole during the 12 months before interview.

^c The categories—insertive vaginal sex, receptive vaginal sex, both insertive and receptive vaginal sex, and no vaginal sex—are mutually exclusive.

^d The participant reported neither insertive vaginal sex nor receptive vaginal sex with a sex partner during the 12 months before interview. Includes participants who had oral sex but not vaginal sex with a sex partner.

^e The participant reported condomless sex with a sex partner during the 12 months before interview.

^f Participants with a valid negative NHBS HIV test result.

^g Hispanics/Latinas can be of any race.

^h Participants with a reactive rapid NHBS HIV test result supported by a second rapid test or supplemental laboratory-based testing.

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

Table 6a. Receipt of HIV prevention materials and services in the 12 months before interview among transgender women—National HIV Behavioral Surveillance, 7 U.S. cities, 2019–2020

	Free condoms ^a		Individual- or group-level intervention ^b		PrEP awareness ^c		PrEP use ^d		Total No.
	No.	%	No.	%	No.	%	No.	%	
HIV-negative^e	735	81.5	551	61.1	827	91.7	288	31.9	902
Age at interview (yr)									
18–24	136	86.1	103	65.2	146	92.4	53	33.5	158
25–29	171	85.5	123	61.5	189	94.5	70	35.0	200
30–39	204	80.6	143	56.5	227	89.7	84	33.2	253
40–49	117	80.7	95	65.5	137	94.5	54	37.2	145
≥50	106	73.1	86	59.3	127	87.6	26	17.9	145
Race/ethnicity									
American Indian/Alaska Native	6	100	4	66.7	6	100	4	66.7	6
Asian	14	58.3	12	50.0	21	87.5	6	25.0	24
Black/African American	164	78.5	132	63.2	200	95.7	64	30.6	209
Hispanic/Latina ^f	356	87.5	283	69.5	368	90.4	150	36.9	407
Native Hawaiian/other Pacific Islander	30	85.7	20	57.1	29	82.9	4	11.4	35
White	105	71.9	55	37.7	133	91.1	33	22.6	146
Multiple races	59	79.7	45	60.8	69	93.2	27	36.5	74
HIV-positive^g	540	81.9	441	66.9	—	—	—	—	659
Age at interview (yr)									
18–24	22	84.6	17	65.4	—	—	—	—	26
25–29	80	80.8	66	66.7	—	—	—	—	99
30–39	163	84.5	124	64.2	—	—	—	—	193
40–49	121	81.2	106	71.1	—	—	—	—	149
≥50	154	80.2	128	66.7	—	—	—	—	192
Race/ethnicity									
American Indian/Alaska Native	9	81.8	6	54.5	—	—	—	—	11
Asian	6	100	4	66.7	—	—	—	—	6
Black/African American	267	78.8	221	65.2	—	—	—	—	339
Hispanic/Latina ^f	191	87.2	160	73.1	—	—	—	—	219
Native Hawaiian/other Pacific Islander	6	85.7	5	71.4	—	—	—	—	7
White	21	70.0	12	40.0	—	—	—	—	30
Multiple races	38	84.4	31	68.9	—	—	—	—	45
No valid NHBS HIV test result^h	30	63.8	27	57.4	—	—	—	—	47
Total	1,305	81.2	1,019	63.4	—	—	—	—	1,608

Abbreviations: NHBS, National HIV Behavioral Surveillance; PrEP, preexposure prophylaxis.

^a Excludes condoms received from friends, relatives, or sex partners.

^b Individual-level intervention defined as a one-on-one conversation with an outreach worker, a counselor, or a prevention program worker about ways to prevent HIV. Group-level intervention defined as a small-group discussion that is part of an organized session about ways to prevent HIV; excludes informal discussions with friends. Conversations that were part of obtaining an HIV test were excluded.

^c Ever heard of PrEP, an antiretroviral medicine taken for months or years by a person who is HIV-negative to reduce the risk of getting HIV.

^d Took PrEP at any point in the 12 months before interview to reduce the risk of getting HIV.

^e Participants with a valid negative NHBS HIV test result.

^f Hispanics/Latinas can be of any race.

^g Participants with a reactive rapid NHBS HIV test result supported by a second rapid test or supplemental laboratory-based testing.

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

Table 6b. Receipt of HIV prevention materials and services in the 12 months before interview among transgender women, by area of residence—National HIV Behavioral Surveillance, 7 U.S. cities, 2019–2020

	Free condoms ^a		Individual- or group-level intervention ^b		PrEP awareness ^c		PrEP use ^d		Total No.
	No.	%	No.	%	No.	%	No.	%	
HIV-negative^e	735	81.5	551	61.1	827	91.7	288	31.9	902
City									
Atlanta, GA	37	71.2	27	51.9	48	92.3	12	23.1	52
Los Angeles, CA	288	87.0	229	69.2	303	91.5	89	26.9	331
New Orleans, LA	71	81.6	46	52.9	80	92.0	31	35.6	87
New York City, NY	105	81.4	88	68.2	118	91.5	55	42.6	129
Philadelphia, PA	83	79.8	56	53.8	100	96.2	35	33.7	104
San Francisco, CA	93	81.6	75	65.8	108	94.7	52	45.6	114
Seattle, WA	58	68.2	30	35.3	70	82.4	14	16.5	85
HIV-positive^f	540	81.9	441	66.9	—	—	—	—	659
City									
Atlanta, GA	55	75.3	48	65.8	—	—	—	—	73
Los Angeles, CA	149	90.9	129	78.7	—	—	—	—	164
New Orleans, LA	59	84.3	51	72.9	—	—	—	—	70
New York City, NY	115	81.6	98	69.5	—	—	—	—	141
Philadelphia, PA	84	77.1	53	48.6	—	—	—	—	109
San Francisco, CA	63	78.8	51	63.8	—	—	—	—	80
Seattle, WA	15	68.2	11	50.0	—	—	—	—	22
Total	1,305	81.2	1,019	63.4	—	—	—	—	1,608

Abbreviations: NHBS, National HIV Behavioral Surveillance; PrEP, preexposure prophylaxis.

^a Excludes condoms received from friends, relatives, or sex partners.

^b Individual-level intervention defined as a one-on-one conversation with an outreach worker, a counselor, or a prevention program worker about ways to prevent HIV. Group-level intervention defined as a small-group discussion that is part of an organized session about ways to prevent HIV; excludes informal discussions with friends. Conversations that were part of obtaining an HIV test were excluded.

^c Ever heard of PrEP, an antiretroviral medicine taken for months or years by a person who is HIV-negative to reduce the risk of getting HIV.

^d Took PrEP at any point in the 12 months before interview to reduce the risk of getting HIV.

^e Participants with a valid negative NHBS HIV test result.

^f Participants with a reactive rapid NHBS HIV test result supported by a second rapid test or supplemental laboratory-based testing.

Table 7. Receipt of HIV care and treatment among self-reported HIV-positive transgender women—National HIV Behavioral Surveillance, 7 U.S. cities, 2019–2020

	Visited health care provider about HIV								Total No.
	Ever		Within 1 month after diagnosis		During past 6 months		Currently taking antiretrovirals		
	No.	%	No.	%	No.	%	No.	%	
Age at interview (yr)									
18–24	24	96.0	16	64.0	22	88.0	23	92.0	25
25–29	84	92.3	61	67.0	81	89.0	81	89.0	91
30–39	171	96.1	116	65.2	154	86.5	153	86.0	178
40–49	135	96.4	90	64.3	128	91.4	131	93.6	140
≥50	172	95.0	106	58.6	165	91.2	163	90.1	181
Race/ethnicity									
American Indian/Alaska Native	10	90.9	5	45.5	10	90.9	10	90.9	11
Asian	6	100	5	83.3	6	100.0	6	100	6
Black/African American	307	95.3	207	64.3	285	88.5	286	88.8	322
Hispanic/Latino ^a	186	94.9	130	66.3	176	89.8	181	92.3	196
Native Hawaiian/other Pacific Islander	7	100	3	42.9	7	100	6	85.7	7
White	25	92.6	16	59.3	24	88.9	20	74.1	27
Multiple races	43	97.7	22	50.0	40	90.9	40	90.9	44
City									
Atlanta, GA	66	94.3	41	58.6	61	87.1	61	87.1	70
Los Angeles, CA	132	96.4	92	67.2	125	91.2	121	88.3	137
New Orleans, LA	68	97.1	43	61.4	64	91.4	68	97.1	70
New York City, NY	123	93.2	86	65.2	119	90.2	120	90.9	132
Philadelphia, PA	102	95.3	72	67.3	94	87.9	94	87.9	107
San Francisco, CA	77	97.5	46	58.2	71	89.9	70	88.6	79
Seattle, WA	18	90.0	9	45.0	16	80.0	17	85.0	20
Total	586	95.3	389	63.3	550	89.4	551	89.6	615

Abbreviation: NHBS, National HIV Behavioral Surveillance [footnotes only].

Note. Data include all participants who reported having ever received an HIV-positive test result (which may include those who did not have a valid NHBS test result, positive or negative, or who did not consent to the HIV test). “Past 6 months” refers to the 6 months before interview.

^a Hispanics/Latinas can be of any race.

Table 8. Drug use in the 12 months before interview and binge drinking in the 30 days before interview among transgender women—National HIV Behavioral Surveillance, 7 U.S. cities, 2019–2020

	Used drug	
	No.	%
HIV-negative^a		
Binge drinking (past 30 days) ^b	169	18.7
Any injection drugs	45	5.0
Any noninjection drugs (excludes binge drinking)	533	59.1
Cocaine	199	22.1
Crack	72	8.0
Downers ^c	102	11.3
Heroin	29	3.2
Marijuana	480	53.2
Methamphetamine	139	15.4
Prescription opioids ^d	71	7.9
HIV-positive^e		
Binge drinking (past 30 days) ^b	64	9.7
Any injection drugs	59	9.0
Any noninjection drugs (excludes binge drinking)	396	60.1
Cocaine	124	18.8
Crack	70	10.6
Downers ^c	43	6.5
Heroin	22	3.3
Marijuana	343	52.0
Methamphetamine	129	19.6
Prescription opioids ^d	45	6.8
No valid NHBS HIV test result^f		
Binge drinking (past 30 days) ^b	7	14.9
Any injection drugs	4	8.5
Any noninjection drugs (excludes binge drinking)	31	66.0
Cocaine	5	10.6
Crack	3	6.4
Downers ^c	1	2.1
Heroin	0	0.0
Marijuana	28	59.6
Methamphetamine	10	21.3
Prescription opioids ^d	6	12.8

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

Abbreviation: NHBS, National HIV Behavioral Surveillance.

Note. Denominator is the total number of participants in the category; HIV-negative participants: n = 902; HIV-positive participants: n = 659; participants without a valid NHBS HIV test result: n = 47. Responses are not mutually exclusive; percentages may not add to 100.

^a Participants with a valid negative NHBS HIV test result.

^b Defined as 5 or more drinks within about 2 hours during the 30 days before interview.

^c Benzodiazepines, such as Klonopin, Valium, Ativan, or Xanax.

^d Painkillers, such as OxyContin, Vicodin, morphine, or Percocet.

^e Participants with a reactive rapid NHBS HIV test result supported by a second rapid test or supplemental laboratory-based testing.

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

Table 9. Gender affirming medical treatment among transgender women—National HIV Behavioral Surveillance, 7 U.S. cities, 2019–2020

	Surgery for gender affirmation ^a														Total No.
	Had surgery for gender affirmation ^a				Did not have surgery for gender affirmation ^a				Hormone use for gender affirmation						
	Want more surgery for gender affirmation ^b		Do not want more surgery for gender affirmation ^b		Want to have surgery for gender affirmation ^c		Do not want to have surgery for gender affirmation ^c		Currently taking hormones for gender affirmation		Want to take hormones for gender affirmation ^d		Do not want to take hormones for gender affirmation ^d		
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
HIV-negative^e	138	15.3	119	13.2	482	53.4	109	12.1	604	67.0	209	23.2	74	8.2	902
Age at interview (yr)															
18–24	14	8.9	2	1.3	112	70.9	18	11.4	106	67.1	39	24.7	9	5.7	158
25–29	23	11.5	17	8.5	120	60.0	28	14.0	131	65.5	49	24.5	16	8.0	200
30–39	45	17.8	34	13.4	130	51.4	28	11.1	161	63.6	69	27.3	20	7.9	253
40–49	30	20.7	28	19.3	65	44.8	14	9.7	99	68.3	29	20.0	15	10.3	145
≥50	26	17.9	38	26.2	55	37.9	21	14.5	106	73.1	23	15.9	14	9.7	145
Race/ethnicity															
American Indian/ Alaska Native	1	16.7	0	0.0	4	66.7	0	0.0	4	66.7	0	0.0	2	33.3	6
Asian	4	16.7	6	25.0	7	29.2	2	8.3	13	54.2	6	25.0	3	12.5	24
Black/African American	25	12.0	26	12.4	113	54.1	32	15.3	138	66.0	53	25.4	16	7.7	209
Hispanic/Latino ^f	69	17.0	64	15.7	212	52.1	48	11.8	262	64.4	100	24.6	40	9.8	407
Native Hawaiian/other Pacific Islander	11	31.4	2	5.7	20	57.1	2	5.7	19	54.3	14	40.0	2	5.7	35
White	14	9.6	12	8.2	85	58.2	18	12.3	110	75.3	26	17.8	9	6.2	146
Multiple races	14	18.9	9	12.2	41	55.4	7	9.5	58	78.4	10	13.5	2	2.7	74
HIV-positive^g	86	13.1	99	15.0	339	51.4	105	15.9	512	77.7	96	14.6	45	6.8	659
Age at interview (yr)															
18–24	1	3.8	1	3.8	20	76.9	3	11.5	21	80.8	4	15.4	1	3.8	26
25–29	10	10.1	6	6.1	64	64.6	10	10.1	82	82.8	12	12.1	3	3.0	99
30–39	29	15.0	24	12.4	109	56.5	26	13.5	146	75.6	37	19.2	10	5.2	193
40–49	20	13.4	33	22.1	71	47.7	21	14.1	120	80.5	18	12.1	9	6.0	149
≥50	26	13.5	35	18.2	75	39.1	45	23.4	143	74.5	25	13.0	22	11.5	192
Race/ethnicity															
American Indian/ Alaska Native	1	9.1	1	9.1	6	54.5	2	18.2	8	72.7	1	9.1	1	9.1	11
Asian	1	16.7	3	50.0	2	33.3	0	0.0	6	100	0	0.0	0	0.0	6
Black/African American	34	10.0	48	14.2	173	51.0	73	21.5	269	79.4	45	13.3	22	6.5	339
Hispanic/Latino ^f	39	17.8	37	16.9	111	50.7	21	9.6	160	73.1	41	18.7	16	7.3	219
Native Hawaiian/other Pacific Islander	1	14.3	1	14.3	3	42.9	2	28.6	6	85.7	0	0.0	1	14.3	7
White	5	16.7	0	0.0	20	66.7	3	10.0	24	80.0	3	10.0	3	10.0	30
Multiple races	4	8.9	9	20.0	23	51.1	4	8.9	37	82.2	6	13.3	2	4.4	45

Table 9. Gender affirming medical treatment among transgender women—National HIV Behavioral Surveillance, 7 U.S. cities, 2019–2020 (cont)

	Surgery for gender affirmation ^a														Total No.
	Had surgery for gender affirmation ^a				Did not have surgery for gender affirmation ^a				Hormone use for gender affirmation						
	Want more surgery for gender affirmation ^b		Do not want more surgery for gender affirmation ^b		Want to have surgery for gender affirmation ^c		Do not want to have surgery for gender affirmation ^c		Currently taking hormones for gender affirmation		Want to take hormones for gender affirmation ^d		Do not want to take hormones for gender affirmation ^d		
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
No valid NHBS HIV test result^h	8	17.0	3	6.4	19	40.4	13	27.7	33	70.2	12	25.5	2	4.3	47
Total	232	14.4	221	13.7	840	52.2	227	14.1	1,149	71.5	317	19.7	121	7.5	1,608

Abbreviation: NHBS, National HIV Behavioral Surveillance.

^a Surgeries include vaginoplasty (turns a penis into a vagina), orchiectomy (removes the testicles), or breast augmentation (to make breasts bigger).

^b Participants were asked whether they wanted more surgeries (from vaginoplasty, orchiectomy, and/or breast augmentation) if they reported having vaginoplasty, orchiectomy, or breast augmentation.

^c Participants were asked whether they wanted a vaginoplasty, orchiectomy, and/or breast augmentation if they reported not having vaginoplasty, orchiectomy, or breast augmentation.

^d Participants who are not currently taking hormones were asked whether they want to take hormones for gender affirmation.

^e Participants with a valid negative NHBS HIV test result.

^f Hispanics/Latinas can be of any race.

^g Participants with a reactive rapid NHBS HIV test result supported by a second rapid test or supplemental laboratory-based testing.

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

Table 10. Additional sexual behavior outcomes among transgender women—National HIV Behavioral Surveillance, 7 U.S. cities, 2019–2020

	Number of sex partners Median (Q1–Q3)	Exchange sex ^a		Condomless sex with an HIV-discordant partner at last sex ^b		Total No.
		No.	%	No.	%	
HIV-negative^e	3(1–10)	308	34.1	112	12.4	902
Age at interview (yr)						
18–24	5(1–20)	64	40.5	16	10.1	158
25–29	5(2–10)	72	36.0	28	14.0	200
30–39	4(1–11)	97	38.3	34	13.4	253
40–49	3(1–10)	42	29.0	20	13.8	145
≥50	1(0–4)	32	22.1	14	9.7	145
Race/ethnicity						
American Indian/Alaska Native	4(2–9)	2	33.3	0	0.0	6
Asian	2(1–6)	4	16.7	0	0.0	24
Black/African American	3(1–8)	72	34.4	23	11.0	209
Hispanic/Latino ^f	4(1–11)	151	37.1	68	16.7	407
Native Hawaiian/other Pacific Islander	4(1–20)	11	31.4	2	5.7	35
White	3(1–7)	41	28.1	11	7.5	146
Multiple races	3(1–6)	27	36.5	8	10.8	74
HIV-positive^g	2(1–6)	228	34.6	183	27.8	659
Age at interview (yr)						
18–24	4(3–12)	12	46.2	4	15.4	26
25–29	4(1–10)	41	41.4	35	35.4	99
30–39	3(1–10)	76	39.4	53	27.5	193
40–49	2(1–5)	54	36.2	43	28.9	149
≥50	1(0–4)	45	23.4	48	25.0	192
Race/ethnicity						
American Indian/Alaska Native	4(1–20)	5	45.5	5	45.5	11
Asian	10(0–60)	3	50.0	1	16.7	6
Black/African American	2(1–6)	115	33.9	88	26.0	339
Hispanic/Latino ^f	3(1–6)	71	32.4	70	32.0	219
Native Hawaiian/other Pacific Islander	5(1–15)	3	42.9	1	14.3	7
White	3(1–10)	9	30.0	7	23.3	30
Multiple races	3(1–5)	21	46.7	10	22.2	45
No valid NHBS HIV test result^h	3(1–10)	13	27.7	7	14.9	47
Total	3(1–8)	549	34.1	302	18.8	1,608

Abbreviations: Q, quartile; NHBS, National HIV Behavioral Surveillance.

Note. Unless otherwise stated, outcomes are reported for the 12 months before interview.

^a “Exchange sex” refers to receiving money or drugs from a sex partner in exchange for sex.

^b “Condomless sex” refers to whether the participant reported engaging in vaginal or anal sex without a condom during their most recent sexual encounter (“last sex”). “HIV-discordant partner” refers to a sex partner of different or unknown HIV status.

^c Participants with a valid negative NHBS HIV test result.

^d Hispanics/Latinas can be of any race.

^e Participants with a reactive rapid NHBS HIV test result supported by a second rapid test or supplemental laboratory-based testing.

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

Table 11. Abuse and harassment among transgender women in the 12 months before interview—National HIV Behavioral Surveillance, 7 U.S. cities, 2019–2020

	Verbally abused or harassed ^a		Physically abused or harassed ^b		Physically abused or harassed by a sexual partner ^c		Forced sex ^d		Total No.
	No.	%	No.	%	No.	%	No.	%	
HIV-negative^e	525	58.2	258	28.6	142	15.7	146	16.2	902
Age at interview (yr)									
18–24	111	70.3	61	38.6	41	25.9	27	17.1	158
25–29	119	59.5	61	30.5	38	19.0	49	24.5	200
30–39	153	60.5	73	28.9	40	15.8	43	17.0	253
40–49	76	52.4	39	26.9	16	11.0	19	13.1	145
≥50	65	44.8	24	16.6	7	4.8	8	5.5	145
Race/ethnicity									
American Indian/Alaska Native	4	66.7	1	16.7	1	16.7	2	33.3	6
Asian	14	58.3	5	20.8	3	12.5	4	16.7	24
Black/African American	103	49.3	45	21.5	29	13.9	23	11.0	209
Hispanic/Latino ^f	237	58.2	125	30.7	66	16.2	69	17.0	407
Native Hawaiian/other Pacific Islander	12	34.3	5	14.3	6	17.1	6	17.1	35
White	109	74.7	53	36.3	27	18.5	29	19.9	146
Multiple races	45	60.8	24	32.4	10	13.5	13	17.6	74
HIV-positive^g	321	48.7	158	24.0	99	15.0	87	13.2	659
Age at interview (yr)									
18–24	16	61.5	3	11.5	4	15.4	6	23.1	26
25–29	53	53.5	34	34.3	20	20.2	17	17.2	99
30–39	103	53.4	57	29.5	34	17.6	36	18.7	193
40–49	75	50.3	29	19.5	24	16.1	15	10.1	149
≥50	74	38.5	35	18.2	17	8.9	13	6.8	192
Race/ethnicity									
American Indian/Alaska Native	7	63.6	3	27.3	3	27.3	2	18.2	11
Asian	2	33.3	1	16.7	0	0.0	1	16.7	6
Black/African American	144	42.5	68	20.1	42	12.4	37	10.9	339
Hispanic/Latino ^f	127	58.0	62	28.3	40	18.3	36	16.4	219
Native Hawaiian/other Pacific Islander	2	28.6	1	14.3	1	14.3	1	14.3	7
White	21	70.0	16	53.3	4	13.3	4	13.3	30
Multiple races	18	40.0	7	15.6	9	20.0	5	11.1	45
No valid NHBS HIV test result^h	19	40.4	11	23.4	4	8.5	4	8.5	47
Total	865	53.8	427	26.6	245	15.2	237	14.7	1,608

Abbreviation: NHBS, National HIV Behavioral Surveillance.

^a Verbally abused or harassed because of gender identity or presentation in the past 12 months.

^b Physically abused or harassed because of gender identity or presentation in the past 12 months.

^c Physically abused or harassed by a sexual partner in the past 12 months.

^d Physically forced or verbally threatened to have any sexual contact when they did not want to in the past 12 months.

^e Participants with a valid negative NHBS HIV test result.

^f Hispanics/Latinas can be of any race.

^g Participants with a reactive rapid NHBS HIV test result supported by a second rapid test or supplemental laboratory-based testing.

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

Table 12. Suicidal ideation and behavior among transgender women in the 12 months before interview—National HIV Behavioral Surveillance, 7 U.S. cities, 2019–2020

	Seriously thought about suicide ^a		Made plans for suicide		Attempted suicide		Total No.
	No.	%	No.	%	No.	%	
HIV-negative^b	198	22.0	80	8.9	51	5.7	902
Age at interview (yr)							
18–24	47	29.7	20	12.7	17	10.8	158
25–29	52	26.0	25	12.5	15	7.5	200
30–39	56	22.1	19	7.5	9	3.6	253
40–49	25	17.2	12	8.3	8	5.5	145
≥50	18	12.4	4	2.8	2	1.4	145
Race/ethnicity							
American Indian/Alaska Native	2	33.3	1	16.7	0	0.0	6
Asian	6	25.0	3	12.5	1	4.2	24
Black/African American	32	15.3	11	5.3	8	3.8	209
Hispanic/Latino ^c	72	17.7	30	7.4	20	4.9	407
Native Hawaiian/other Pacific Islander	3	8.6	1	2.9	1	2.9	35
White	68	46.6	28	19.2	17	11.6	146
Multiple races	15	20.3	6	8.1	4	5.4	74
HIV-positive^d	82	12.4	28	4.2	17	2.6	659
18–24	2	7.7	0	0.0	0	0.0	26
25–29	17	17.2	5	5.1	2	2.0	99
30–39	27	14.0	7	3.6	7	3.6	193
40–49	19	12.8	10	6.7	5	3.4	149
≥50	17	8.9	6	3.1	3	1.6	192
Race/ethnicity							
American Indian/Alaska Native	1	9.1	1	9.1	0	0.0	11
Asian	0	0.0	0	0.0	0	0.0	6
Black/African American	41	12.1	11	3.2	5	1.5	339
Hispanic/Latino ^c	32	14.6	13	5.9	9	4.1	219
Native Hawaiian/other Pacific Islander	1	14.3	0	0.0	0	0.0	7
White	5	16.7	2	6.7	2	6.7	30
Multiple races	2	4.4	1	2.2	1	2.2	45
No valid NHBS HIV test result^e	4	8.5	1	2.1	0	0.0	47
Total	284	17.7	109	6.8	68	4.2	1,608

Abbreviation: NHBS, National HIV Behavioral Surveillance.

^a Seriously thought about trying to kill themselves in the past 12 months.

^b Participants with a valid negative NHBS HIV test result.

^c Hispanics/Latinas can be of any race.

^d Participants with a reactive rapid NHBS HIV test result supported by a second rapid test or supplemental laboratory-based testing.

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

Appendix: Measurement Notes

SOCIODEMOGRAPHIC CHARACTERISTICS

- Gender: Woman or transgender woman.
- Age: Calculated from the reported month and year of birth.
- Race/ethnicity: Participants reported 1 or more racial categories (American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or other Pacific Islander, and White). Hispanic/Latino ethnicity was asked separately; participants reporting Hispanic/Latino ethnicity were considered Hispanic/Latino, regardless of reported race. Participants reporting multiple races (but not Hispanic/Latino ethnicity) were classified as multiple races.
- Education: Highest level of education completed.
- Household income: Participants were asked about their combined monthly or yearly household income (in US\$) from all sources for the calendar year before interview.
- Health insurance: Currently having some form of health insurance.
- Homeless: Living on the street, in a shelter, in a single-room–occupancy hotel, or in a car at any time during the 12 months before interview.
- Incarcerated: Having been held in a detention center, jail, or prison, for more than 24 hours during the 12 months before interview.
- City: Throughout this report, eligible metropolitan statistical areas (MSAs) and divisions are referred to by the name of the principal city. State and local health departments eligible to participate in NHBS are those in jurisdictions that included an MSA or a specified division within an MSA with high prevalence of HIV. This report presents 2019–2020 data in 7 MSAs (see full list of MSAs under Participating Cities).

HIV STATUS

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

- HIV-negative: Participants with a valid negative NHBS HIV test result.
- HIV-positive: Participants with a reactive rapid NHBS HIV test result supported by a second rapid test or supplemental laboratory-based testing. The second rapid test or supplemental laboratory-based testing was only required among participants who reported a negative or unknown status in the survey, or who were self-reported positive but whose first rapid test was negative. Participants who self-reported being HIV-positive, and whose first rapid test was positive, were only given one rapid test.
- No valid NHBS HIV test result: Participants who did not have a valid positive or negative NHBS HIV test result, including those who did not consent to the HIV test, had an indeterminate laboratory result, had discordant rapid test results, or reported a previous HIV-positive test result but had a negative NHBS HIV test result.

HIV TESTING

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

SEXUAL BEHAVIORS

- Sex: Includes vaginal, oral, or anal sex.
- Vaginal sex: Penis inserted into a partner's vagina or front hole.
- Oral sex: Mouth on a partner's vagina or penis.
- Anal sex: Penis inserted into a partner's butt or back hole.
- Condomless sex: Vaginal or anal sex during which a condom either is not used or is not used at any time throughout the sex act.

RECEIPT OF HIV PREVENTION

- Free condoms: Received free condoms during the 12 months before interview, not including those given by a friend, relative, or sex partner.
- Individual- or group-level intervention: A composite measure based on having received individual- or group-level HIV interventions. An individual-level intervention is a one-on-one conversation with an outreach worker, a counselor, or a prevention program worker about ways to prevent HIV, excluding conversations that were part of HIV testing. A group-level intervention is a small-group discussion (as part of an organized session) about ways to prevent HIV, excluding informal discussions with friends.
- PrEP awareness: Ever heard of PrEP, an antiretroviral medicine taken for months or years by a person who is HIV-negative to reduce the risk of getting HIV.
- PrEP use: Took PrEP at any point in the 12 months before interview to reduce the risk of getting HIV.

NONINJECTION DRUG USE

Participants were asked about their noninjection use of drugs (excluding those prescribed for them) in the 12 months before interview and their use of alcohol during the 30 days before interview. Participants were not limited in the number of substances they could report. Participants were considered to have used a substance if they reported using that substance with any frequency other than “never.”

- Binge drinking: Consumed 5 or more alcoholic drinks in about 2 hours during the 30 days before interview.

- Any noninjection drug: Used any noninjection drug, excluding hormones, that were not prescribed.
- Cocaine: Used powder cocaine during the 12 months before interview.
- Crack: Used crack cocaine during the 12 months before interview.
- Downers: Used downers (benzodiazepines), such as Klonopin, Valium, Ativan, or Xanax, during the 12 months before interview.
- Heroin: Used heroin (smoked or snorted) during the 12 months before interview.
- Marijuana: Used marijuana during the 12 months before interview.
- Methamphetamine: Used methamphetamines, including meth, crystal meth, speed, or crank, during the 12 months before interview.
- Prescription opioids: Used pain killers, such as OxyContin, Vicodin, morphine, or Percocet, during the 12 months before interview.

GENDER-AFFIRMING MEDICAL TREATMENT

Participants were asked about hormones and surgeries they may have used to help make their body align with their gender identity.

- Hormones: Ever taken hormones for gender transition or affirmation; used hormones in the 12 months before interview; currently taking hormones at the time of the interview; want hormones for gender transition or affirmation.
- Surgery: Ever had any type of surgery for gender affirmation; want surgery for gender transition or affirmation; want additional surgeries for gender transition or affirmation.
- Types of surgeries: Vaginoplasty, which is a surgery that turns a penis into a vagina; orchiectomy, which is a surgery to remove the testicles; breast augmentation, which is a surgery to make breasts bigger.

Participating Metropolitan Statistical Areas, 2019–2020

Principal city	Metropolitan statistical area (division)
Atlanta, Georgia	Atlanta–Sandy Springs–Roswell, Georgia
Los Angeles, California	Los Angeles–Long Beach–Anaheim, California (Los Angeles Division)
New Orleans, Louisiana	New Orleans–Metairie, Louisiana
New York, New York	New York–Newark–Jersey City, New York–New Jersey–Pennsylvania (New York Division)
Philadelphia, Pennsylvania	Philadelphia–Camden–Wilmington, Pennsylvania–New Jersey–Delaware–Maryland (Philadelphia Division)
San Francisco, California	San Francisco–Oakland–Hayward, California (San Francisco Division)
Seattle, Washington	Seattle–Tacoma–Bellevue, Washington (Seattle Division)