

MEDICAL MONITORING PROJECT (MMP)

Results from the MMP survey of people receiving HIV Care
in 2013-2014 in NYC

**HIV EPIDEMIOLOGY AND FIELD SERVICES PROGRAM
BUREAU OF HIV/AIDS PREVENTION AND CONTROL
NEW YORK CITY DEPARTMENT OF HEALTH AND MENTAL HYGIENE**

BACKGROUND

- The Centers for Disease Control and Prevention (CDC) estimates that 1.1 million persons aged 13 years and older are living with HIV infection, including 180,900 who are unaware of their infection (*CDC, HIV Surveillance Supplemental Report 2013;18(No. 5)*).
- In New York City, at the end of 2013, there were 117,618 persons diagnosed with HIV/AIDS and presumed to be living (*NYC DOHMH, 2013*).
- MMP is a national study of persons living with HIV/AIDS (PLWHA) receiving outpatient medical care for HIV conducted by the CDC with local partners.

OBJECTIVES

- To develop greater understanding of the health status and health-related needs of PLWHA, and their HIV transmission risk and prevention behaviors.
- To conduct analysis on locally and nationally representative samples of HIV infected adults in care.
- To inform the development and planning of policy and programs for PLWHA, e.g. Ryan White CARE Act planning councils and consortia.

METHODS

- Multi-year (2005-open) project of US adults in outpatient care for HIV
- Cross-sectional design
- Annual multi-stage probability sample

METHODS (CONT'D)

3-Stage Sample Design



1st stage – Local Areas



2nd stage – Medical Providers



3rd stage - Patients

METHODS (CONT'D)

- **Stage 1 – Local Areas:**
 - 23 areas selected (16 states, 6 cities and 1 US territory)
 - Probability of selection is proportional to size (# of reported living AIDS cases in 2002)
 - Includes >80% of US AIDS cases in 2002

METHODS (CONT'D)

- **Stage 2** – Medical Providers (facilities or private providers):
 - Providers who deliver HIV medical care
 - Monitor CD4 count, viral load
 - Prescribe antiretroviral therapy (ART)
 - Probability of selection is proportional to size (facilities with higher patient loads are more likely to be selected)

METHODS (CONT'D)

- **Stage 3 – Patients seen by a Selected Provider:**
 - Randomly sampled
 - Eligibility
 - HIV-infected
 - ≥ 18 years of age
 - Received HIV medical care at facility between January 1st and April 30th in a given cycle year

Participation was voluntary; \$40 incentive (MetroCard or cash or Visa Card)

METHODS (CONT'D)

- Data collection using 2 sources:
 - Computer-based, structured interview
 - Interview data collected:
 - Clinical status (viral loads, CD-4 counts and other general health data)
 - Treatment adherence
 - HIV-related service needs and utilization
 - Health behaviors (sexual, drug use, prevention)
 - Medical record abstractions
 - MRA data collected:
 - Healthcare Encounters
 - Medications
 - Laboratory and Screening Tests

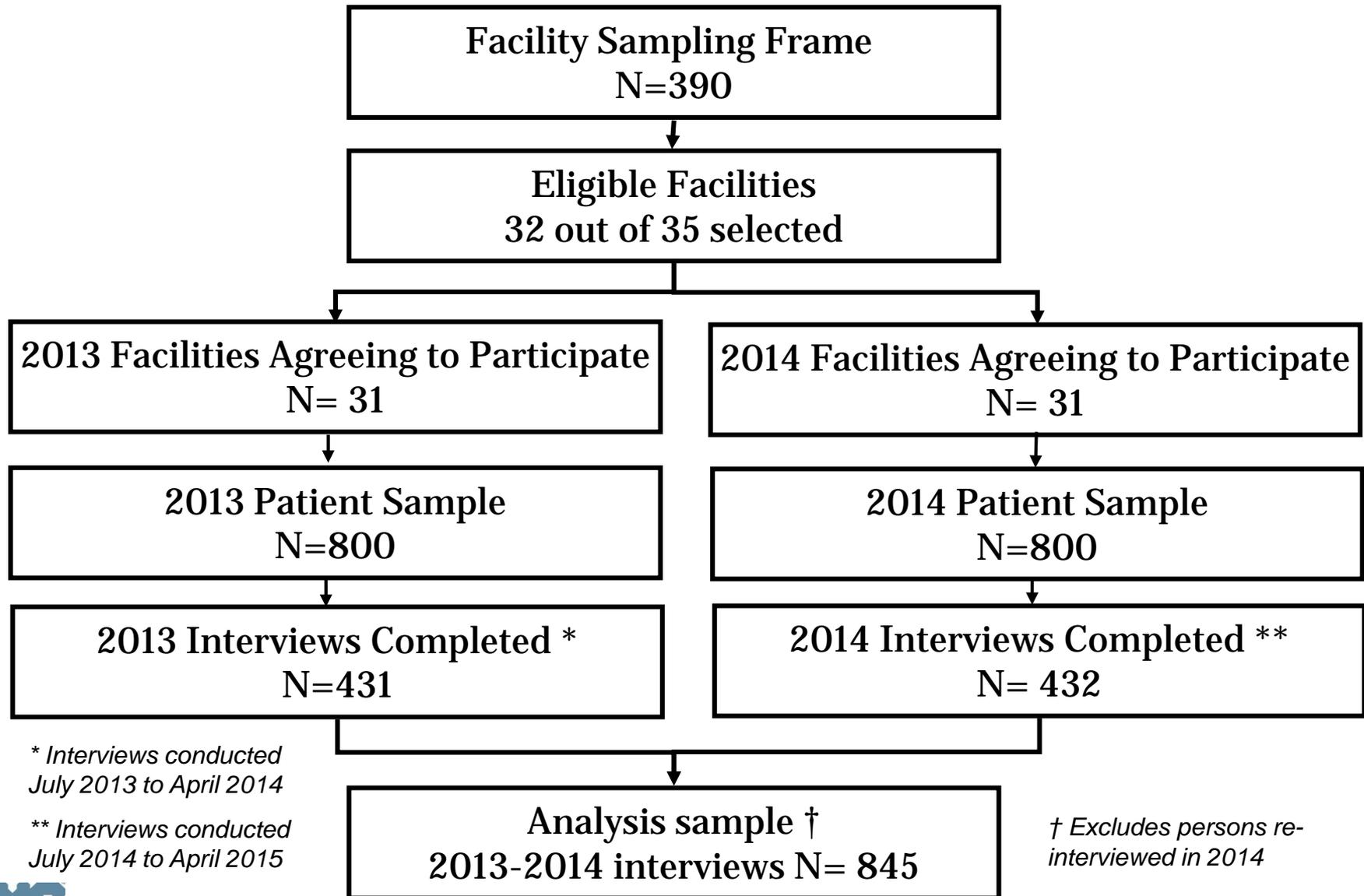
Note: Beginning in 2013, MMP was designated a surveillance activity and did not require informed consent for medical record abstractions.

METHODS (CONT'D)

- Analysis*:
 - Descriptive statistics (frequency and percentage distributions)
 - Pearson Chi-Square test for associations between race/ethnicity and selected outcomes
 - Significance level set at $P < 0.05$

**Analysis limited to only interview data.*

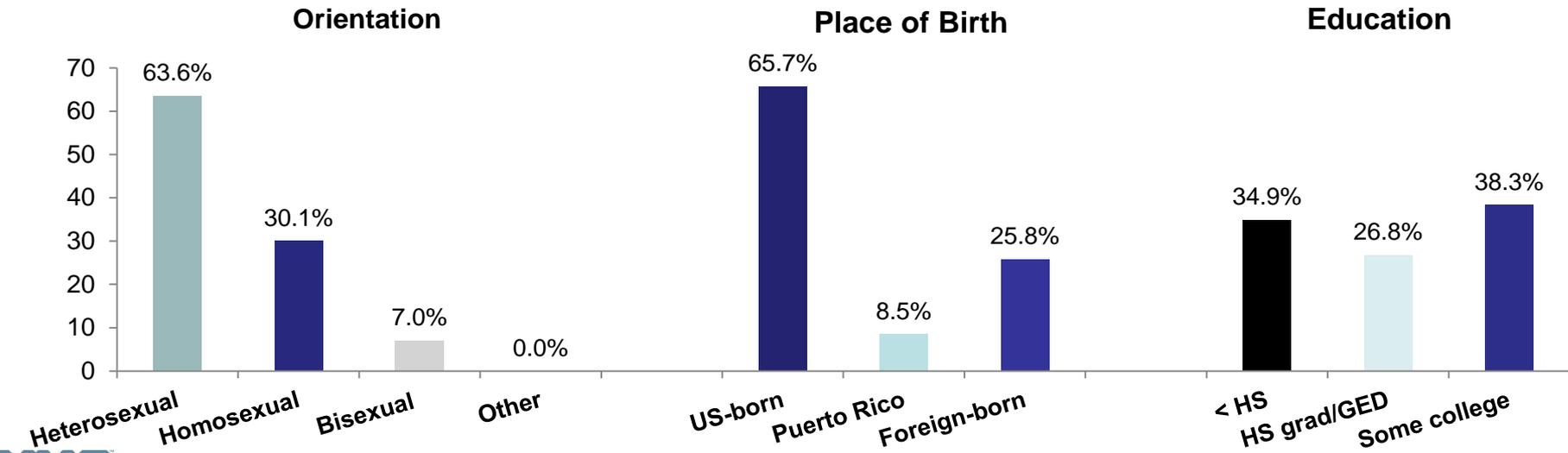
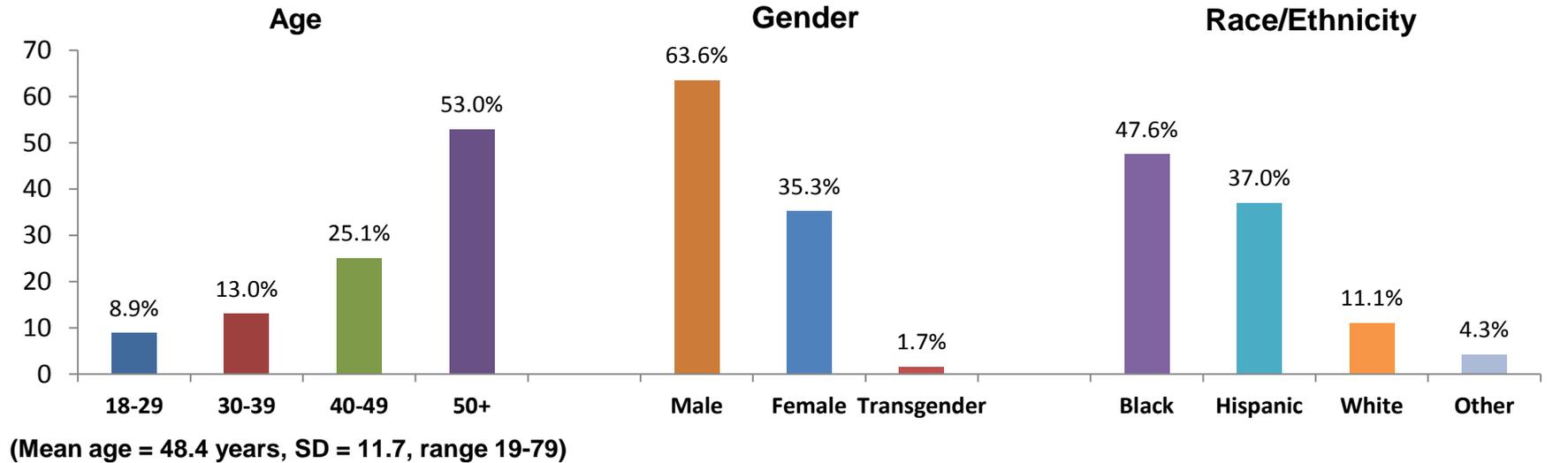
2013 AND 2014 NYC MMP SAMPLE



Social Demographics

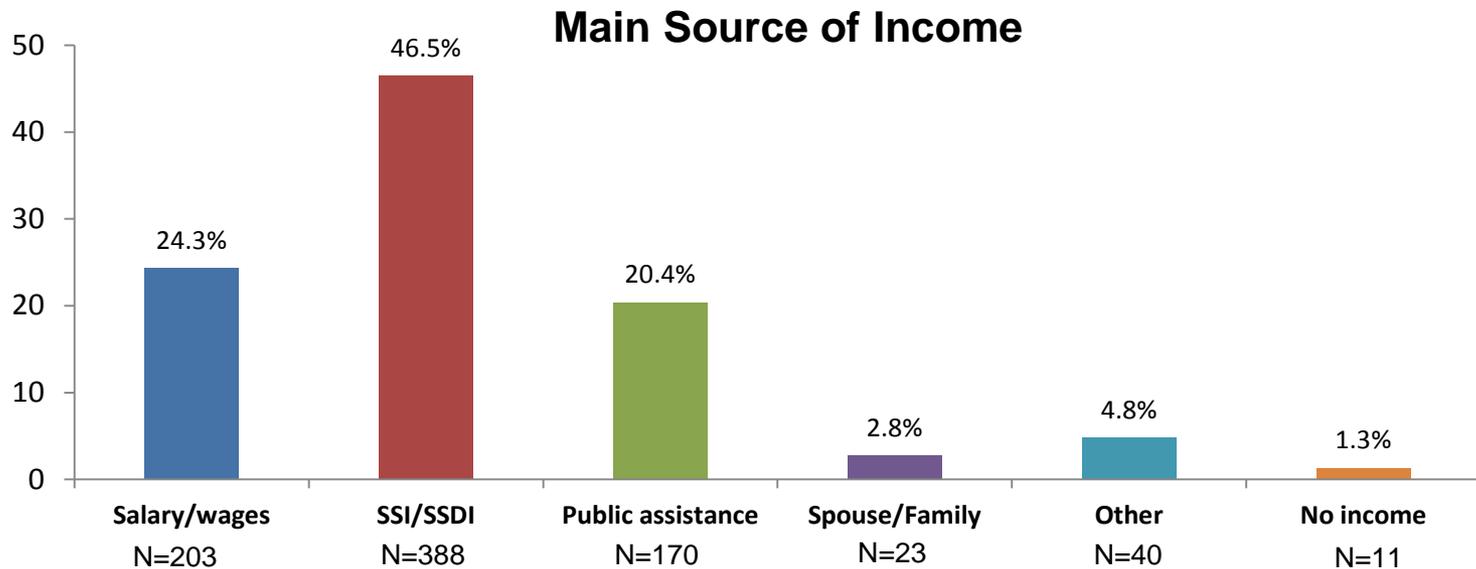
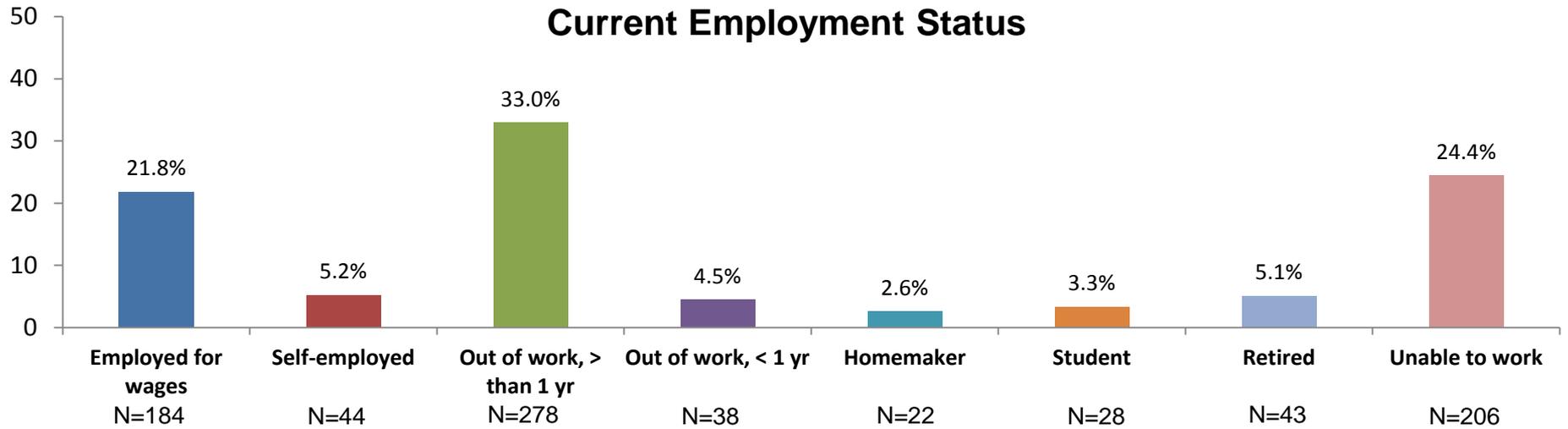
PARTICIPANTS' SOCIAL DEMOGRAPHICS, (N=845)

NYC MMP, 2013-2014



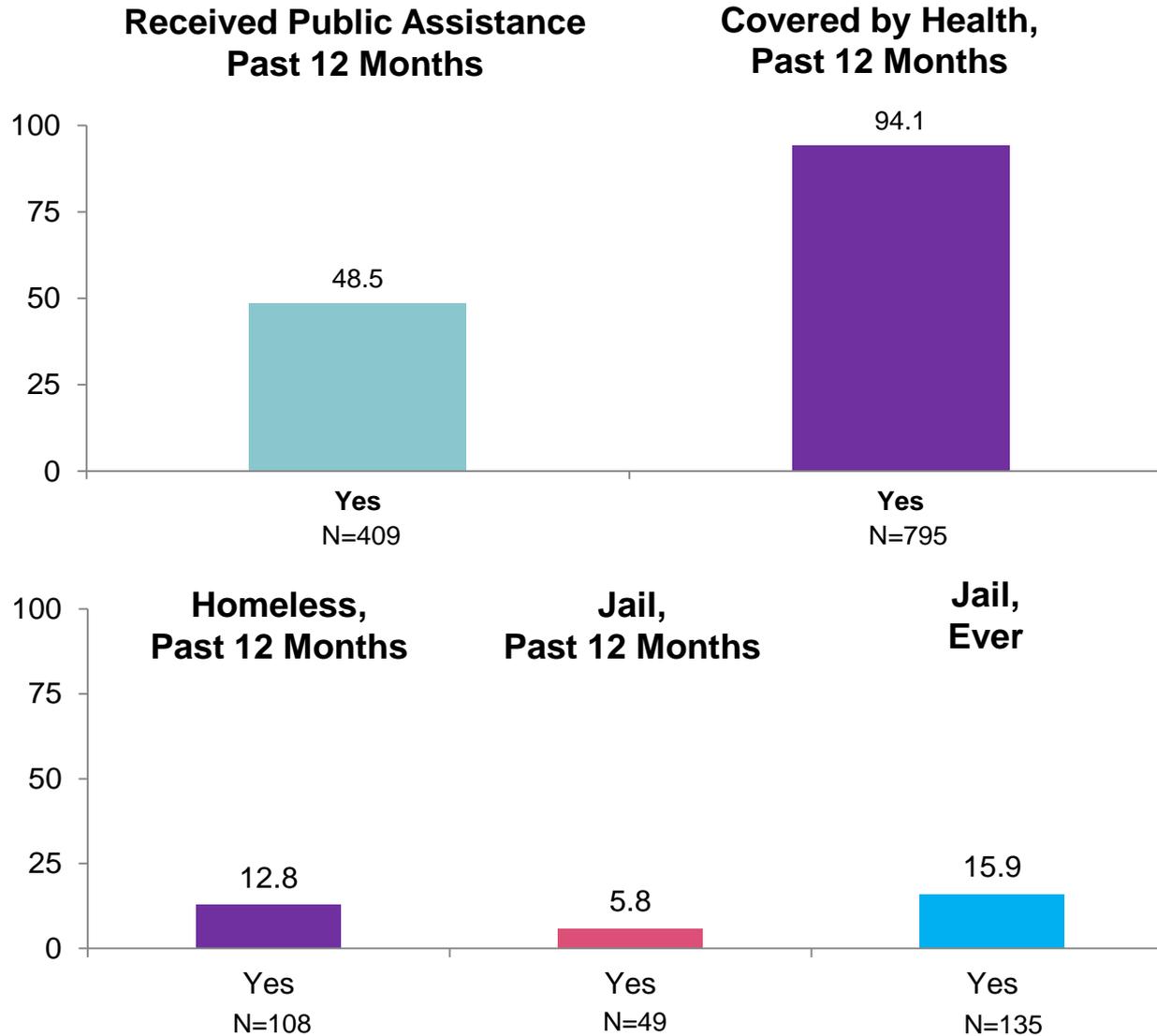
PARTICIPANTS' SOCIAL DEMOGRAPHICS, (N=845)

NYC MMP, 2013-2014 (CONT'D)



PARTICIPANTS' SOCIAL DEMOGRAPHICS, (N=845)

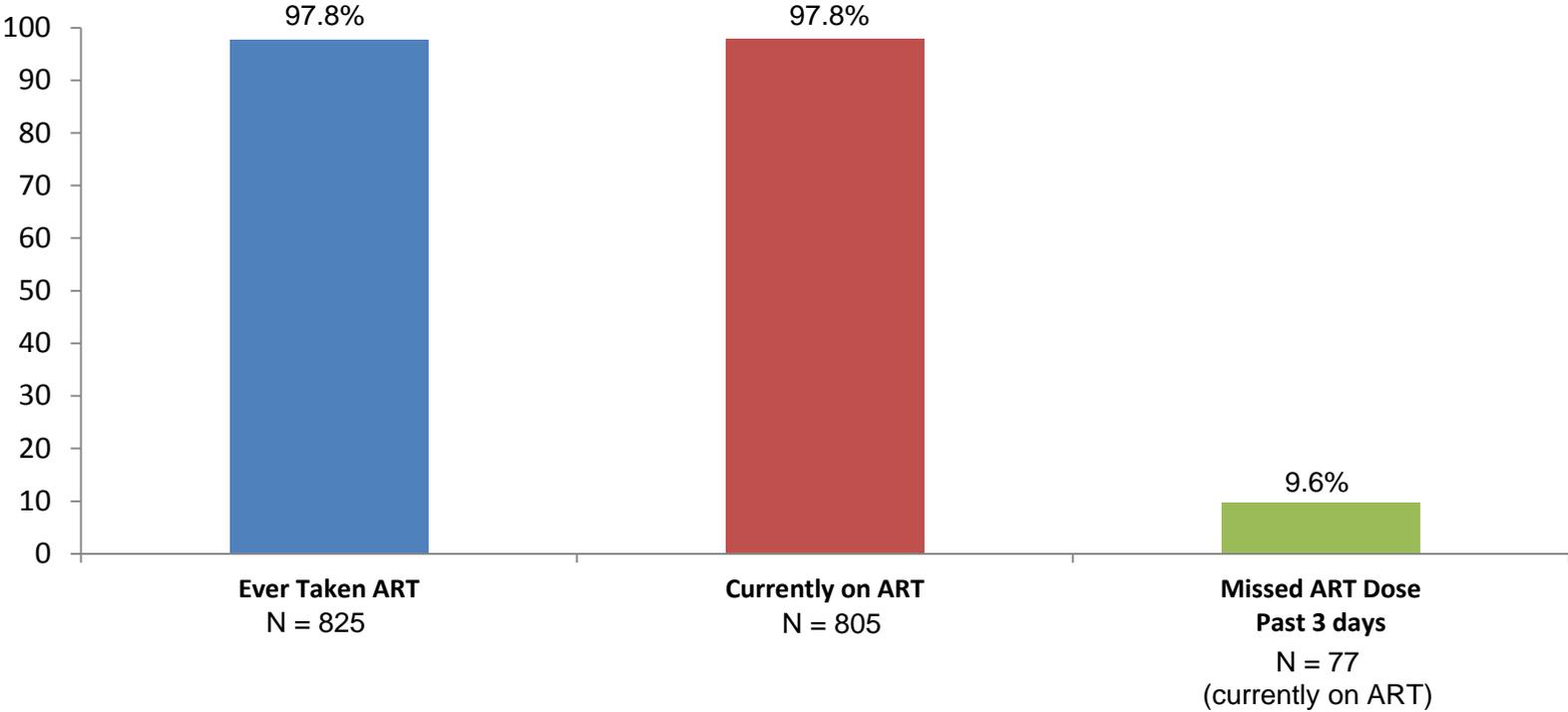
NYC MMP, 2013-2014 (CONT'D)



Clinical Characteristics

Antiretroviral Therapy (ART) and Adherence, (N=845)

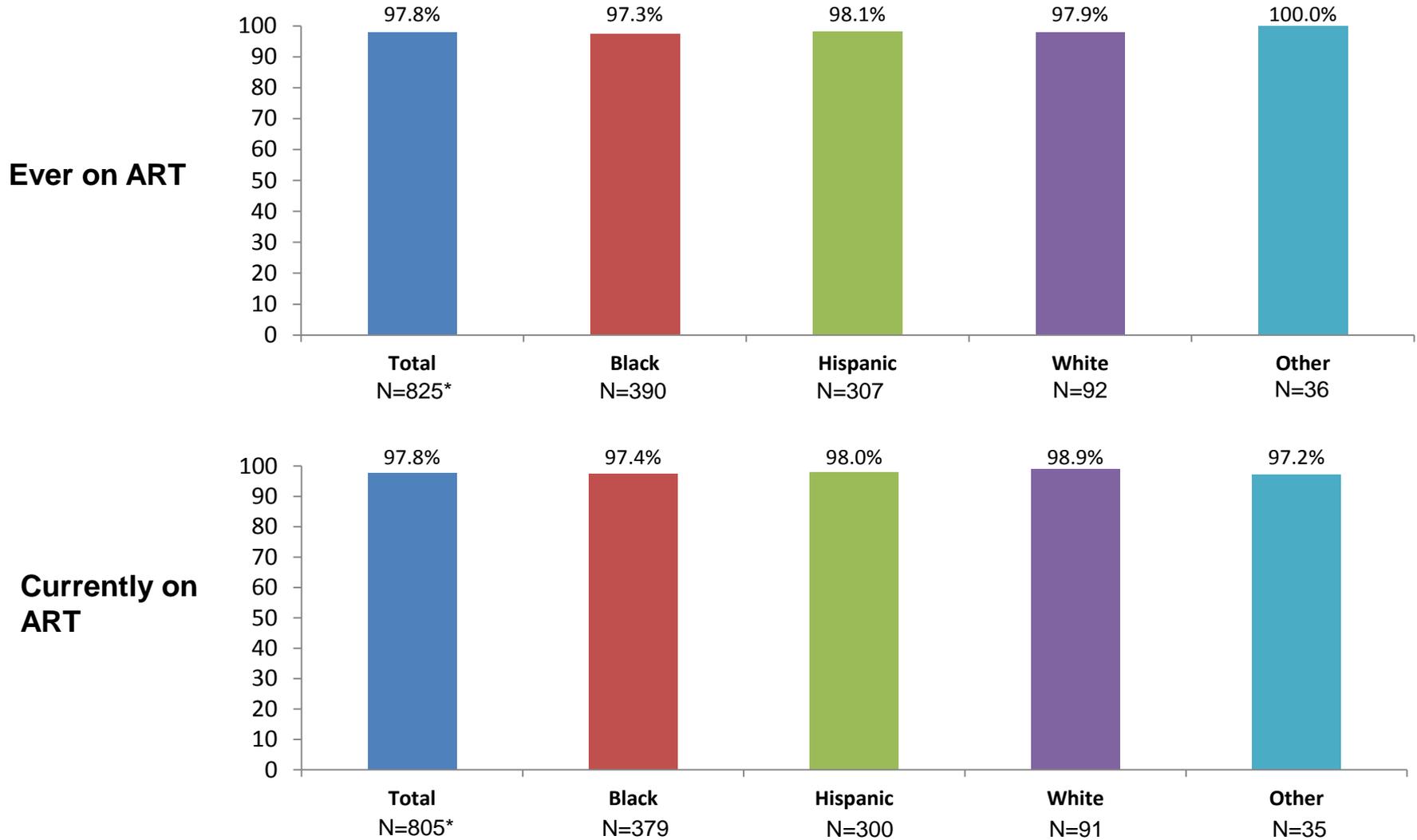
NYC MMP, 2013-2014



* Note: N based on non-missing responses

HIV Treatment by Race/Ethnicity, (N=845)

NYC MMP, 2013-2014



* Note: N based on non-missing responses

NON-ADHERENCE BY RACE/ETHNICITY AMONG THOSE CURRENTLY ON ART

NYC MMP, 2013-2014

Race/ Ethnicity	Dosing* Non-Adherence			Timing** Non-Adherence		
	Total N	Yes	%	Total N	Yes	%
Black	379	27	7.1 %	379	87	22.0 %
Hispanic	300	31	10.3 %	300	61	20.3 %
White	91	5	5.5 %	91	15	16.5 %
Other	35	5	14.3 %	35	6	17.1 %
Total	805	68	8.5 %	805	169	21.0 %

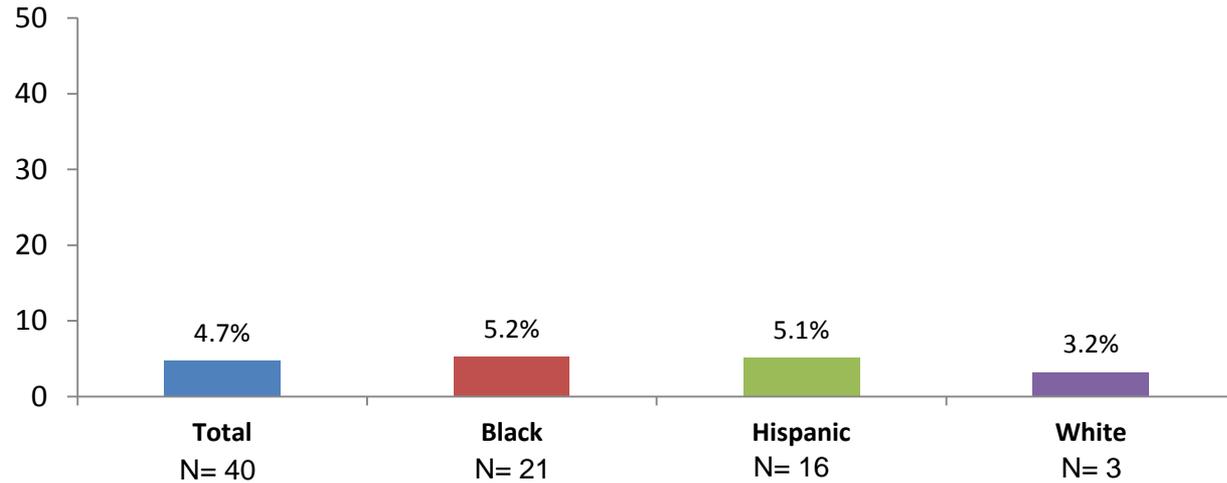
*Missed any dose in the past three consecutive days; **Did not adhere to specific medication schedule (timing)

Service Utilization

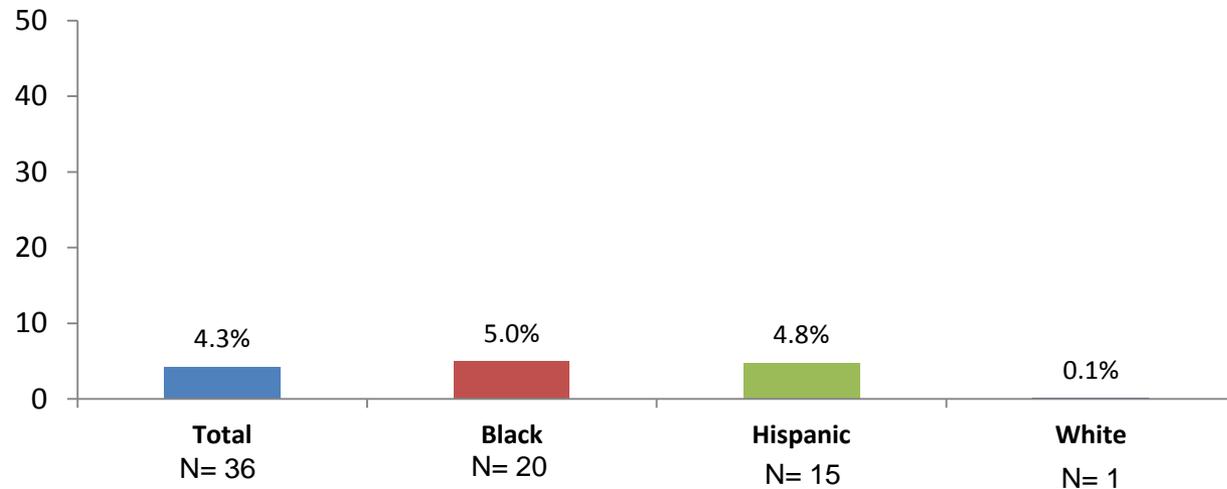
HEALTHCARE SERVICE UTILIZATION BY RACE/ETHNICITY, PAST 12 MONTHS (N=845)

NYC MMP, 2013-2014

ER Services,
HIV-related



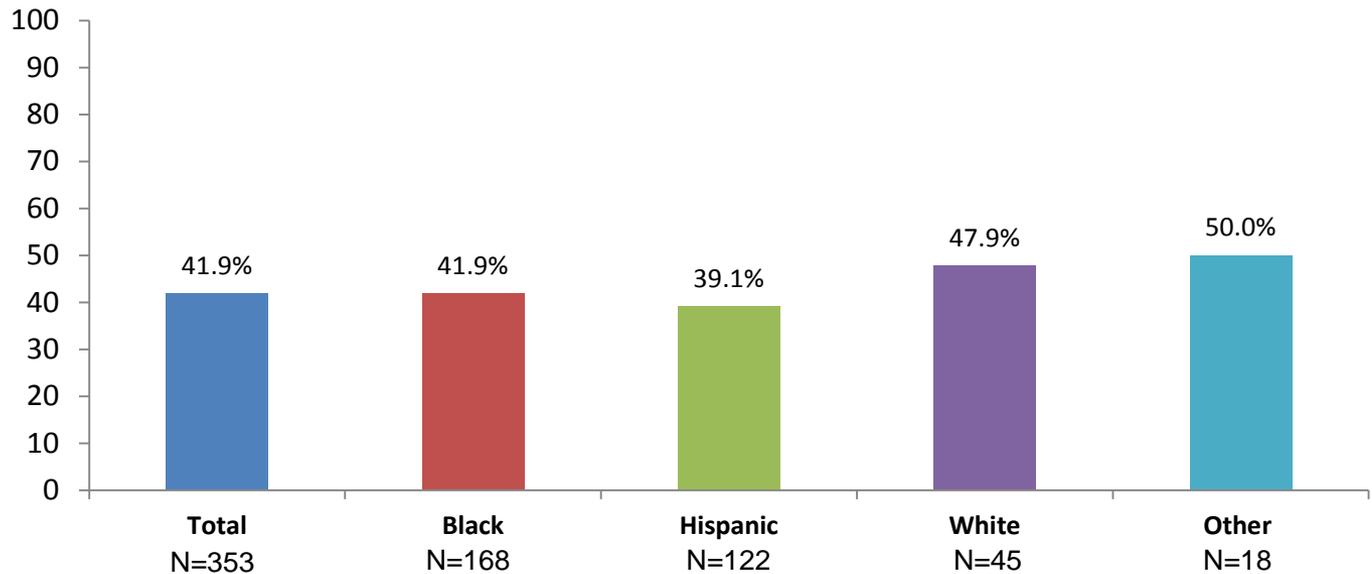
Hospitalization,
HIV-related



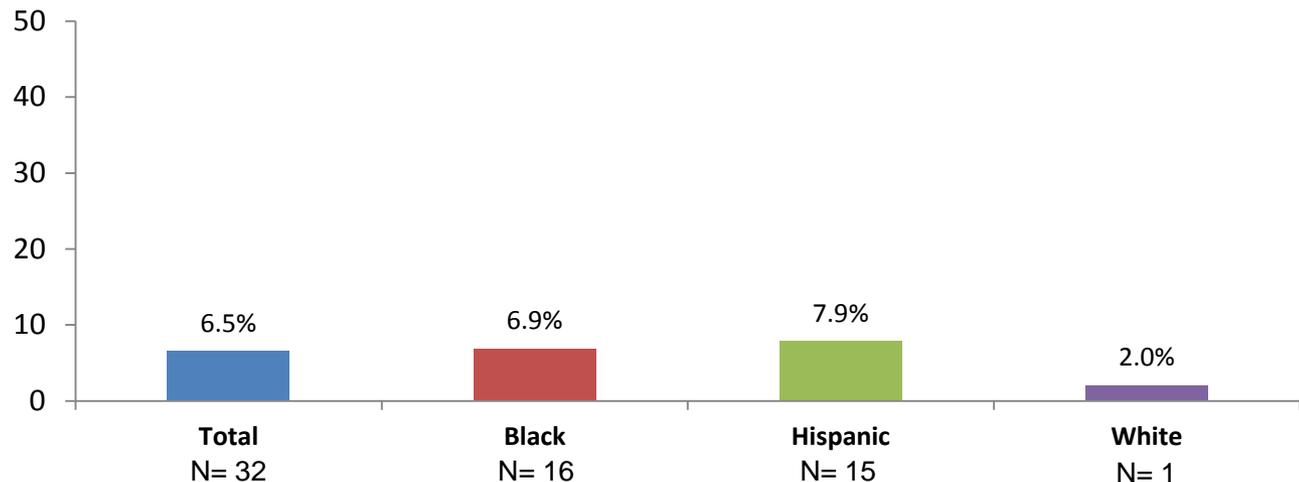
MENTAL HEALTH SERVICES BY RACE/ETHNICITY, PAST 12 MONTHS (N=845)

NYC MMP, 2013-2014

People who
received Mental
Health Services

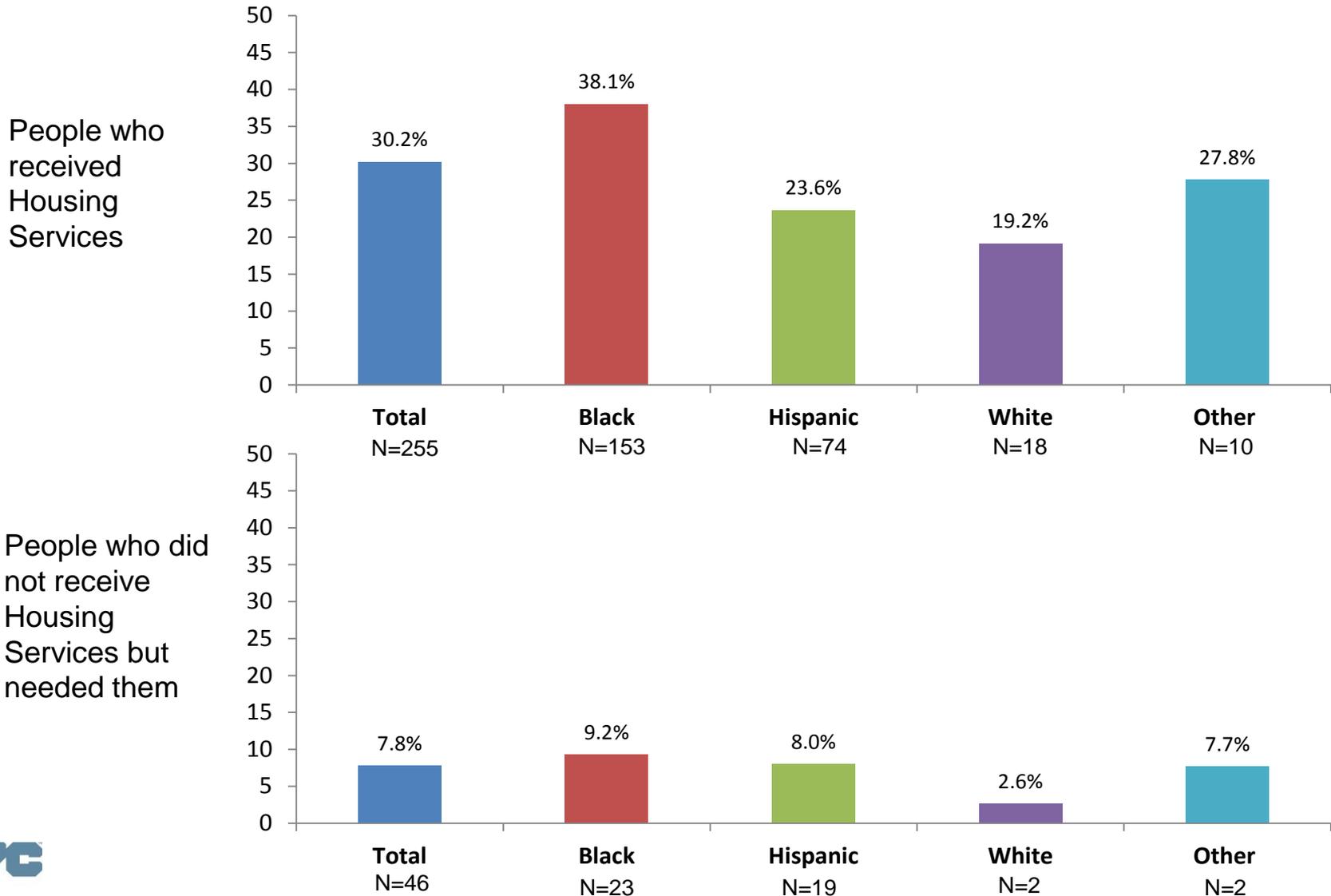


People who did
not receive
Mental Health
Services but
needed them



HOUSING SERVICES PROVISION BY RACE/ETHNICITY, PAST 12 MONTHS (N=845)

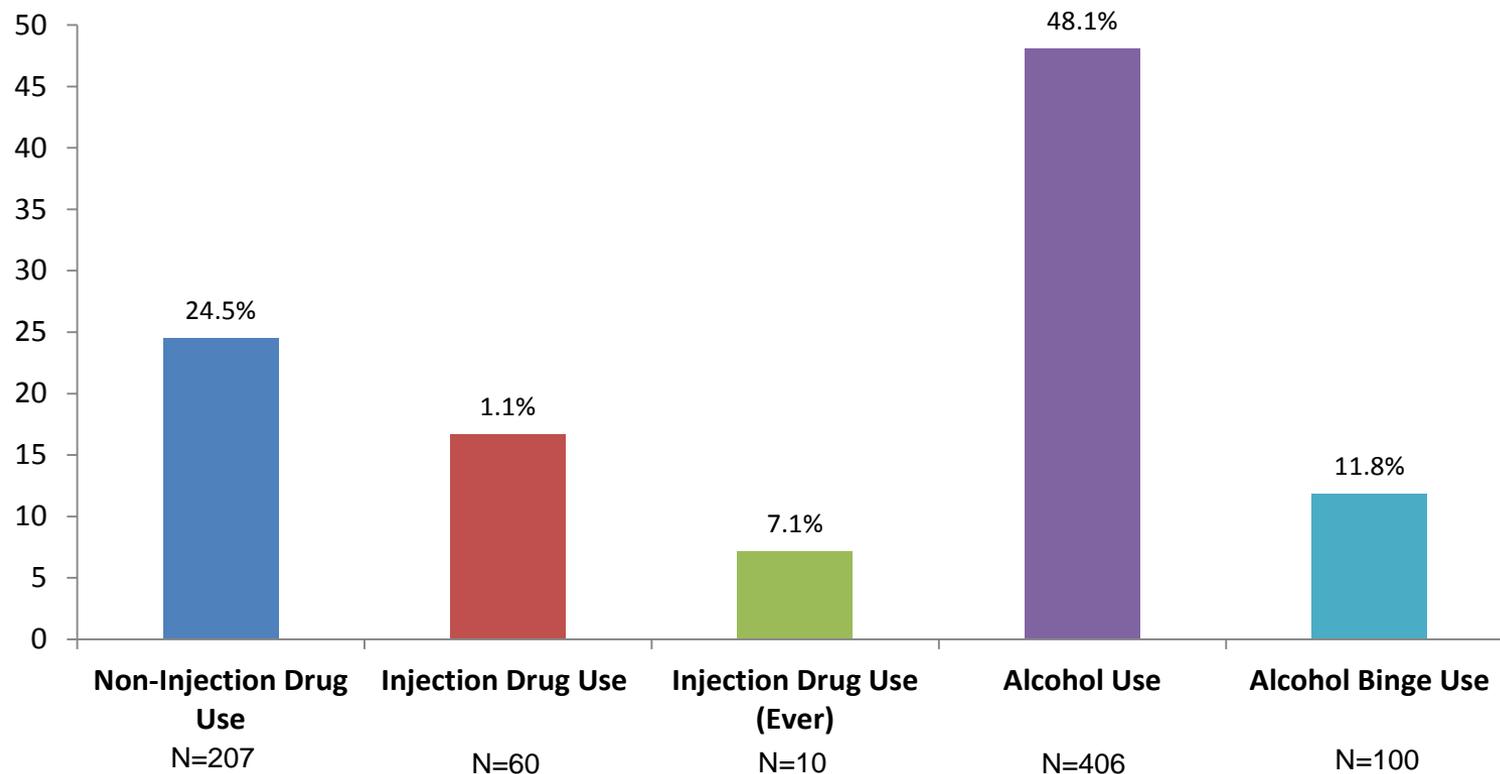
NYC MMP, 2013-2014



Drug Use Profile

DRUG AND ALCOHOL USE, PAST 12 MONTHS (N=845)

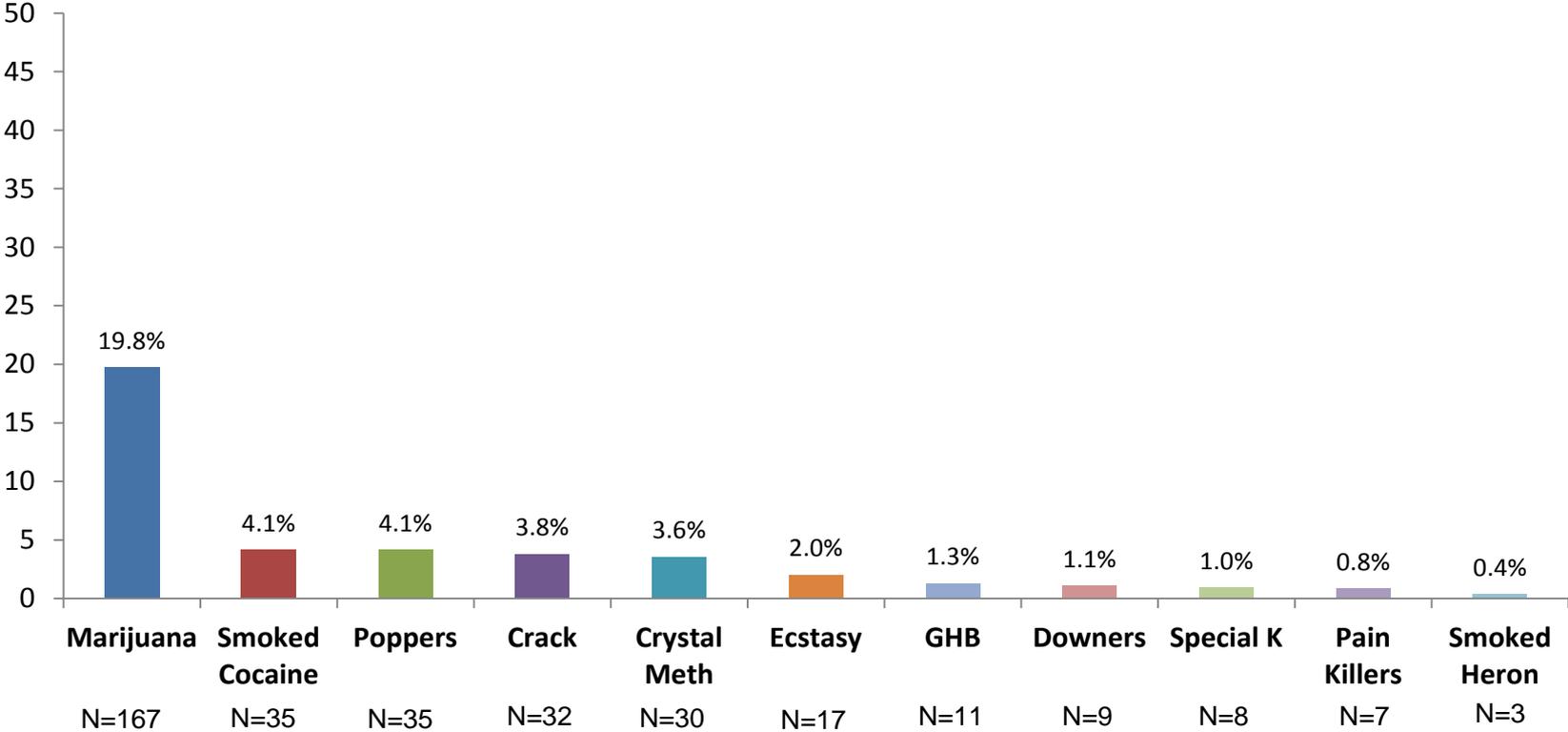
NYC MMP, 2013-2014



* For men, binge drinking was defined as 5 or more drinks in one sitting in the past 30 days.
For women, binge drinking was defined as 4 or more drinks in one sitting in the past 30 days.

NON-INJECTION DRUG USE* (N=845), PAST 12 MONTHS

NYC MMP, 2013-2014

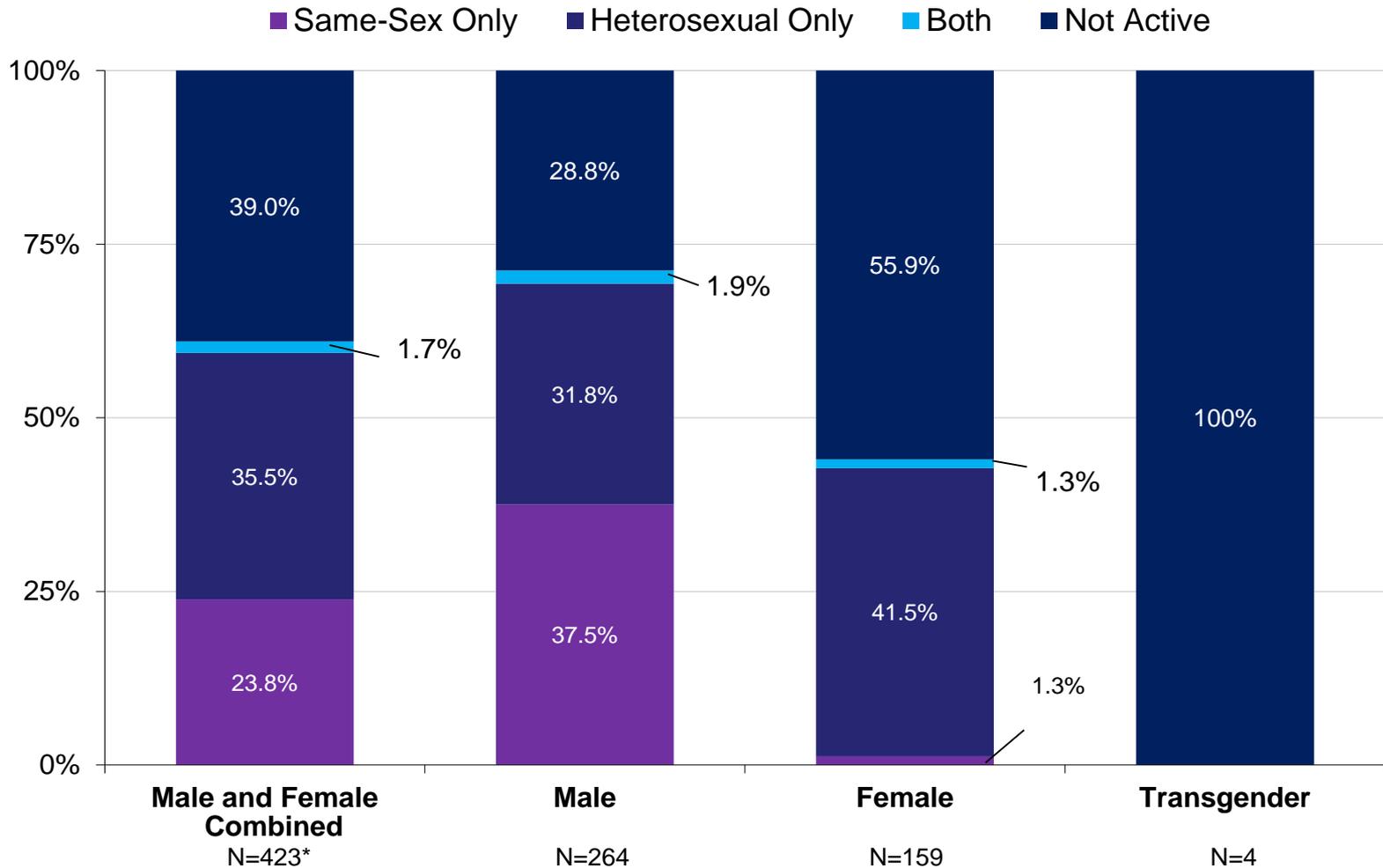


* Includes patients using one or more drugs; categories are not mutually exclusive

Sexual Activity and Sexual Risk Behaviors

SEXUALLY ACTIVE AMONG PARTICIPANTS BY GENDER OF SEX PARTNERS, PAST 12 MONTHS

NYC MMP, DATA ONLY FOR 2013



* Note: N based on non-missing responses

AMONG THE SEXUALLY ACTIVE, NUMBER OF SEX PARTNERS BY PARTNERSHIP GENDER TYPE, PAST 12 MONTHS

NYC MMP, DATA ONLY FOR 2013

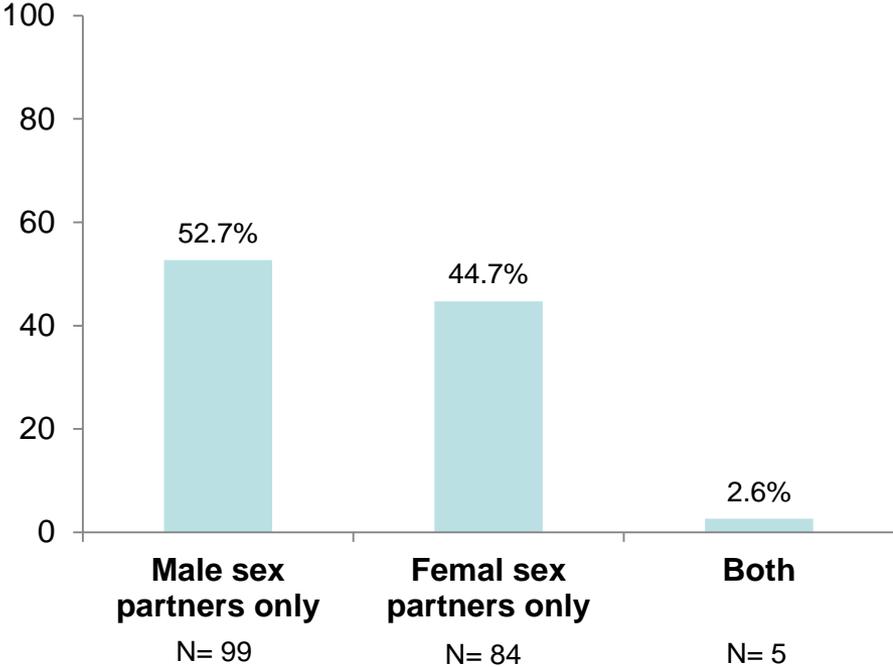
Partnership Type *	N	Median	Min, Max	IQR **
Male w/ Female	89	1	1, 10	(1, 2)
Male w/ Male	99	3	1, 300	(1, 10)
Female w/ Male	68	1	1, 3	(1, 1)

* Partnership types are not mutually exclusive ** Interquartile Range

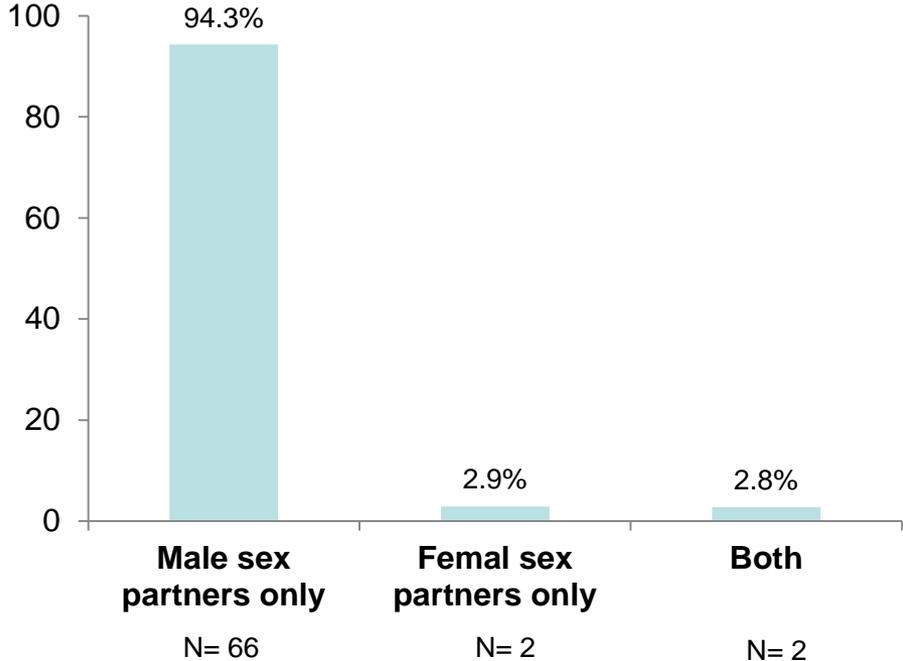
Partner Gender Among Participants Reporting Sexual Activity by Participant Gender, Past 12 Months

NYC MMP, Data only for 2013

Male Participants (N = 188)

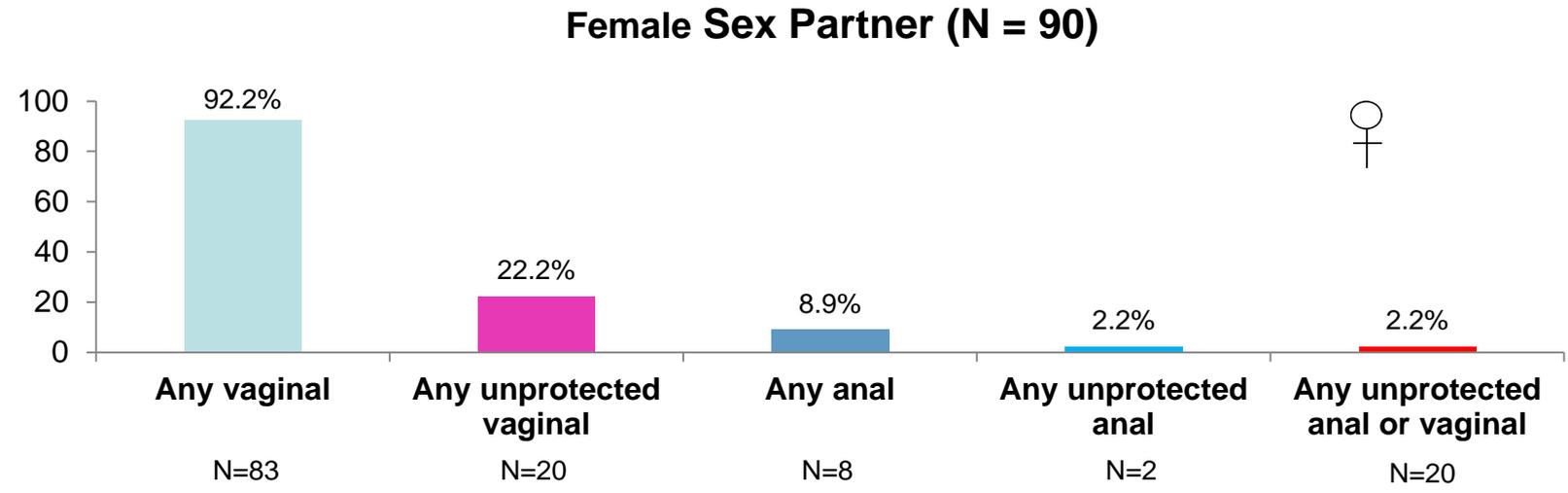
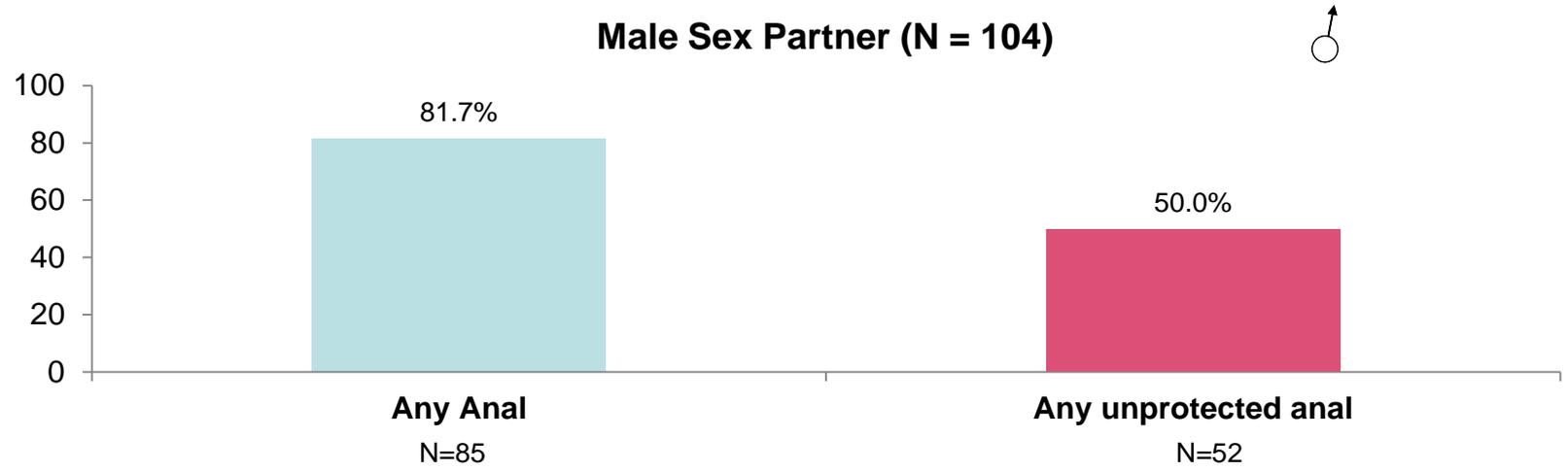


Female Participants (N = 70)



Sexual Behaviors by Partnership Gender Among Sexually Active Male Participants, Past 12 Months*

NYC MMP, Data only for 2013

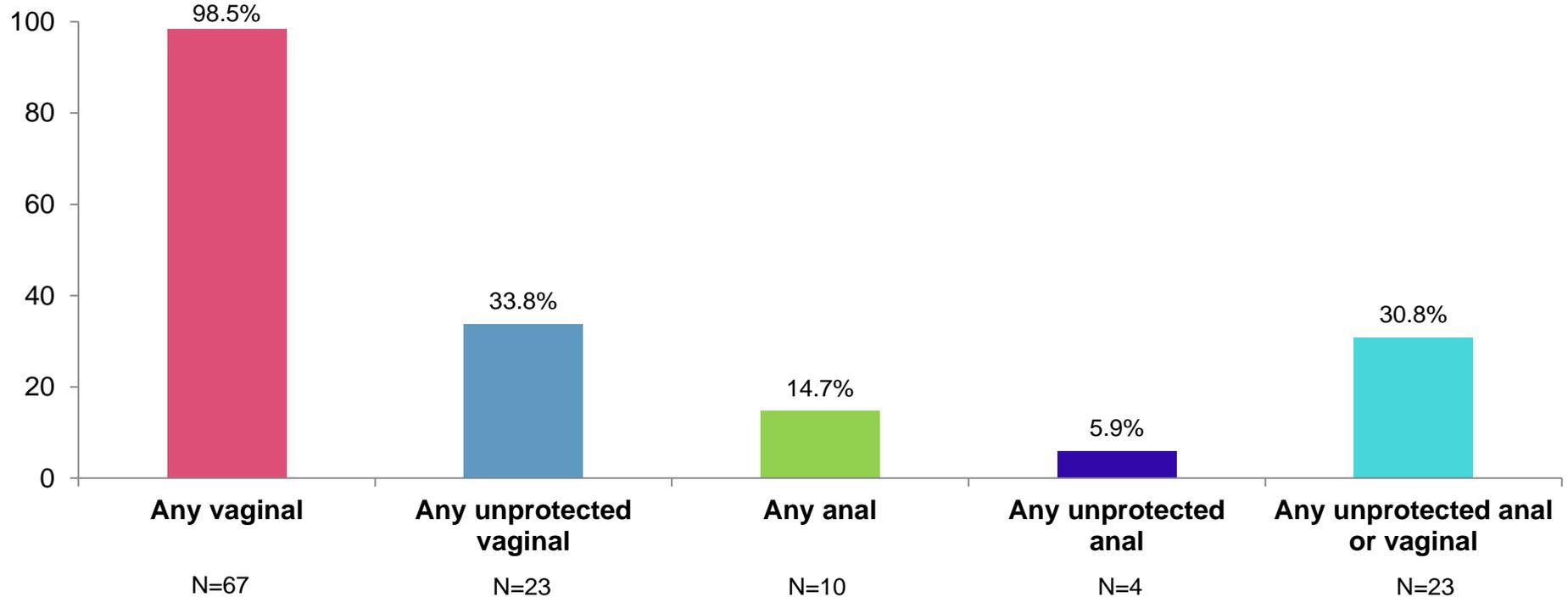


* Male sex and female sex partners n's are not mutually exclusive

Sexual Behaviors by Partnership Gender among Sexually Active Female Participants with Male Partners, Past 12 Months

NYC MMP, Data only for 2013

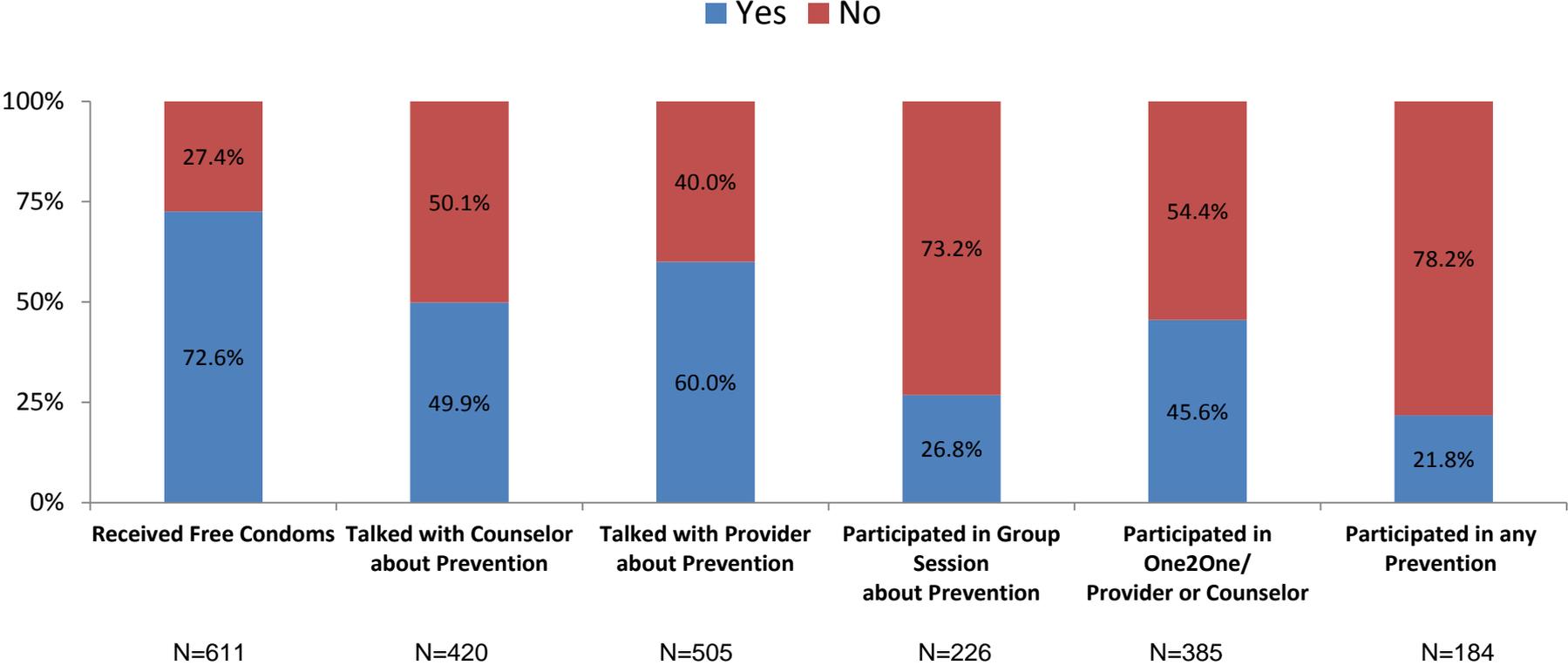
Male Sex Partner (N = 68)



Exposure to Individual Counseling or Group Prevention

EXPOSURE TO PREVENTION, PAST 12 MONTHS (N=845)

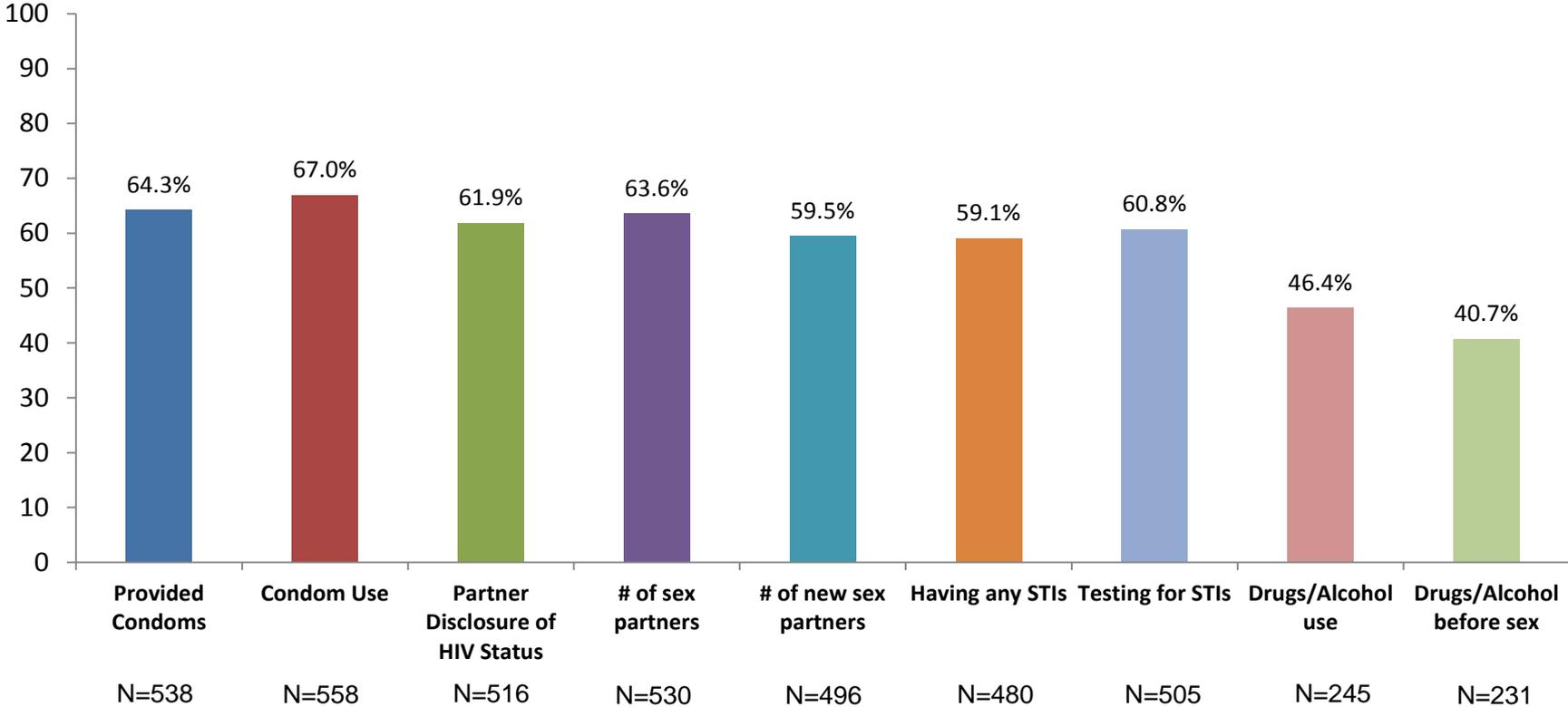
NYC MMP, 2013-2014



Provision of Condoms and Questions Asked by Physicians or Other Medical Providers about Prevention, Past 12 months

NYC MMP, 2013-2014

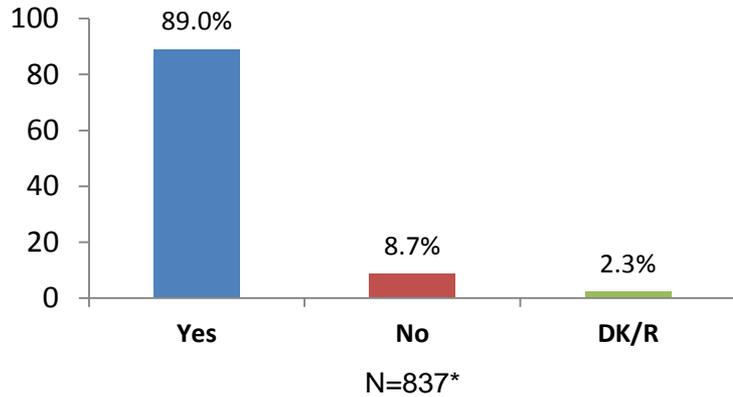
MD or Non-MD Medical Providers



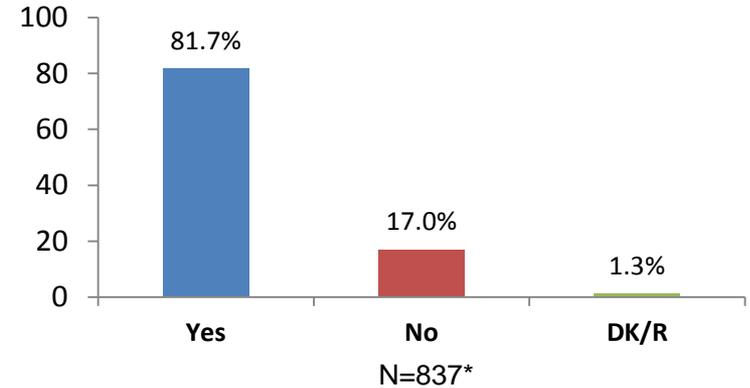
Patients' Knowledge of HIV Drug Resistance

NYC MMP, 2013-2014

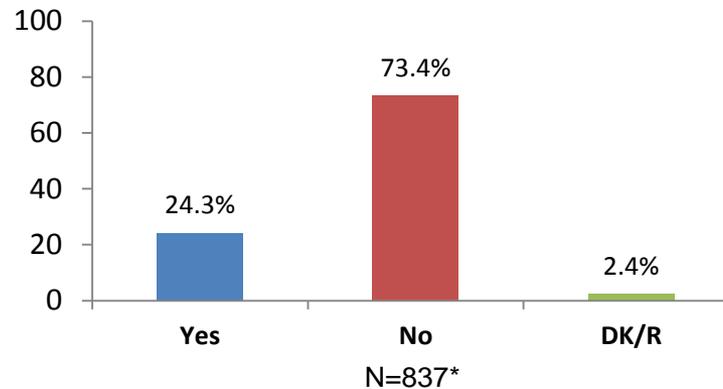
Do you think that taking your medication regularly affects how well it works?



Do you know about resistance to HIV antiretroviral medicines?



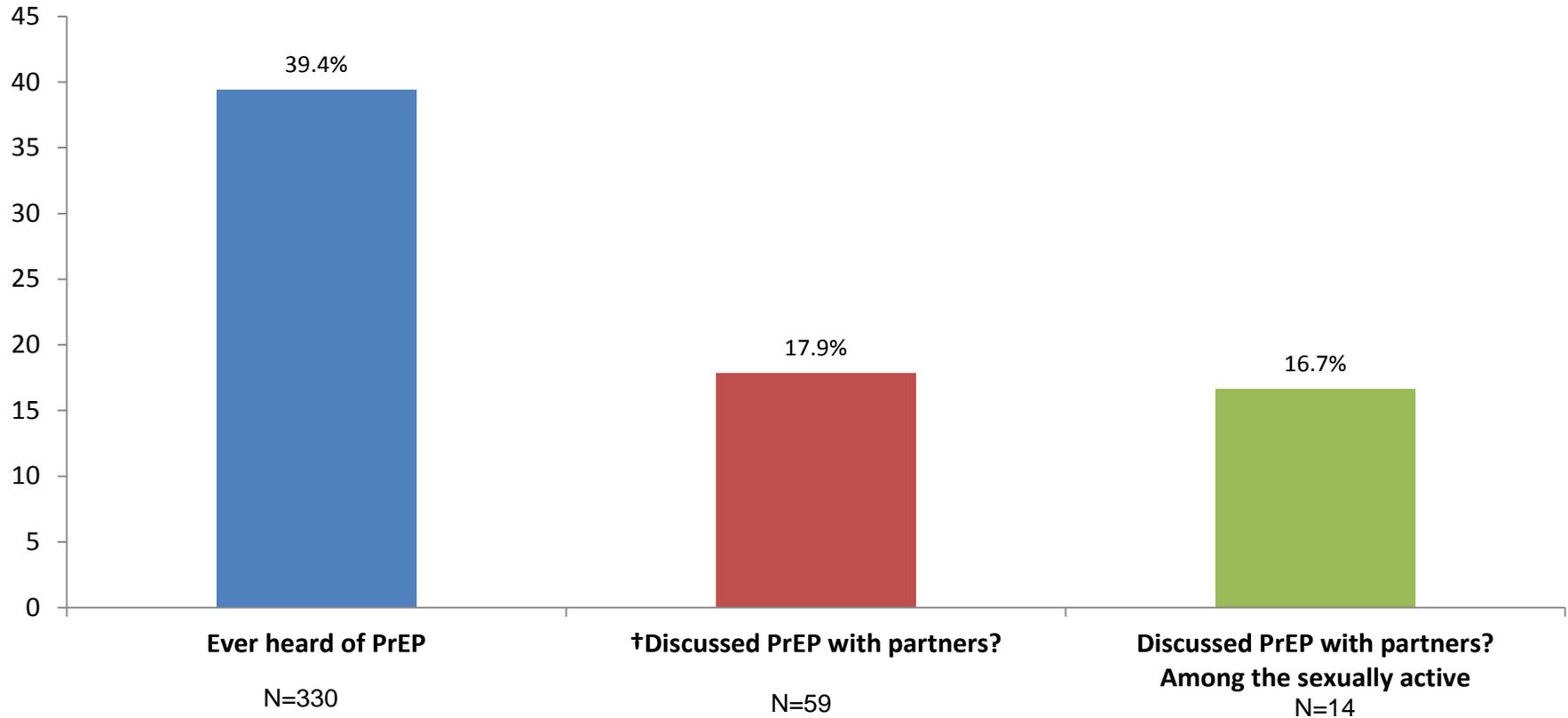
Have you ever been told by a provider that you are resistant to any HIV antiretroviral medicines?



*Note: N based on non-missing responses

KNOWLEDGE OF PRE-EXPOSURE PROPHYLAXIS (PREP), PAST 12 MONTHS

NYC MMP, 2013-2014



Note: N based on non-missing responses
† Among those who have heard of PrEP

ANALYSIS AND DATA LIMITATIONS

- Data based on self-report
- Stigmatized behaviors (e.g., sex and drug risk behaviors) may be underreported
- Cross-sectional design, therefore cannot determine causal relationships
- Caution is required in making generalizations to all NYC HIV-infected patients receiving care for HIV:
 - Some sampled facilities did not participate
 - Low response rate in patient sample
 - Unweighted data are drawn from a complex survey design — sample prevalence may differ from weighted population prevalence estimates

REFERENCES

Centers for Disease Control (CDC), *HIV Surveillance Supplemental Report 2013*;18(No. 5).

HIV Epidemiology and Field Services Program. *HIV Surveillance Annual Report, 2013*. New York City Department of Health and Mental Hygiene: New York, NY. December 2014.

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