

# HIV Risk and Prevalence among NYC Men who Have Sex with Men

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Results from the  
2008 National HIV Behavioral Surveillance Study



# NYC National HIV Behavioral Surveillance Team

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## **NYC Department of Health**

Samuel Jenness

Christopher Murrill

Alan Neaigus

## **National Development and Research Institutes**

Rosa Colon

Camila Gelpi-Acosta

Travis Wendel

## **New York University**

### **College of Nursing**

Holly Hagan

## **CDC**

Elizabeth DiNenno

Amy Drake

Isa Miles

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# Background

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- NYC has the largest population of men who have sex with men (MSM) of any U.S. city
- MSM are the largest risk group of people living with HIV/AIDS and new infections
- HIV incidence among MSM increasing
  - Disproportionately growing among non-White and young MSM
- Different HIV risk factors in different MSM communities
  - Social networks and biological determinants (e.g., sexually transmitted diseases) may drive HIV among Black MSM



# National HIV Behavioral Surveillance (NHBS)

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- 25 cities throughout the United States
- Funded by CDC, designed collaboratively
- Ongoing, cyclical study of three risk groups: MSM, IDU, and high-risk heterosexuals
- NHBS-MSM data collection in 2008
- Cross-sectional study design
- Anonymous quantitative survey & HIV test

# NHBS Objectives

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- Determine frequency and correlates of HIV risk behaviors
- Assess HIV testing history and patterns
- Assess exposure to and use of HIV prevention services
- Estimate the prevalence of HIV infection
- Understand trends in risk and prevalence

# Eligibility Criteria

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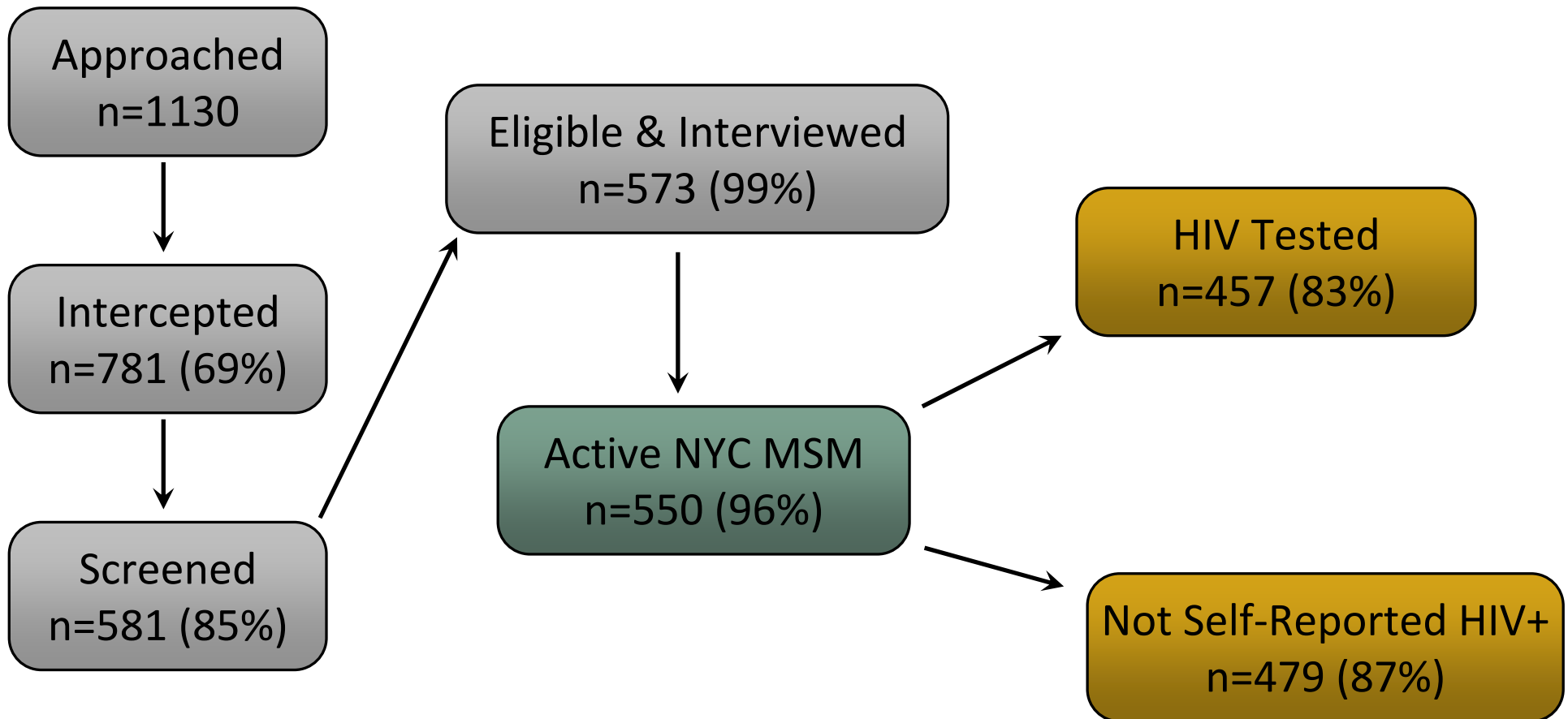
- Born male & currently identifies as a male
- At least 18 years old
- Resident of NYC metropolitan statistical area
- Speaks English or Spanish
- Had oral or anal sex with a man in the past year
- Resident of NYC

# Venue-Based Time-Space Sampling

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- Universe of MSM-oriented venues constructed
  - *Bars, clubs, parks restaurants, gyms, public strolls*
- Venues randomly selected, placed on monthly calendar
  - *Special events or venues also added non-randomly*
- Field team sequentially samples men at venue
  - *Men must cross an imaginary line; venue volume measured*
- Approached men are screened, provide informed consent, interviewed, and HIV tested

# NHBS-MSM Study Sample





# Statistical Analysis

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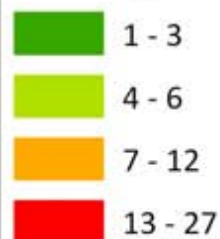
- Basic descriptive frequencies of demographics, risks, and use of HIV testing and prevention services (n=550)
- Chi-Square tests to compare differences in HIV risks and use of HIV testing and prevention services
  - Most slides focus only on MSM who did not self-report as HIV+ (n=479), since awareness of HIV infection influences risk
- Overall prevalence of HIV infection determined by confirmed western blot test among those who tested (n=457)
  - Awareness of HIV status, among those who tested HIV+ (n=131)

# Participant Zip Code of Residence and Location of Recruitment Venues

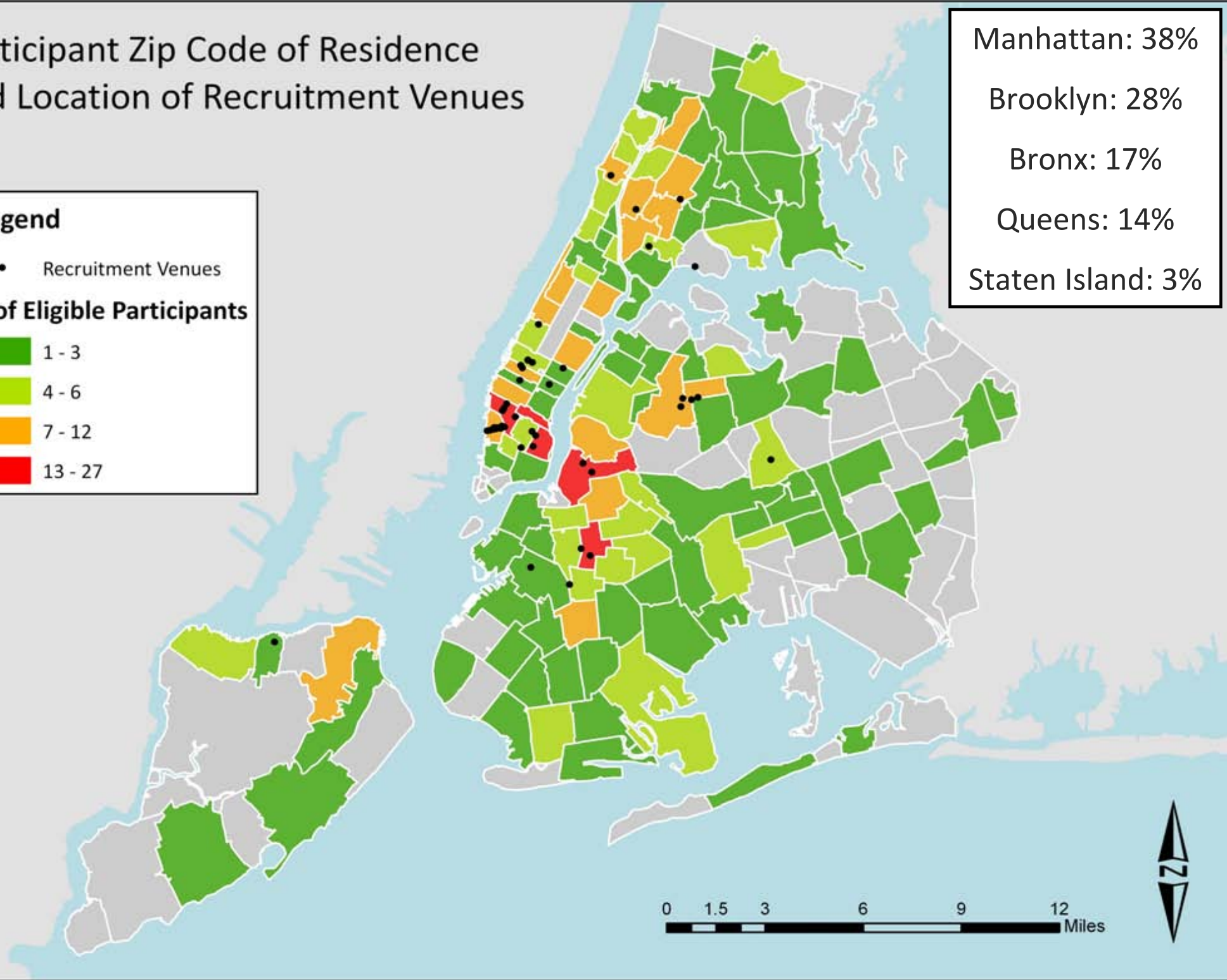
## Legend

• Recruitment Venues

## # of Eligible Participants

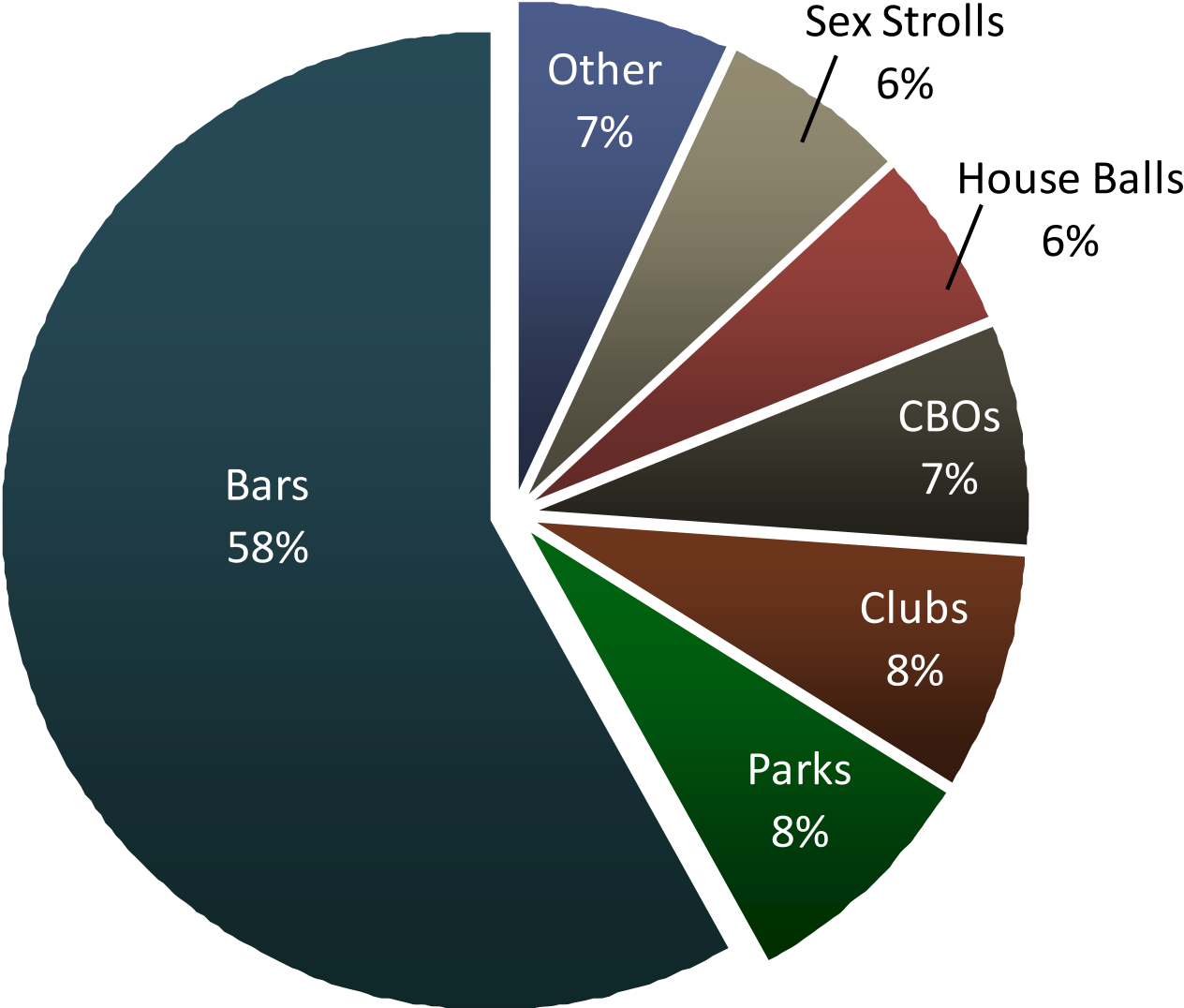


Manhattan: 38%  
Brooklyn: 28%  
Bronx: 17%  
Queens: 14%  
Staten Island: 3%



# Recruitment Venues

NYC NHBS-MSM, 2008, n=550



# Demographics

NYC NHBS-MSM, 2008, n=550

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## Race/Ethnicity

Black	27%
Hispanic	35%
White	31%
Other	7%

## Age

18-29	41%
30-39	27%
40-49	19%
50+	12%

## Sexual orientation

Gay	80%
Bisexual	19%
Heterosexual	1%

## Birthplace

United States	77%
Puerto Rico	6%
Foreign	18%



# Demographics

NYC NHBS-MSM, 2008, n=550

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## Income

<10k	19%
10k-30k	20%
30k-50k	19%
>50k	39%

## Arrested

Past Year	11%
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## Education

<High School	9%
H.S. - Some College	50%
≥College Grad	40%

## Homeless

Past Year	9%
Currently	5%



# Average Number of Male Sex\* Partners in Past Year

*NYC NHBS-MSM, 2008, n=479 (HIV-/Unk.)*

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	<b>Median</b>	<b>Mean</b>
<b>Main</b>	1	1.0
<b>Casual</b>	2	6.1
<b>Exchange</b>	0	0.6

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<b>All Types</b>	3	7.7
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\* Oral or anal sex

# Median Number of Male Sex\* Partners in Past Year, by Race/Ethnicity

*NYC NHBS-MSM, 2008, n=479 (HIV-/Unk.)*

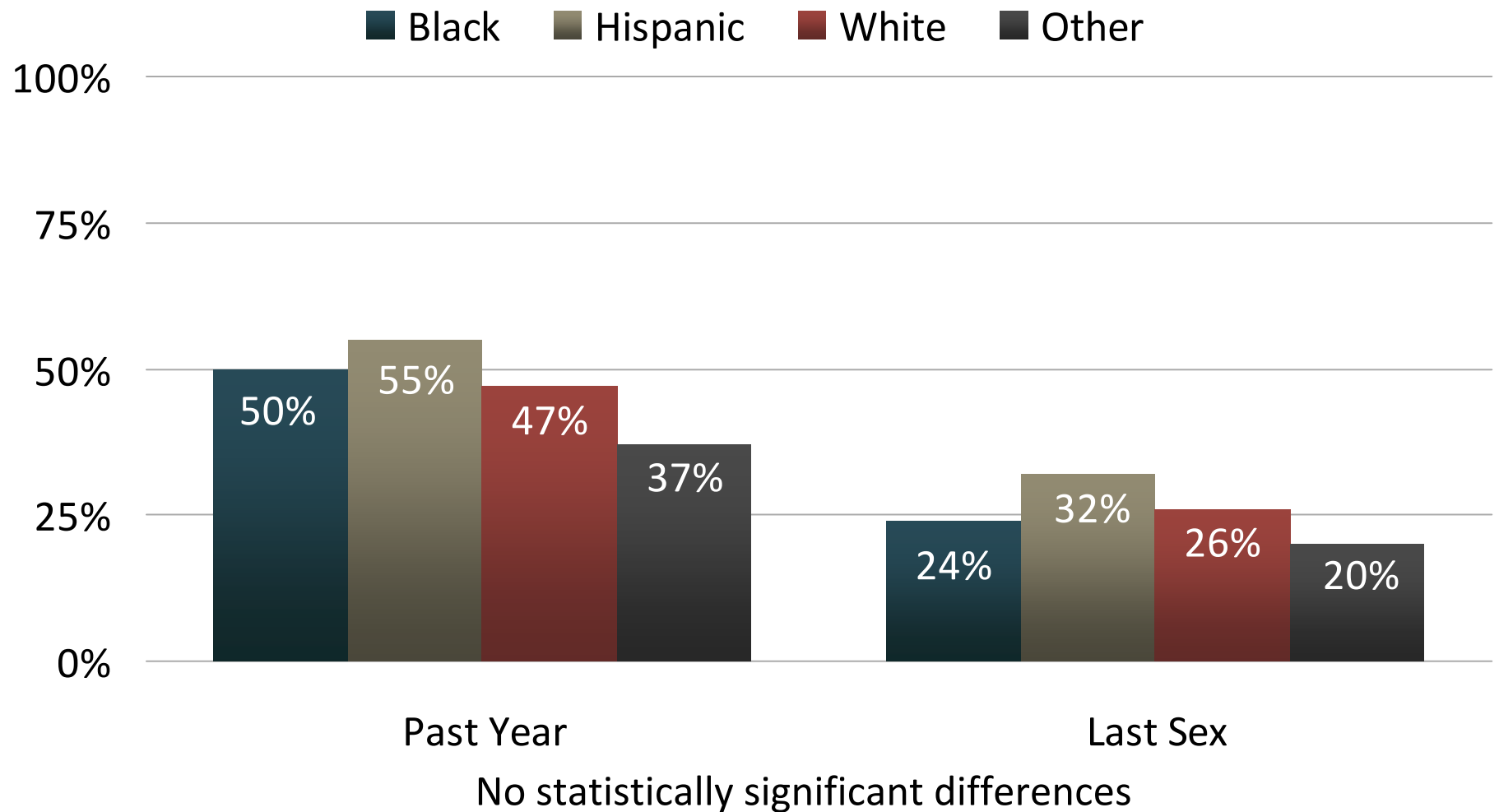
	<b>Black</b>	<b>Hispanic</b>	<b>White</b>	<b>Other</b>
<b>Main</b>	1	1	1	1
<b>Casual</b>	1	2	3	3
<b>Exchange</b>	0	0	0	0
<b>All Types**</b>	3	3	4	3.5

\* Oral or anal sex

\*\*  $p < 0.01$  in Wilcoxon test

# Unprotected Anal Intercourse (UAI) in Past Year and Last Sex, by Race/Ethnicity

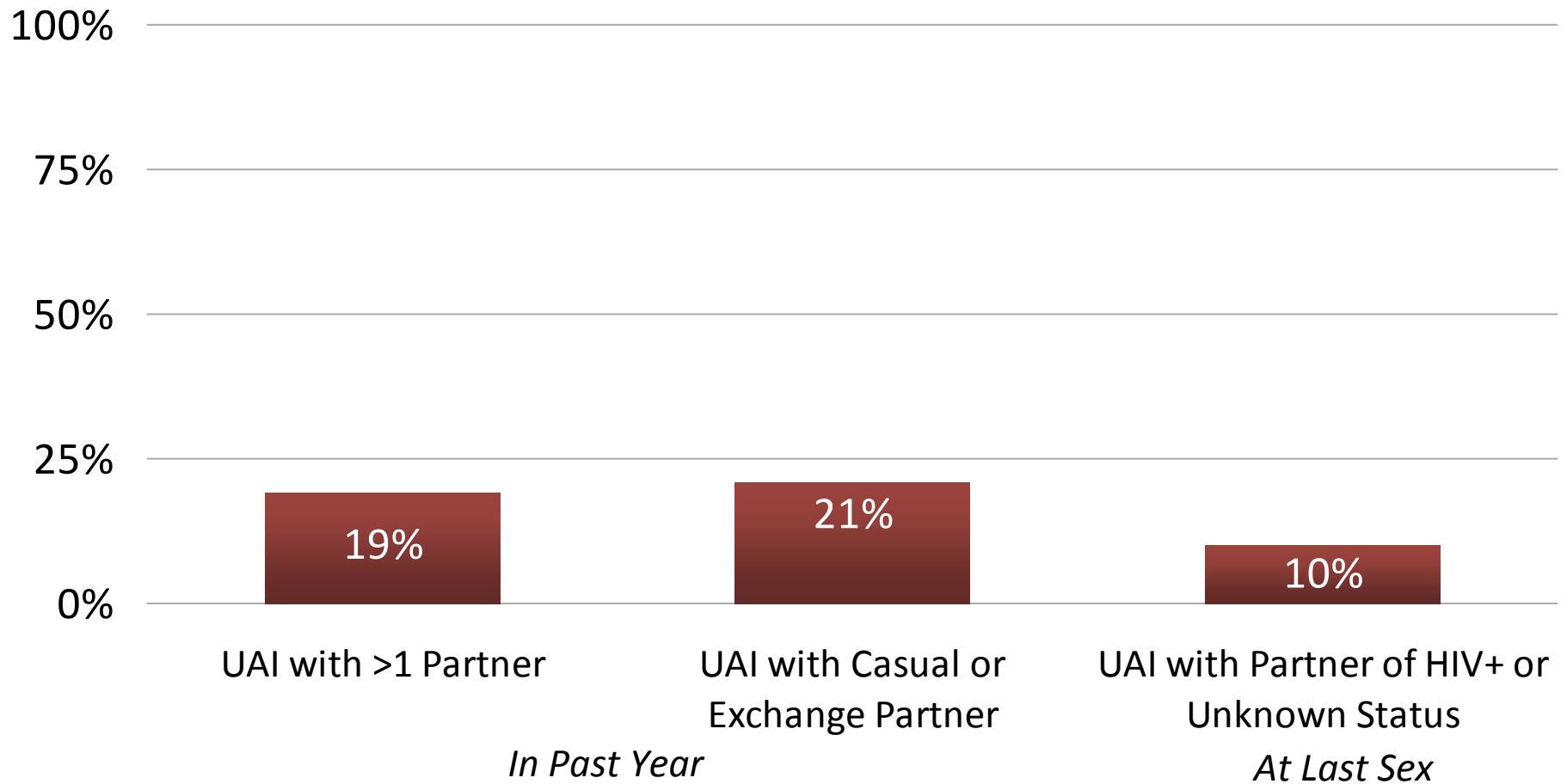
NYC NHBS-MSM, 2008, n=479 (HIV-/Unk.)





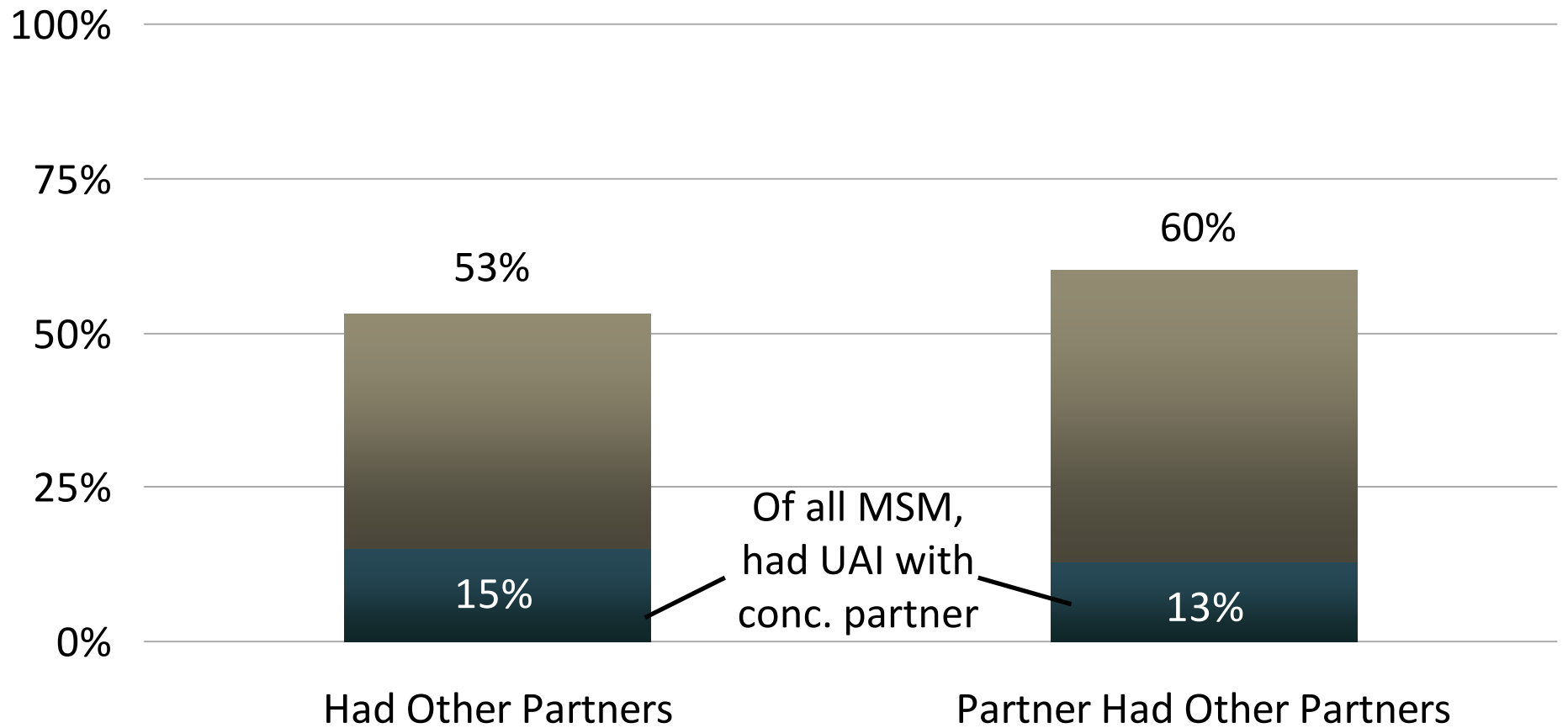
# High Risk UAI

NYC NHBS-MSM, 2008, n=479 (HIV-/Unk.)



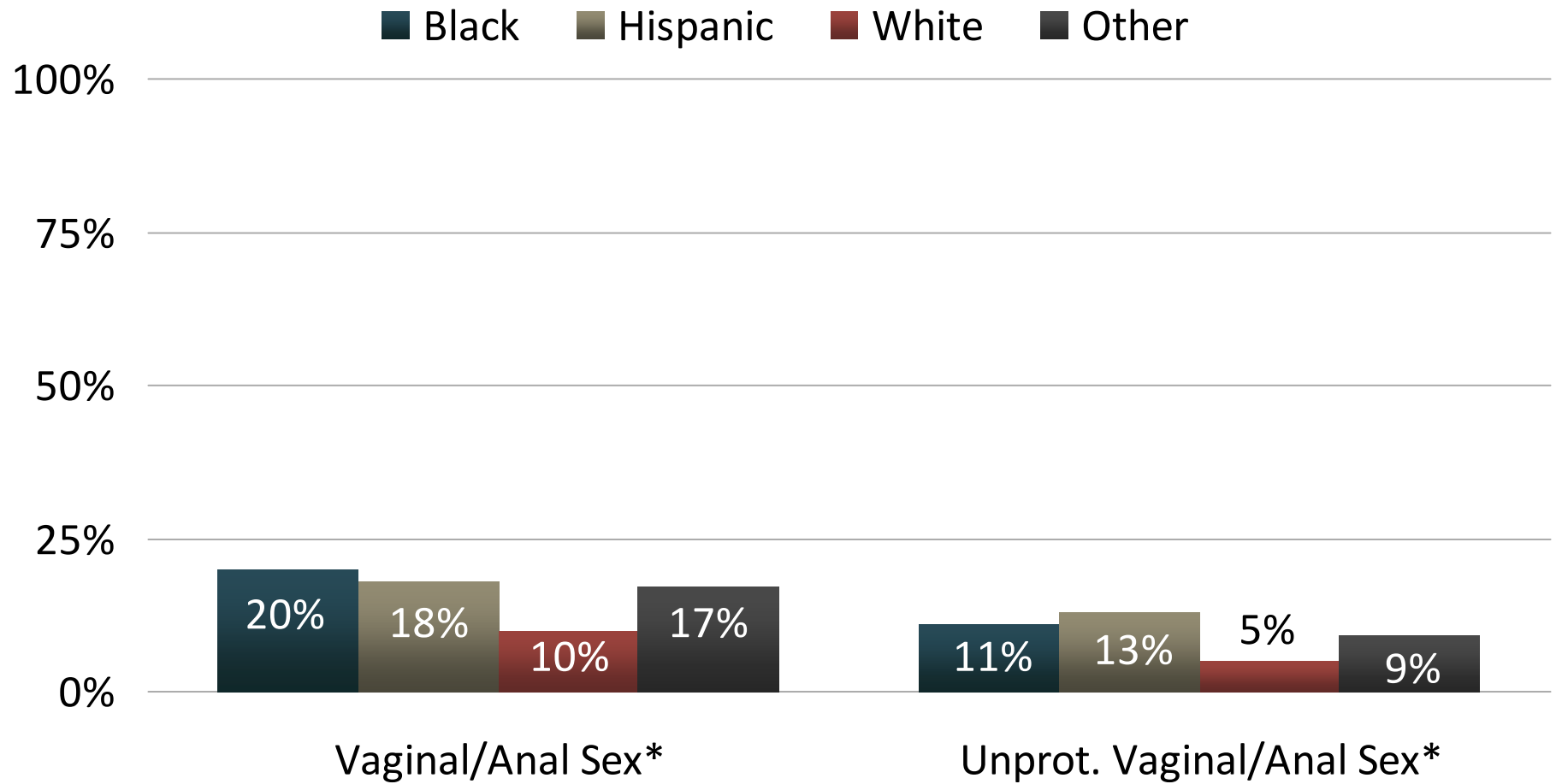
# Concurrent Partnerships with Last Sex Partner

NYC NHBS-MSM, 2008, n=479 (HIV-/Unk.)



# Sex with Women in Past Year

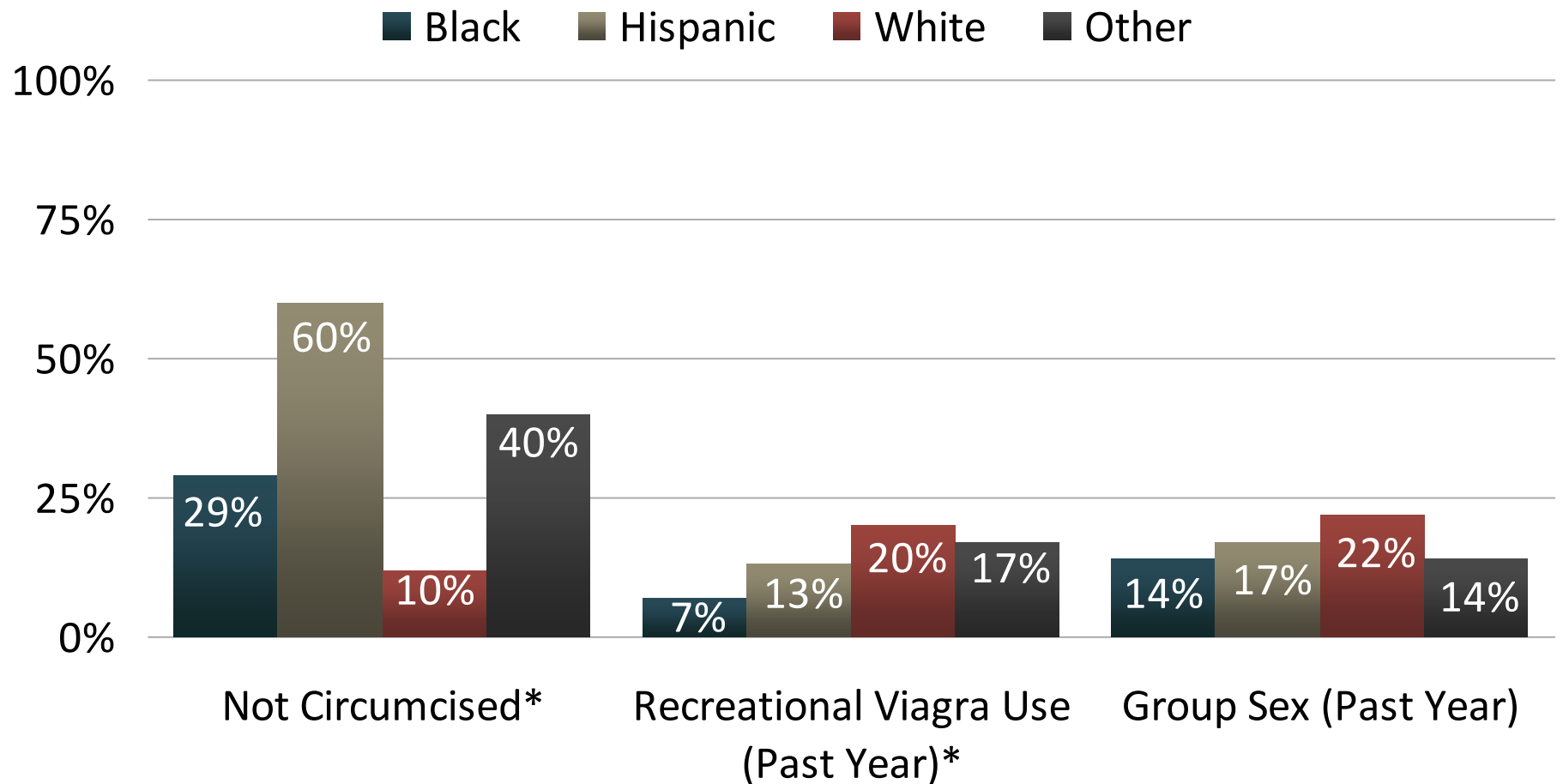
NYC NHBS-MSM, 2008, n=479 (HIV-/Unk.)



\* $p < 0.05$

# Other HIV Risk Factors

NYC NHBS-MSM, 2008, n=479 (HIV-/Unk.)

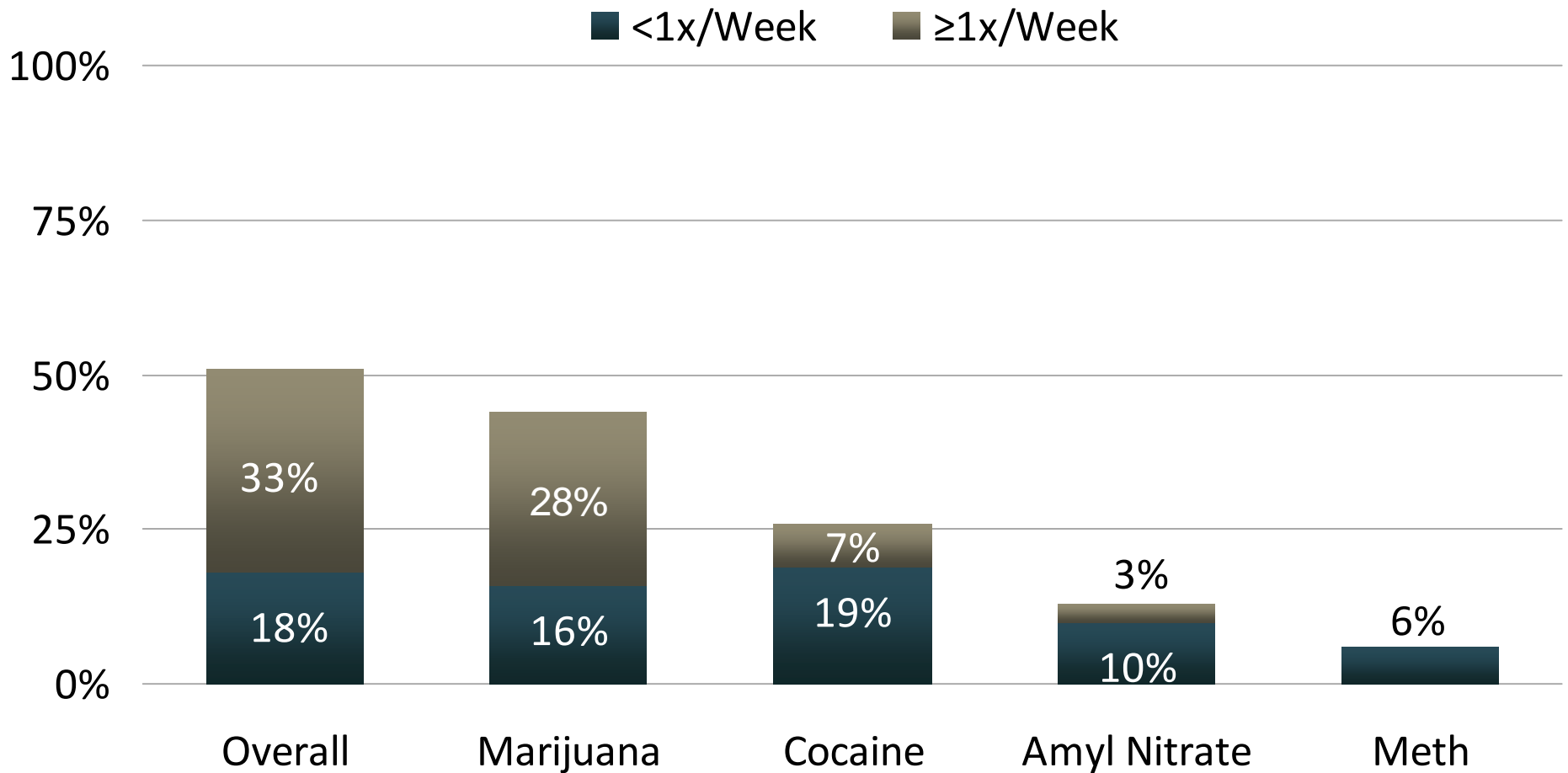


\* $p < 0.01$



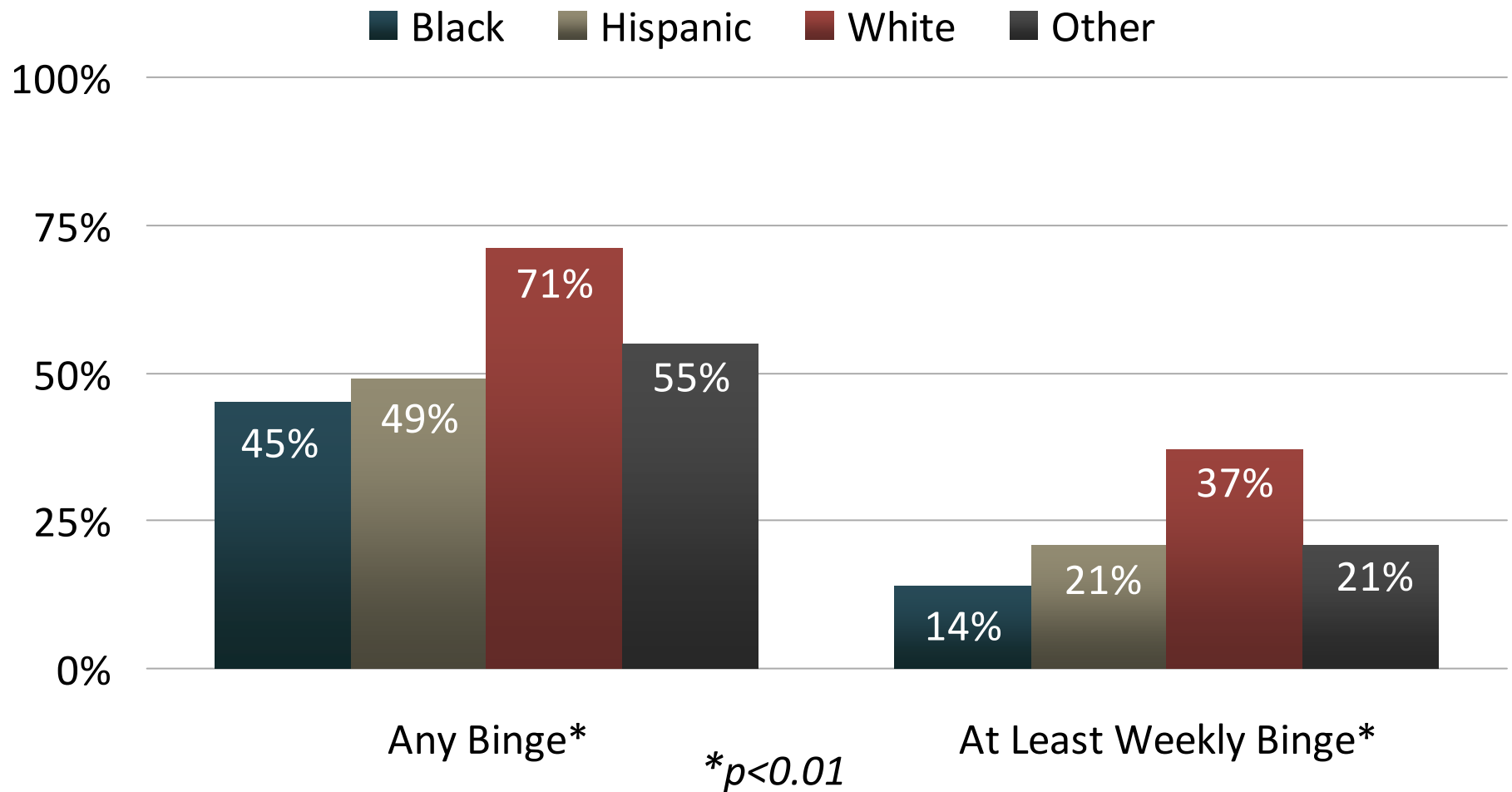
# Non-Injection Drug Use in Past Year

NYC NHBS-MSM, 2008, n=550



# Binge Alcohol Use in Past Year, by Race/Ethnicity

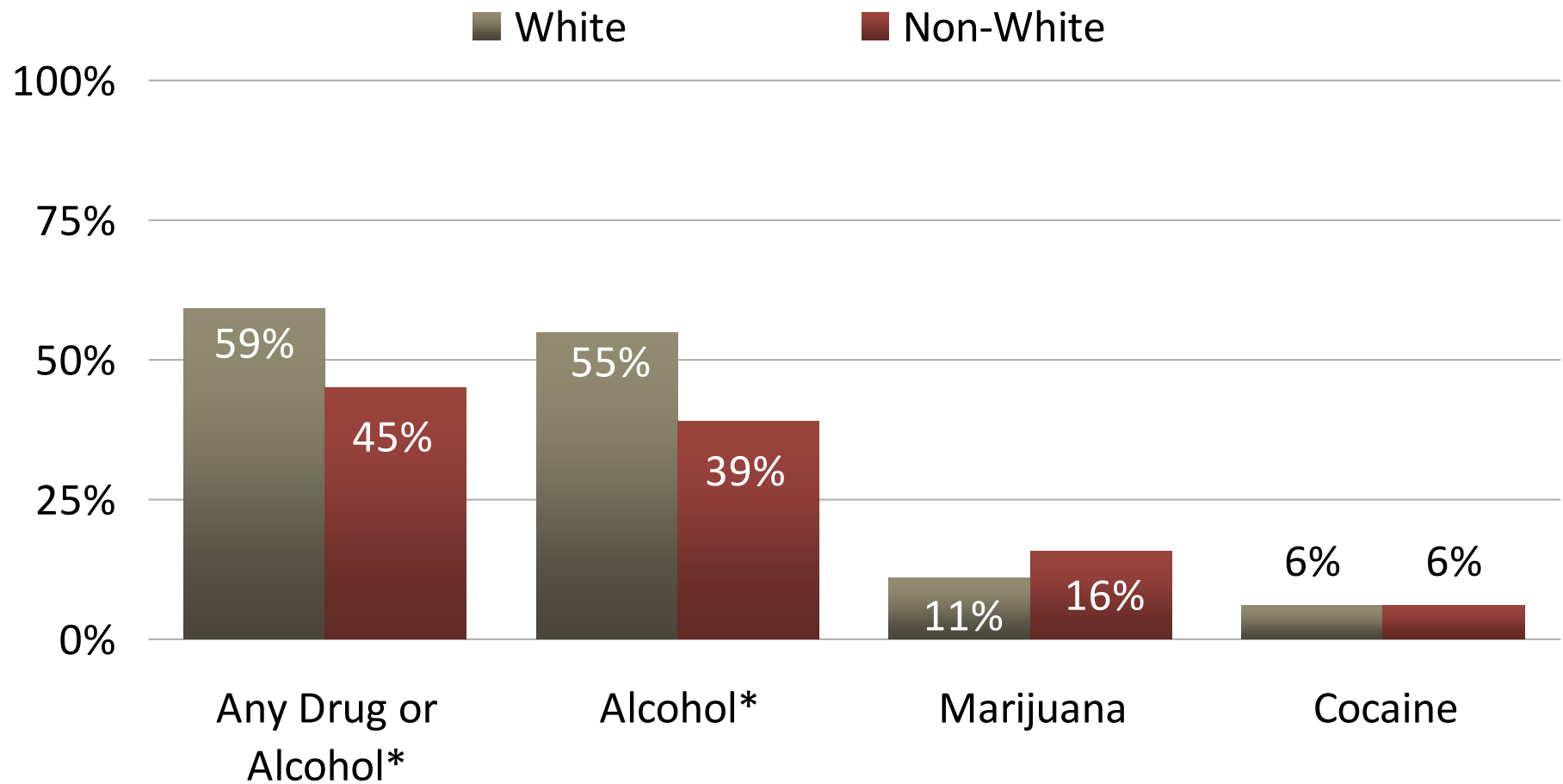
NYC NHBS-MSM, 2008, n=550



Binge: 5 or more drinks in "one sitting"

# Alcohol & Drug Use at Last Sex

NYC NHBS-MSM, 2008, n=479 (HIV-/Unk.)

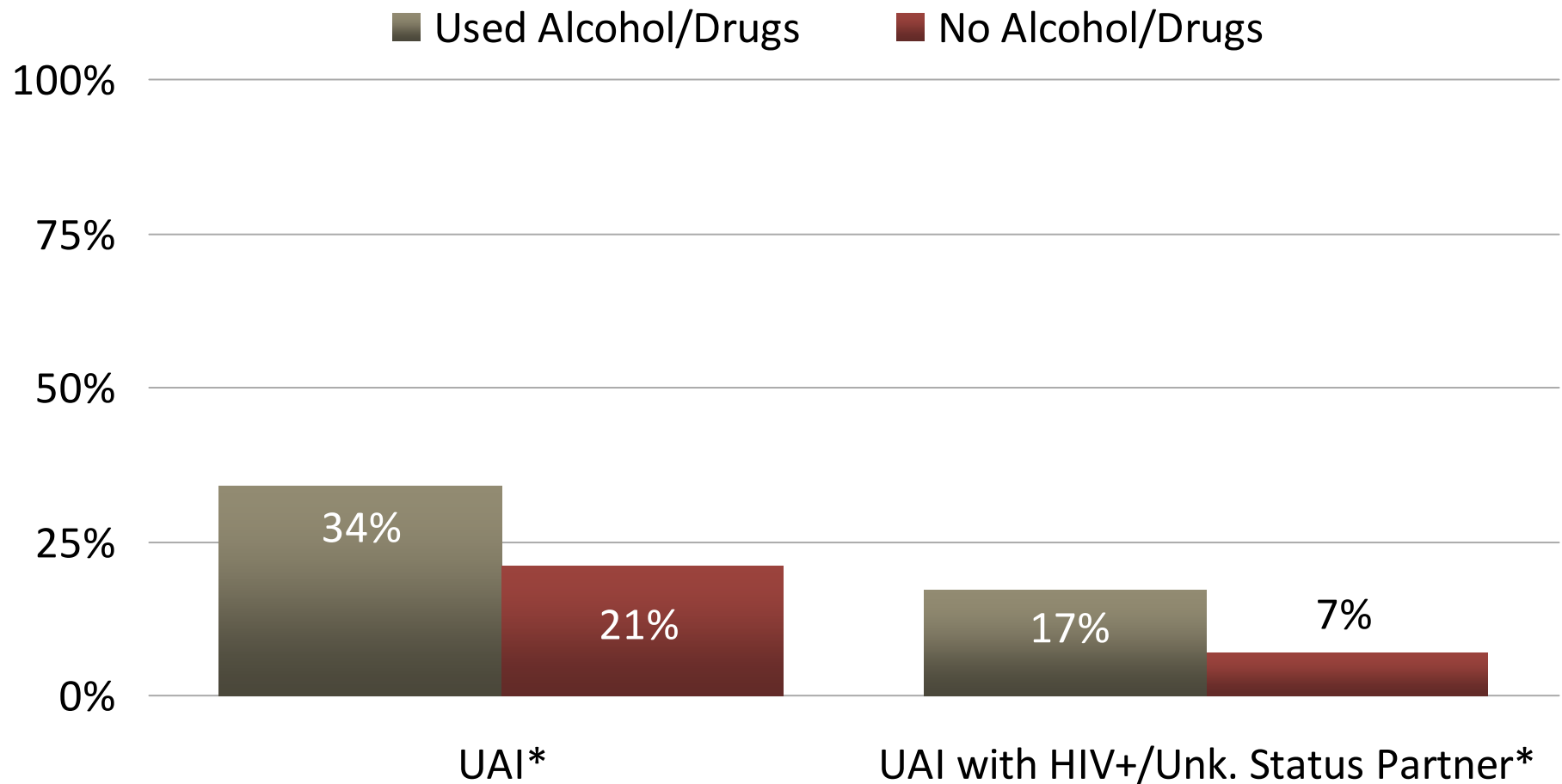


\* $p < 0.01$



# Alcohol/Drug Use and Sexual Risk at Last Sex

NYC NHBS-MSM, 2008, n=479 (HIV-/Unk.)



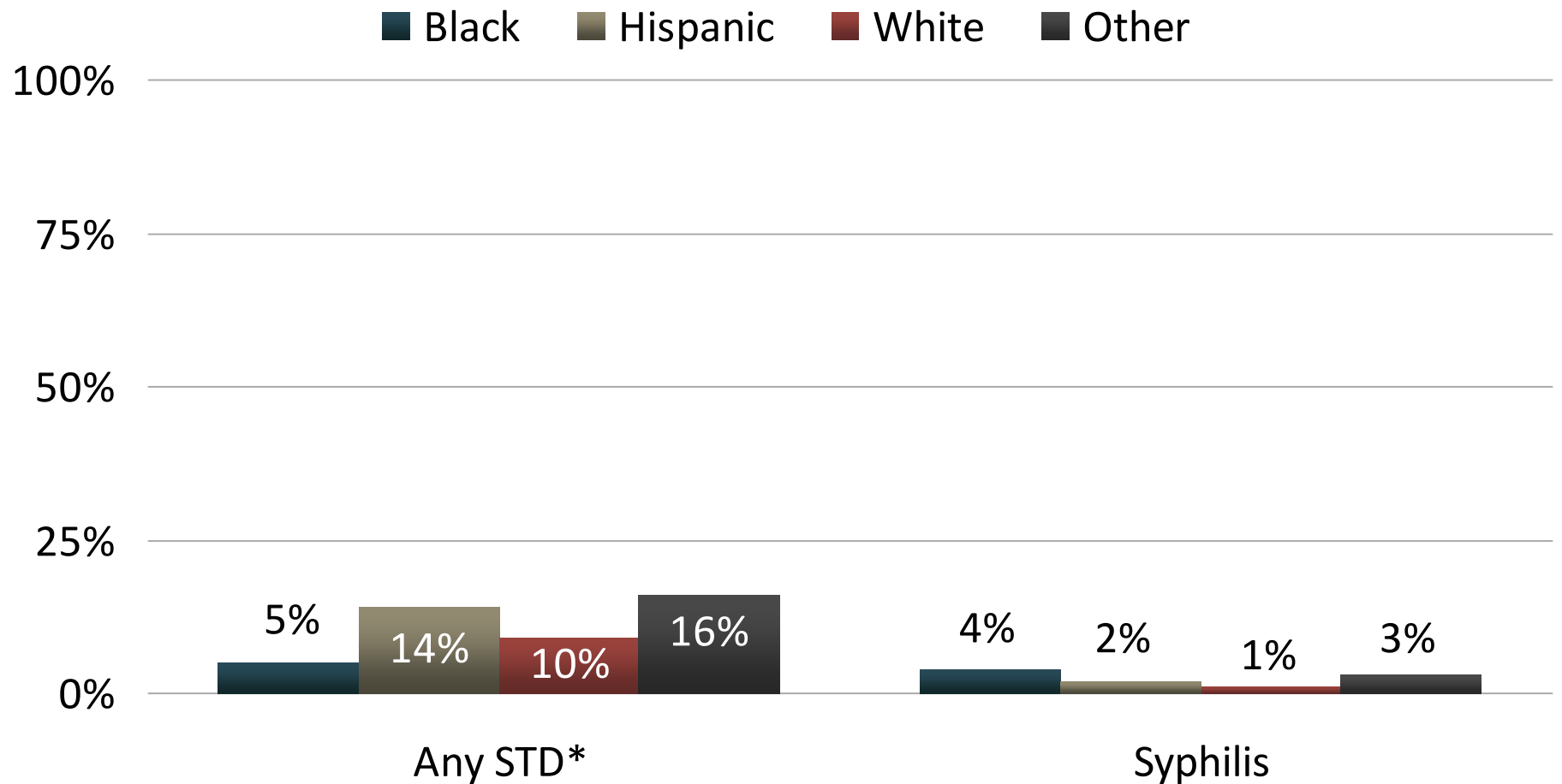
\* $p < 0.01$





# STD Diagnoses in Past Year

NYC NHBS-MSM, 2008, n=479 (HIV-/Unk.)



Any STD\*

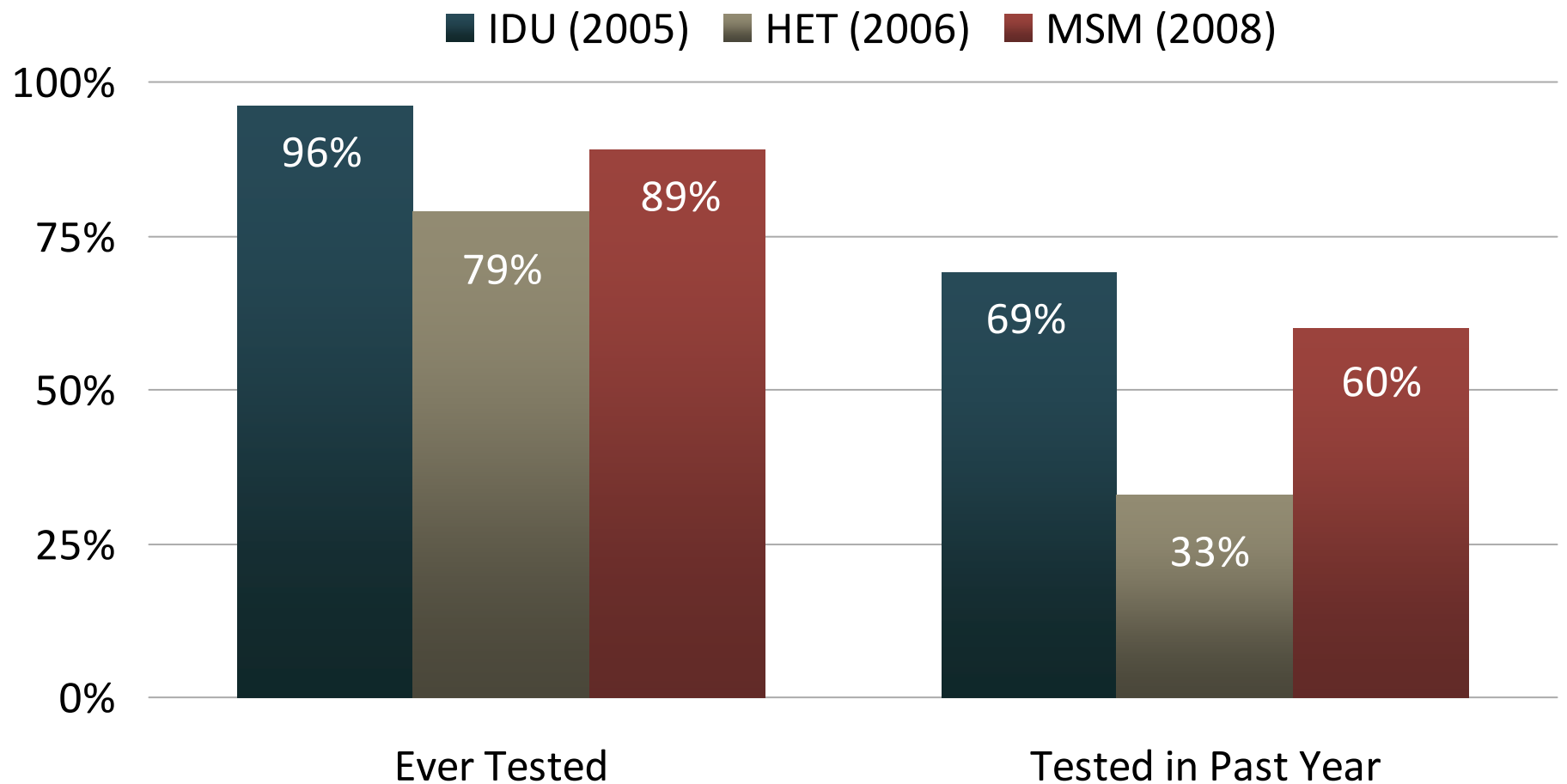
\* $p < 0.05$

Syphilis



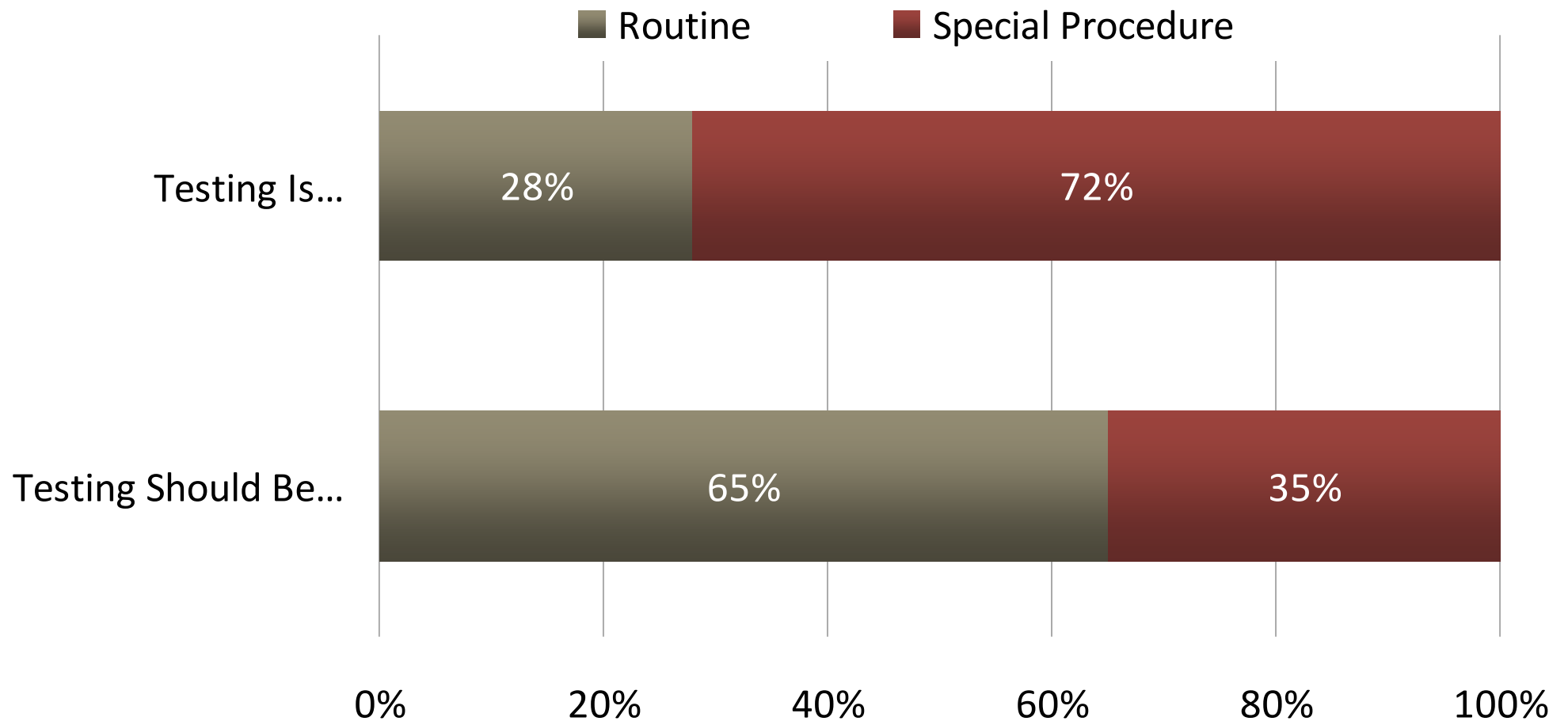
# HIV Testing History by Risk Group

*NYC NHBS (IDU, HET, & MSM), 2005-8*



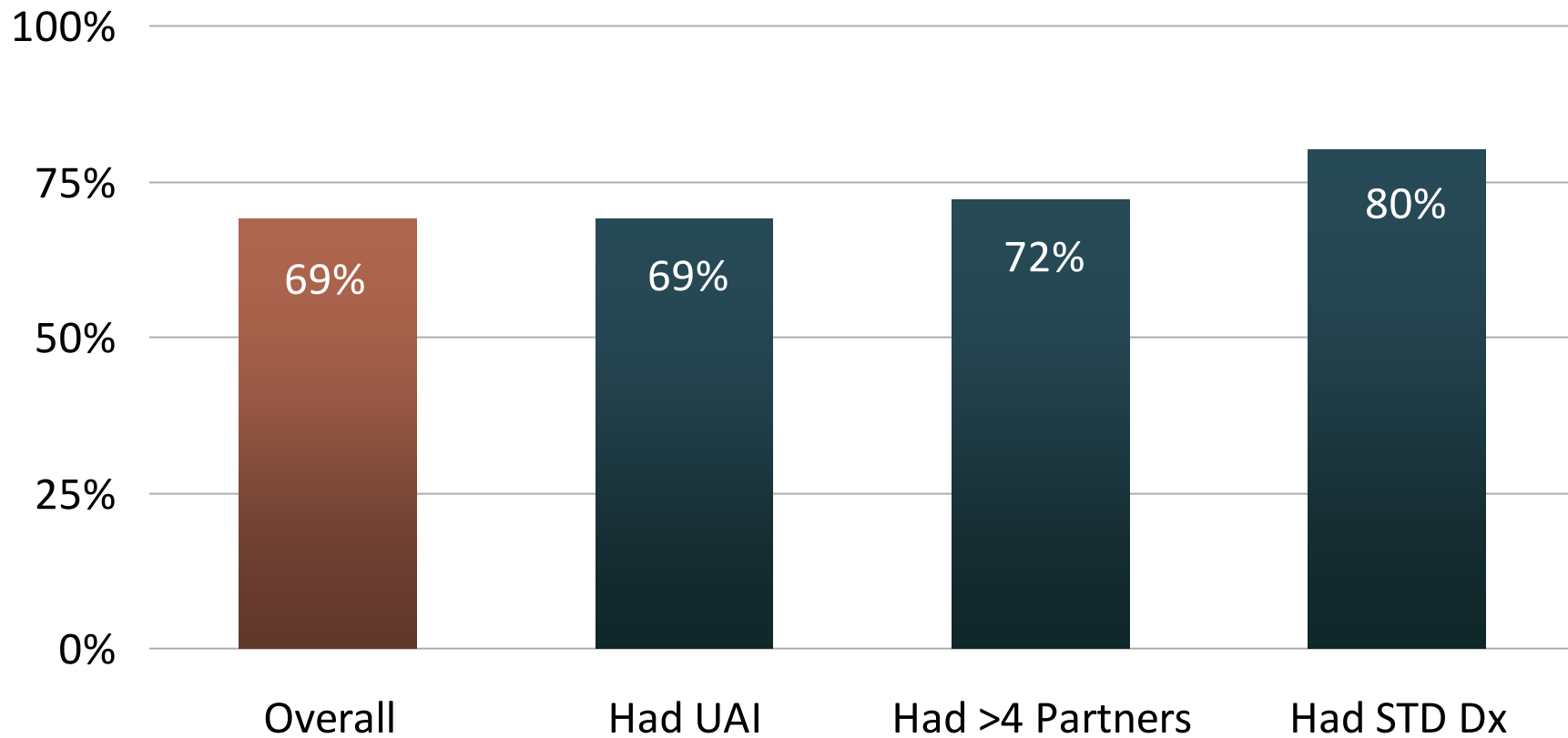
# Beliefs about Routine HIV Testing

NYC NHBS-MSM, 2008, n=550



# Offered HIV Test by HIV Risk Factors in Past Year

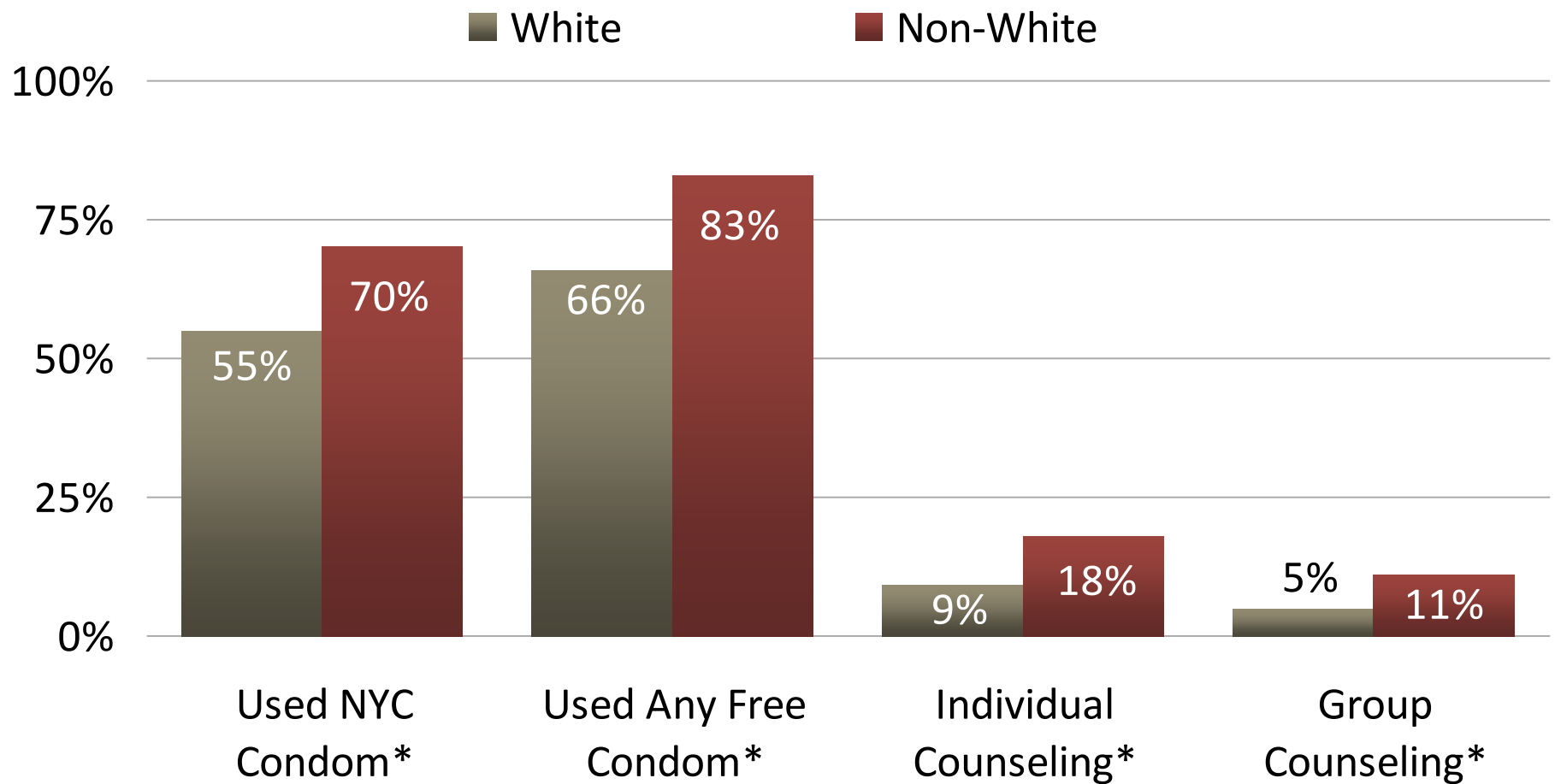
NYC NHBS-MSM, 2008, n=401\*



*\*Self-reported HIV-/Unk. MSM who visited a medical provider in the past year*

# HIV Prevention Services

NYC NHBS-MSM, 2008, n=550



\* $p < 0.05$



# HIV Prevalence & Awareness

NYC NHBS-MSM, 2008, n=457 (Tested in Study)

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	HIV-Positive	95% CI	% Unaware*
<b>Overall</b>	28.6%	24.4 – 32.8%	53%
<b>By Race</b>			
Black	43.1%	34.5% – 51.7%	59%
Hispanic	25.7%	19.0% – 32.4%	49%
White	19.7%	12.8% – 26.6%	42%
Other	20.7%	5.0 – 36.4%	67%

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\* Among MSM who tested HIV positive (n=131)

# Summary

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- Recruited a diverse sample of MSM from throughout NYC
- High HIV prevalence and low awareness of HIV status
- White MSM had the lowest HIV prevalence, yet higher rates of many HIV risk factors
- Binge drinking and alcohol use during sex were more likely among White MSM
- 40% of MSM did not have an HIV test in the past year; being offered a test by a provider did not vary by additional risk factors
- Use of free condoms was high, but exposure to HIV prevention counseling was low

# Limitations

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- Many MSM not sampled with venue-based method
  - For example, MSM who only meet partners over the internet and do not attend gay-oriented social venues
- MSM likely not representative of all NYC MSM
  - MSM who attend gay-oriented social venues may be at higher risk of HIV infection
- Data may be biased by recall error, and social desirability and self-selection biases
- Cross-sectional data cannot establish causal relationships





# Conclusions

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- Black MSM have highest HIV prevalence and low awareness of HIV infection
  - Individual risks do not fully explain racial differences in HIV prevalence
  - Network, baseline HIV prevalence, and partner risks likely play a role
  - Social network or venue-based testing targeting MSM should be expanded
- Routine HIV testing, supported by MSM but not practiced by providers, should be implemented throughout NYC
- Condom distribution and HIV prevention counseling are effective at reducing HIV risk

# Contact

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**Samuel Jenness, MPH**

NHBS Project Director/Data Analyst

HIV Epidemiology Program

NYC Department of Health

Phone: 212-442-6445

Email: [sjenness@health.nyc.gov](mailto:sjenness@health.nyc.gov)