



# DAPuC

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# UNAWAWARENESS AMONG MEN WHO HAVE SEX WITH MEN (MSM) IN PUERTO RICO:

*DATA FROM THE NATIONAL HIV BEHAVIORAL SURVEILLANCE SYSTEM (NHBS) 2008-2011*

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# PRESENTER DISCLOSURES

**Carola T. Sánchez Díaz**

**(I) The following personal financial relationships with commercial interests relevant to this presentation existed during the past 12 months:**

**No relationships to disclose.**

# BACKGROUND

- Men who have sex with men (MSM) is the only group in which HIV incidence has been steadily increasing in Puerto Rico (PR).
- Epidemiological studies have reported that MSM in PR are engaging in high-risk behaviors.
- Unrecognized HIV infection has been identified as a public health challenge that still needs to be addressed.



# HIV IN PUERTO RICO

- According to a report from the Centers for Disease and Control (CDC) in 2013, PR is one of the 10 states and territories with the higher cumulative number of AIDS cases, HIV incidence and prevalence of infection.
- As of September 2015, the Puerto Rico HIV/AIDS Surveillance System reported **47,222 cases of HIV/AIDS infection in PR, and 20,114 persons living with HIV.**
- Men: 69.2% of people living with HIV as of 2015.



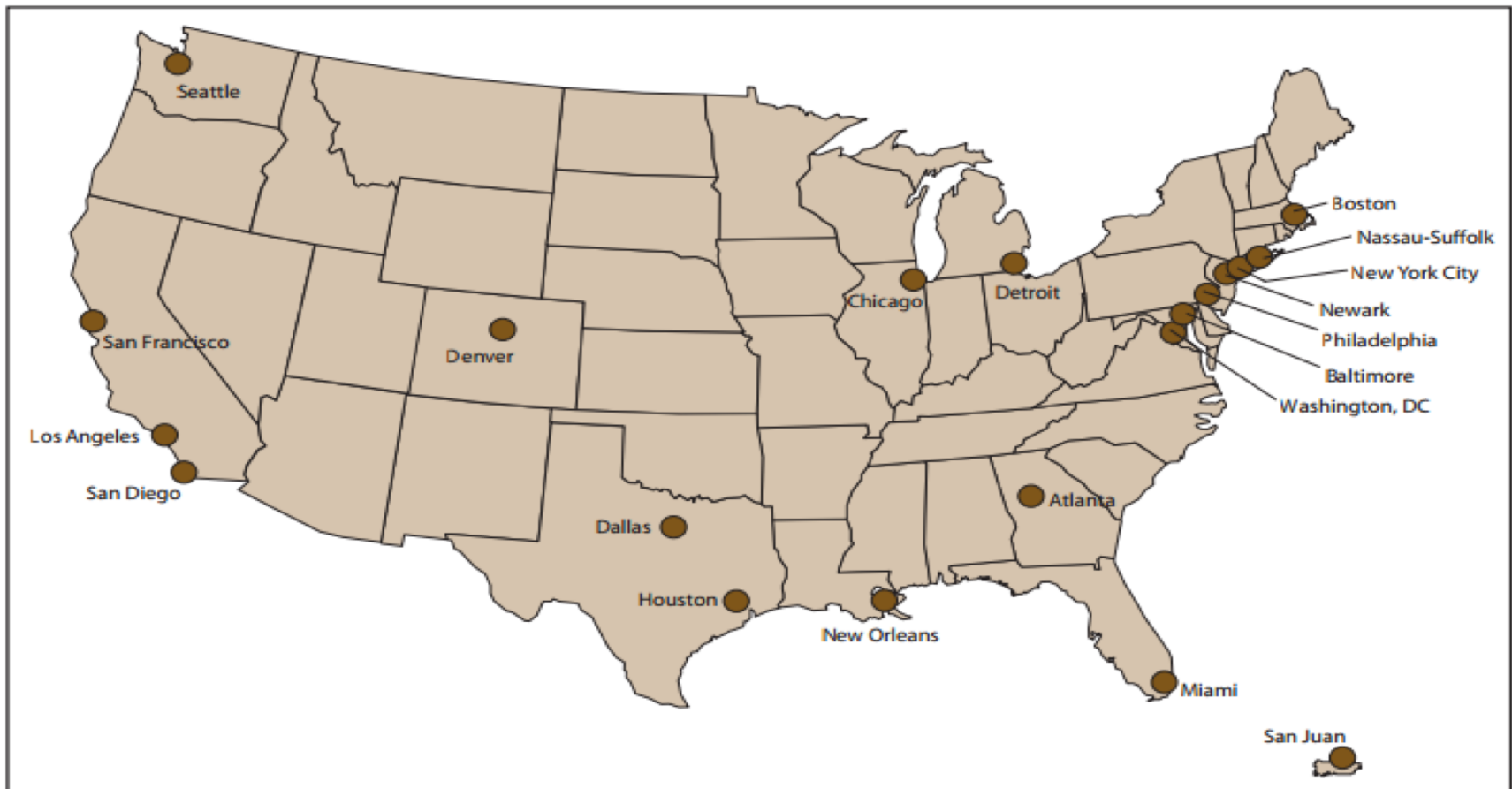
# OBJECTIVE

Examine changes among results obtained from 2008-2011 NHBS-MSM cycles regarding:

- Socio-demographic variables
- HIV prevalence
- HIV infection unawareness

# METHODS

FIGURE 1. Participating metropolitan statistical areas — National HIV Behavioral Surveillance System MSM 2008-2011



# METHODS

- Data collected for the NHBS in Puerto Rico among MSM in 2008 and 2011 was used for this analysis.
- *HIV Unawareness.* participants who reported a prior negative HIV test and tested positive.



# METHODS



- Venue-based sampling was employed.
- NHBS staff visited places where MSM socialize; such as:
  - bars
  - night clubs
  - beaches
  - community and religious organizations



# INCLUSION CRITERIA

1. Male of age 18 or older.
2. Residents of the San Juan Metropolitan statistical area (SJMSA).
3. Able to provide consent and complete the interview in English or Spanish.
4. Having had oral or anal sex with another man in the last 12 months.
5. Agreed to and completed the HIV rapid test.
6. Sample size:  $n=313$  (2008) and  $n=335$  (2011).



# STATISTICAL ANALYSIS

- **Univariate analysis**

- Descriptive analysis of sociodemographic, behavioral and health-related characteristics by cycle.

- **Bivariate analysis**

- $\chi^2$  and Fisher's exact test were used to determine differences between sociodemographic, behavioral and health related variables with unawareness.

- **Multivariate**

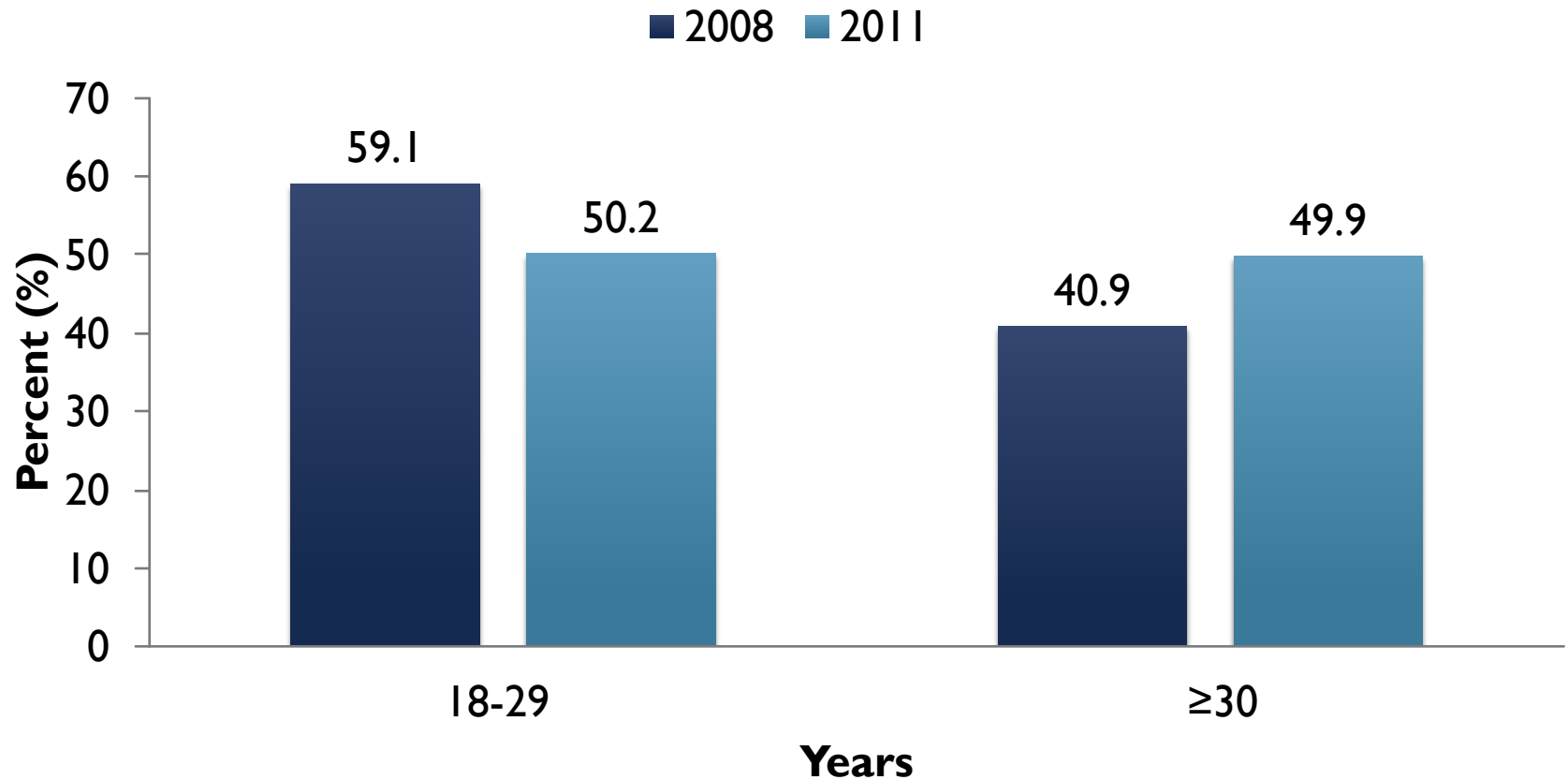
- Poisson regression model were used to estimate prevalence odds ratio (POR) in HIV unawareness.



# STUDY RESULTS

# AGE

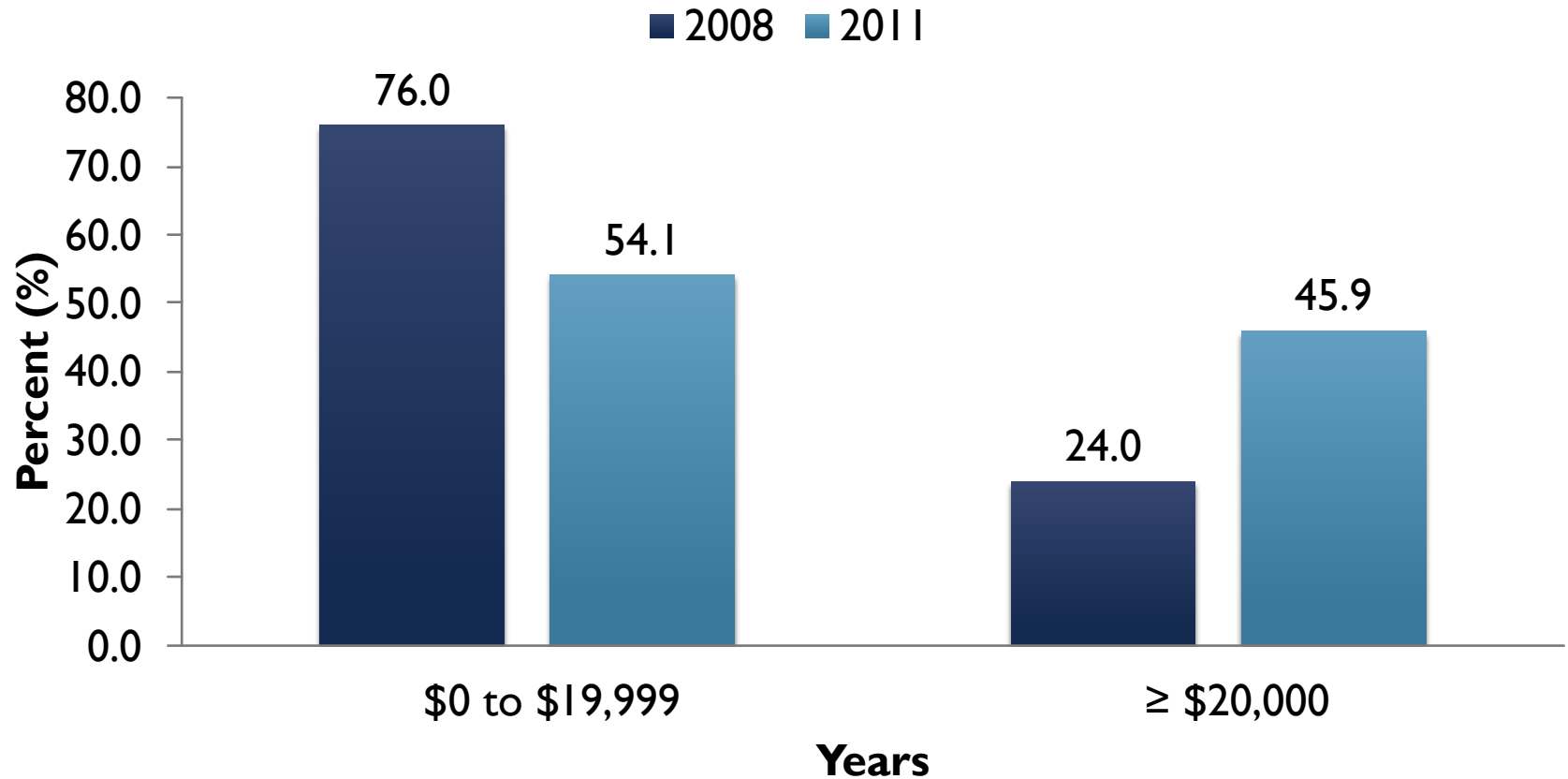
Even though the majority of men were 18-29 year old, a significant increase in age was observed.



$p=0.0222$

# ANNUAL HOUSEHOLD INCOME

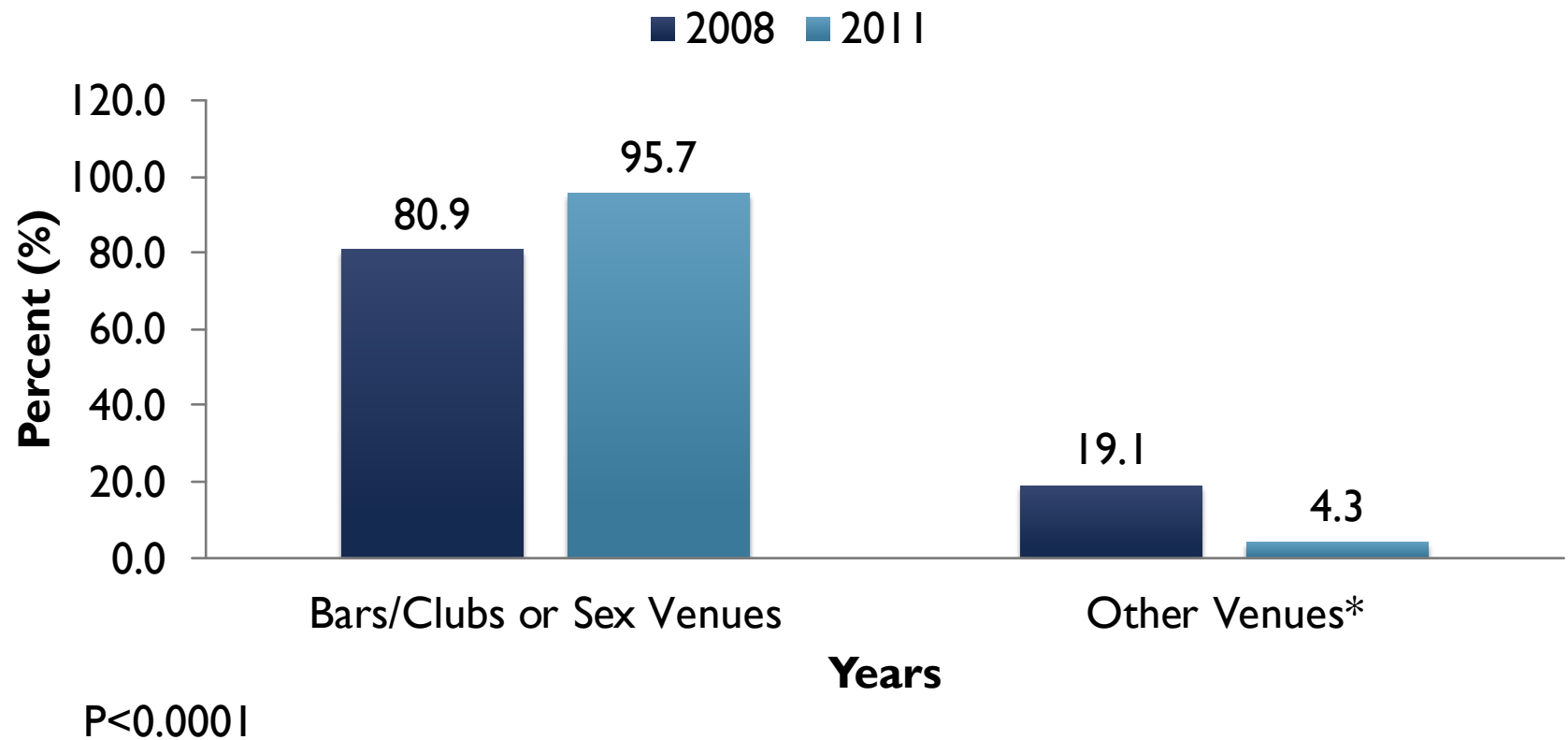
Even though more than half in both cycles had an income of less than 20,000, a significant increase in income was observed.



P<0.0001

# VENUE TYPE

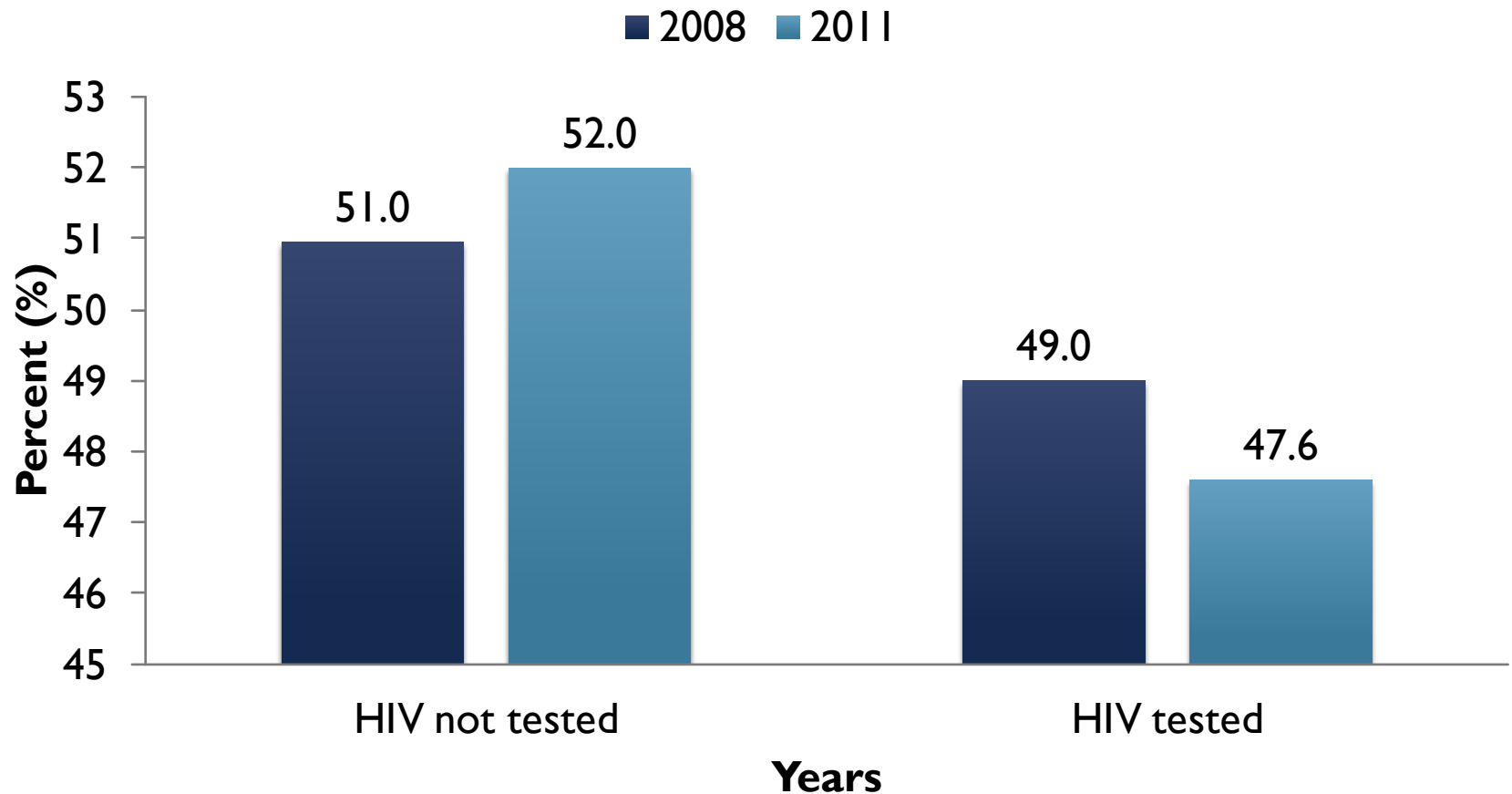
The vast majority of participant were recruited at Bars/clubs or sex venues in both cycles.



\*Other venues includes gym, restaurants, parks and beaches, street locations, social organizations, and other places where MSM congregate.

# PERCENTAGE OF HIV TESTING (PAST 12 MONTHS) AMONG MSM, 2008-2011

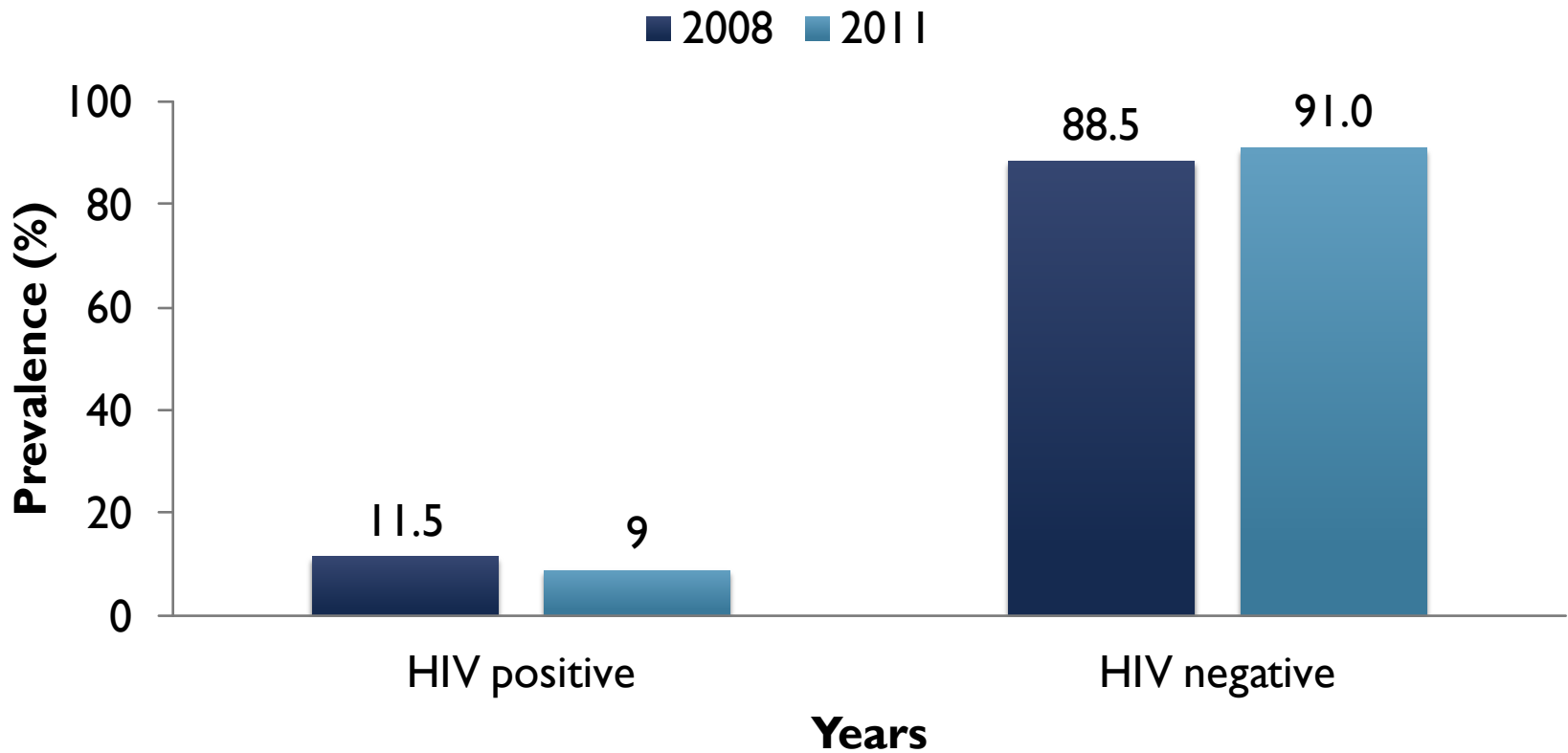
More than half of participants did not get tested for HIV in the past 12 months. Not significant changes were observed across cycles.



$p = 0.7132$

# HIV PREVALENCE AMONG MSM, 2008-2011

A decrease in prevalence in 2011 was observed. Although, changes in prevalence over time were not statistically significant.



$p=0.2848$

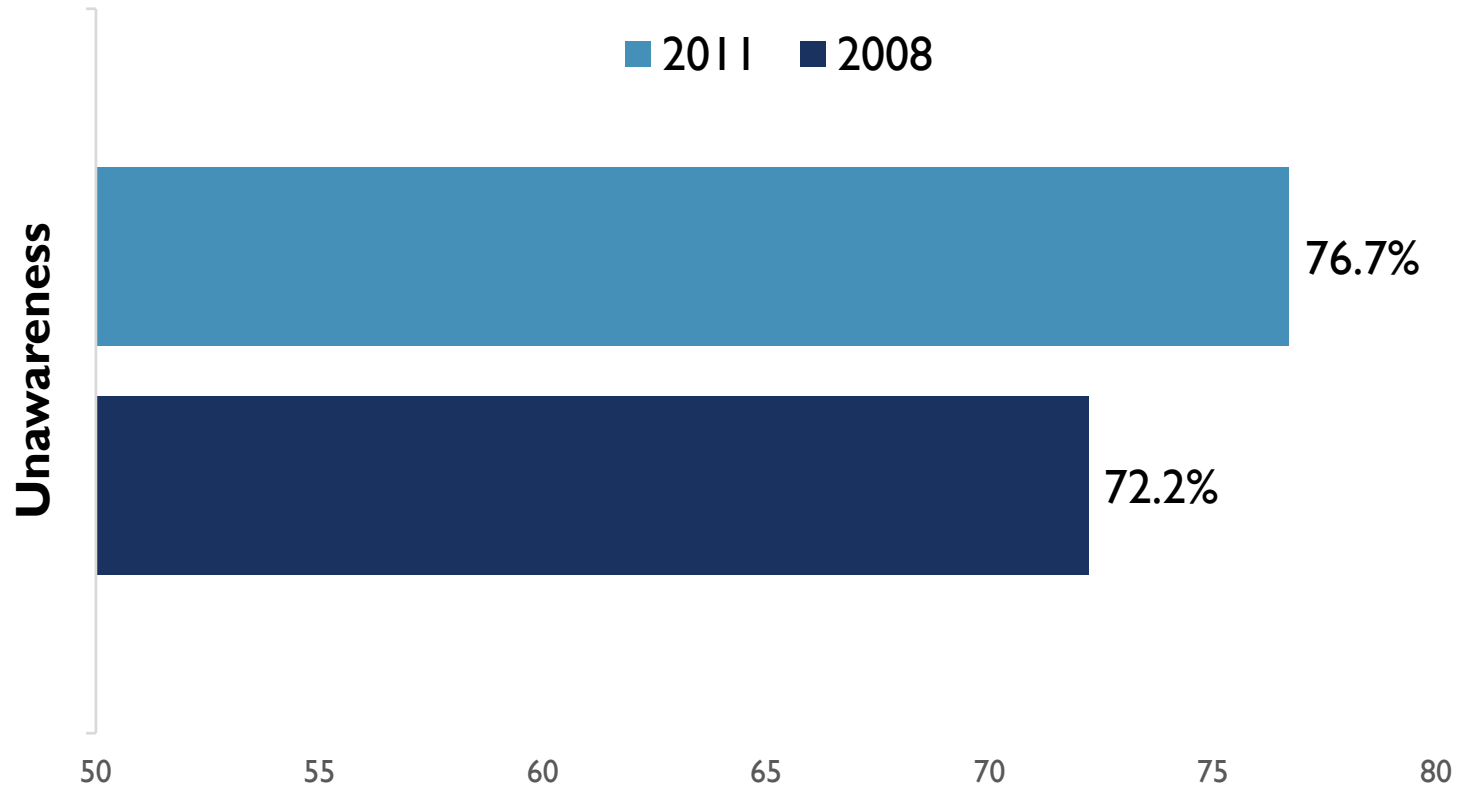




**UNAWAWARENESS**

# HIV UNAWARENESS

The vast majority of MSM were unaware of their infection. No significant changes were observed over time.



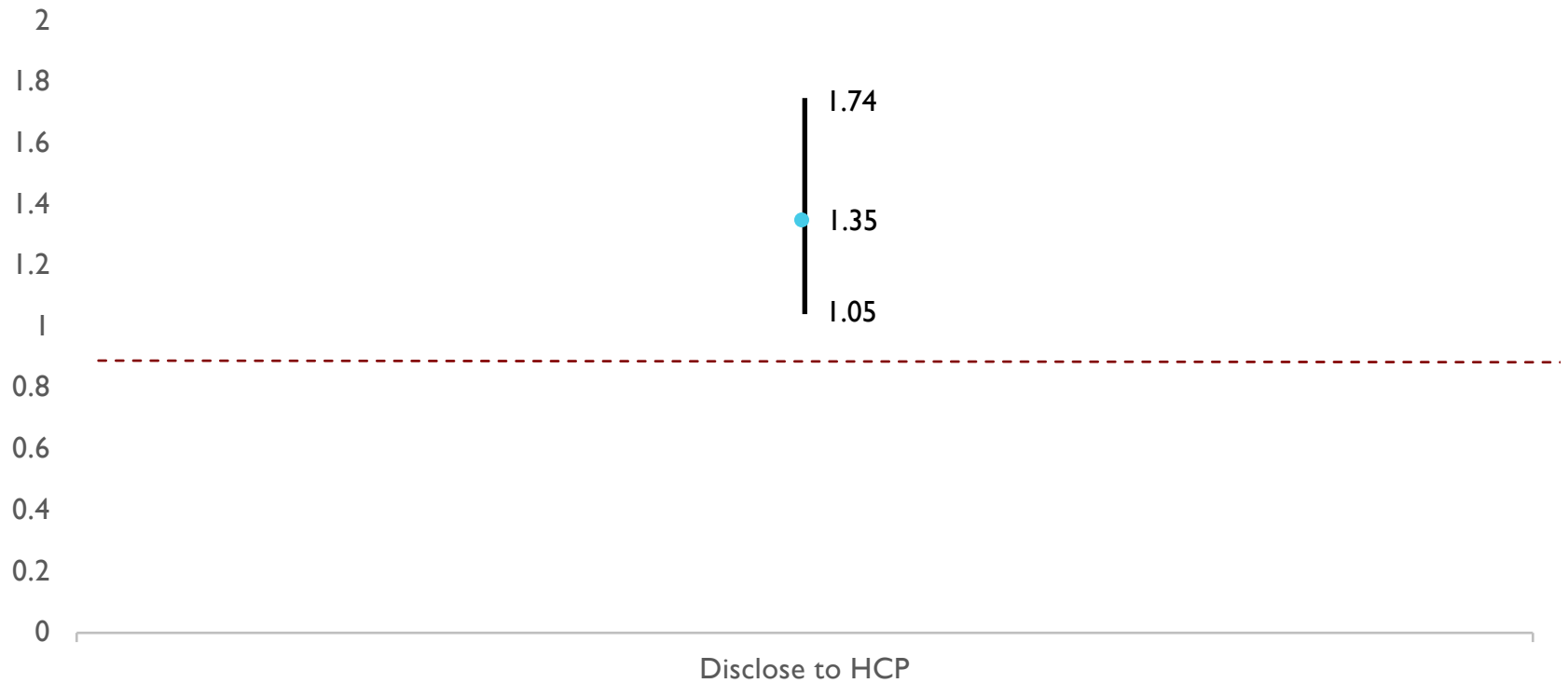
$p = 0.681$

## AGE ADJUSTED POR FOR UNAWARENESS: MSM NHBS 2008-2011

	<b>POR</b>	<b>P-Wald</b>
Number of male sexual partners	<b>1.01</b>	<b>0.0063</b>
Female sexual partner	<b>0.85</b>	<b>0.0905</b>

# DISCLOSE TO HEALTH CARE PROVIDER

Those who reported their sexual preferences to their health care provider (HCP) were 35% more likely to be unaware.



# LIMITATIONS

- Results are not generalizable
- Unable to weight data
  - Underestimate the standard error
    - NHBS venue-based sampling
- Methodological:
  - Lack of temporality
    - Eg. Outness HCP - When they visited HCP

# CONCLUSION

- The increase observed in HIV prevalence might be explained due to the high proportion of unaware HIV positive MSM in Puerto Rico.
- Therefore, targeted prevention efforts should be delineated in order to promote HIV prevention and decrease HIV unawareness among this population.
  - Those efforts must address better efforts for targeted educational intervention among HCPs
  - Efforts to improve the uptake of the HIV test
- NHBS data can be used to monitor progress towards national strategies and local efforts in order to maximize the impact of prevention programs and the creation of public policy.

# OPPORTUNITIES FOR PUBLIC HEALTH ACTION

- Targeted prevention efforts in order to decrease HIV unawareness.
- Educational development will be necessary for HCP's.
- Monitor progress towards national strategies and local efforts.
- Interventions focused on health empowerment should be tailored in order to decrease the burden of HIV infection unawareness.
- Creation of public policy in HIV awareness and treatment.

# QUESTIONS?

