

HIV Risk Among People Who Inject Drugs in New York City

Findings from the 2022 National HIV Behavioral Surveillance Study

Background

- New York City (NYC) has a large population of people who inject drugs (PWID).
- The number of new HIV diagnoses among people with a history of injection drug use in NYC has decreased over the course of the epidemic.
 - The decrease is largely attributed to the success of sterile syringe access programs and increased safe injection practices.
- In 2022, <1% of new HIV diagnoses in NYC were among people with a history of injection drug use.
- Ongoing sexual and injection-related risk behaviors among PWID continue to persist and may be influenced by the current opioid overdose epidemic.

National HIV Behavioral Surveillance (NHBS)

- Ongoing, cyclical study of three priority populations at increased risk for HIV: men who have sex with men (MSM), PWID, and heterosexually active persons at increased risk of HIV infection (HET).
 - Currently conducted in 20 cities throughout the U.S.
 - Funded by CDC, designed collaboratively
 - Cross-sectional study design
 - Anonymous, structured interview and optional HIV testing
- Data were collected for the sixth cycle among PWID (“PWID2022”) from September to December 2022.

NHBS-PWID2022 Objectives

- Seroprevalence
 - Assess the prevalence of and trends in HIV infection and awareness of HIV infection.
- Behaviors
 - Assess the prevalence of and trends in behaviors and social determinants that increase the risk of HIV acquisition and transmission, including sexual and drug use behaviors.
- HIV testing and treatment
 - Describe utilization of and trends in HIV testing, linkage to care, and antiretroviral therapy.
- Prevention
 - Assess the exposure to and use of prevention services, including HIV pre-exposure prophylaxis (PrEP).
 - Identify gaps in prevention and missed opportunities for prevention interventions.

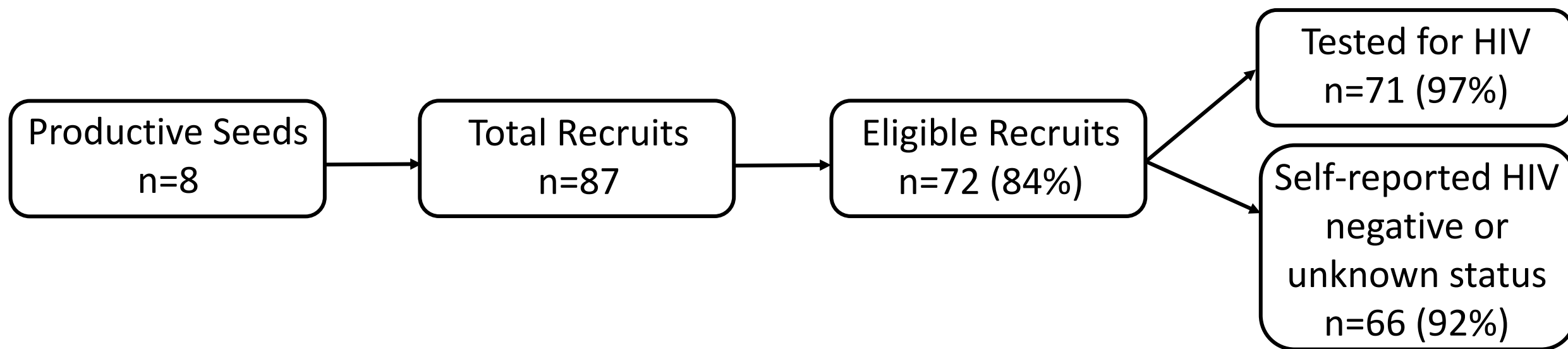
NHBS-PWID2022 Eligibility Criteria

- At least 18 years old
- Resident of NYC Metropolitan Statistical Area (MSA) which includes NYC, Westchester County, Rockland County, Orange County and some counties in New Jersey.
- Injected non-prescription drugs in the past 12 months
- Able to complete the interview in English or Spanish
- Did not previously participate in that current NHBS-PWID cycle

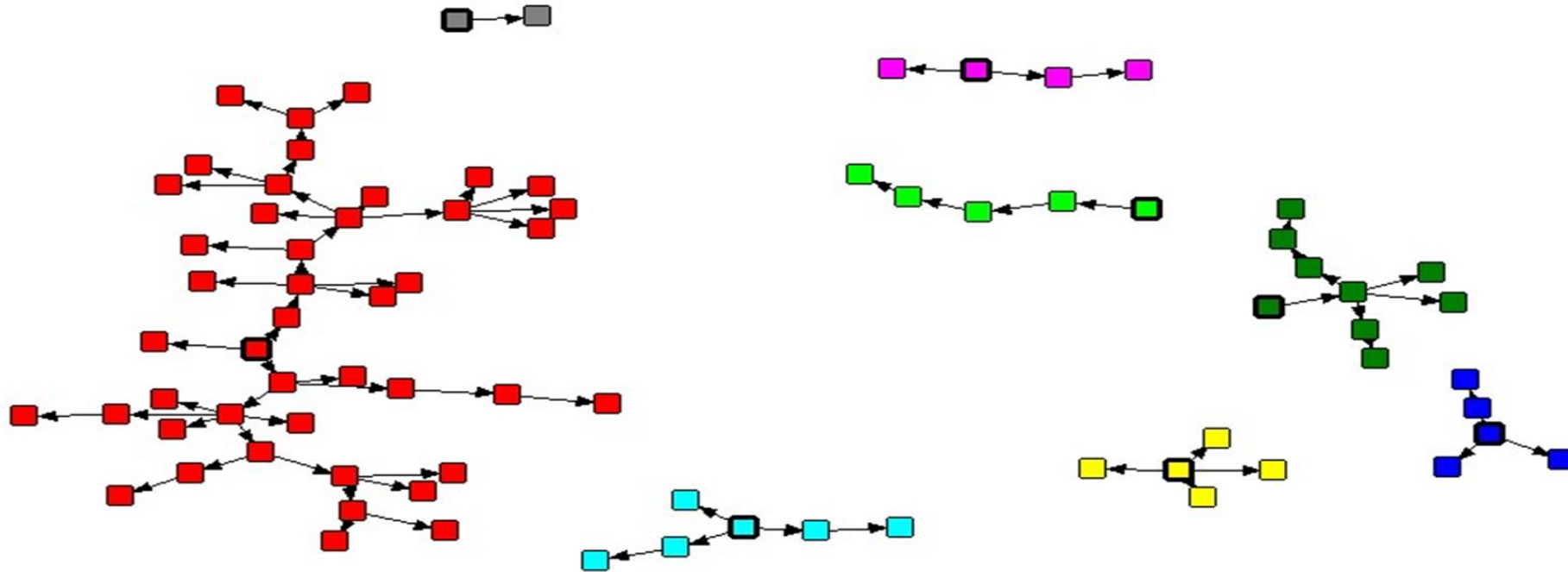
Respondent-Driven Sampling (RDS) Recruitment Method

1. Study team recruited a small number of initial participants (“seeds”) through community outreach.
 - To increase the proportion of young PWID, initial seeds were 18-39 years old.
2. Seeds participated in the study and then recruited up to five peers in their social networks.
3. If eligible, those recruited peers participated and each recruited up to an additional five peers until the sample size was met.
 - Recruitment chains were continually monitored to ensure demographic representativeness.
4. Incentives were provided for completing the survey, HIV testing, hepatitis C testing, and peer recruitment.

NYC NHBS-PWID2022 Study Sample



Recruitment Chain Diagram for NYC NHBS-PWID2022



Each node represents a study participant. Linking lines show recruitment chains, initiated by 8 productive seeds (represented by bolded square nodes).

Statistical Analyses

- Weighted analyses were conducted with RDS Analyst (RDS-A) software. Data were weighted to take into account network size.
 - Those with large network sizes have a higher probability of selection.
- An advantage of RDS is that if methodological assumptions are met, RDS-A may estimate proportions that are generalizable to the larger population.

Statistical Analyses

- Basic descriptive frequencies of behaviors, testing, and prevention services were calculated.
- Since seeds are not randomly recruited, they were excluded from analyses.
- Since awareness of HIV status influences risk, those who self-reported an HIV-positive status (n=7) were excluded from behavioral risk analyses.

Demographics

Demographics

NYC NHBS-PWID2022, n=72

Race/Ethnicity

Hispanic or Latino/a	36%
White	36%
Black	27%
Other	1%

Self-Identified Gender

Male	96%
Female	3%
Transgender	1%

Age Group (In Years)

18-29	8%
30-39	28%
40-49	21%
≥ 50	43%

Birthplace

U.S.	91%
Outside of U.S.	9%

Demographics

NYC NHBS-PWID2022, n=72

Annual Household Income		Education Level	
< \$10,000	44%	< High school	64%
≥ \$10,000	56%	≥ High School	36%
Area of Residence		Homelessness*	
Bronx	10%	Homeless	69%
Brooklyn	23%	Not Homeless	31%
Manhattan	27%		
Queens	9%		
Outside of NYC, in MSA	31%		

*Past 12 months

Injection Drug Use

Lifetime Injection History

NYC NHBS-PWID2022, n=72

Median Age in Years at First Injection

24

Median Age in Years at Interview

47

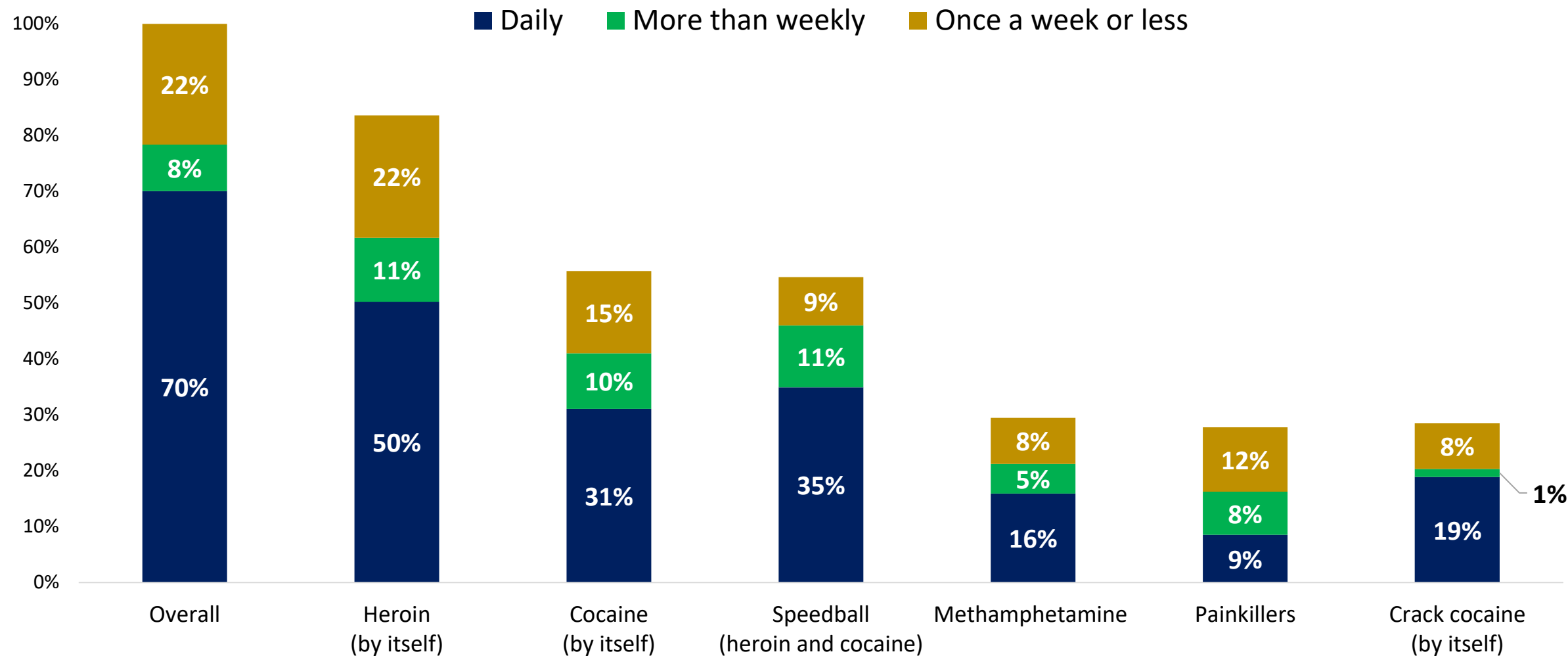
Median Years Since First Injection

19



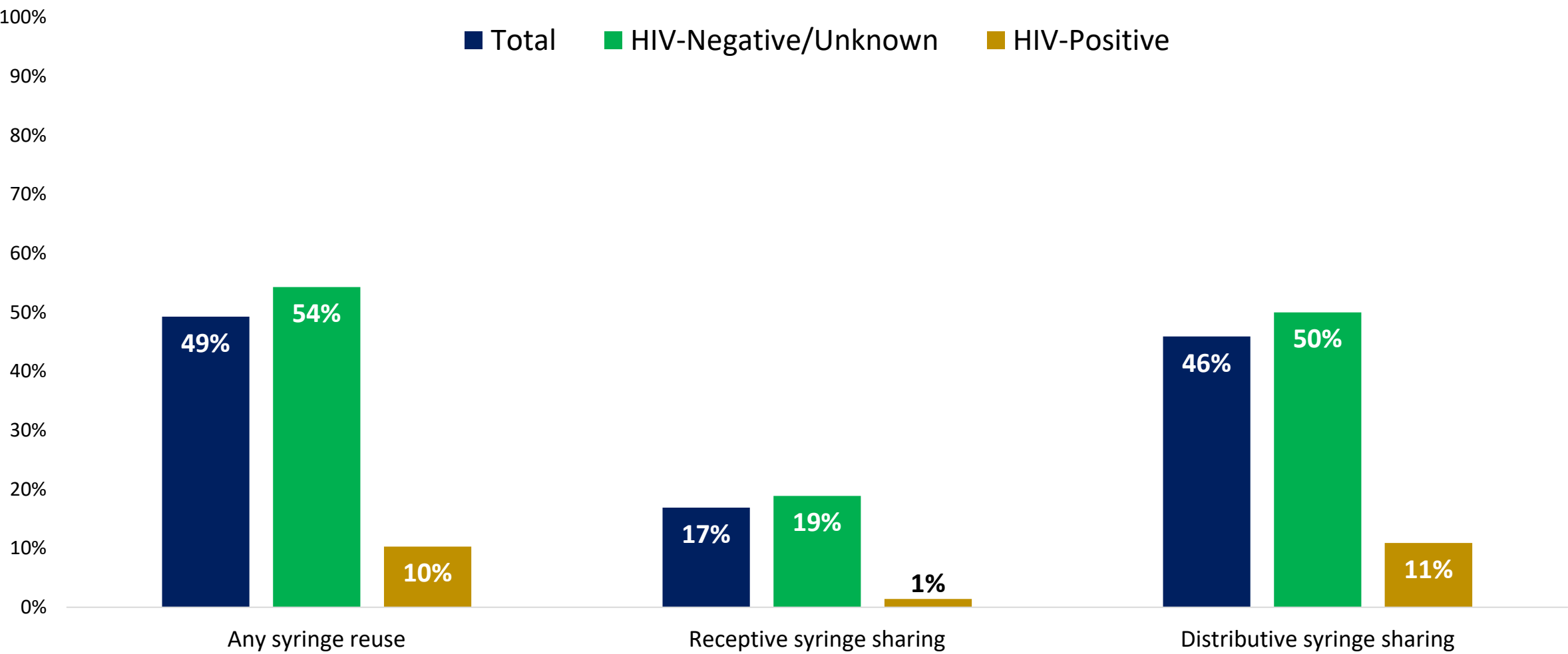
Frequency of Drugs Injected, Past 12 Months

NYC NHBS-PWID2022, n=72



Syringe Reuse and Sharing by Self-Reported HIV Status, Past 12 Months

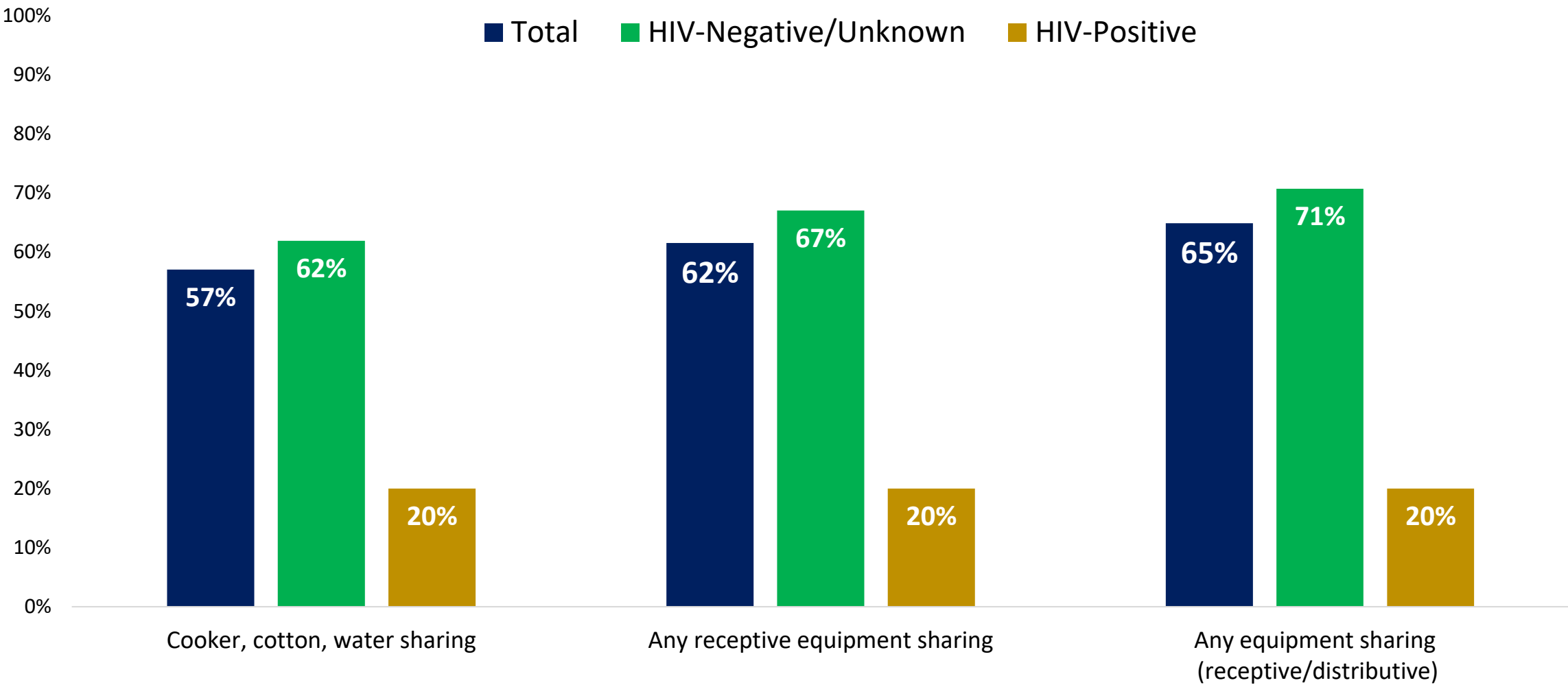
NYC NHBS-PWID2022, n=72



Syringe reuse: not using a new, sterile needle when injecting.
Receptive sharing: using a needle after someone else injected with it.
Distributive sharing: giving a needle to someone else after using it to inject with.

Other Equipment Sharing by Self-Reported HIV Status, Past 12 Months

NYC NHBS-PWID2022, n=72

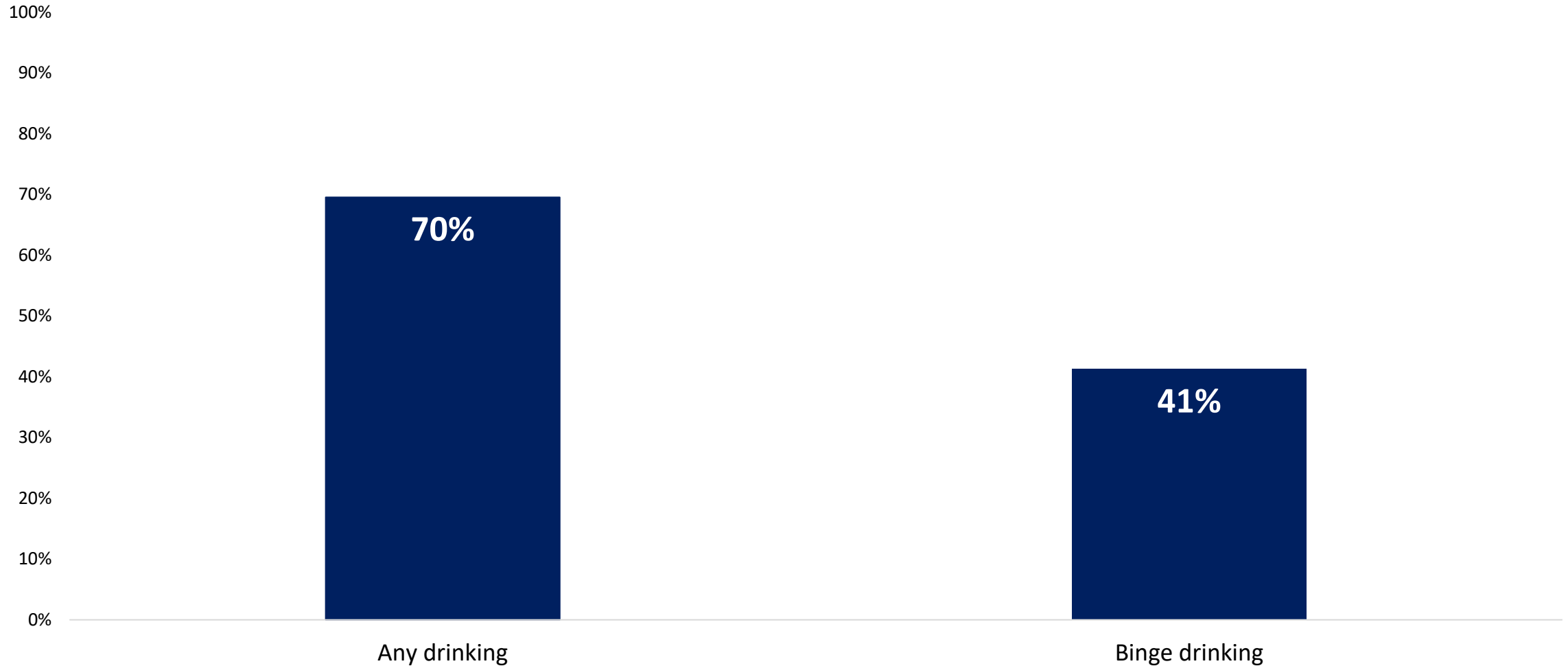


Receptive sharing: using a needle after someone else injected with it.
Distributive sharing: giving a needle to someone else after using it to inject with.

Alcohol and Non-Injection Drug Use

Alcohol Use, Past 30 Days

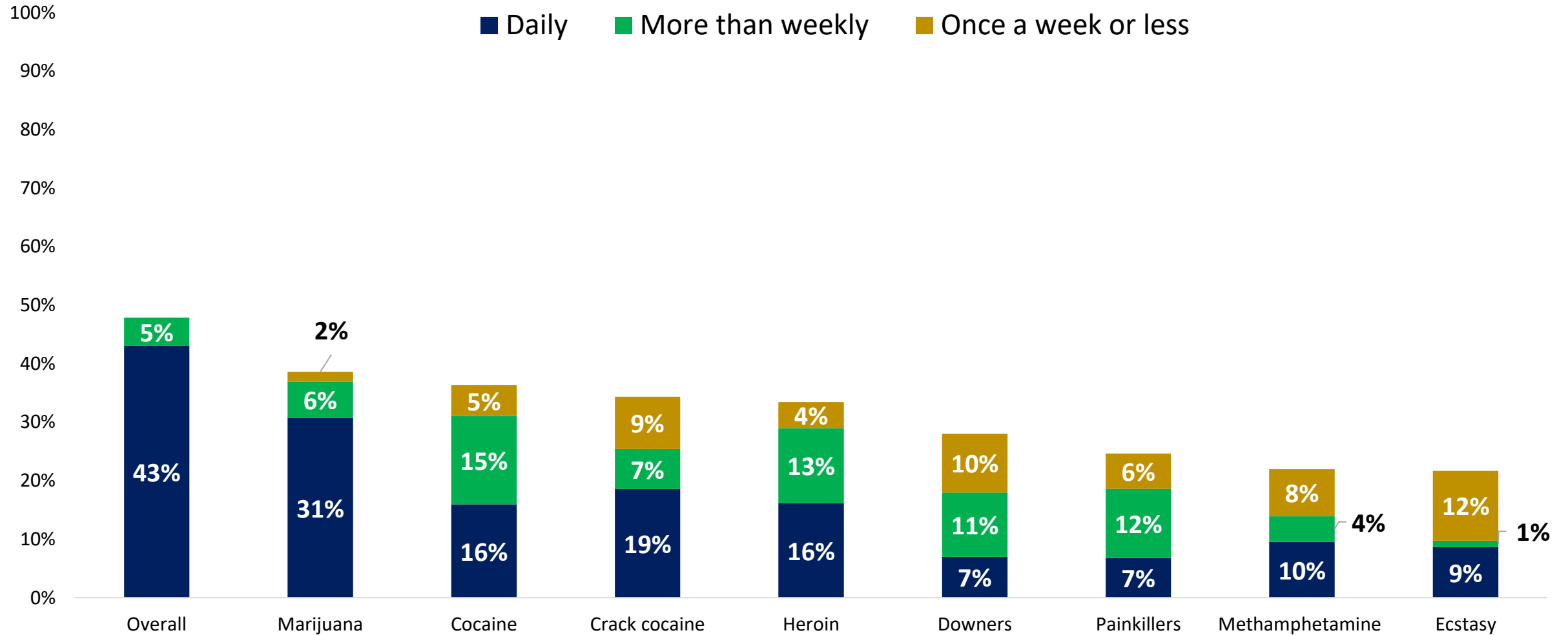
NYC NHBS-PWID2022, n=72



Binge drinking: consuming at least 5 drinks for men or 4 drinks for women in one sitting. Participants who identify as transgender were excluded (n=2).

Frequency of Non-Injection Drug Use, Past 12 Months

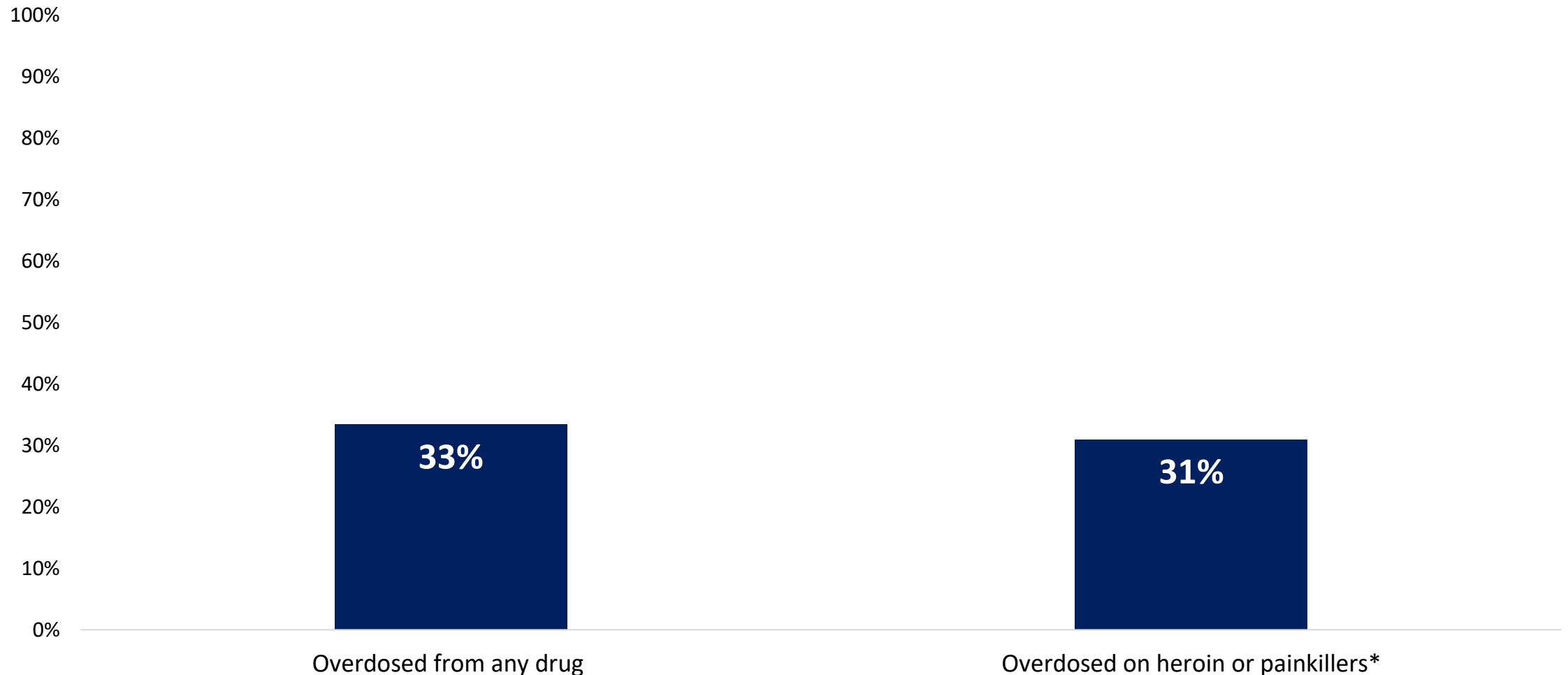
NYC NHBS-PWID2022, n=72



Overdose and Overdose Prevention

Experienced a Nonfatal Overdose, Past 12 Months

NYC NHBS-PWID2022, n=72

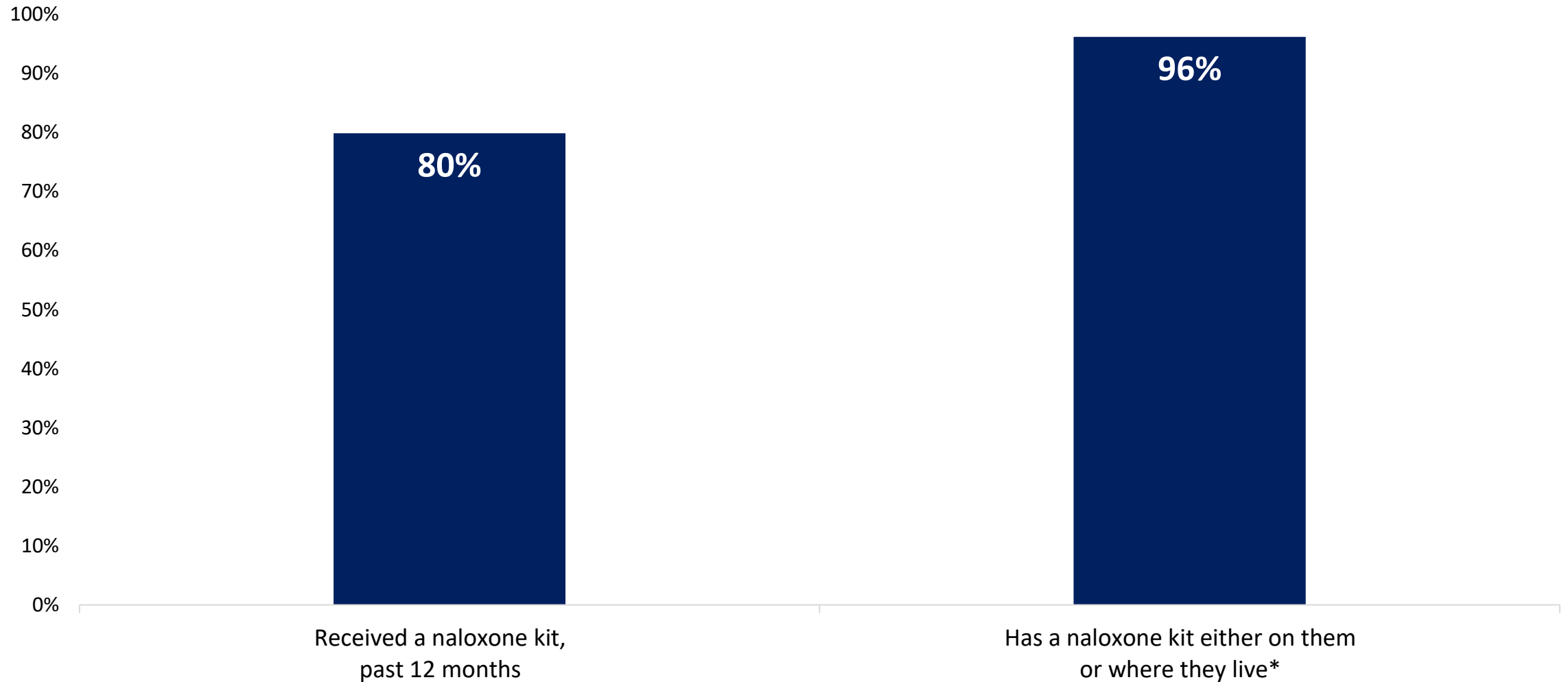


Overdose: passed out, turned blue, or stopped breathing from using drugs.

*Among those who used heroin or opioids in past 12 months (n=68).

Overdose Prevention

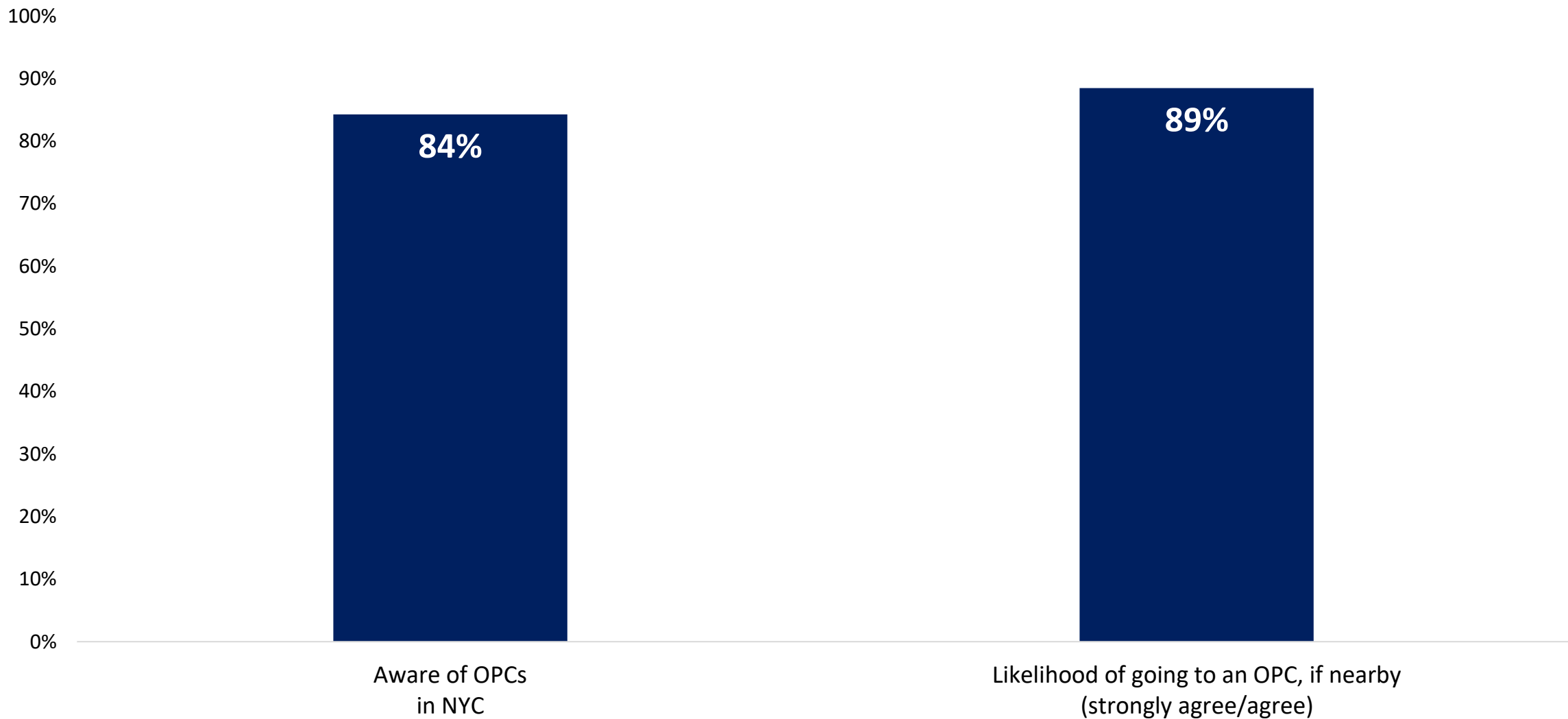
NYC NHBS-PWID2022, n=72



*Among those who reported receiving a naloxone kit in the past 12 months (n=59).

Awareness and Likelihood of Going to an Overdose Prevention Center (OPC)

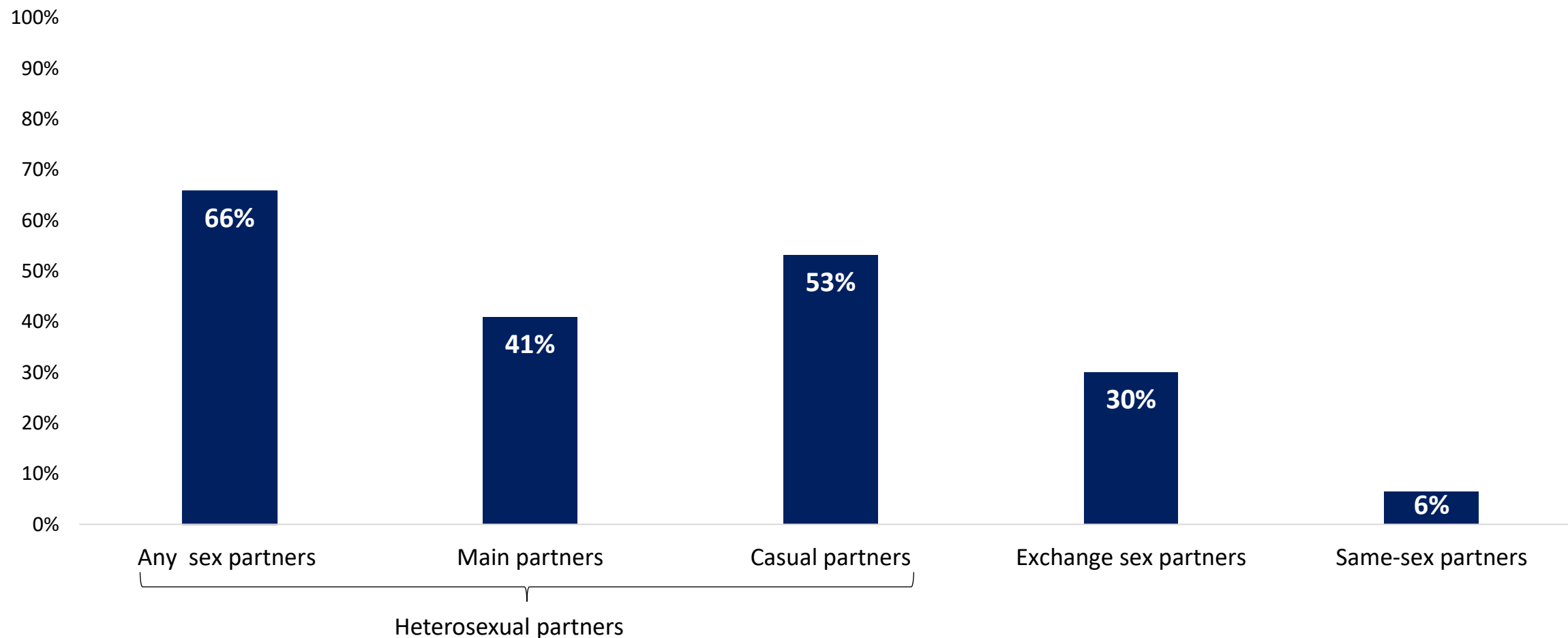
NYC NHBS-PWID2022, n=72



Sexual Activity

Sexual Partner Type, Past 12 Months

NYC NHBS-PWID2022, n=66 (HIV-/Unknown Status)*



*Sexual behavior questions were not asked among those who identify as transgender (n=2).

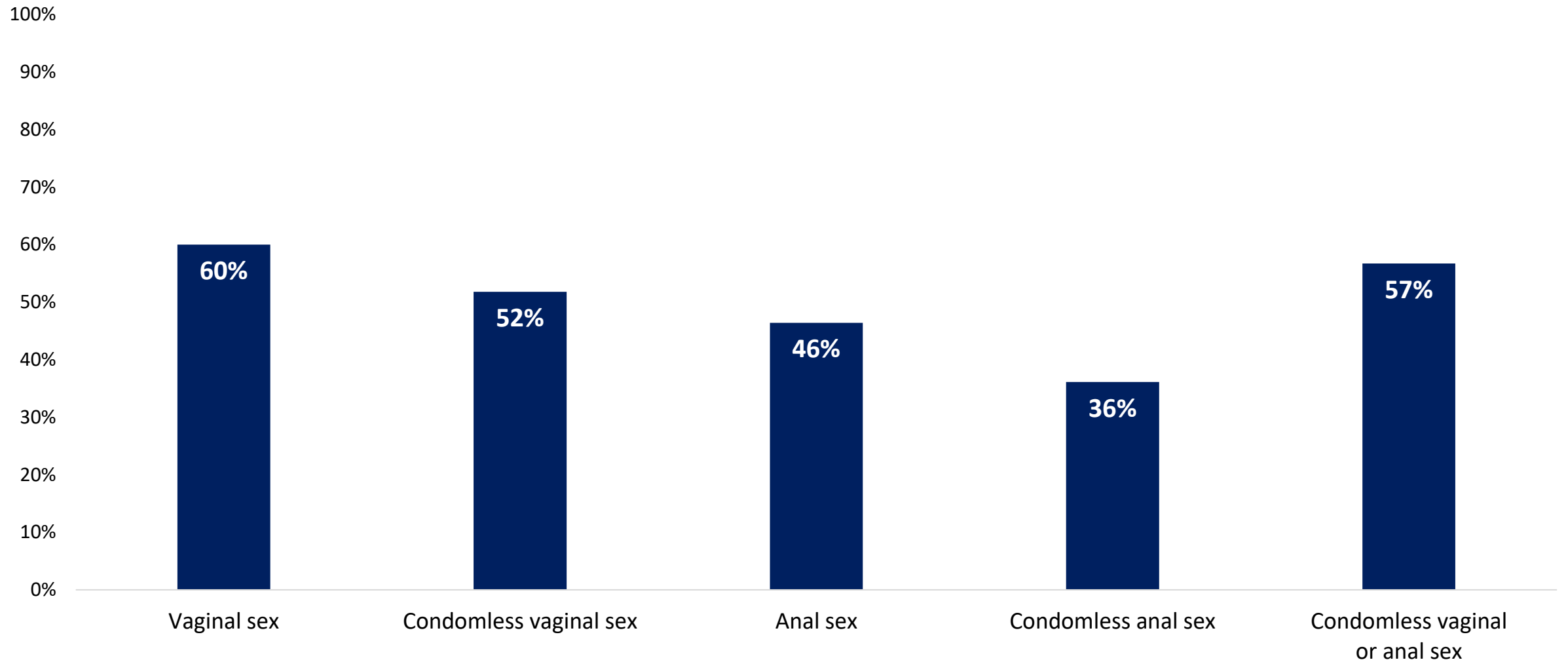
Main partner: a person the respondent had sex with and who they felt committed to above anyone else.

Casual partner: a person the respondent had sex with but who they did not feel committed to or did not know very well.

Exchange sex: provided or received money or drugs in exchange for sex.

Sexual Behavior, Past 12 Months

NYC NHBS-PWID2022, n=66 (HIV-/Unknown Status)*

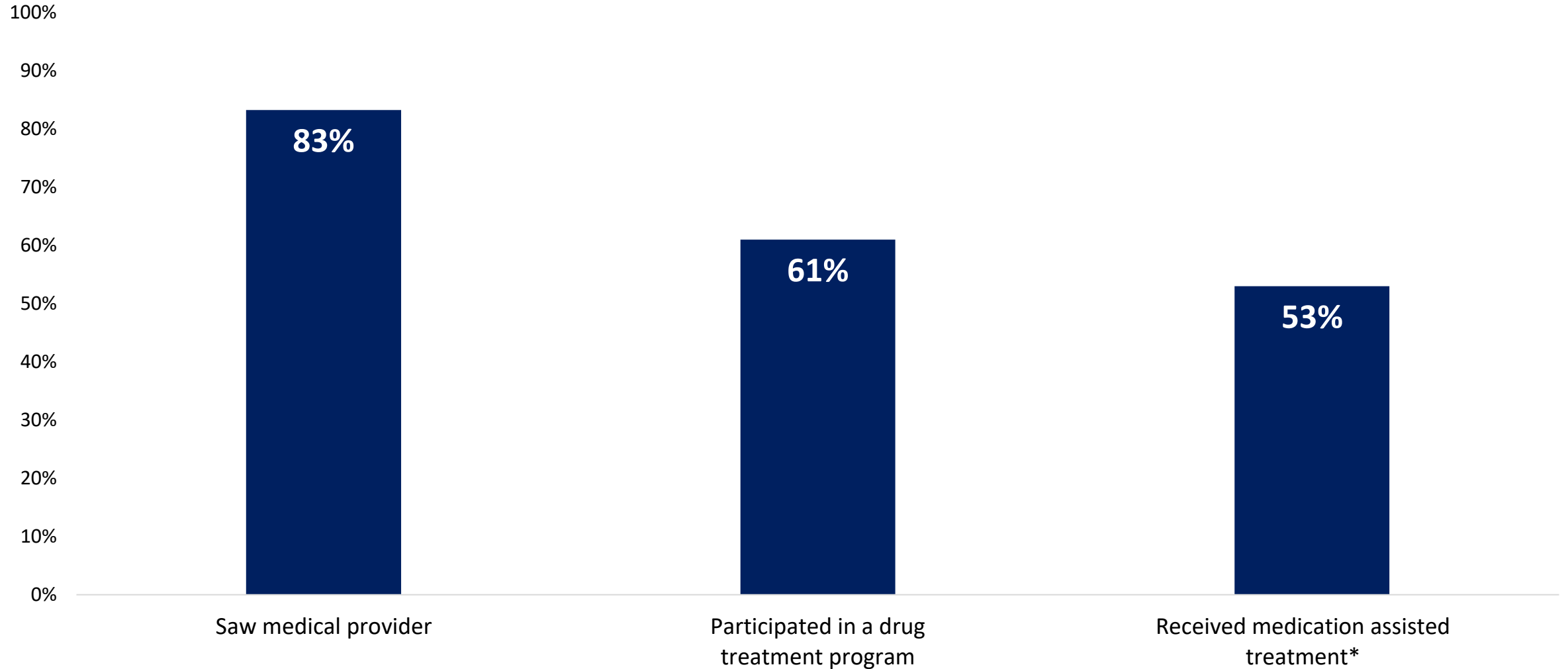


*Sexual behavior questions were not asked among those who identify as transgender (n=2).

Health Care and HIV Prevention

Health Care and Drug Treatment, Past 12 Months

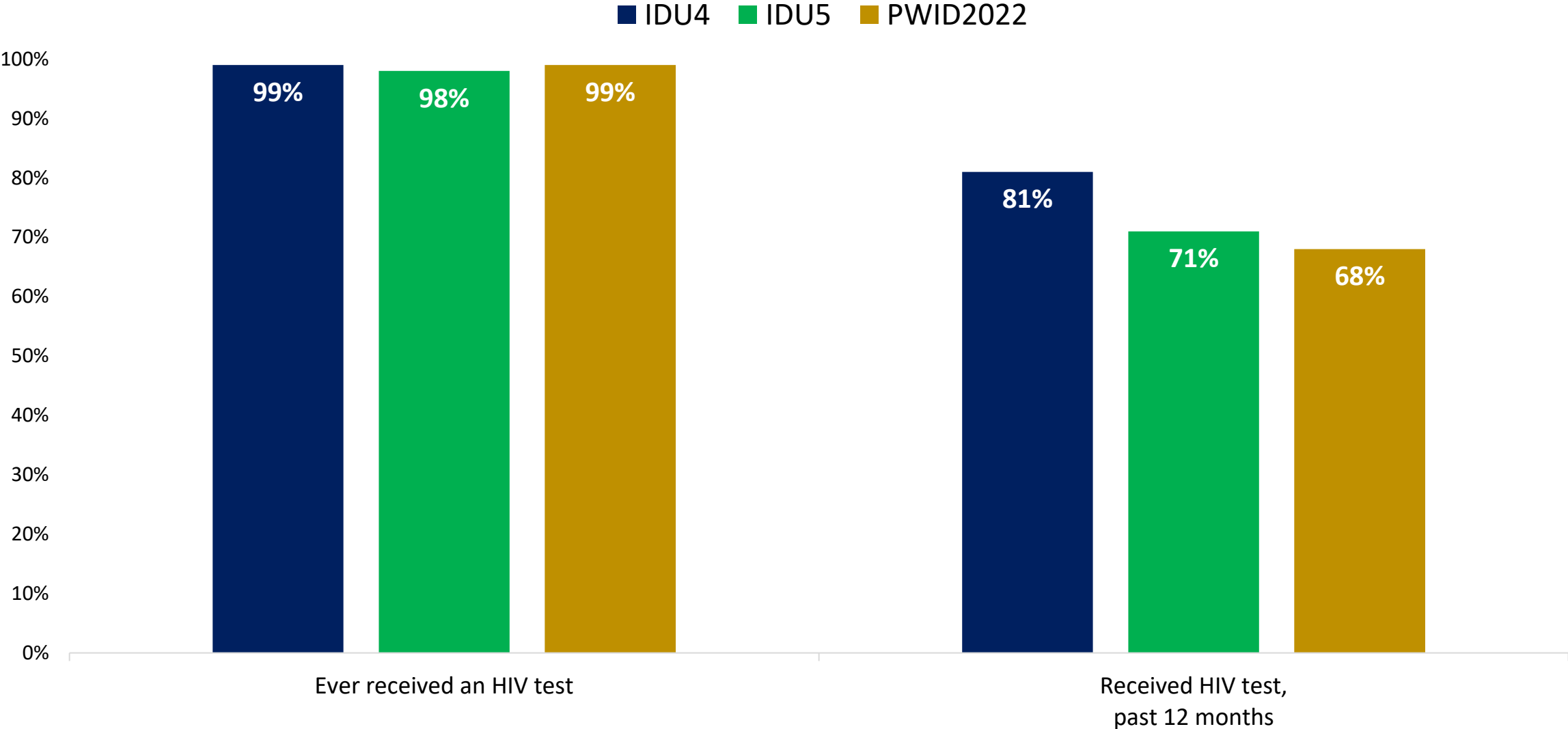
NYC NHBS-PWID2022, n=72



*Among those who reported opioid use in the past 12 months (n=68). Medication treatment included medicines like methadone, buprenorphine, Suboxone or Subutex.

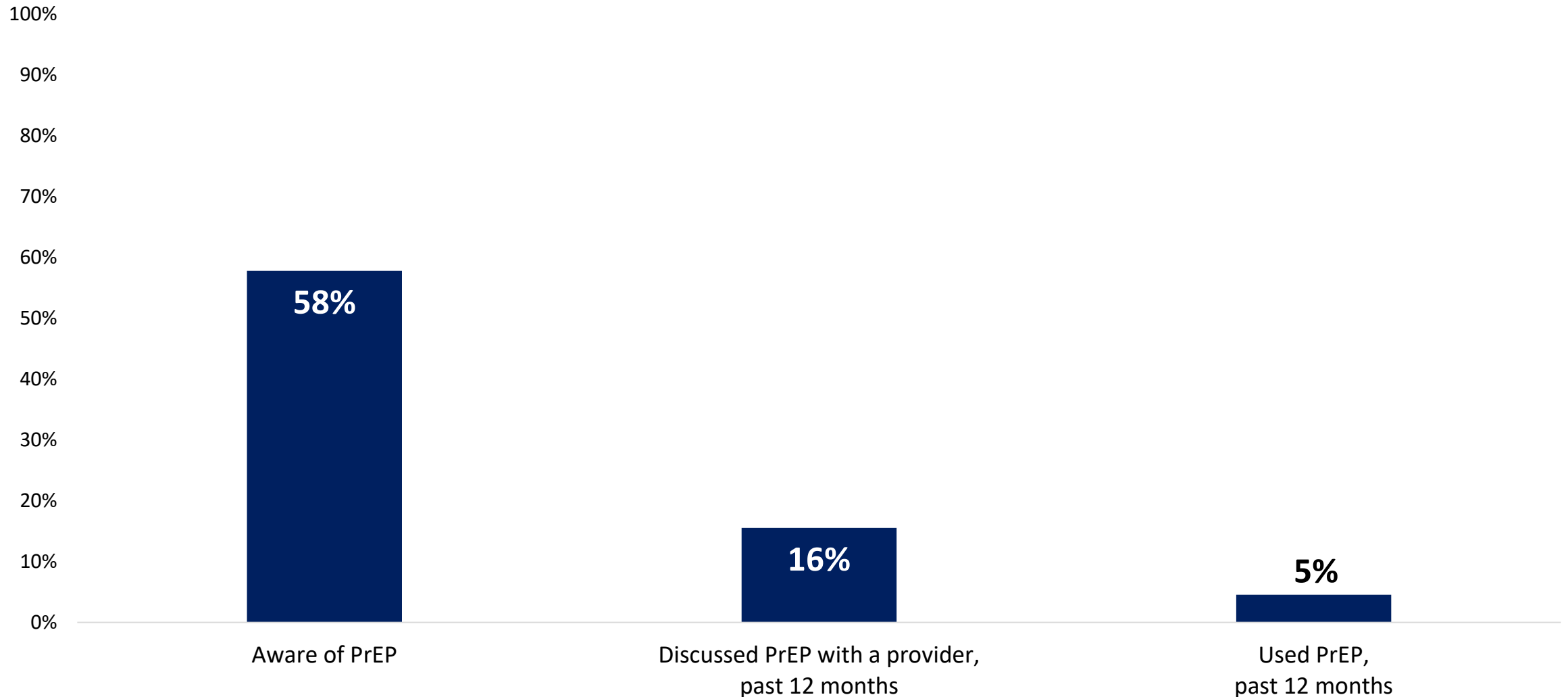
HIV Testing History Among PWID in Past Three NHBS-PWID Cycles

NYC NHBS-IDU4 (2015), IDU5 (2018), and PWID2022 (HIV-/Unknown Status across all cycles)



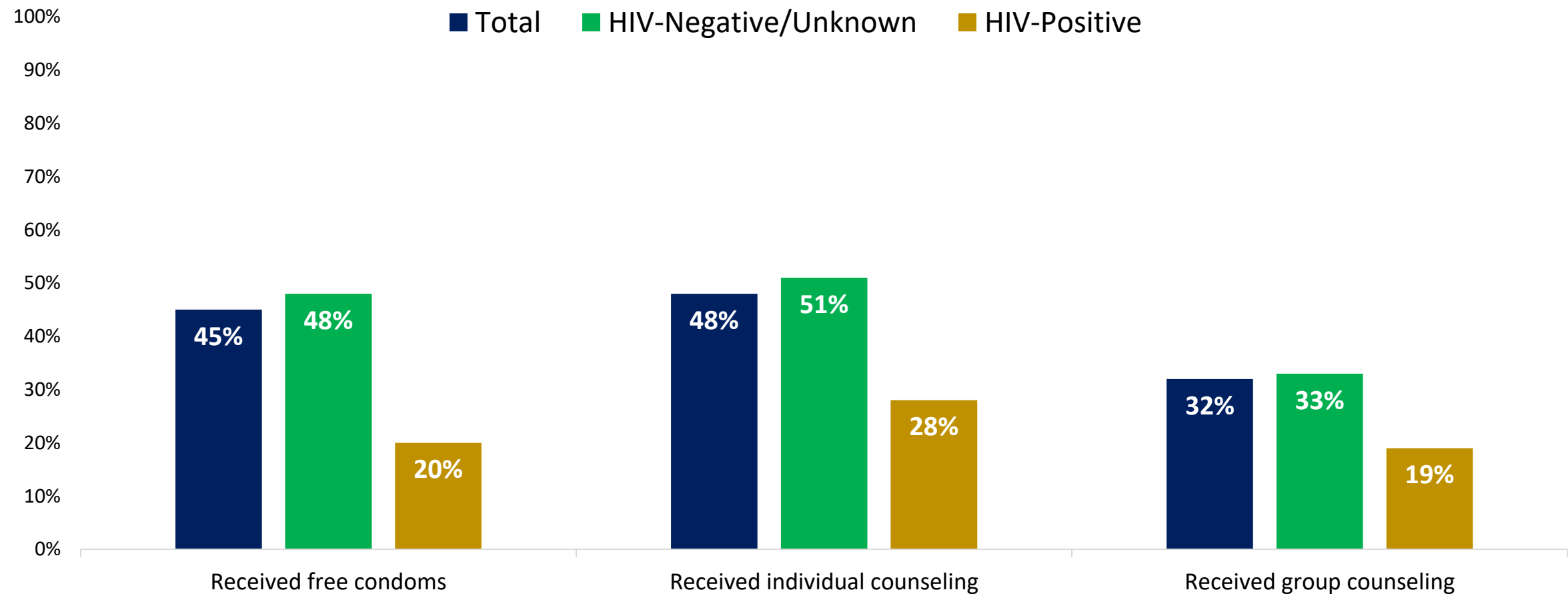
Pre-Exposure Prophylaxis (PrEP) Awareness and Use

NYC NHBS-PWID2022, n=66 (HIV-/Unknown Status)



Use of HIV Prevention Services by Self-Reported HIV Status, Past 12 Months

NYC NHBS-PWID2022, n=72



Individual counseling: one-on-one conversation with an outreach worker, counselor, or prevention program worker about ways to prevent HIV. Does not include counseling as part of an HIV test.
Group counseling: any organized session involving a small group of people to discuss ways to prevent HIV. Does not include discussions had with friends.

Conclusions

Summary

- Heroin remains the most common drug injected in NYC.
- During the COVID-19 pandemic, there was reduced access to harm reduction services in NYC. This may have impacted syringe access and injection-related behaviors. Among PWID who reported an HIV-negative or unknown status, 67% reported any sharing of receptive equipment.
- Sexual behaviors pose a risk to PWID, with 57% reporting any condomless vaginal or anal sex in the past 12 months.

Summary

- Among PWID who reported an HIV-negative or unknown status, 99% of participants reported that they took an HIV test in their lifetime, however, only 68% of PWID took an HIV test in the past 12 months.
- Among PWID who reported an HIV-negative or unknown status, awareness of PrEP (58%) and its use (5%) remains historically lower than in other priority populations.
- Awareness of OPCs was high (84%), with 89% of PWID being likely to go to an OPC if nearby.

Strengths

- NHBS is the only ongoing national data collection system for biobehavioral HIV surveillance.
- A standardized survey and protocol is implemented nationally.
- RDS can reach underrepresented populations who may not access treatment programs and other institutionalized settings.
- Local questions were developed to explore relevant themes specific to PWID in NYC.
- HIV status was confirmed via a rapid-rapid testing algorithm.

Limitations

- Restrictions related to COVID-19 delayed the implementation of data collection, which limited the sample size.
- Findings may not be representative of the PWID population in NYC.
- Only those who are socially-networked to other PWID can be recruited through RDS.
- Survey data were collected by self-report and may be biased by recall error or social desirability.

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