

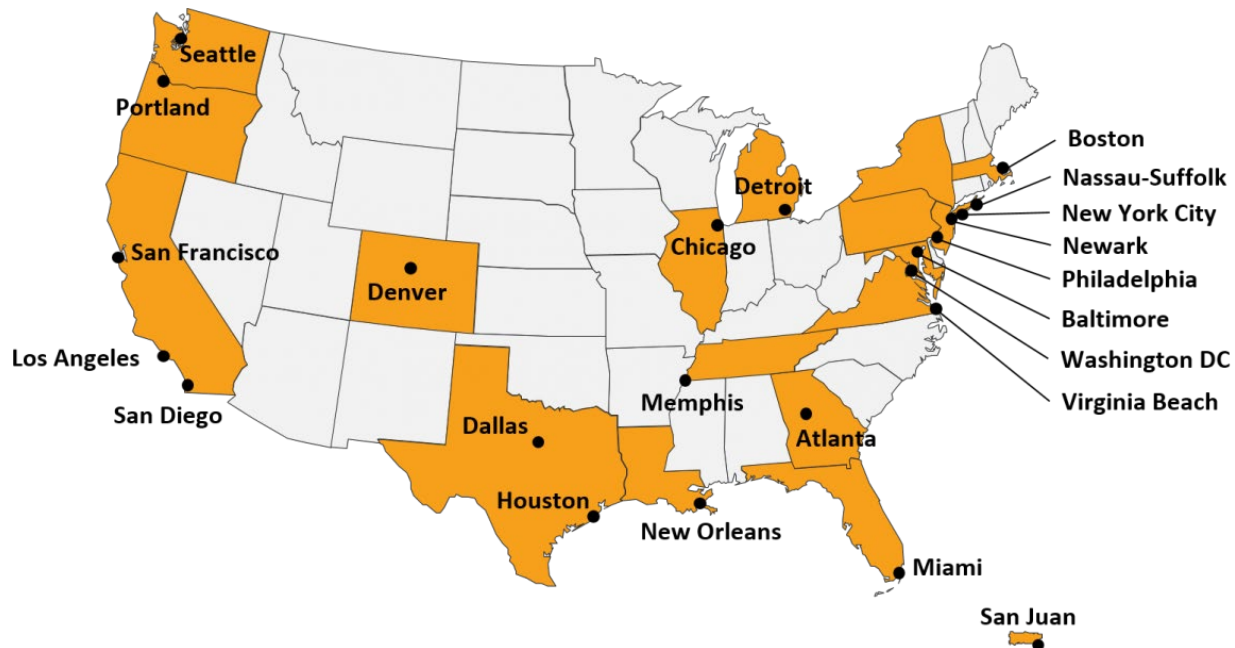


# National HIV Behavioral Surveillance (NHBS): Memphis

Tennessee Department of Health

# National HIV Behavioral Surveillance (NHBS) Program Overview

- Centers for Disease Control and Prevention (CDC) funded project, 20+ sites since 2003
- Purpose: to improve understanding of HIV vulnerability and strengthen local service delivery for priority populations



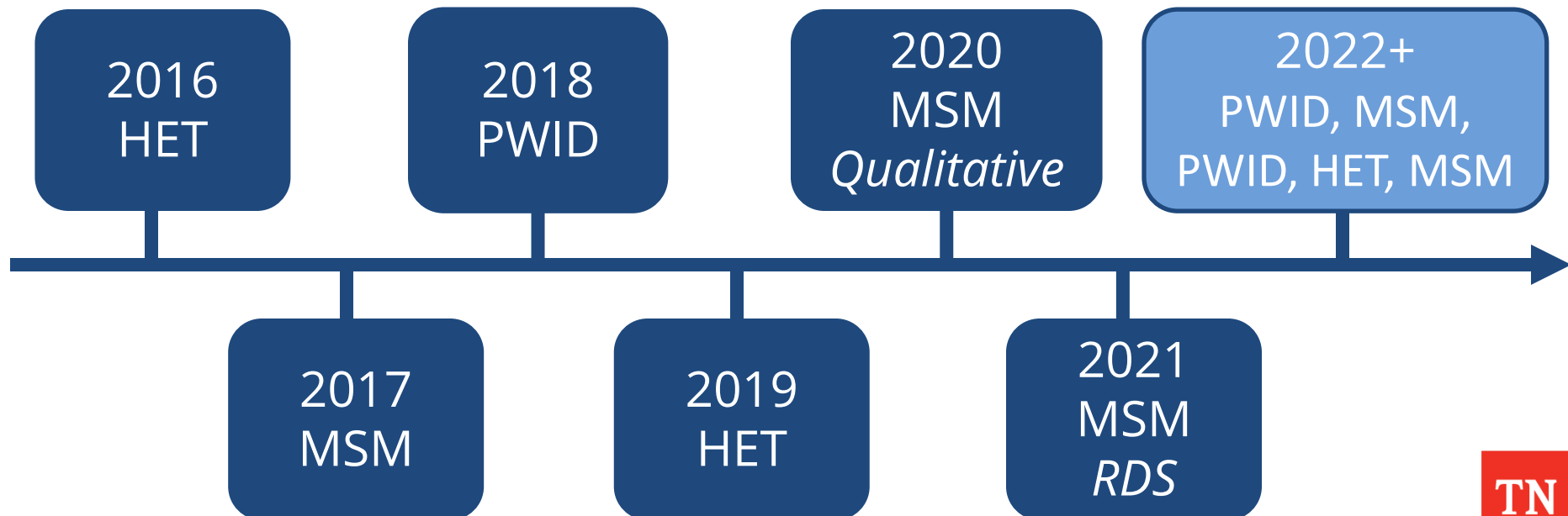
# National HIV Behavioral Surveillance (NHBS) Program Overview

- NHBS Memphis project and team
- Formative assessment: interviews with professional key informants, community key informants and focus groups
- Recruitment of participants: venue-based sampling and respondent driven sampling (peer to peer)
- Anonymous surveys and on-site HIV, STI, and/or hepatitis C virus (HCV) testing
- Referrals to care and other services
- Data collected and uses

# National HIV Behavioral Surveillance (NHBS) Program Overview

Rotating, annual cycles in 3 priority populations:

- HET: Heterosexual adults at increased risk for HIV
- MSM: Gay, bisexual, and other men who have sex with men
- PWID: Persons who inject drugs



# NHBS Memphis (2016–Present)

## Tennessee Department of Health

- Meredith Brantley: Principal Investigator
- Monica Kent: Project Coordinator
- Iran Yarbrough: Field Supervisor
- Bridgette Robinson: Field Supervisor/Project Associate
- Jack Marr: Data Manager
- Temporary field interviewers/testers

## University of Memphis

- Latrice Pichon: Community Engagement Consultant



# NHBS Memphis Team – 2018 & 2019



# NHBS Recruitment Strategies

## **Venue Based Sampling (VBS; MSM, pre-2021)**

- Sample venues and day-time periods
- Conduct recruitment events to enroll participants
- Incentives for survey and testing

## **Respondent Driven Sampling (RDS; HET, PWID, MSM\*)**

- Identify network via formative assessment
- Recruit, screen, and interview “seeds”
- Seeds generate “recruits” via referral coupons
- Incentives for survey, testing, and recruiting peers

\*Respondent driven sampling was used during the 2021 MSM cycle



# Formative Assessment (~January–May)

## How

- Led by Dr. Latrice Pichon, support by TDH team
- Interviews with professional and community key informants
- Pre-2020: in-person; 2020–present: virtual interviews

## Why

- Garner support of the community
- Define social and demographic characteristics of the survey population
- Develop strategies for recruitment (VBS or RDS)
- Inform local questions
- Guide on-going implementation of NHBS



# Respondent Driven Sampling Coupons

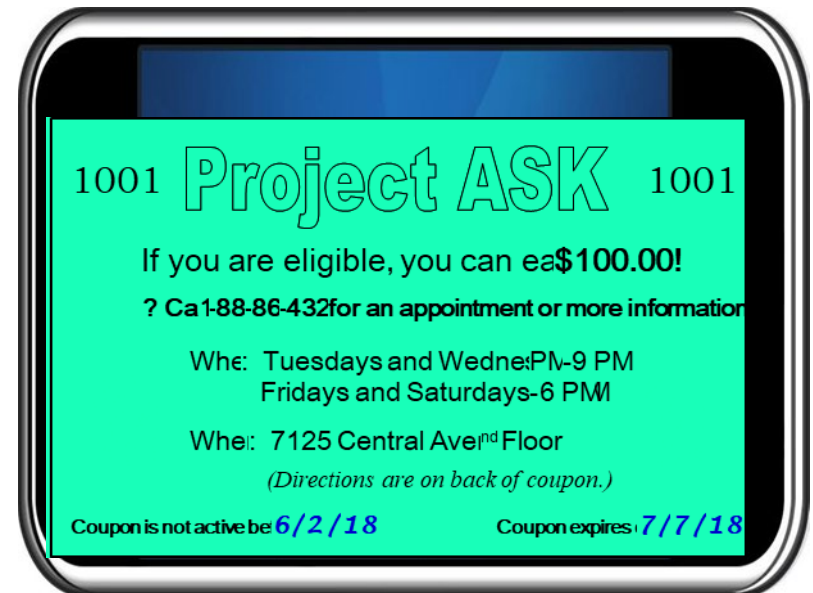


0025

You have an appointment on  
Day: \_\_\_\_ Date: \_\_/\_\_/\_\_ Time: \_\_: \_\_  
If selected, you can earn up to \$175

Monday 10:00 am – 4:00 pm	Tuesday 1:00 pm – 7:00 pm
Wednesday 10:00 am – 4:00 pm	Thursday 1:00 pm – 7:00 pm
Friday 10 am – 4:00 pm	

Call 615-917-0688 if you have any questions or need to reschedule



1001 Project ASK 1001

If you are eligible, you can ea\$100.00!  
? Ca 1-88-86-432for an appointment or more information

Whe: Tuesdays and Wedne:PN-9 PM  
Fridays and Saturdays-6 PM

Whe: 7125 Central Ave<sup>nd</sup> Floor  
(Directions are on back of coupon.)

Coupon is not active be 6/2/18 Coupon expires: 7/7/18

# Data Collection (~June–November)

- Standardized questionnaires (anonymous survey) administered by a trained interviewer/tester
- All participants offered HIV, STI, and/or hepatitis C virus testing (rapid testing, self collected swabs)
- Prevention materials provided to all participants, including ineligible (e.g., condoms, local resources, hygiene kits)
- Referrals to care and other services provided to interested participants
- Incentives provided via gift cards

# Flow of Surveys and Testing

- Screener/intake + hand-off to interviewer
- Consent
- Interview
- HIV and potential HCV/STI test
- Recruitment for RDS recruitment
- Incentives



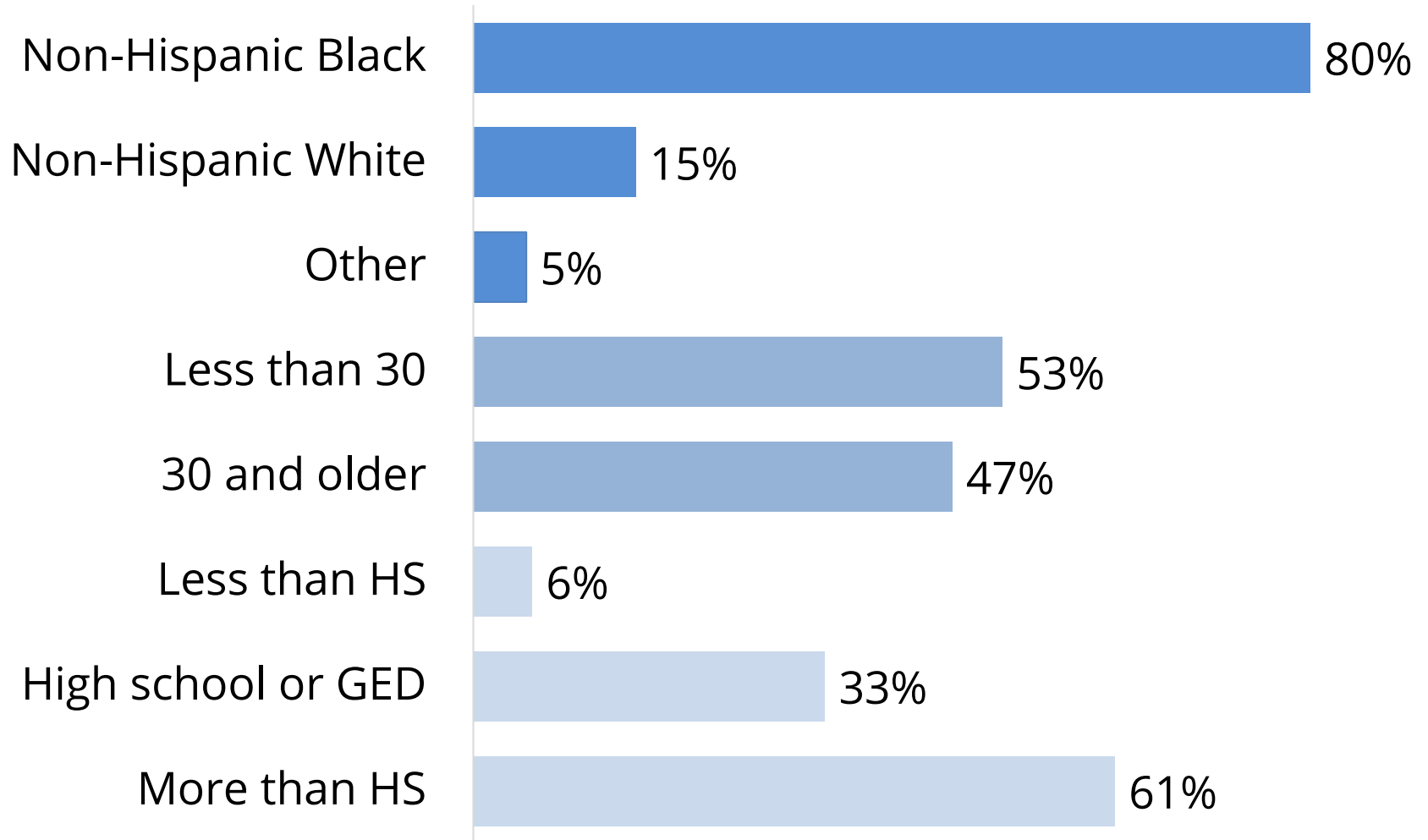
# How Do We Use NHBS Data?

- Opportunity to reach priority populations, provide resources and testing
- Inform local HIV prevention
  - Data shared with HIV planning committees (e.g., EHE)
  - Inform decisions at state level regarding SSPs, barriers to care and testing
- Inform national HIV prevention
  - Diverse sample from over 20 cities
  - Trends over time for HIV testing, PrEP use, and substance use

# Data captured

- Core survey includes questions on
  - Demographics (i.e. income, education, zip code)
  - HIV, STI, and HCV testing and treatment
  - HIV risk behavior (sexual behavior and drug use)
  - Use of prevention strategies (e.g., condoms, PrEP)
  - Disability, depression score, experiences of assault and discrimination (MSM)
- Unique local survey
- On site HIV, HCV, STI testing (dependent on cycle)

# Characteristics/demographics of NHBS Memphis MSM5 (2017) participants (N=356)

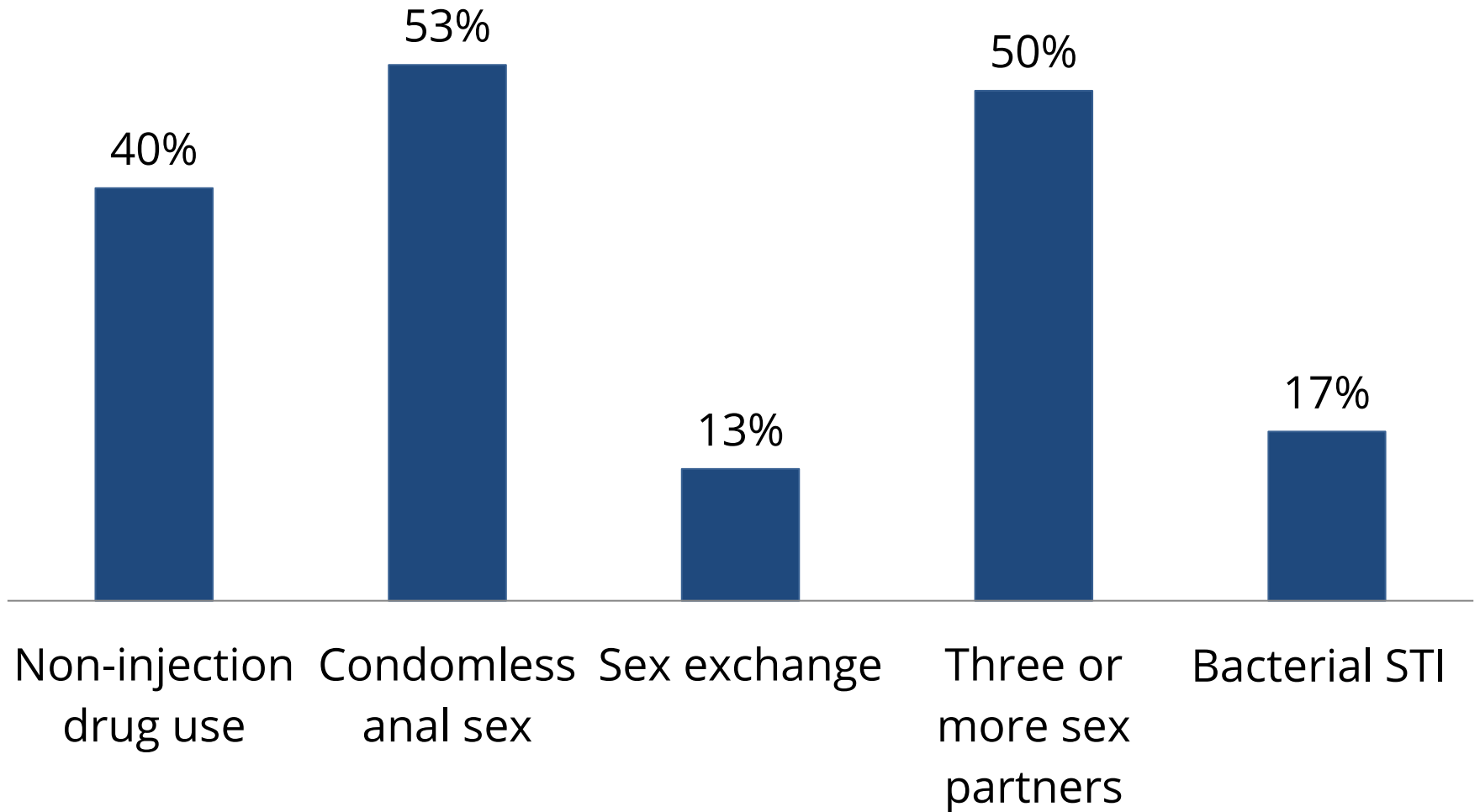


# HIV testing behavior and results of NHBS Memphis MSM5 (2017) participants (N=356)

	N	%
Ever tested for HIV (N=356)		
Yes	333	93%
No	23	7%
Tested for HIV in past 12 months* (N=260)		
Yes	199	76%
No	61	24%
NHBS HIV test result (N=356)		
Negative	198	56%
Positive	114	32%
Unknown/no test	44	12%

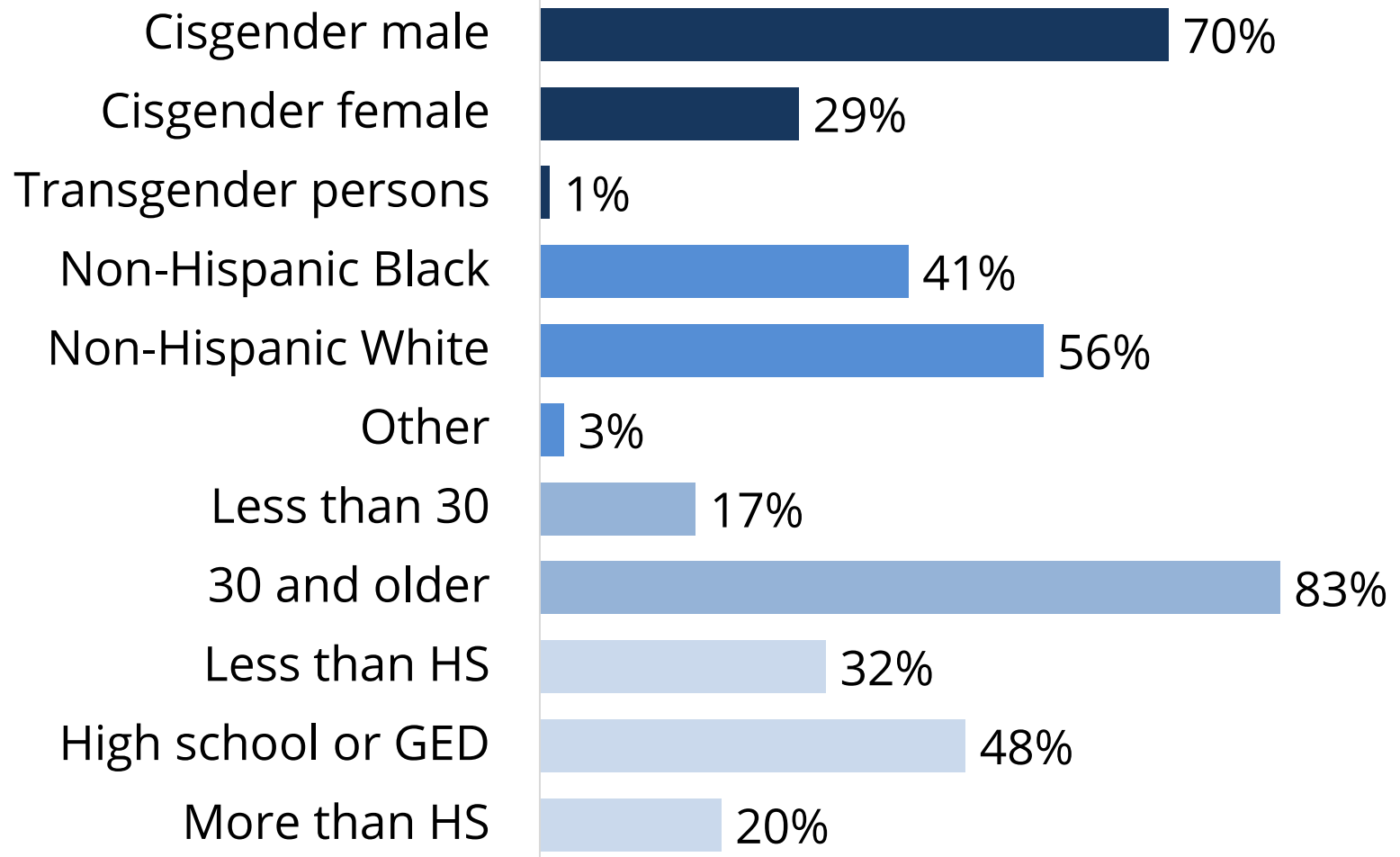
\*excludes individuals who self-reported living with HIV

# Risk behaviors in past 12 months of NHBS Memphis MSM5 (2017) participants (N=356)





# Characteristics/demographics of NHBS Memphis IDU5 (2018) participants (N=564)

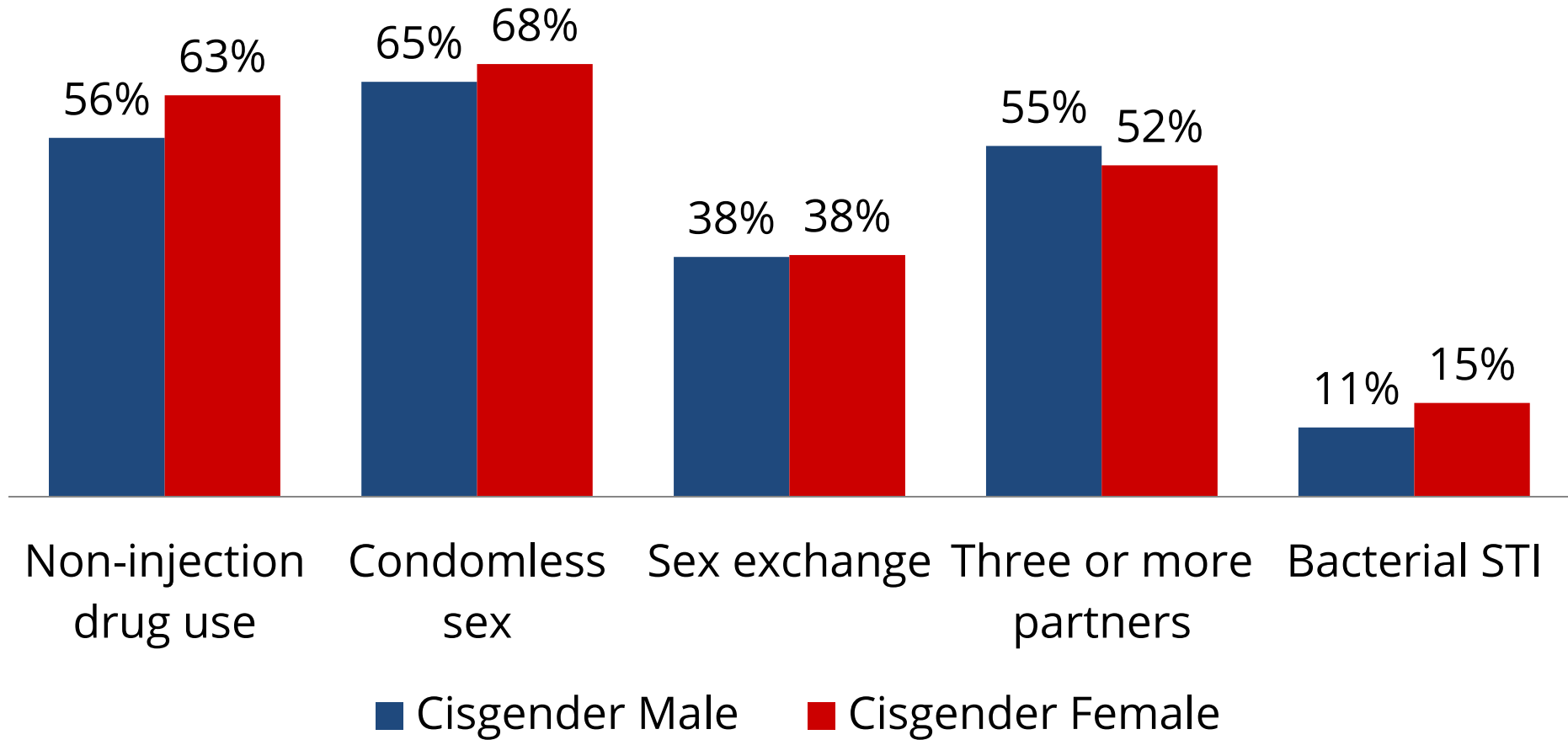


# HIV testing behavior and results of NHBS Memphis IDU5 (2018) participants (N=564)

	N	%
Ever tested for HIV		
Yes	423	75%
No	139	25%
Unknown	2	<1%
Tested for HIV in past 12 months* (N=538)		
Yes	228	42%
No	312	58%
Unknown	2	<1%
NHBS HIV test result		
Positive	30	5%
Negative	527	93%
Unknown/no test	7	1%

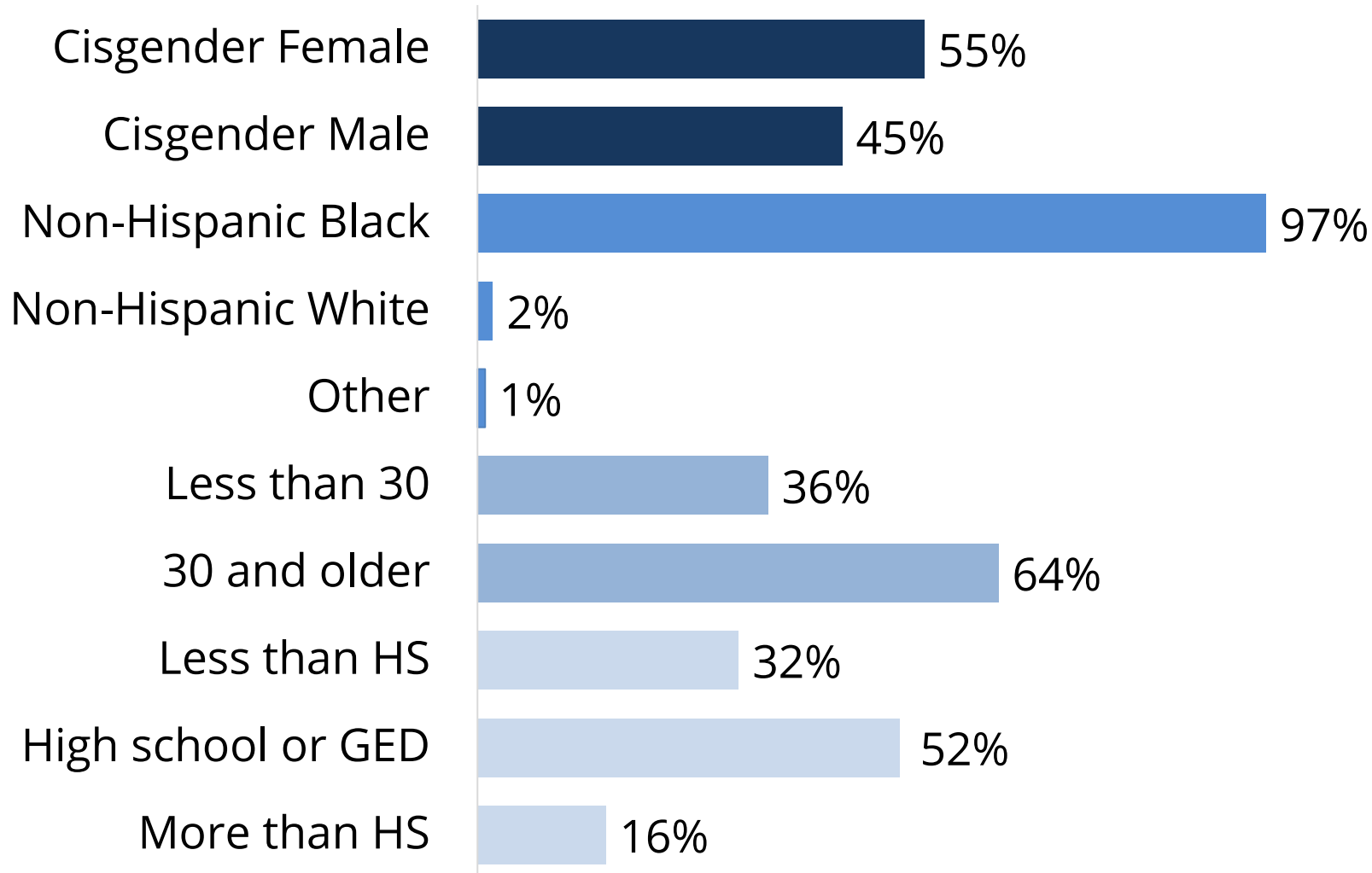
\*excludes individuals who self-reported living with HIV

# Risk behaviors in past 12 months of NHBS Memphis IDU5 (2018) participants (N=558\*)



\*excludes transgender participants

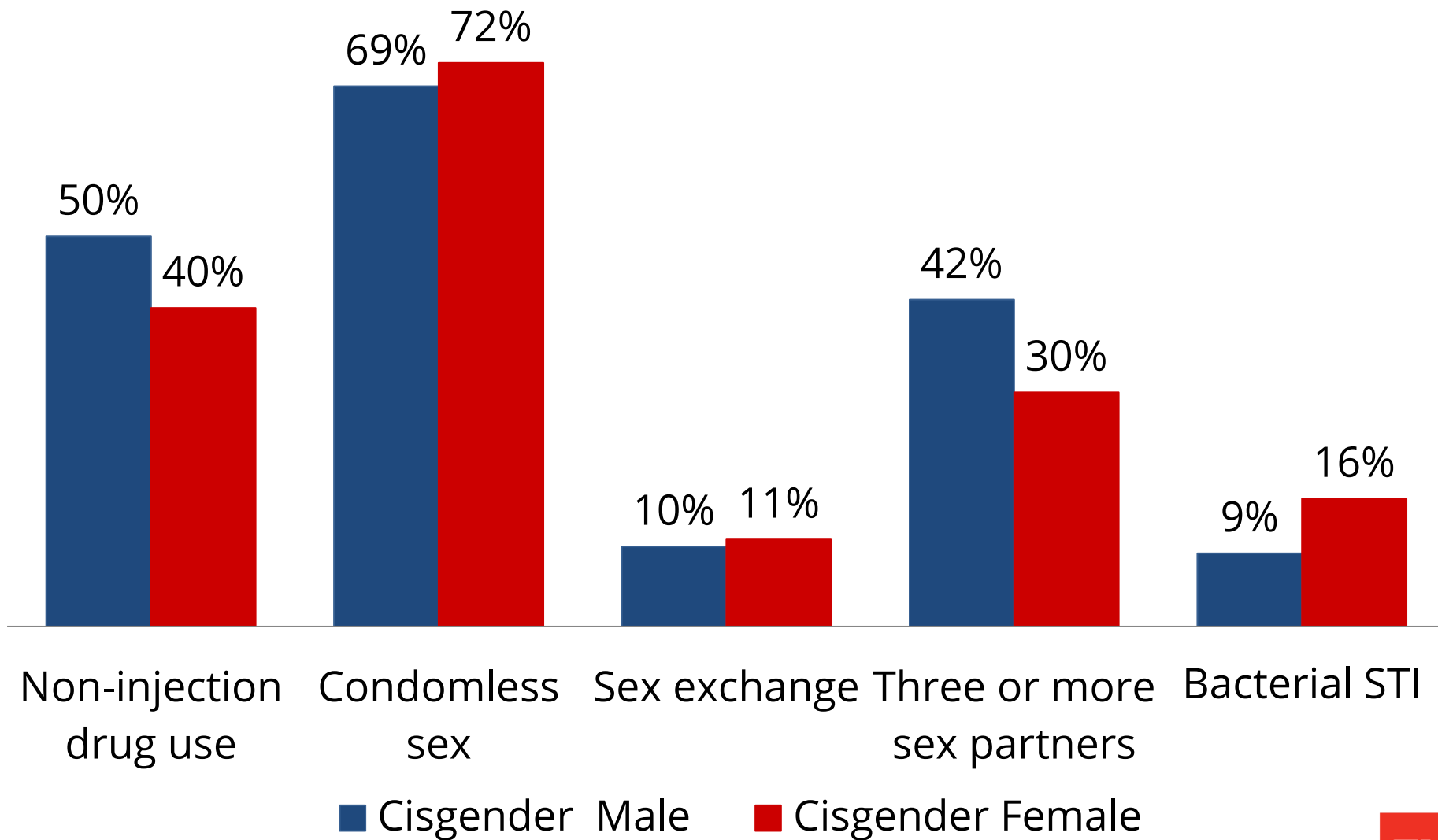
# Characteristics/demographics of NHBS Memphis HET5 (2019) participants (N=525)



# HIV testing behavior and results of NHBS Memphis HET5 (2019) participants (N=525)

	N	%
Ever tested for HIV		
Yes	358	68%
No	167	32%
Tested for HIV in past 12 months		
Yes	218	42%
No	307	59%
NHBS HIV test result		
Negative	522	99%
Positive	3	1%

# Risk behaviors in past 12 months of NHBS Memphis HET5 (2019) participants (N=525)



# Changes to MSM6 (2020) due to COVID-19

- One-hour qualitative interview
- Participants invited to interview included:
  - Individuals at TDH-funded CBOs and NHBS agency partners
  - Local HIV community planning group members
- Project goals were to learn about:
  1. Sexual risk reduction behaviors beyond PrEP and condom use
  2. Impact of COVID-19 on sexual health practices and access to preventive services
  3. How sexual networks of cisgender and transgender MSM overlap

# MSM6 (2020) results

## 1. Sexual risk reduction behaviors beyond PrEP and condom use

- Reducing contact with bodily fluids → various non-penetrative sex
- Reducing number of sexual partners
- Vetting partners based on perceived risk



# MSM6 (2020) results

## 2. Impact of COVID-19 on sexual health practices, access to preventive care

- Sexual behavior not changed much/returned to normal  
*Sense of apathy for COVID-19 risks; using sex as a coping mechanism to deal with boredom or stress; not universally true among Memphis MSM*
- Online activity skyrocketed  
*Communication via dating apps and social media; virtual sexual activity and transactional sex online*
- COVID-19 significantly reduced ability to provide usual services  
*Community outreach, in-person referrals, and testing; retention in care particularly challenging*

# MSM6 (2020) results

## 3. How sexual networks of cisgender and transgender MSM overlap

- Most agencies do not serve or collaborate with transgender MSM
- Racialized visibility for transgender people
- Mixed responses for social and sexual network overlap

# Data dissemination products

- [NHBS Memphis webpage](#)
  - Fact sheets
  - Power point slides
  - Epidemiological profile
- [CDC information on NHBS](#)
  - Publications
  - Reports for all 20+ sites



# Memphis National HIV Behavioral Surveillance (NHBS) Profile, 2016–2018

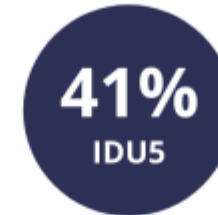
HET4, MSM5 and IDU5 Cycles

Tennessee Department of Health | March 2020



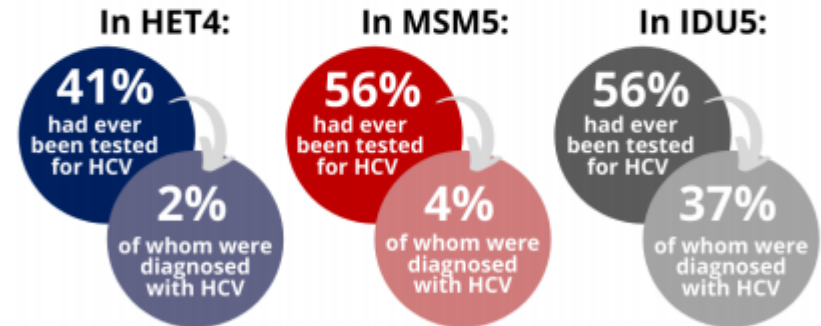
## Hepatitis C Virus (HCV) Testing

Figure 9. NHBS HCV test results, IDU5 (n=546)



of participants tested for HCV had a positive antibody result

Figure 10. Percent of NHBS participants ever tested for and diagnosed with HCV (HET4 n=543, MSM5 n=356 and IDU5 n=566)



Testing for HCV was done at the NHBS site for IDU5 only. Forty percent of all IDU5 participants tested positive for HCV antibodies. Ever being tested for, or being diagnosed with, HCV also differed between cycles, with 56% of MSM5 and IDU5 participants ever being tested for HCV compared to 41% of HET4 participants. IDU5 participants reported the highest percentage (20%) of previous HCV diagnosis. For more information on HCV, see Table 6 in Appendix B.

## NHBS HET 2019 Fact Sheet - Memphis, TN

### What is NHBS?

The Centers for Disease Control and Prevention (CDC) started the National HIV Behavioral Surveillance (NHBS) project in 2003 to understand health behaviors and access to prevention services among groups at risk for HIV. Over 20 US cities participate in NHBS, including Memphis. Information learned from NHBS is used to guide and strengthen local HIV prevention and care services. Each year NHBS focuses on one of three populations: men who have sex with men ("MSM"), heterosexually active adults ("HET"), and people who inject drugs ("PWID"). The first MSM cycle in Memphis was completed in 2017.

### HIV in Memphis

The estimated rate of new HIV diagnoses in Memphis ranked 3rd of all major US metropolitan areas in 2018. Shelby County accounted for 14% of the TN population and 41% of new HIV diagnoses in TN in 2018.

### How were data collected for HET 2019?

Between August and December 2019, NHBS staff opened two field sites in the Memphis MSA in low-income areas. Fifteen initial "seeds" were encouraged to complete the NHBS survey and, if eligible, were asked to recruit 2-5 others in the community. A previous HET cycle was completed in 2016.

### Who could take the HET 2019 survey?

- Adults (18 years or older)
- Have had vaginal or anal sex with the "opposite sex" in the last 12 mo.
- Low annual household income (<150% of the Federal Poverty Level)
- Resident of Memphis area



Participant demographics and socioeconomic characteristics, total=525	
Characteristic	n (%)
<b>Gender</b>	
Cisgender male	236 (45.0)
Cisgender female	289 (55.0)
<b>Age (years)</b>	
18-34	260 (49.5)
35-44	114 (21.7)
45-54	84 (16.0)
55+	67 (12.8)
<b>Race/ethnicity</b>	
Non-Hispanic black	510 (97.1)
Non-Hispanic white	10 (1.9)
Hispanic	3 (0.6)
Non-Hispanic other	2 (0.4)
<b>Sexual identity</b>	
Heterosexual	493 (93.9)
Bisexual	24 (4.6)
Homosexual	8 (1.5)
<b>Level of Education</b>	
Less than high school	169 (32.2)
High school grad or GED	273 (52.0)
Some college or higher	83 (15.8)
<b>Household federal poverty level (FPL)</b>	
<100% FPL	441 (84.0)
100-199% FPL	63 (12.0)
Unknown	21 (4.0)
<b>Homeless in past 12 months</b>	
Yes	81 (15.4)
No	444 (84.6)
<b>Currently unemployed or unable to work</b>	
Yes	256 (48.8)
No	269 (51.2)

CDC Centers for Disease Control and Prevention  
CDC 247-Loving Lives, Protecting People™



### Sexual and other health behaviors the past 12 months in HET2016 (total=543) and HET2019 (total=525) cycles

Characteristic	HET2016 n (%)	HET2019 n (%)
Had condomless vaginal or anal sex	466 (85.8)	369 (70.3)
Had >3 sex partners	120 (22.1)	116 (22.1)
Exchanged sex for money or drugs	97 (18.2)	56 (10.7)
Used non-injection drugs	280 (51.6)	234 (44.6)
Diagnosed with a bacterial sexually transmitted infection (STI)	45 (8.4)	69 (13.1)

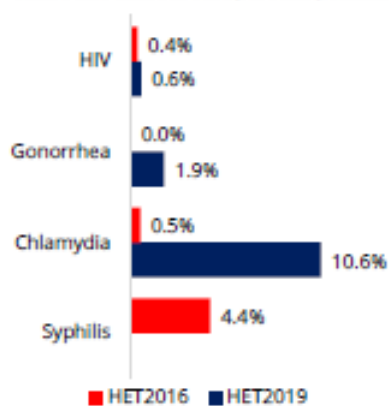
### Health care access, HIV testing, and disclosure in HET2016 (total=543) and HET2019 (total=525) cycles

Characteristic	HET2016 n (%)	HET2019 n (%)
Had health insurance	349 (64.3)	244 (46.5)
Saw a health care provider*	435 (80.1)	366 (69.7)
Had regular source of primary care	502 (92.4)	442 (84.2)
Lacked health care due to cost*	135 (24.9)	120 (22.9)
Tested for HIV*†	223 (41.1)	218 (41.5)
Tested for STD*	209 (38.5)	115 (21.9)

\*In the last 12 months

†Among those who did not report living with HIV

### NHBS HIV and STI test percent positivity



**11%** of HET 2019 participants exchanged sex in the past year including 14 men and 42 women



### Questions?

**Monica Kent**  
 Program Director  
 Monica.Kent@tn.gov  
 901-348-3970

### Tennessee Department of Health

HIV, Sexually Transmitted Disease, Viral Hepatitis  
 710 James Robertson Pkwy  
 Nashville, TN 37214

### Additional resources:

[CDC.gov/HIV/statistics/systems/NHBS](http://CDC.gov/HIV/statistics/systems/NHBS)  
[tinyurl.com/TDNHIVSurveillance](http://tinyurl.com/TDNHIVSurveillance)

# Recent national NHBS publications

## Changes in HIV Preexposure Prophylaxis Awareness and Use Among Men Who Have Sex with Men — 20 Urban Areas, 2014 and 2017

*Weekly* / July 12, 2019 / 68(27);597–603

Teresa Finlayson, PhD<sup>1</sup>; Susan Cha, PhD<sup>1</sup>; Ming Xia, MD<sup>2</sup>; Lindsay Trujillo, MPH<sup>1,3</sup>; Damian Denson, PhD<sup>1</sup>; Joseph Prejean, PhD<sup>1</sup>; Dafna Kanny, PhD<sup>1</sup>; Cyprian Wejnert, PhD<sup>1</sup>; National HIV Behavioral Surveillance Study Group ([View author affiliations](#))

> [Int J Drug Policy](#). 2020 Nov;85:102923. doi: 10.1016/j.drugpo.2020.102923. Epub 2020 Sep 10.

## Distance matters: The association of proximity to syringe services programs with sharing of syringes and injecting equipment – 17 U.S. cities, 2015

Ari Whiteman <sup>1</sup>, Janet Burnett <sup>2</sup>, Senad Handanagic <sup>2</sup>, Cyprian Wejnert <sup>2</sup>, Dita Broz <sup>2</sup>,  
NHBS Study Group

# NHBS Summary

- NHBS collects important data on hard-to-reach populations for national and local HIV prevention efforts
- We rely on the support of numerous community partners to recruit participants and provide linkage to care
- We have lots of local data; NHBS data provides valuable research on many topics
- See website for more data! [tinyurl.com/NHBSMemphis](https://tinyurl.com/NHBSMemphis)



**Thank you!**