

Medical Monitoring Project (MMP)

Results from the MMP survey of people receiving HIV care
in 2007-2008 in NYC

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Background

Medical Monitoring Project (MMP)

- In the USA, at the end of 2006 there were an estimated 1.3m people living with HIV/AIDS (PLWHA) (MMWR, 2008)
- In NYC, at the end of 2009 there were an estimated 108,886 PLWHA (NYC DOHMH, 2010)
- MMP is a national study of PLWHA receiving medical care for HIV
- Conducted by the Centers for Disease Control and Prevention (CDC) with local partners

Objectives

Medical Monitoring Project (MMP)

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

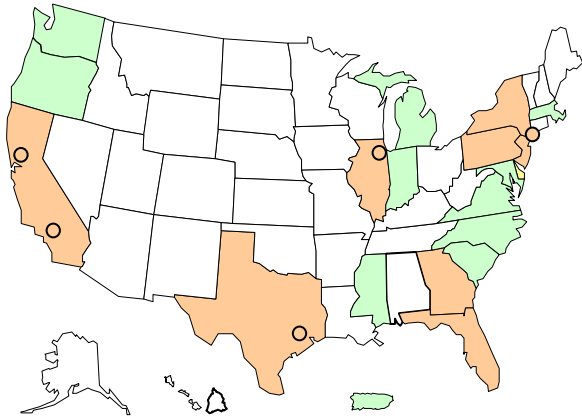
Methods

Medical Monitoring Project (MMP)

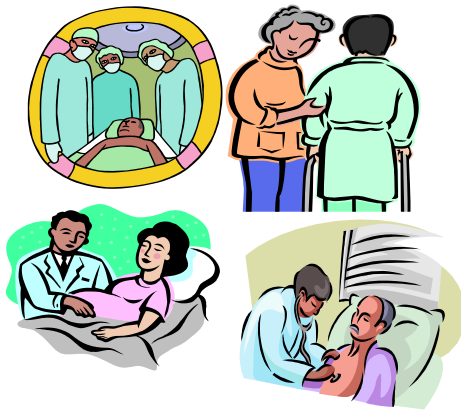
- Multi-year (2005-open) project of US adults in outpatient care for HIV
- Cross-sectional design
- Annual multi-stage probability sample

Methods

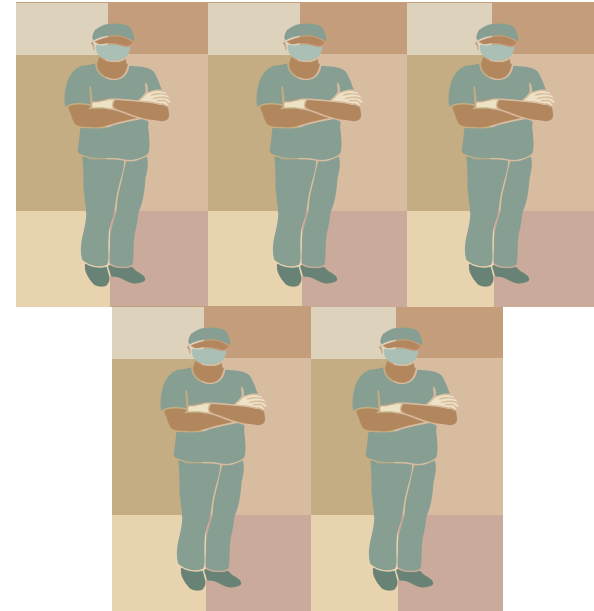
Medical Monitoring Project (MMP): 3-stage Sample Design



1st stage – local areas



3rd stage - patients



2nd stage - providers

Methods

Medical Monitoring Project (MMP): Sample Selection

- Stage 1 – Local Areas:
 - 26 areas selected (20 states and 6 cities)
 - Includes >80% of US AIDS cases
 - Probability of selection is proportional to size (PPS) (# of AIDS cases in 2002)

Methods

Medical Monitoring Project (MMP): Sample Selection

- Stage 2 – Medical Providers (facilities or private providers):
 - Providers who deliver HIV medical care
 - Monitor CD4 count, viral load
 - Prescribe ART

Methods

Medical Monitoring Project (MMP): Sample Selection

- Stage 3 – Patients seen by a Selected Provider
 - Randomly sampled
 - Eligibility
 - HIV-infected
 - ≥ 18 years of age
 - received HIV medical care at facility 1/1 – 4/30 in a given cycle year
 - Participation is voluntary and in NYC requires informed consent
 - Patient incentive for participation (\$40 in metrocards)

Methods

Medical Monitoring Project (MMP)

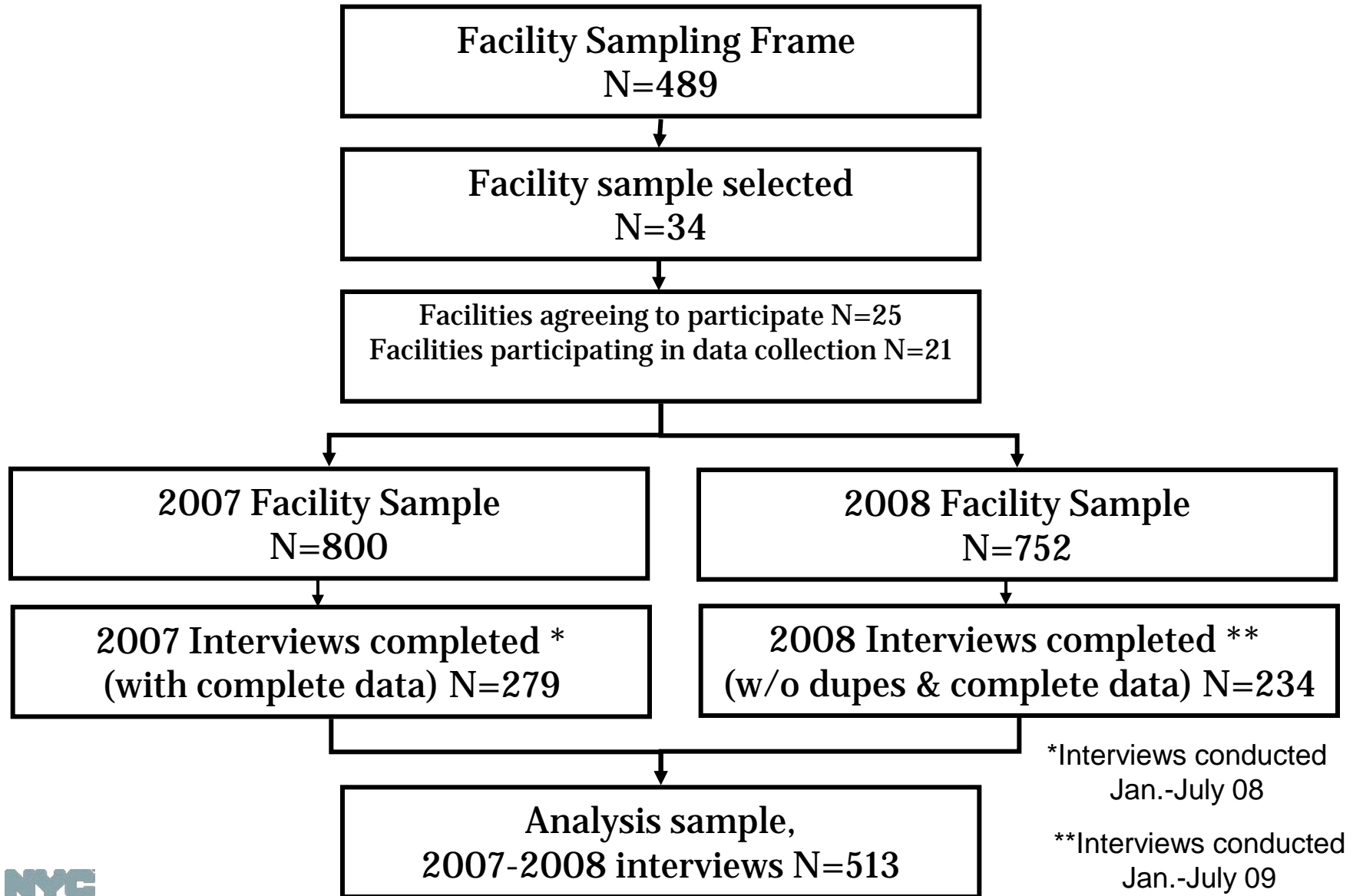
- Data collection using 2 sources:
 - Computer-based structured interview, face-to-face by trained interviewer, conducted in private
 - Medical record abstractions
- Data collected:
 - Clinical status
 - Treatment adherence
 - Service utilization
 - HIV-related service needs
 - Health behaviors (health care utilization, sexual, drug use, prevention)

Methods

Medical Monitoring Project (MMP)

- Analysis:
 - Frequency and percentage distributions
 - Pearson Chi-Square test
 - Statistical significance indicated by * and p value
 - Statistical significance for race/ethnic differences is for black, Hispanic, and white

NYC 2007 and 2008 MMP Sample

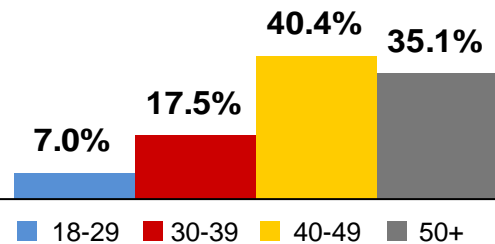


MMP Participants' Social Demographics

Participants' Social Demographics (N=513)

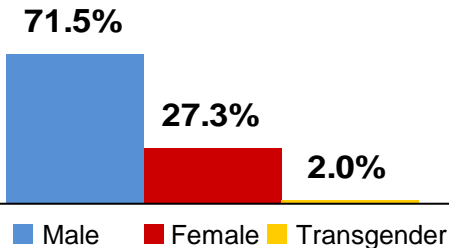
MMP, NYC, 2007/2008

Age Group

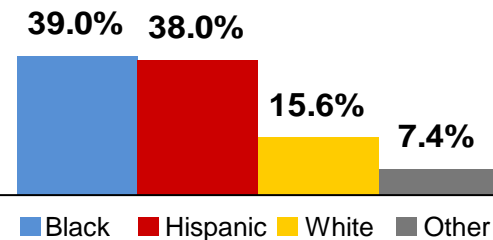


(Mean age = 45.5 years, SD = 9.6, range 21-74)

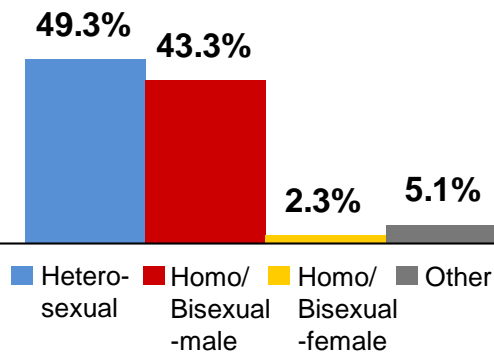
Gender



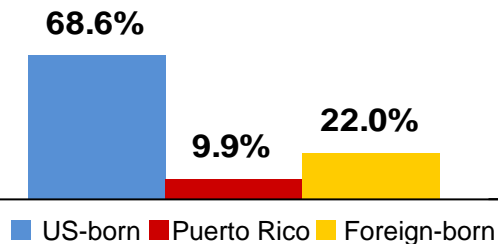
Race/Ethnicity



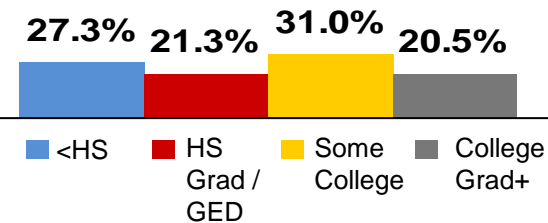
Sexual Orientation



Place of Birth



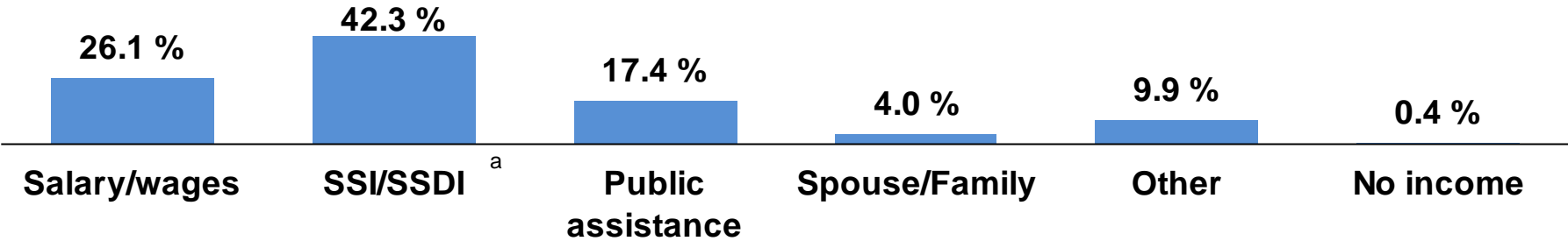
Education



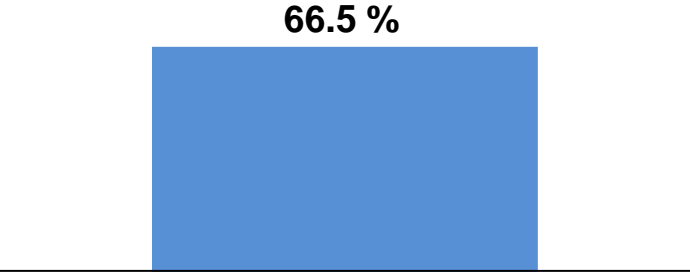
Participants' Social Demographics (N=513)

MMP, NYC, 2007/2008 (cont'd)

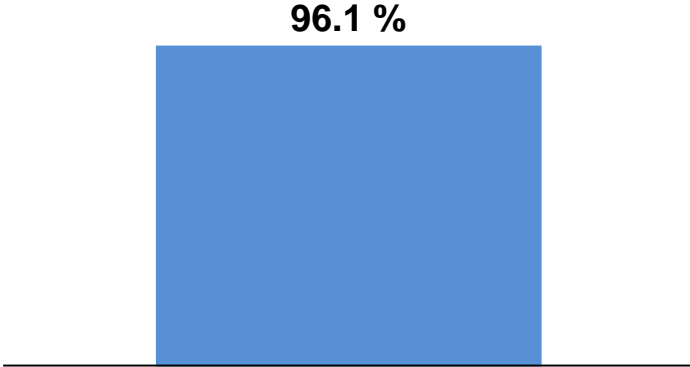
Main Source of Income Past 12 Months:



Received Any Public Assistance Past 12 Months:



Covered by Health Insurance Past 12 Months:

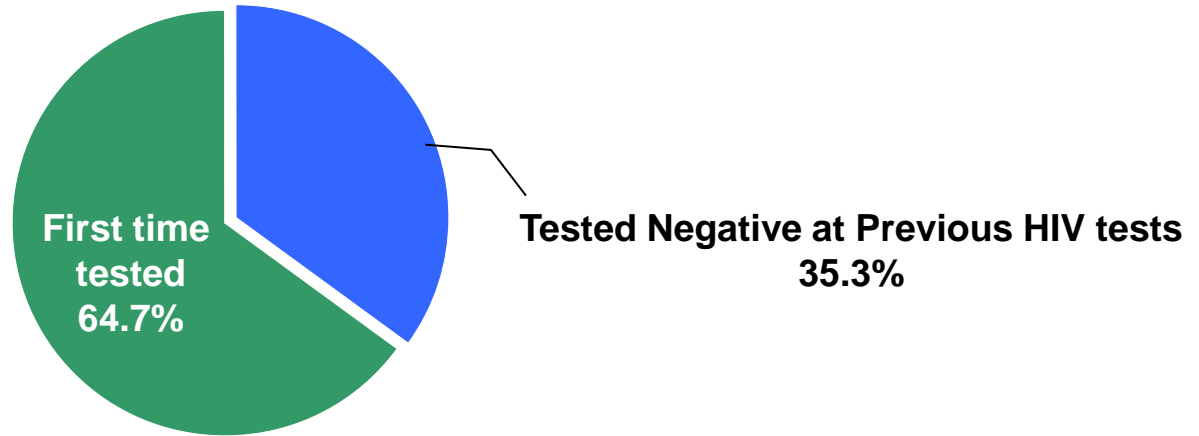


^a Supplemental Security Income (SSI); Social Security Disability Income (SSDI)

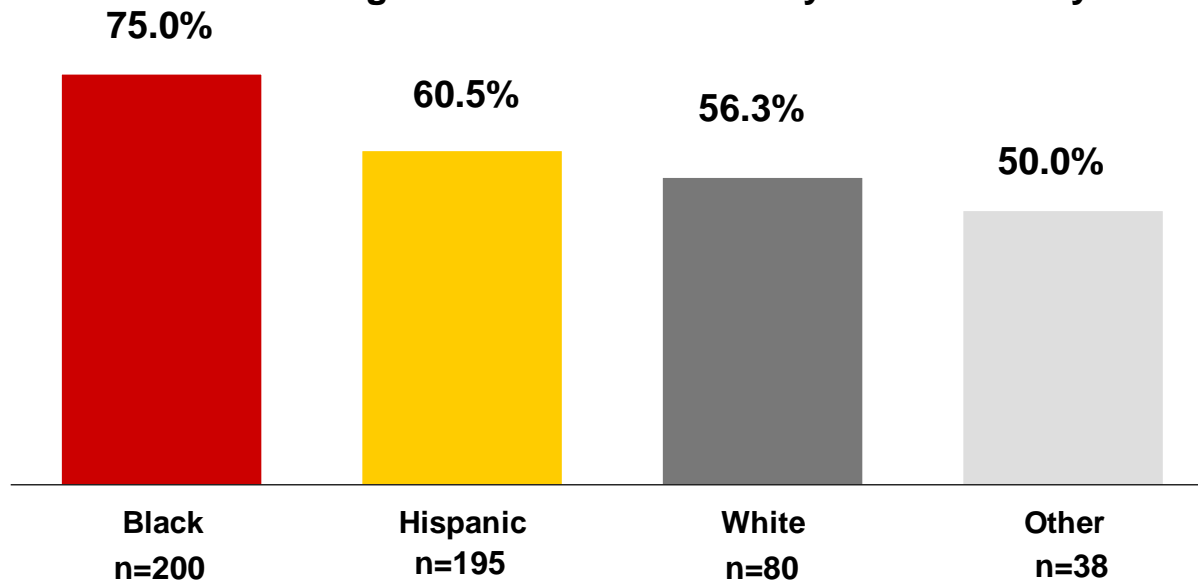
Participants' HIV Testing History

MMP, NYC, 2007/2008

HIV diagnosed at first HIV test (n=513)



HIV diagnosed at first HIV test by Race/Ethnicity*



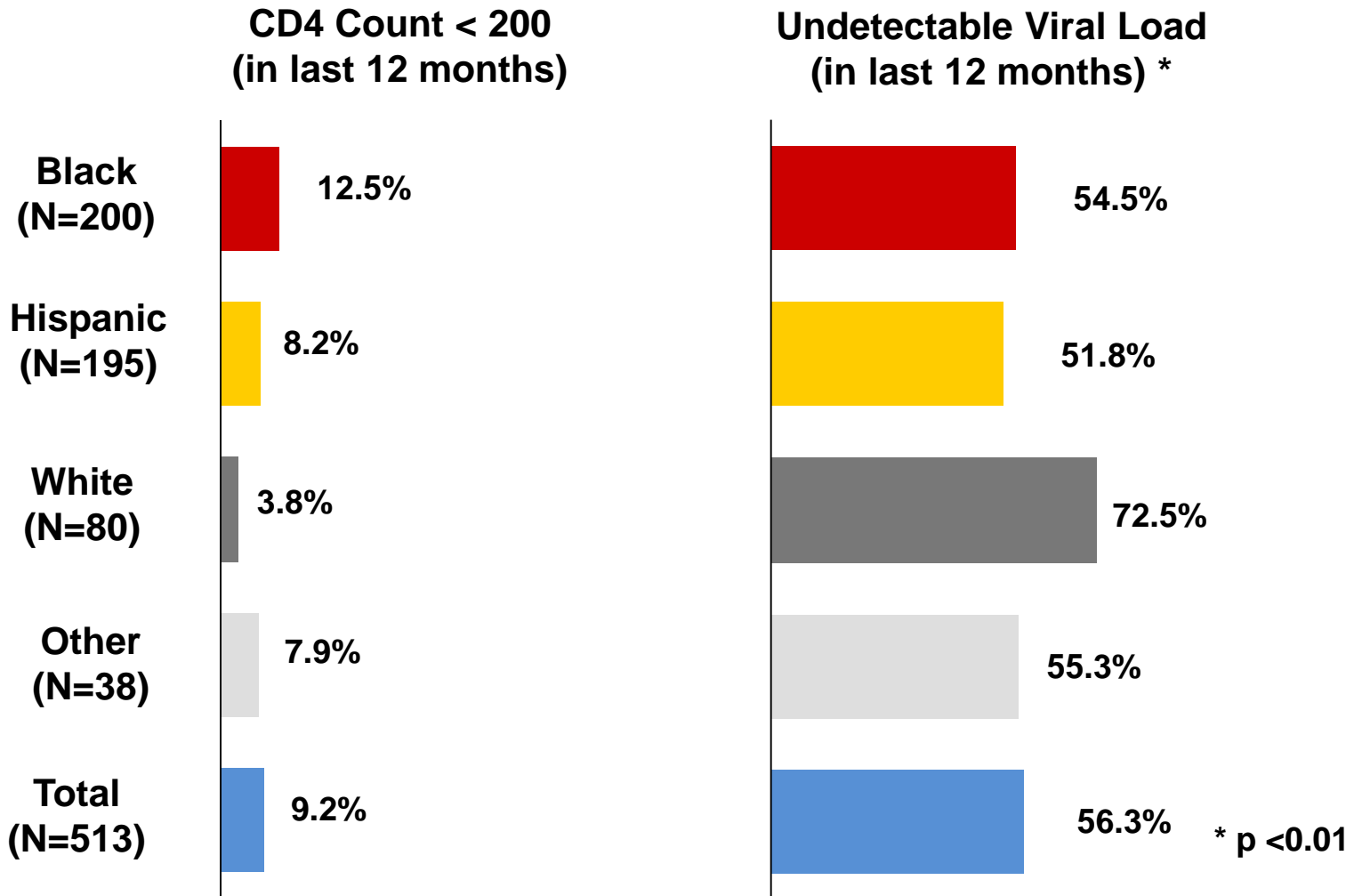
* p < 0.002

MMP Participants' Clinical Characteristics

Participants' Health Status by Race/Ethnicity

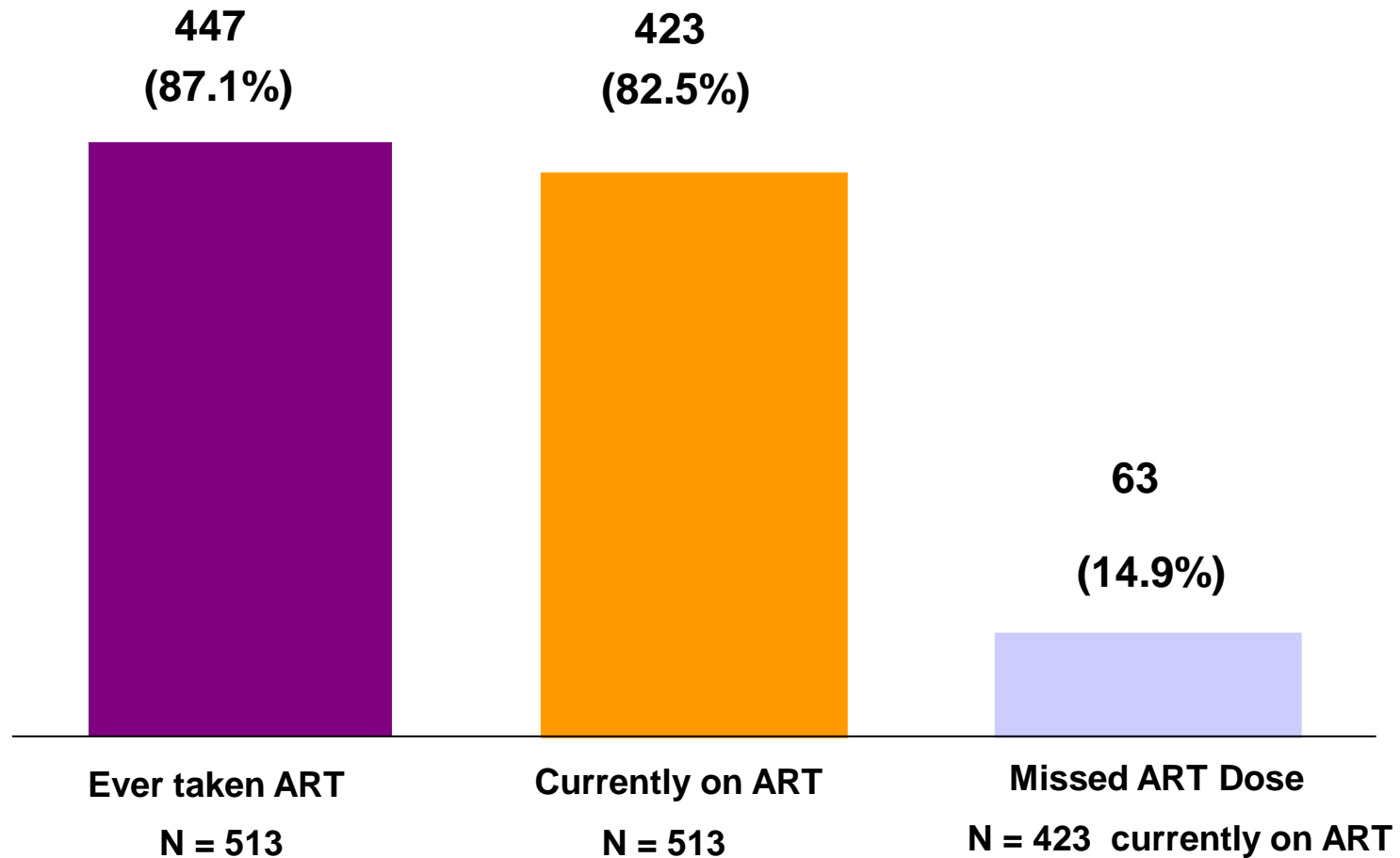
Most recent CD4 Count, most recent Viral Load

MMP, NYC, 2007/2008



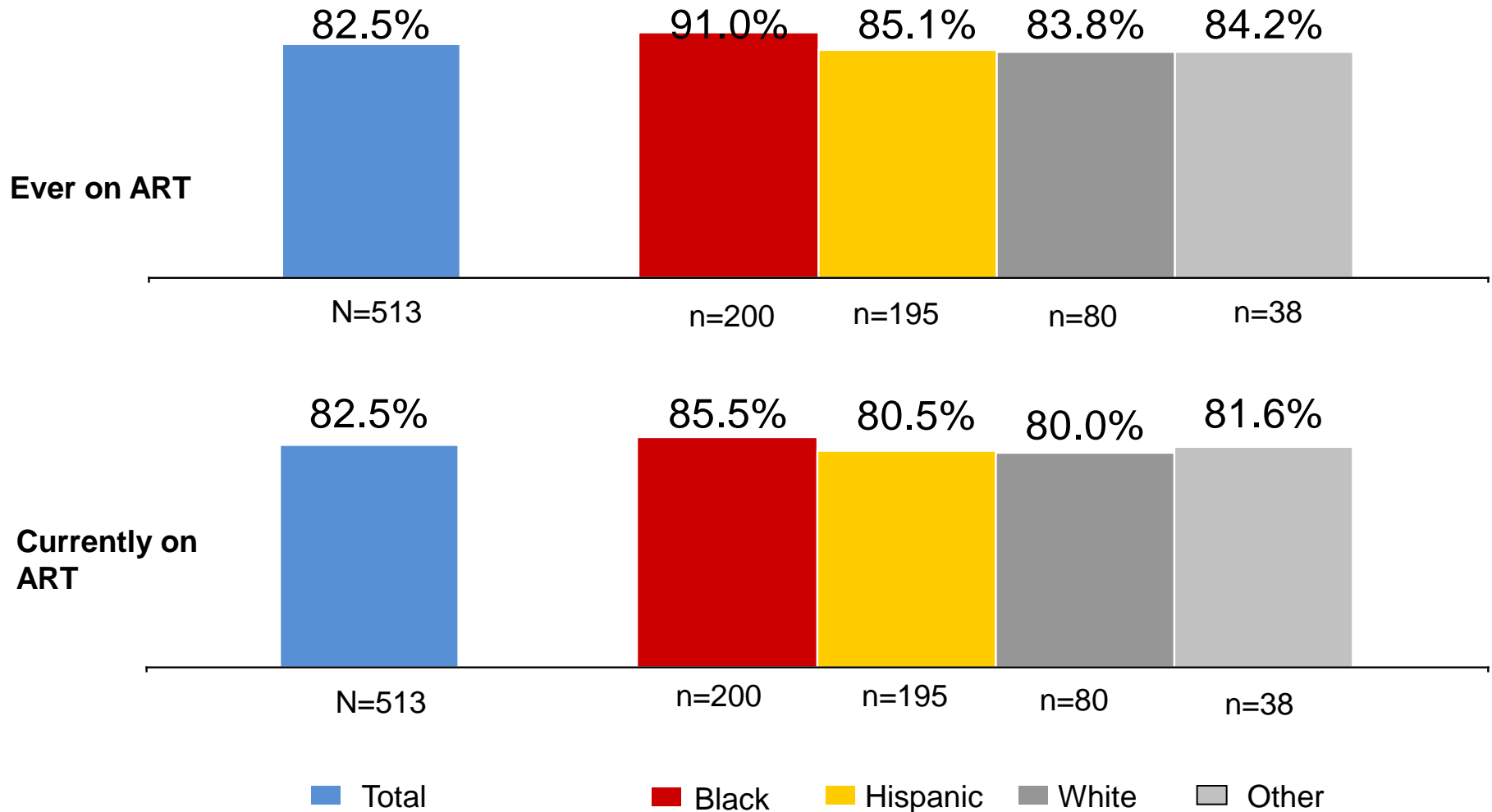
Antiretroviral Treatment and Adherence

MMP, NYC, 2007/2008



HIV Treatment by Race/Ethnicity

MMP, NYC, 2007/2008



Non-Adherence by Race/Ethnicity Among Those Currently on ART

MMP, NYC, 2007/2008

| Race/Ethnicity | Dosing Non-Adherence ^a | | Timing Non-Adherence ^b | | Food Non-Adherence ^c | |
|----------------|-----------------------------------|----------------|-----------------------------------|----------------|---------------------------------|----------------|
| | N on ART | % non-adherent | N on ART | % non-adherent | N on ART with food restrictions | % non-adherent |
| Total | 423 | 14.9% | 423 | 67.6% | 308 | 68.8% |
| Black | 171 | 12.3 % | 171 | 67.3 % | 125 | 69.6 % |
| Hispanic | 157 | 17.8 % | 157 | 66.2 % | 113 | 71.7 % |
| White | 64 | 12.5% | 64 | 75% | 42 | 66.7% |
| Other | 31 | 19.4% | 31 | 61.3% | 28 | 57.1% |

^a Missed any dose in the past two days

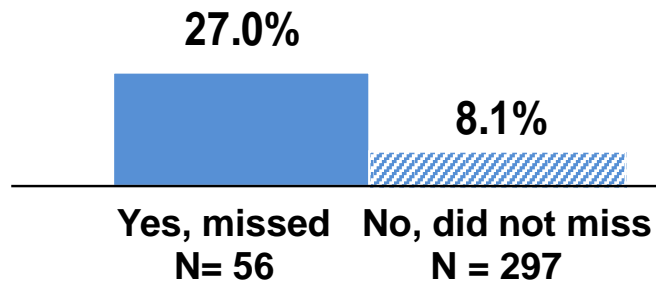
^b Did not adhere to specific medication schedule (timing)

^c Among those on food restrictions, did not adhere to specific food instructions for taking medication

Recent CD4 Count < 200 and Undetectable Viral Load by Missed ART Dose

MMP, NYC, 2007/2008

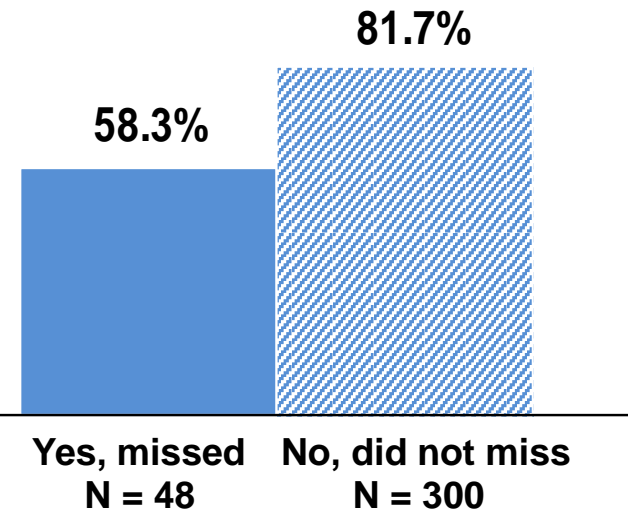
CD4 count < 200 *



(Of 353 who knew their CD4 count)

* p < 0.0001

Undetectable Viral Load *



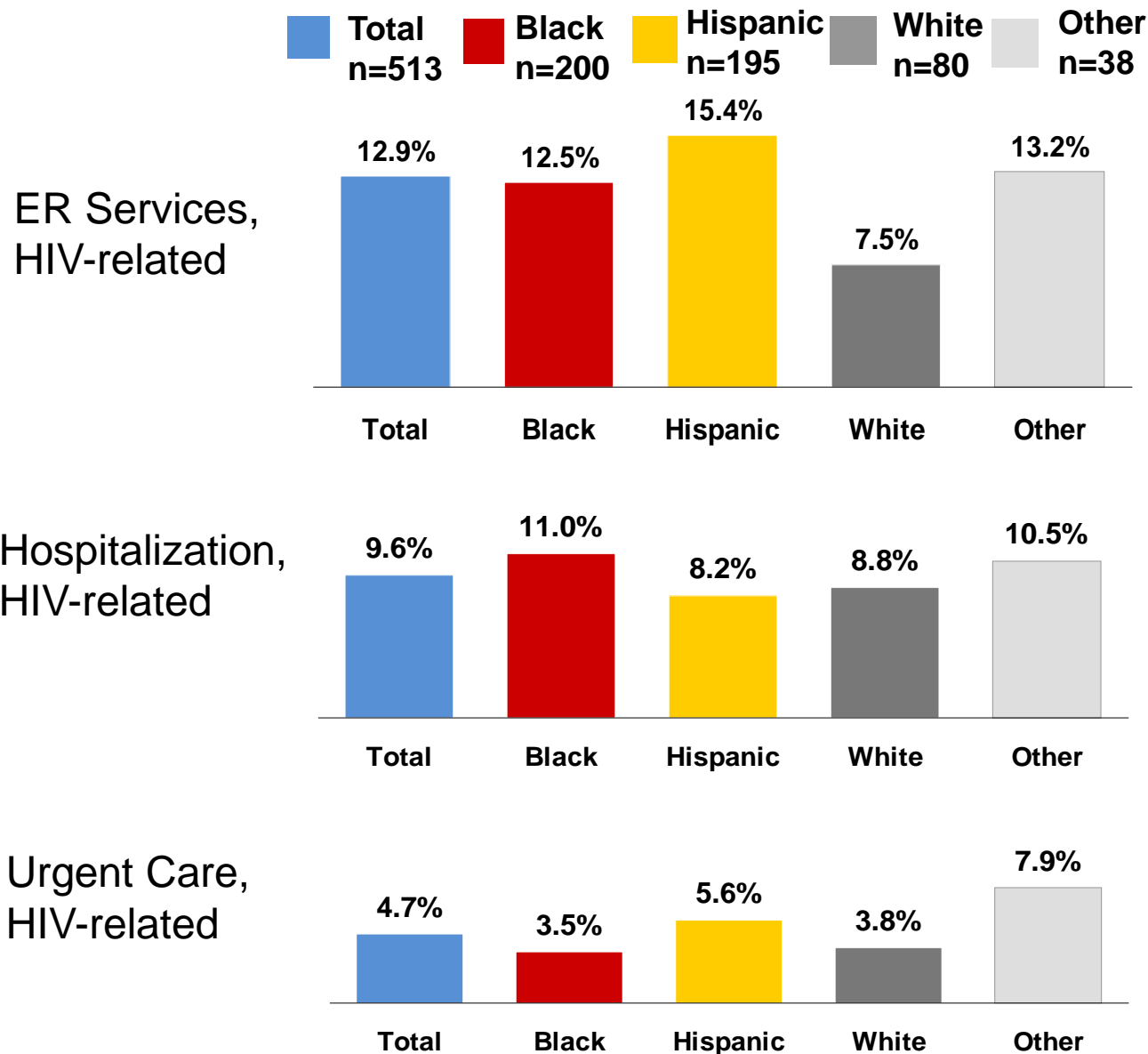
(Of 348 who knew their viral load)

* p < 0.0001

MMP Participants' Service Utilization

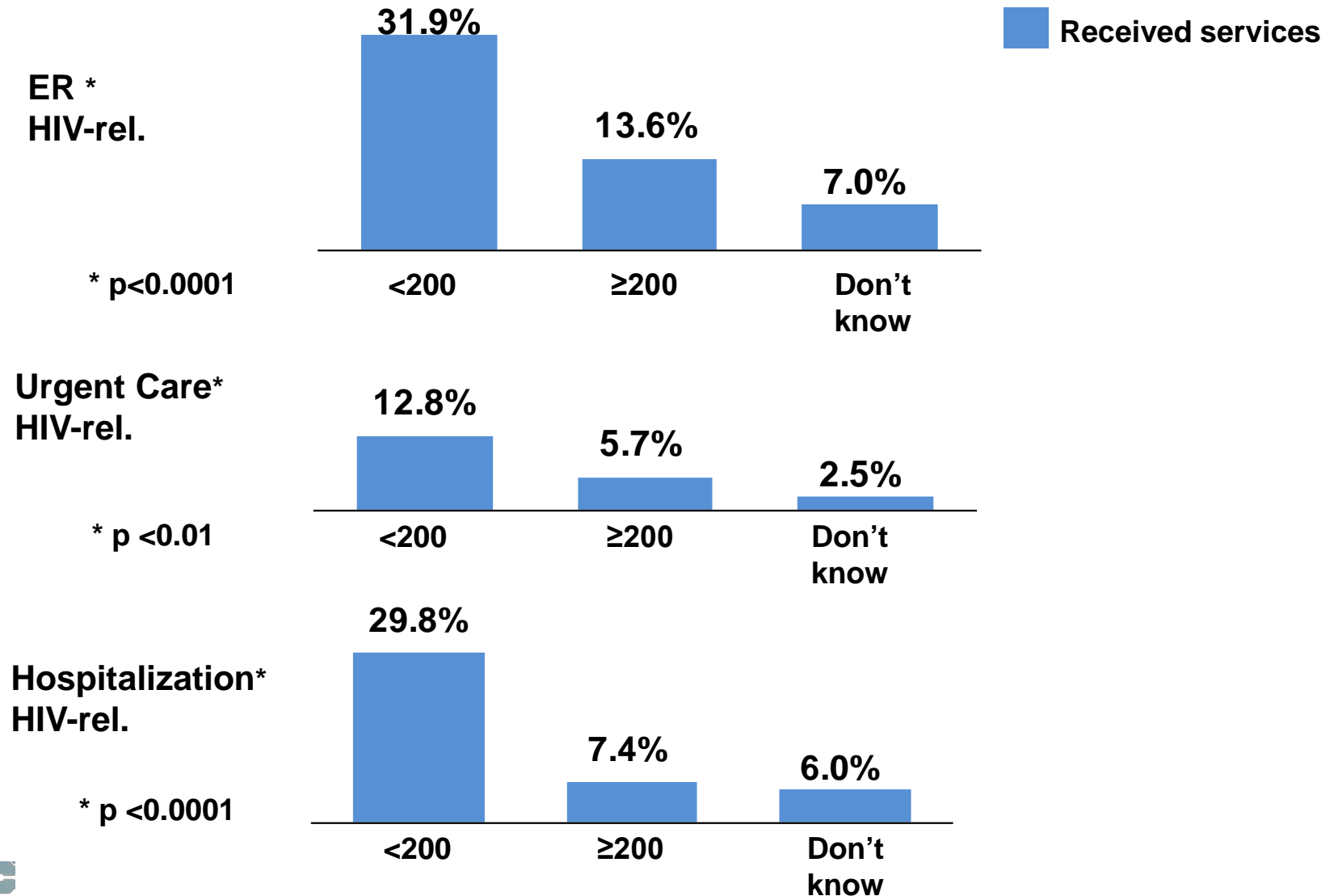
Healthcare Service Utilization by Race/Ethnicity

in Last 12 Months MMP, NYC, 2007/2008



Healthcare Service Utilization by most recent CD4 Count in last 12 months

MMP, NYC, 2007/2008



Support Services Needed and Received, as perceived by patient, by Race/Ethnicity

MMP, NYC, 2007/2008

Mental Health Services

Housing Services

% Need*

% Received*

% Need*

% Received

Race/Ethnicity

| | | | | |
|----------|--------|--------|--------|--------|
| Total | 32.7 % | 29.4 % | 15.4 % | 9.6 % |
| Black | 24.0 % | 20.5 % | 15.0 % | 8.5 % |
| Hispanic | 33.3 % | 29.2 % | 19.0 % | 12.8 % |
| White | 47.5 % | 47.5 % | 6.3 % | 3.8 % |
| Other | 44.7 % | 39.5 % | 18.4 % | 10.5 % |

* p < 0.001

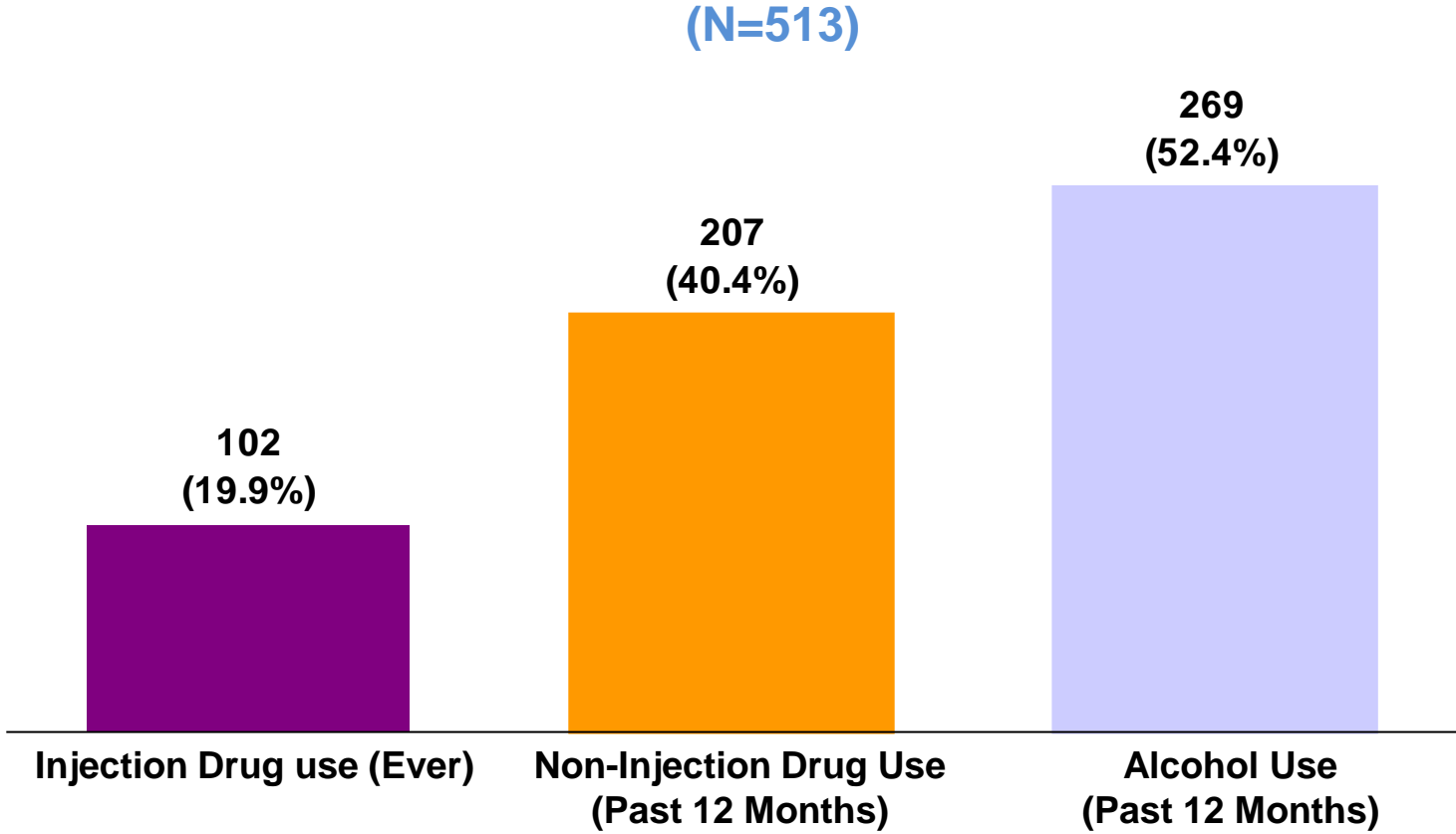
* p < 0.0001

* p < 0.05

MMP Participants' Drug Use Profile

Drug and Alcohol Use

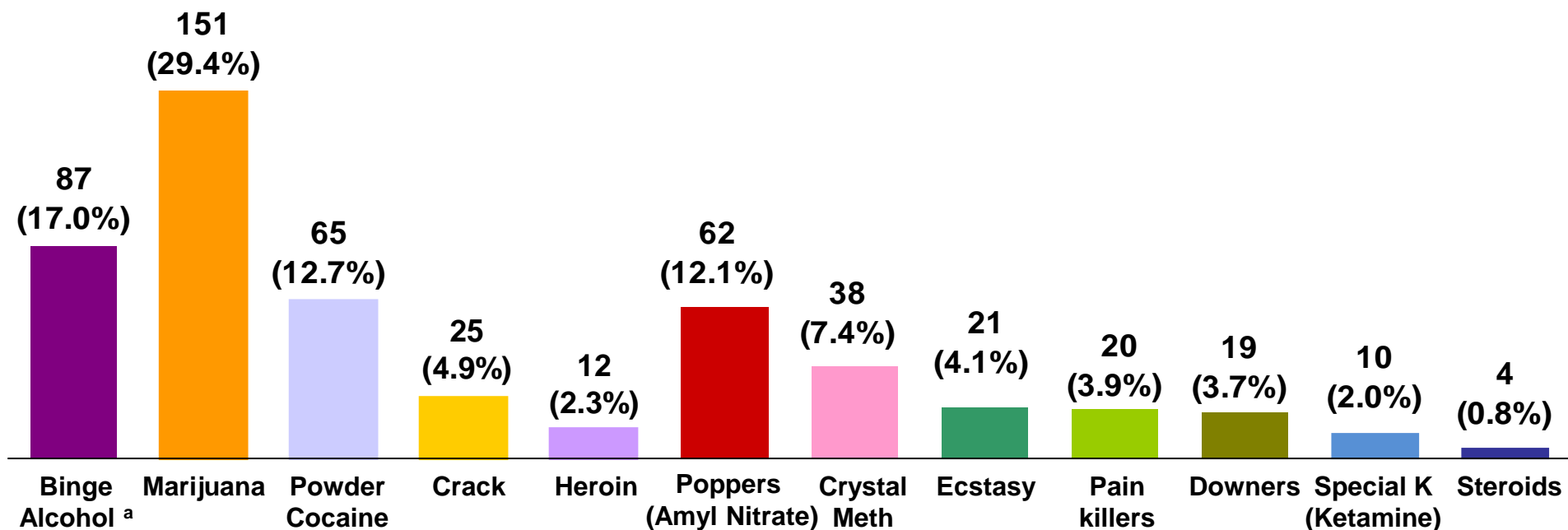
MMP, NYC, 2007/2008



Non-Injection Drug Use and Binge Alcohol Drinking

MMP, NYC, 2007/2008

(N=513)

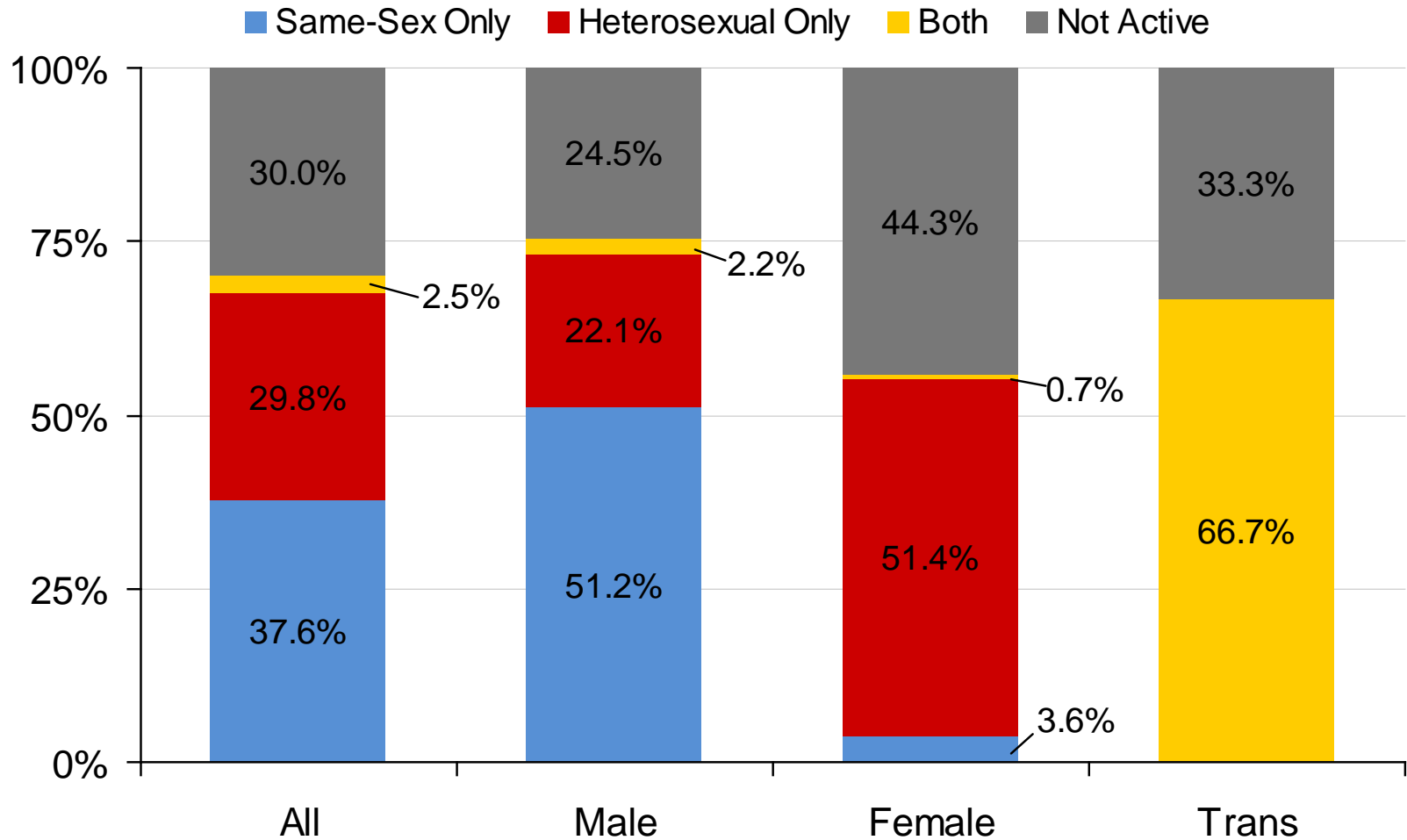


^a For men, binge drinking was defined as more than 5 drinks in one sitting in the past 30 days.
For women, binge drinking was defined as more than 4 drinks in one sitting in the past 30 days.

Sexual Activity and Sexual Risk Behaviors

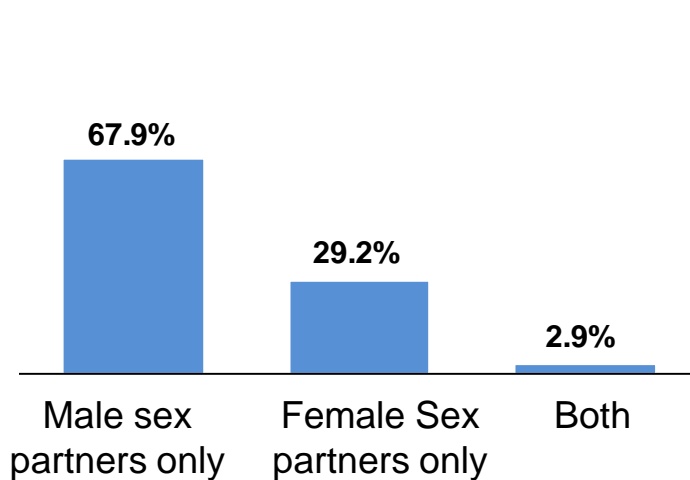
Sexually Active Status by Gender Last 12 months

MMP, NYC, 2007/2008

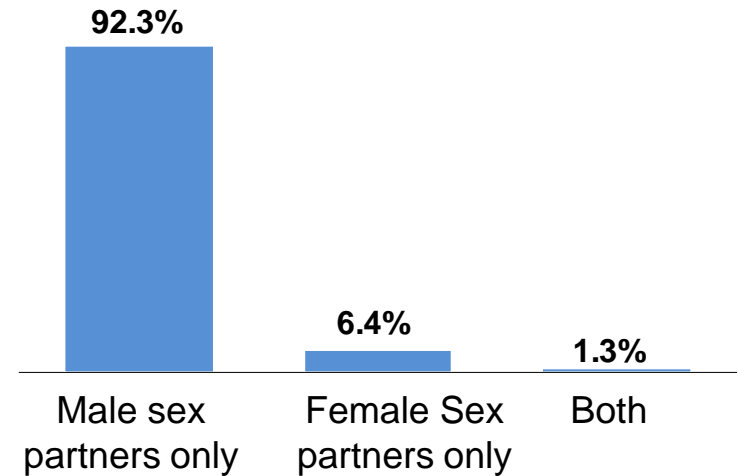


Partner Gender Among the Sexually Active (N=359) MMP, NYC, 2007/2008

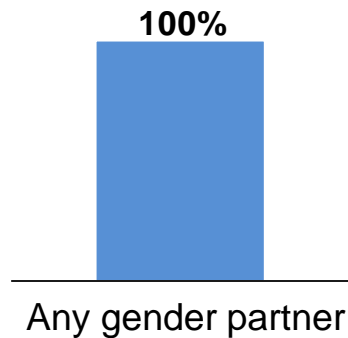
Male Participants (N = 277)



Female Participants (N = 78)

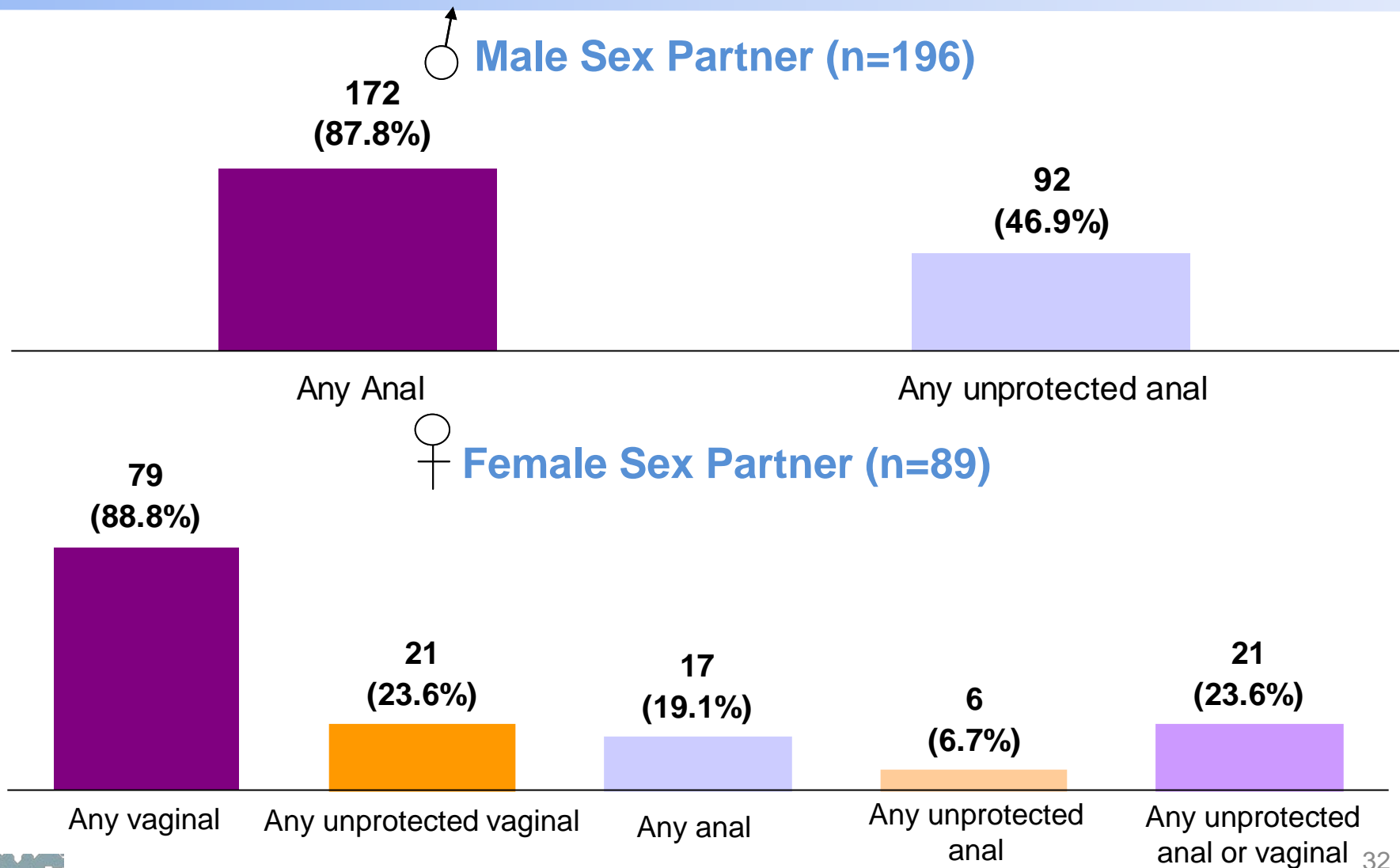


Transgender Participants (N=4)



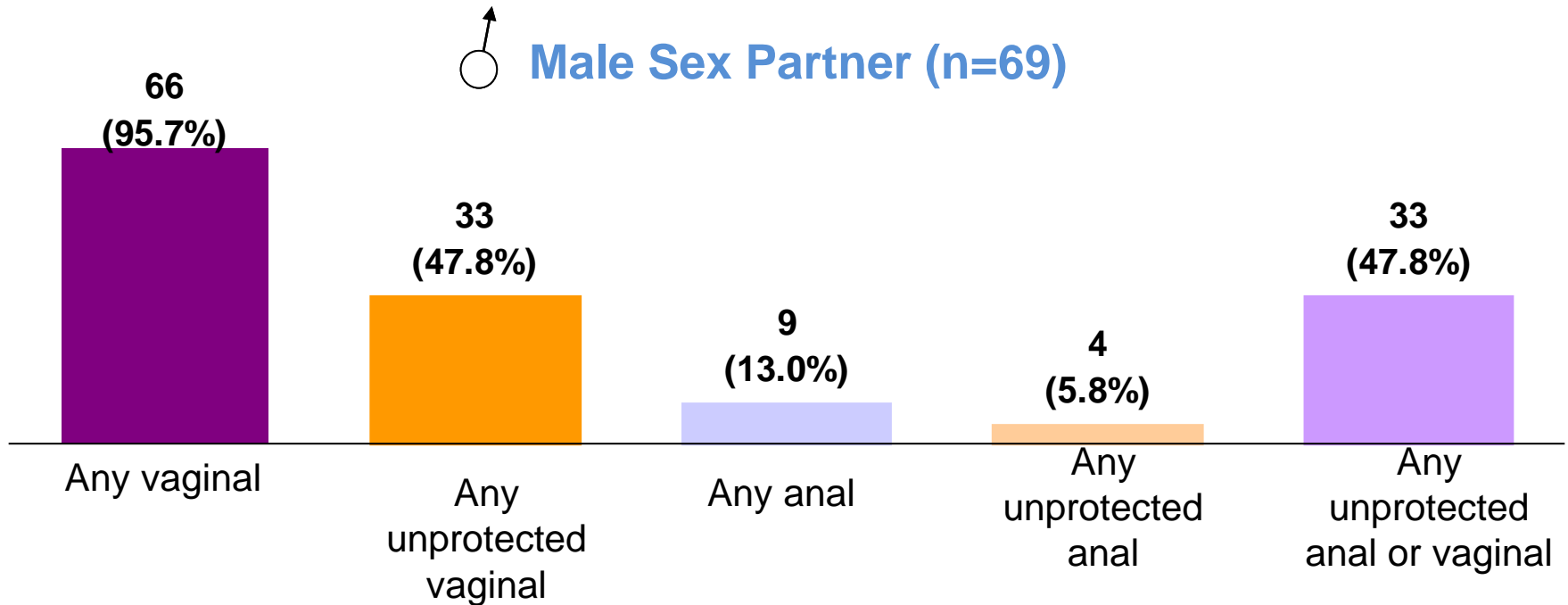
Sexual Behaviors among Sexually Active Male Participants by Partnership Gender (past 12 months)

MMP, NYC, 2007/2008



Sexual Behaviors among Sexually Active Female Participants by Partnership Gender (past 12 months)

MMP, NYC, 2007/2008

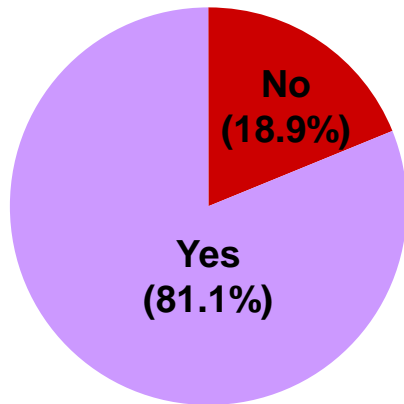


Exposure to Individual Counseling or Group Prevention

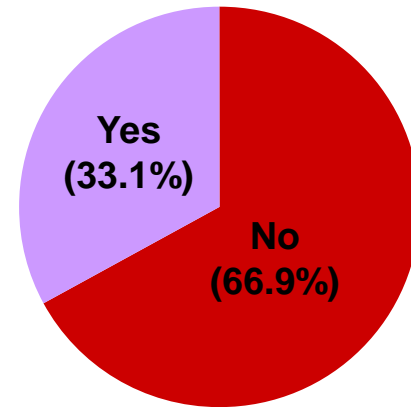
Exposure to Prevention in the Past 12 Months (N=513)

MMP, NYC, 2007/2008

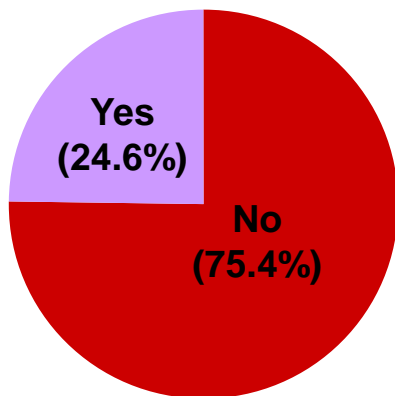
Received any free condoms



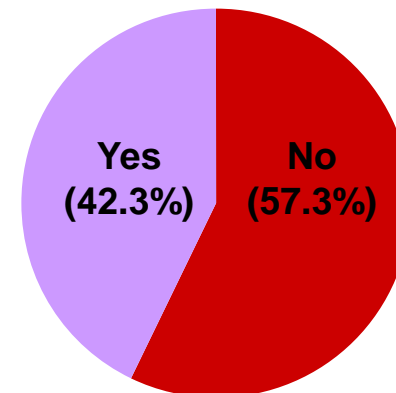
Talked with a counselor (one-on-one) about HIV prevention



Participated in group sessions to talk about HIV prevention



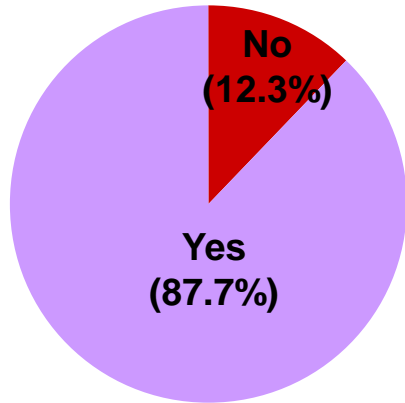
Participated in group sessions or talked with a counselor about HIV prevention



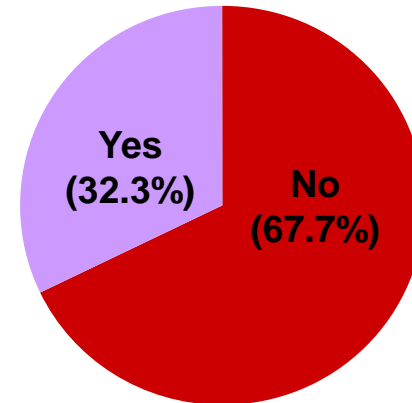
Sexually Active Participants and Exposure to Prevention in the Past 12 Months (N=359)

MMP, NYC, 2007/2008

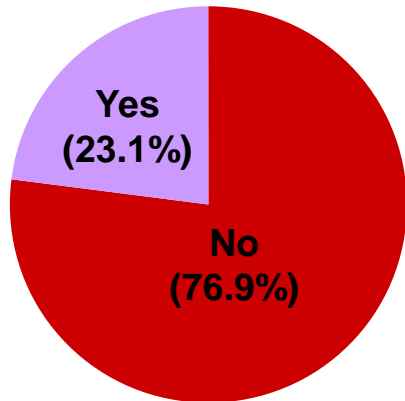
Received any free condoms



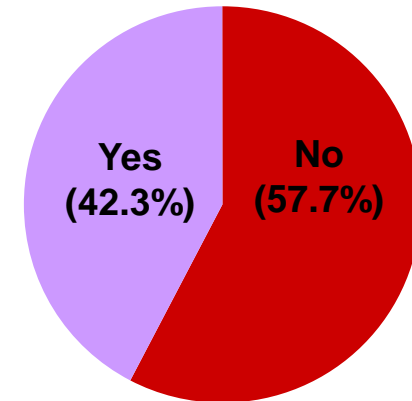
Talked with a counselor (one-on-one) about HIV prevention



Participated in group sessions to talk about HIV prevention



Participated in group sessions or talked with a counselor about HIV prevention



Limitations

- Data are 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 facilities did not participate
 - Low response rate in patient sample
 - Unweighted data are from a complex survey design

References

CDC. HIV prevalence estimates—United States, 2006. *MMWR*. 2008;57(39):1073-1076.

New York City HIV/AIDS Annual Surveillance Statistics. New York: New York City Department of Health and Mental Hygiene, 2010. Update December 31, 2010. Accessed at <http://www.nyc.gov/html/doh/html/ah/hivtables.shtml>

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