

# Medical Monitoring Project (MMP)

Results from the MMP survey of people receiving HIV care  
in 2009-2010 in NYC

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# Background

## Medical Monitoring Project (MMP)

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- The Centers for Disease Control and Prevention (CDC) estimates that 1.2m persons aged 13 years and older are living with HIV infection, including 207,600 who are unaware of their infection(CDC, HIV Surveillance Supplemental Report 2012)
- In NYC, at the end of 2011 113,319 persons were reported & presumed living with HIV (NYC DOHMH, 2011)
- MMP is a national study of PLWHA receiving outpatient medical care for HIV
- Conducted by CDC with local partners

# Objectives

## Medical Monitoring Project (MMP)

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

# Methods

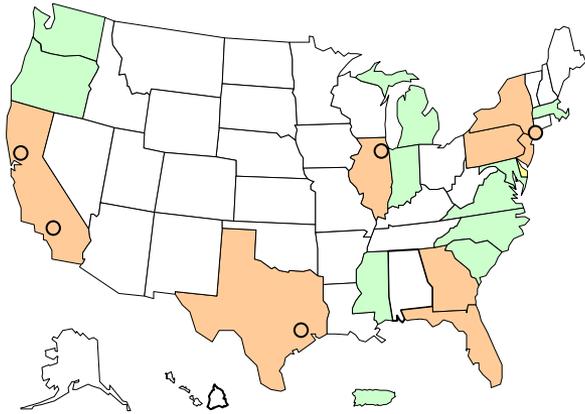
## Medical Monitoring Project (MMP)

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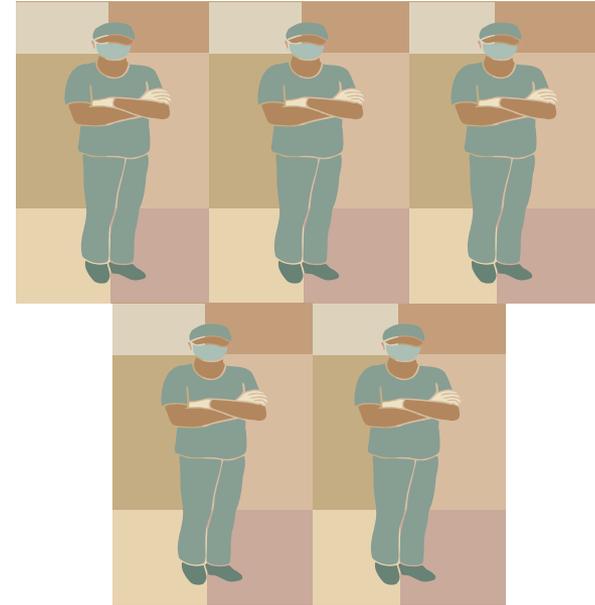
- Multi-year (2005-open) project of US adults in outpatient care for HIV
- Cross-sectional design
- Annual multi-stage probability sample

# Methods

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



1<sup>st</sup> stage – local areas



2<sup>nd</sup> stage - providers



3<sup>rd</sup> stage - patients

# Methods

## Medical Monitoring Project (MMP): Sample Selection

- Stage 1 – Local Areas:
  - 26 areas selected (20 states and 6 cities)
  - Probability of selection is proportional to size (PPS) (# of reported living AIDS cases in 2002)
  - Includes >80% of US 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
  - Probability of selection is proportional to size (facilities with higher patient loads are more likely to be selected)

# Methods

## Medical Monitoring Project (MMP): Sample Selection

- Stage 3 – Patients seen by a Selected Provider
  - Randomly sampled
  - Eligibility
    - HIV-infected
    - $\geq 18$  years of age
    - received HIV medical care at facility 1/1 – 4/30 in a given cycle year
  - Participation voluntary; \$40 incentive (MetroCard or cash)

# Methods

## Medical Monitoring Project (MMP)

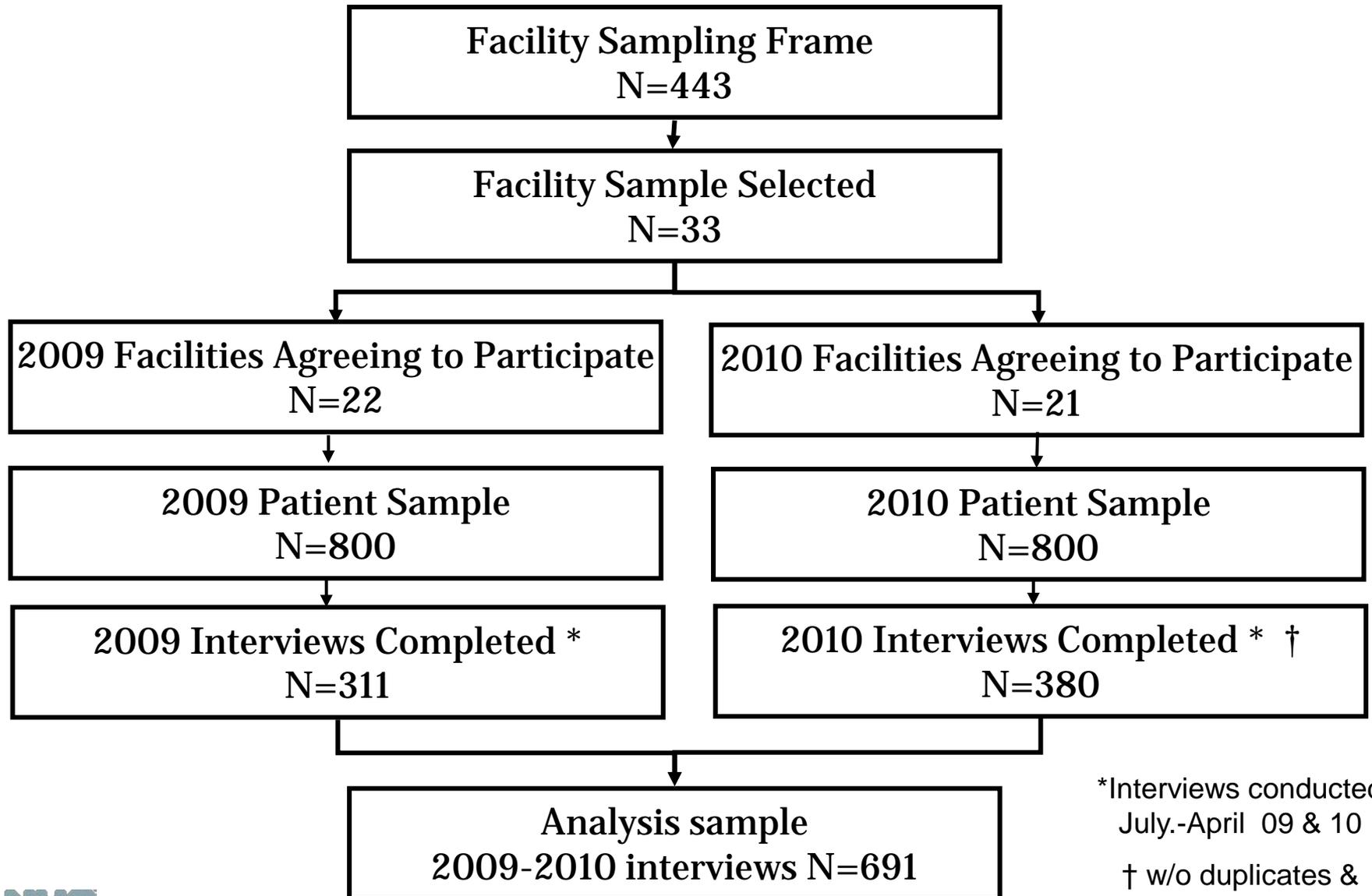
- Data collection using 2 sources:
  - Computer-based structured face-to-face interview or phone interview (few) by trained interviewer, conducted in private
  - Medical record abstractions
- Data collected:
  - Clinical status
  - Treatment adherence
  - Service utilization
  - HIV-related service needs
  - 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 for race/ethnic differences is for black, Hispanic, and white

# NYC 2009 and 2010 MMP Sample



\*Interviews conducted  
July.-April 09 & 10

† w/o duplicates &  
with complete data

# MMP Participants' Social Demographics

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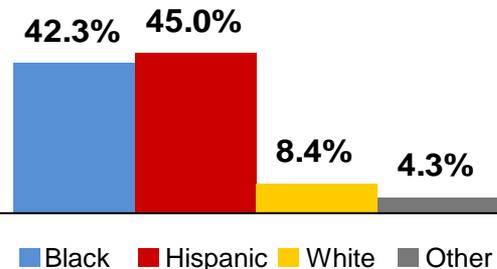
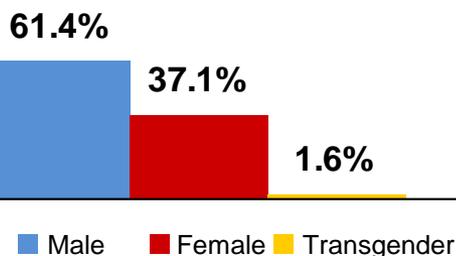
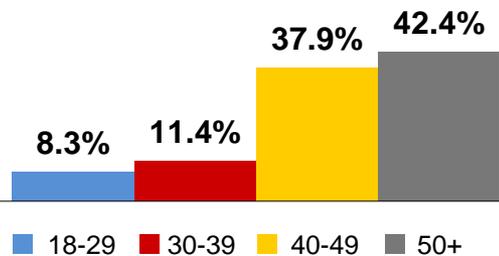
# Participants' Social Demographics (N=691)

MMP, NYC, 2009/2010

### Age Group

### Gender

### Race/Ethnicity

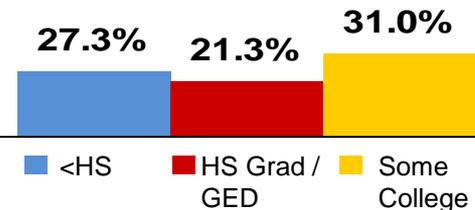
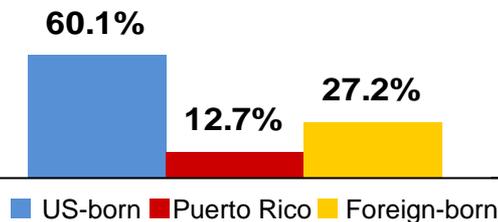
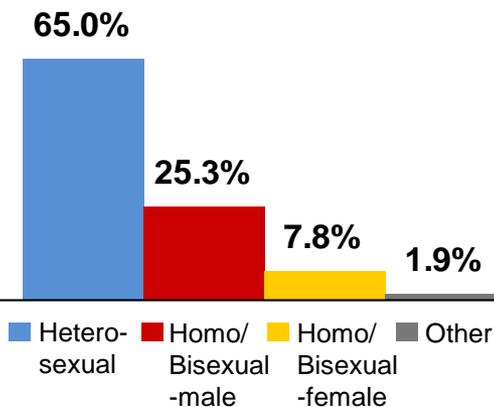


(Mean age = 45.5 years, SD = 9.6, range 21-74)

### Sexual Orientation

### Place of Birth

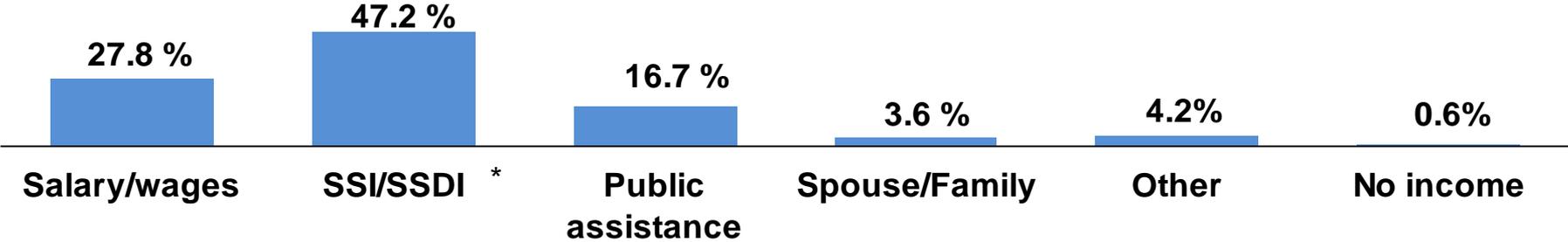
### Education



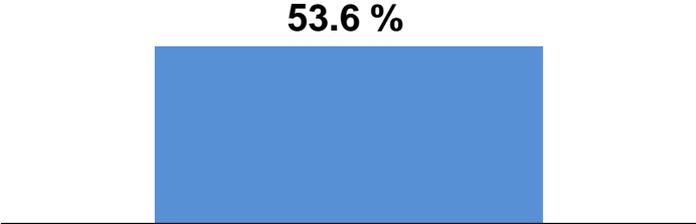
# Participants' Social Demographics (N=691)

MMP, NYC, 2009/2010 (cont'd)

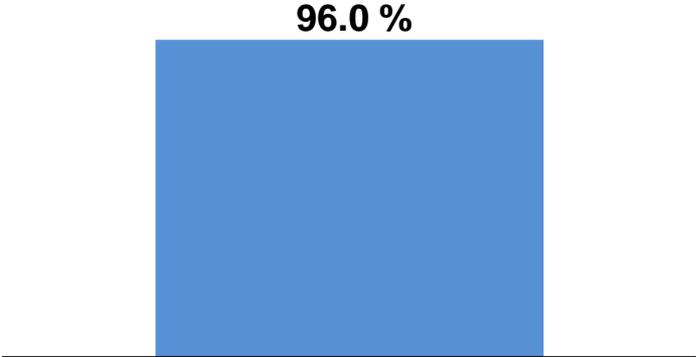
## Main Source of Income Past 12 Months:



## Received Any Public Assistance Past 12 Months:



## Covered by Health Insurance Past 12 Months:



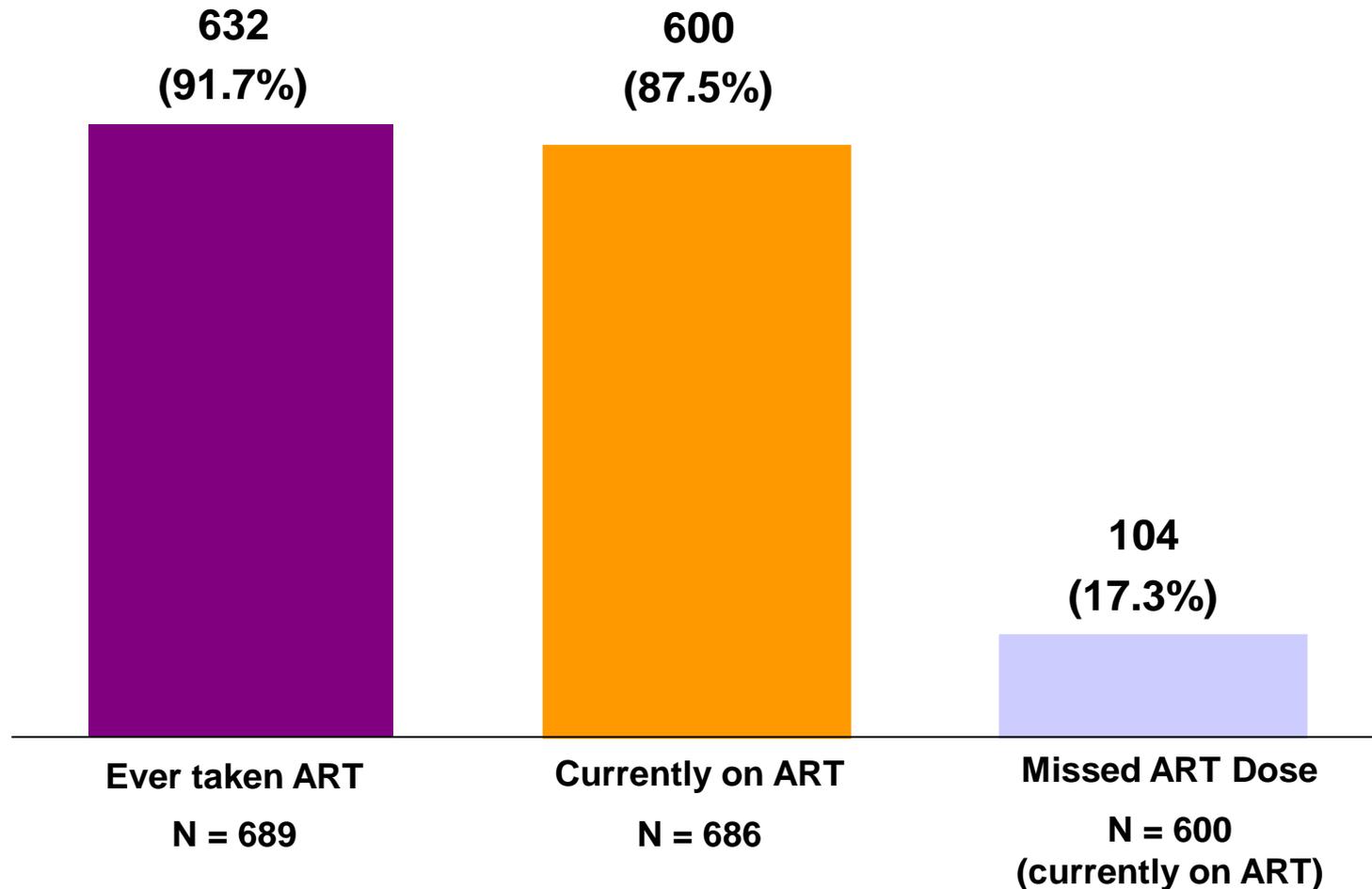
\* Supplemental Security Income (SSI); Social Security Disability Income (SSDI)

# MMP Participants' Clinical Characteristics

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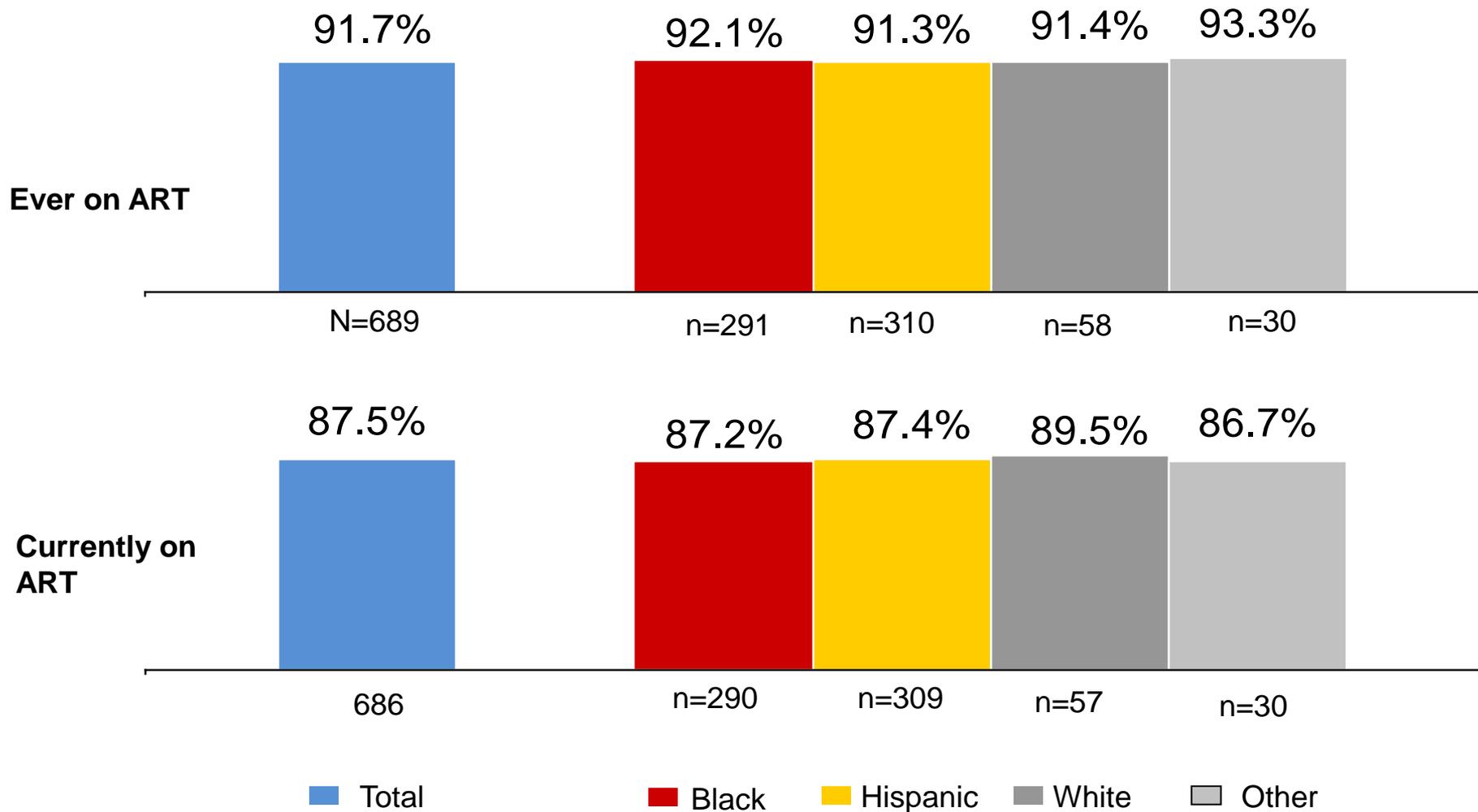
# Antiretroviral Treatment and Adherence

MMP, NYC, 2009/2010



# HIV Treatment by Race/Ethnicity

MMP, NYC, 2009/2010



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

MMP, NYC, 2009/2010

	<b>Dosing *</b> <b>Non-Adherence</b>		<b>Timing **</b> <b>Non-Adherence</b>		<b>Food ***</b> <b>Non-Adherence</b>	
	NS		P = .009		p = .05	
<b>Race/Ethnicity</b>	N = 691	%	N = 595	%	N = 401	%
Black	292	16.4 %	251	61.8 %	173	60.1 %
Hispanic	311	12.2 %	268	75.0 %	180	72.2 %
White	58	20.7 %	50	74.0 %	29	79.3 %
Other	30	20.0 %	26	73.1 %	19	63.2 %

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

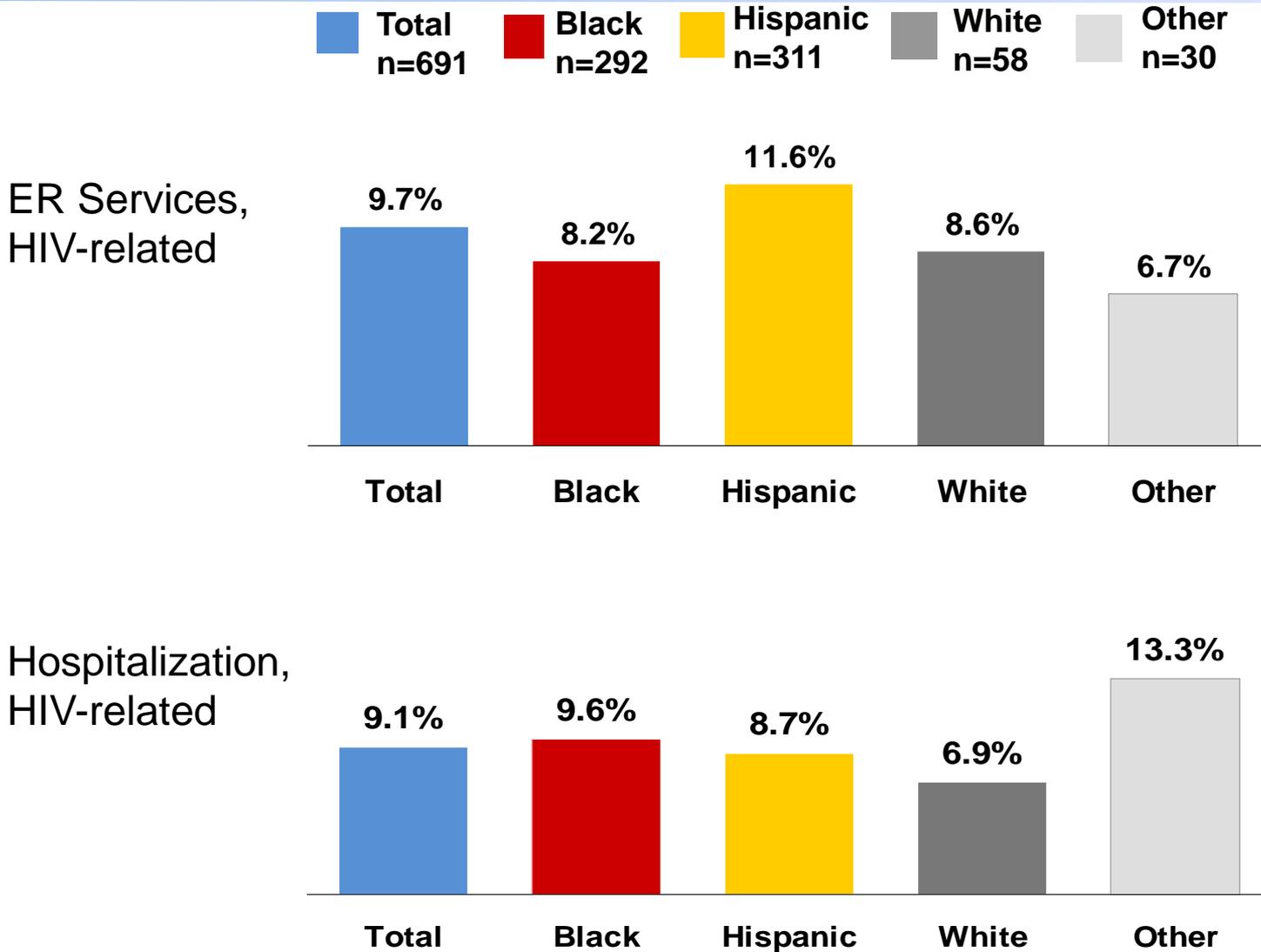
\*\*\* Did not adhere to specific food instructions; NS = Not significant

# MMP Participants' Service Utilization

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# Healthcare Service Utilization by Race/Ethnicity in Last 12 Months

MMP, NYC, 2009/2010

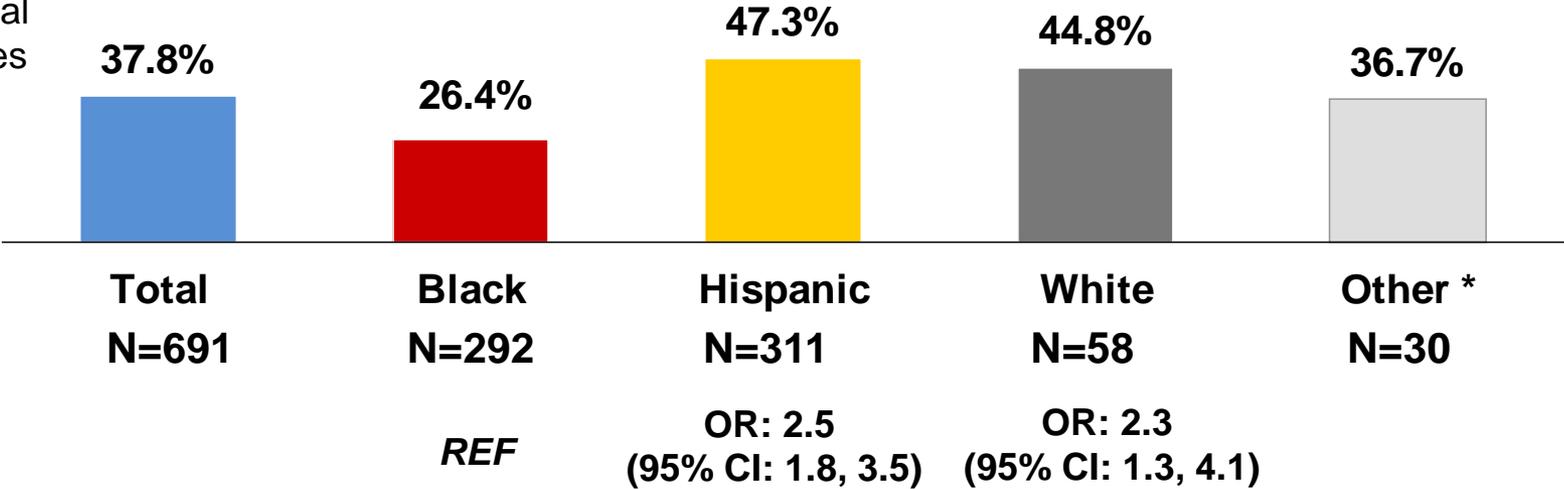


# Mental Health Services Provision by Race/Ethnicity

MMP, NYC, 2009/2010

**N = 691**

People who received Mental Health Services

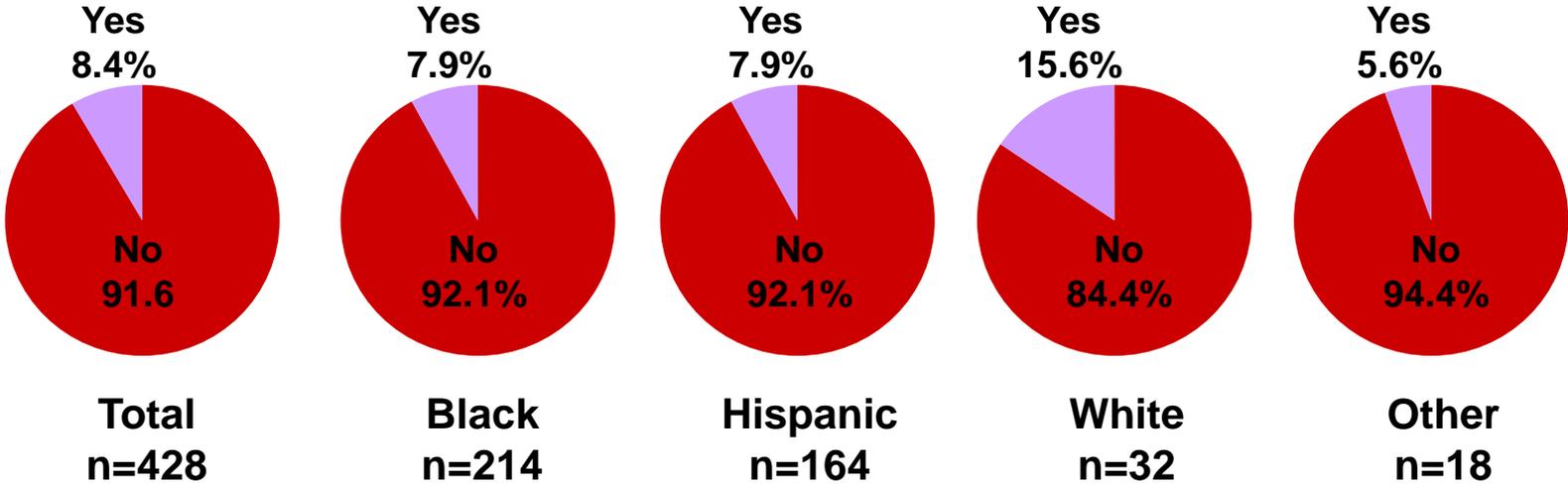


\* Significance test excludes other

# Unmet Need for Mental Health Services Among Those Not Receiving the Service by Race/Ethnicity

MMP, NYC, 2009/2010

N = 428



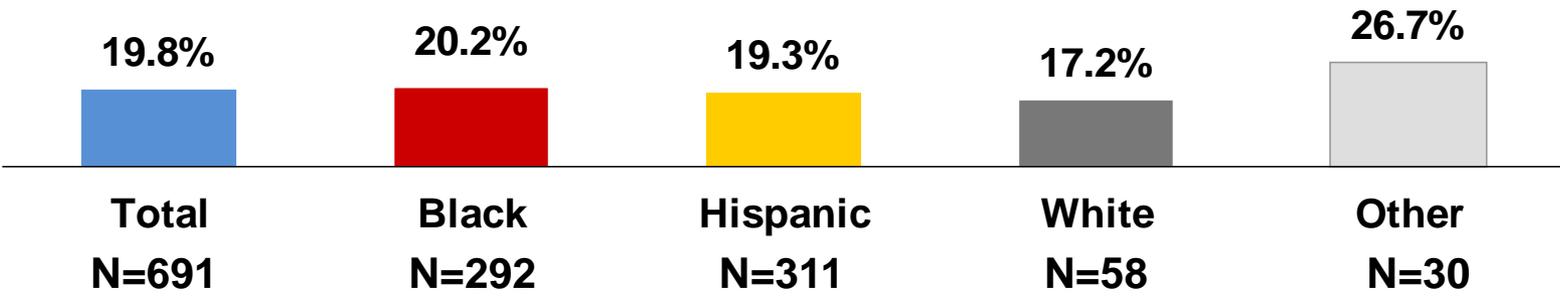
Yes = Unmet Need  
No = Service Not Needed

# Housing Services Provision by Race/Ethnicity

MMP, NYC, 2009/2010

**N = 691**

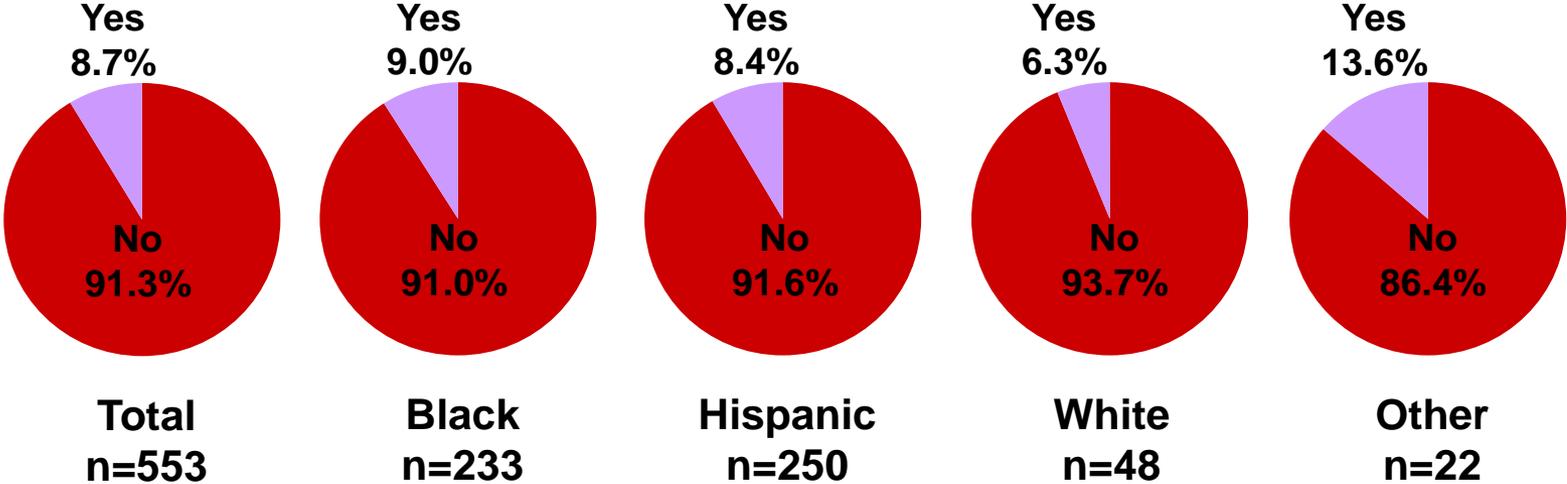
People who received Housing Services



# Unmet Need for Housing Services Among Those Not Receiving the Service by Race/Ethnicity

MMP, NYC, 2009/2010

**N = 553**



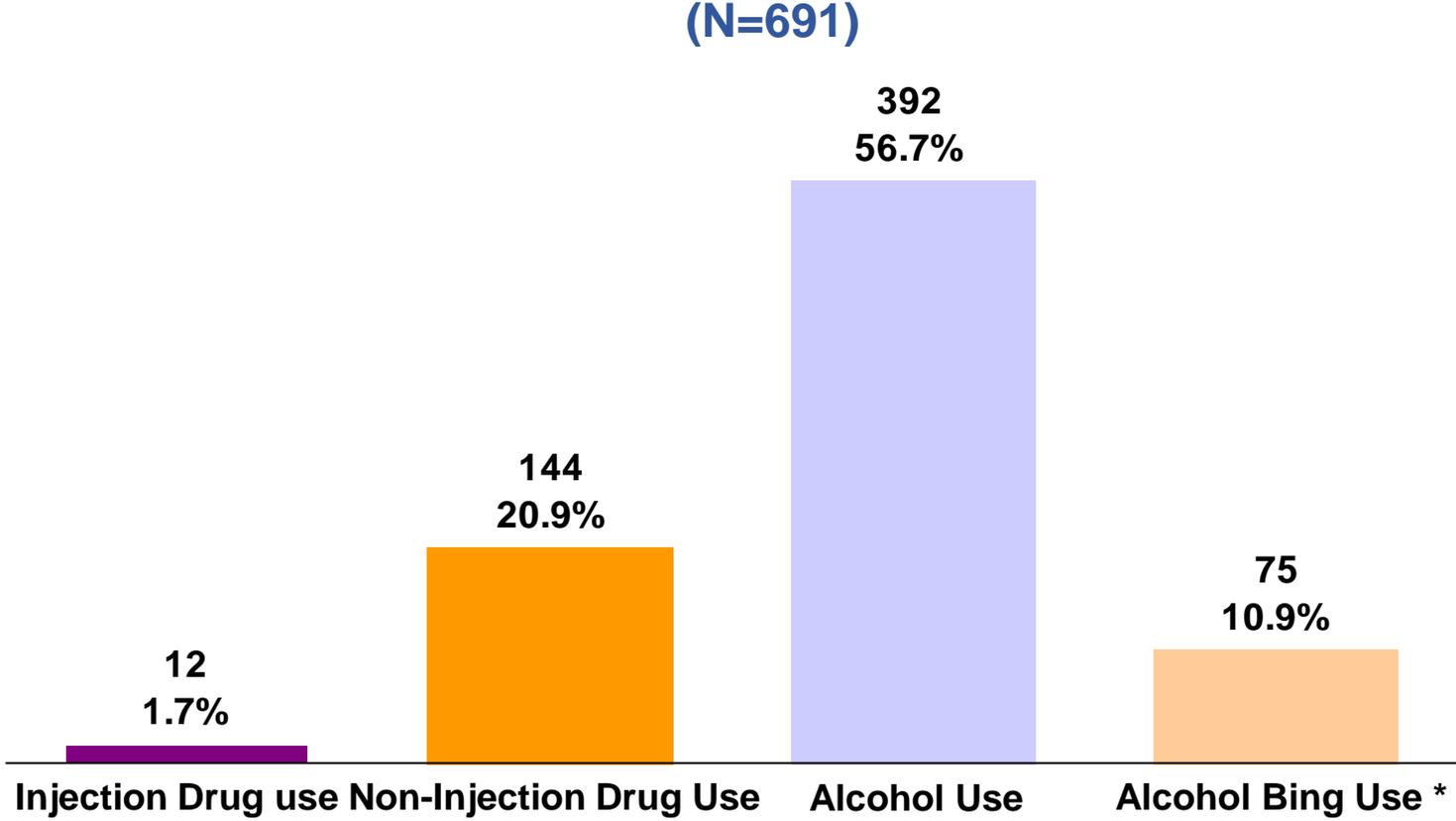
**Yes = Unmet Need**  
**No = Service Not Needed**

# MMP Participants' Drug Use Profile

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# Drug and Alcohol Use

MMP, NYC, 2009/2010



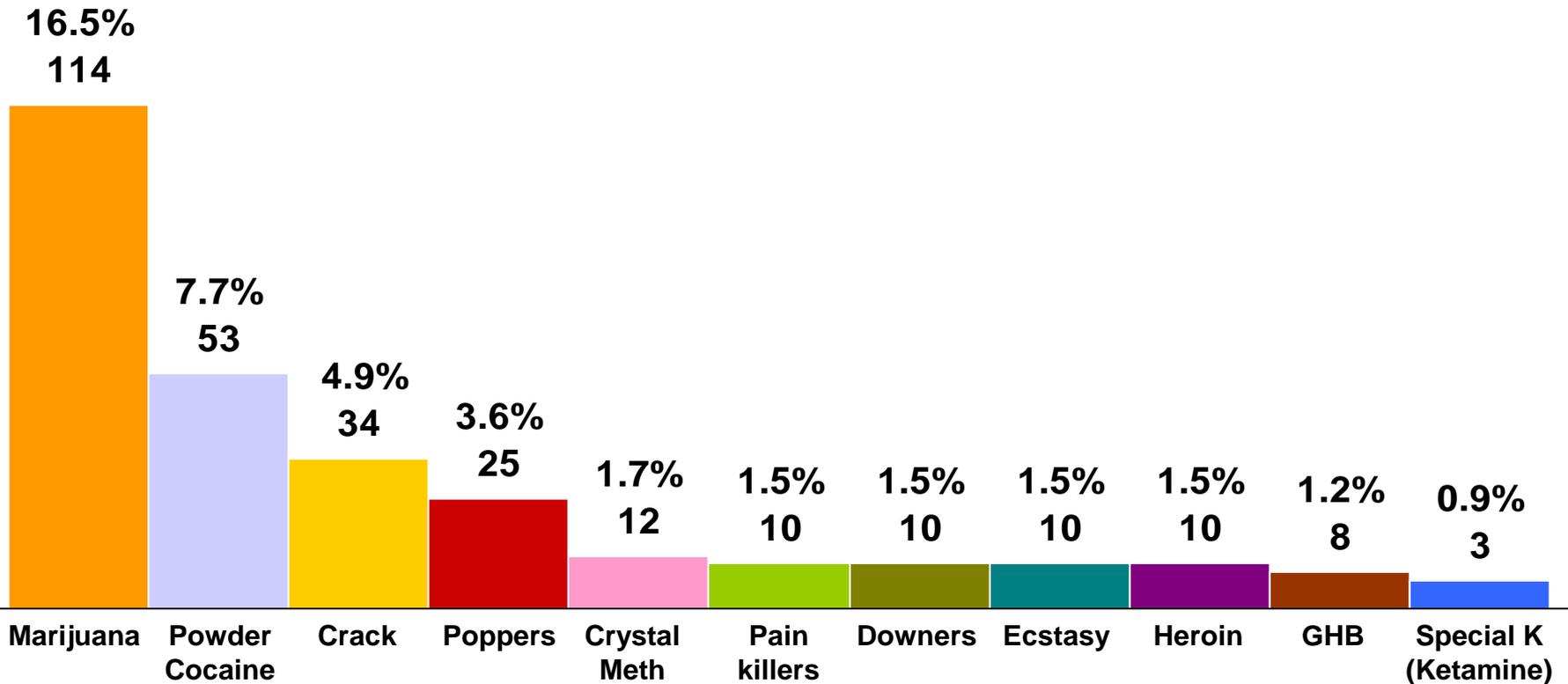
\* For men, binge drinking was defined as 5 or more drinks in one sitting in the past 30 days. For women, binge drinking was defined as 4 or more drinks in one sitting in the past 30 days.



# Non-Injection Drug Use

MMP, NYC, 2009/2010

(N=691)

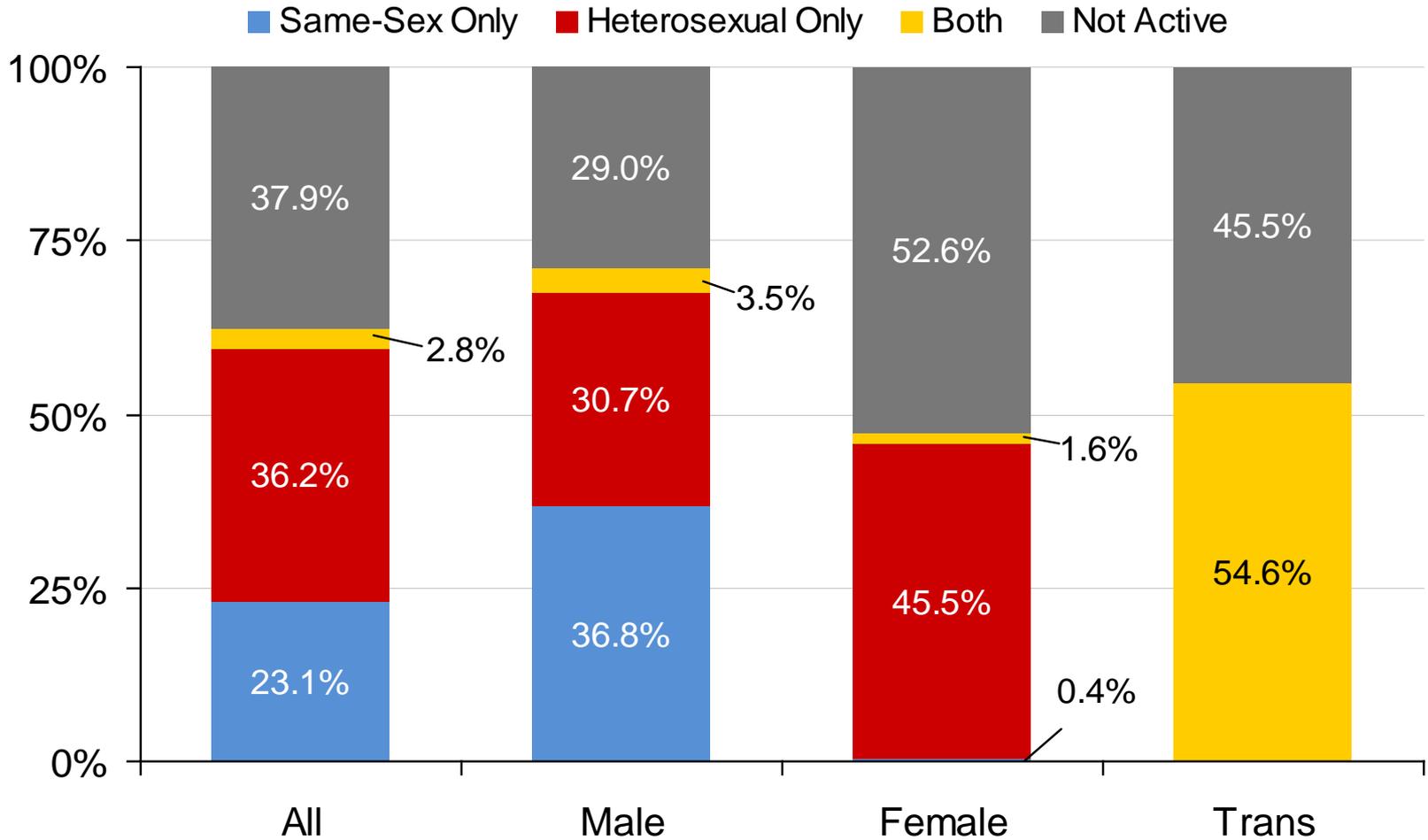


# Sexual Activity and Sexual Risk Behaviors

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# Sexually Active in Last 12 months by Gender

MMP, NYC, 2009/2010



# Among the Sexually Active, Number of Sex Partners by Partnership, Past 12 months

MMP, NYC, 2009/2010

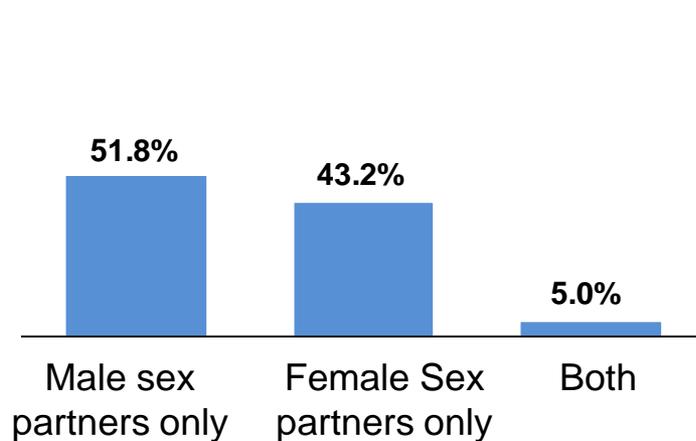
Partnership Type	N	Median	IQR *
Male w/ Female	145	1	(1, 2)
Male w/ Male	170	2	(1, 5)
Female w/ Male	120	1	(1, 1)

\* Interquartile Range

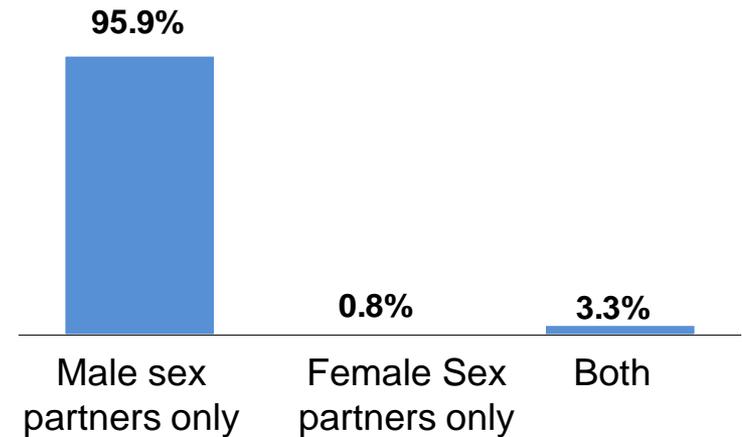
# Partner Gender Among Participants Reporting Sexual Activity, Past 12 Months

MMP, NYC, 2009/2010

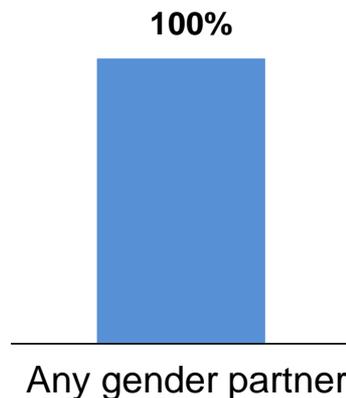
## Male Participants (N = 301)



## Female Participants (N = 121)

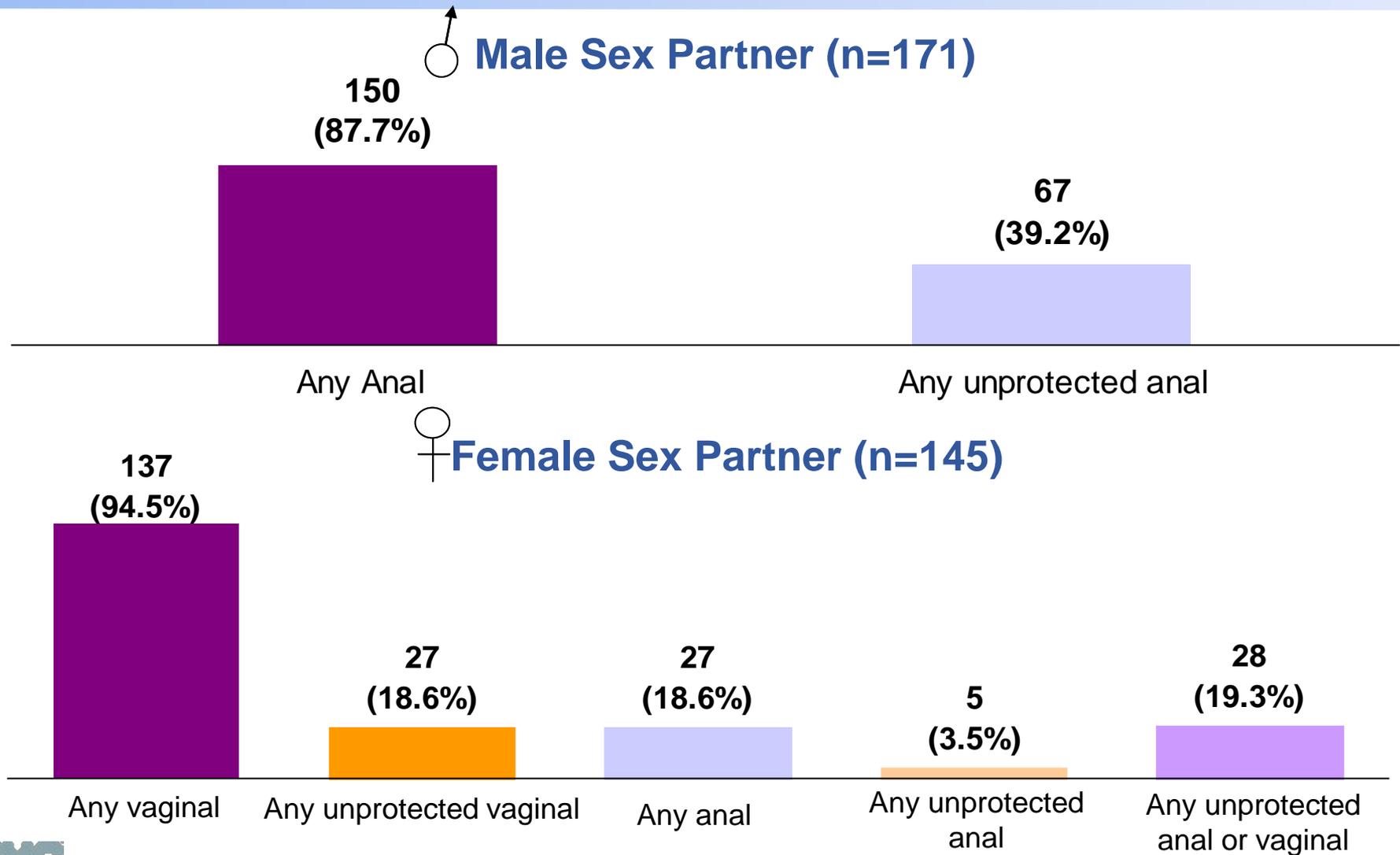


## Transgender Participants (N=6)



# Sexual Behaviors by Partnership Gender Among Sexually Active Male Participants, Past 12 months

MMP, NYC, 2009/2010

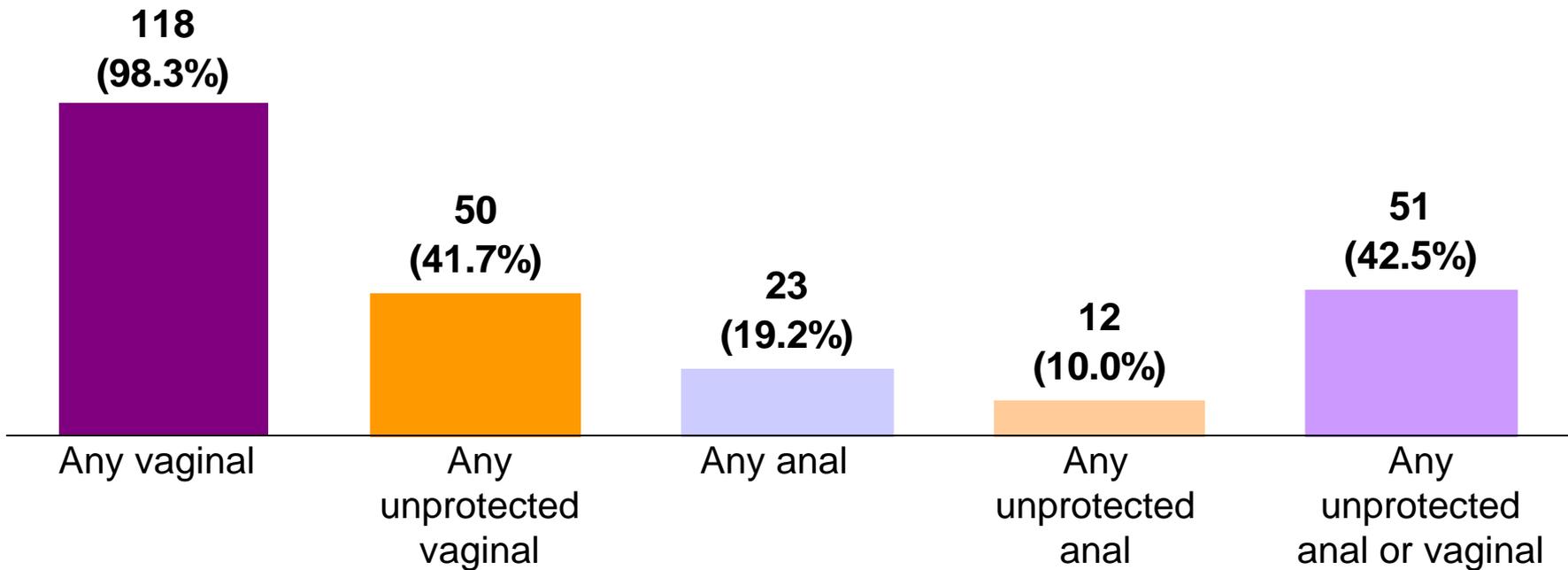


# Sexual Behaviors by Partnership Gender among Sexually Active Female Participants, Past 12 months

MMP, NYC, 2009/2010



**Male Sex Partner (n=120)**



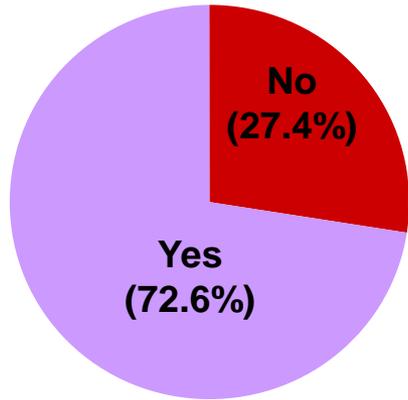
# Exposure to Individual Counseling or Group Prevention

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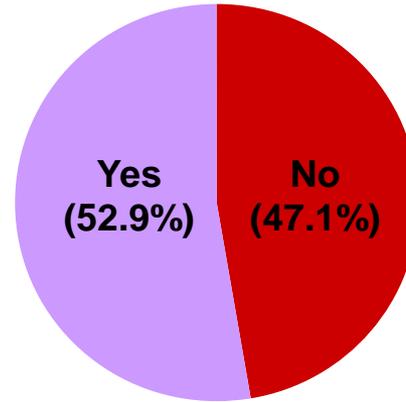
# Exposure to Prevention in the Past 12 Months (N=691)

MMP, NYC, 2009/2010

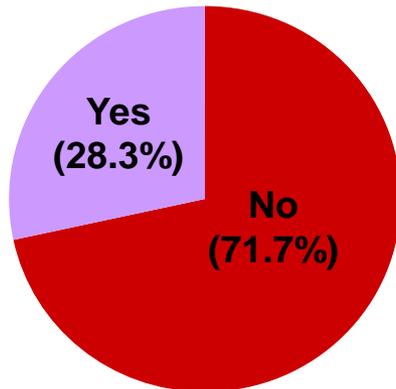
### Received any free condoms



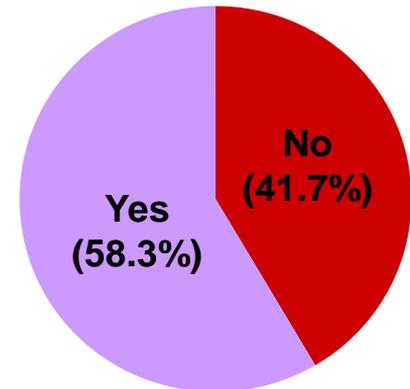
### Talked with a counselor (one-on-one) about HIV prevention



### Participated in group sessions to talk about HIV prevention



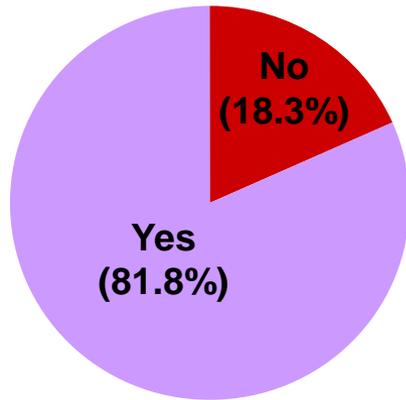
### Participated in group sessions or talked with a counselor about HIV prevention



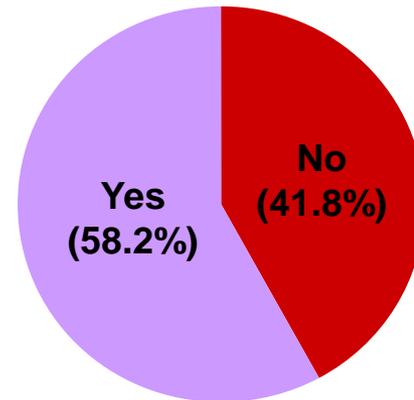
# Exposure to Prevention in the Past 12 Months Among Sexually Active Participants (N=434)

MMP, NYC, 2009/2010

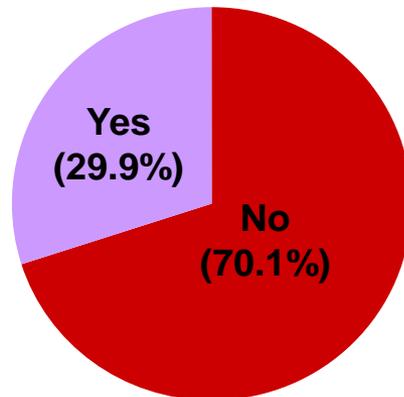
### Received any free condoms



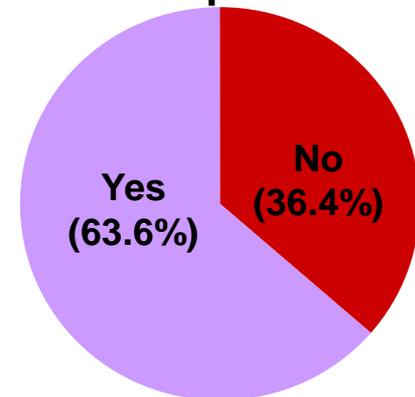
### Talked with a counselor (one-on-one) about HIV prevention



### Participated in group sessions to talk about HIV prevention



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



# Limitations

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- 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

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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>

# The MMP Research Team

## Principal Investigator

Alan Neaigus, PhD

## Associate Analysts

Katie Reilly, Ph.D., MPH

## Project Coordinator

Julie Lulek, MPH

## Medical Liaison

Marie Antoinette Bernard, MD MPH

## Data Management and Analysis

Michael Navejas, PhD

Shavvy Raj-Singh, MPH

## MMP Data Collection Team

Athea Bullard-Young, Field Coordinator

Ann-Marie Benjamin Simpson

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