



# PrEP Awareness and Use among Reproductive Age Women in Miami, Florida

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## Introduction

- Florida has one of the highest rates of HIV incidence and prevalence in the US.
- Risk factors for HIV in women include recent STI, bacterial vaginosis (BV), sexual behaviors, substance use, and partner violence.
- Pre-exposure prophylaxis (PrEP) is an effective HIV prevention tool
- Overall, PrEP awareness and uptake are low among women in the US (awareness levels 10–20% across settings).
- The objective of this study was to identify factors associated PrEP awareness and uptake among sexually active women of reproductive age in Miami-Dade County, Florida.

## Methods

- From 11/2018 – 1/2022, cisgender, sexually active women between the ages of 18-45 were enrolled to complete an online survey
- PrEP awareness was defined as responding ‘yes’ to “Have you ever heard of PrEP?”
- The proportion of PrEP awareness was evaluated using Chi-square, Fisher’s exact test or studentized t-test where appropriate.
- A multivariable unconditional logistic regression was performed, and maximum likelihood estimates of factors contributing to PrEP awareness were obtained.

## Acknowledgments

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## Results

**Table 1. Sociodemographic, History of Pregnancy, and Contraceptive Use by PrEP Awareness Status (n = 295)**

	PrEP Aware* (n = 185)	PrEP Unaware* (n = 110)	p
Age – years, median (IQR)	32 (25 – 39)	29 (22 – 37)	0.06
Race – n (%) <sup>a</sup>			<b>&lt;0.01</b>
Black or African American	107 (74.3)	37 (25.7)	
White	61 (52.6)	55 (47.4)	
Other	17 (48.6)	18 (51.4)	
Ethnicity - n (%)			<b>&lt;0.01</b>
Hispanic	43 (43.4)	56 (56.6)	
Non-Hispanic	142 (72.4)	54 (27.6)	
Heterosexual - n (%)	135 (57.5)	100 (42.6)	<b>&lt;0.01</b>
Relationship Status – n (%) <sup>b</sup>			0.59
Legally Married	19 (55.9)	15 (44.1)	
Unmarried with Partner	35 (70.0)	15 (30.0)	
Single	107 (62.6)	64 (37.4)	
Other	24 (60.0)	16 (40.0)	
Employment (Full or Part-time) – n (%)	75 (58.1)	54 (41.9)	0.15
Below Poverty Line – n (%)	98 (72.6)	37 (27.4)	<b>&lt;0.01</b>
Educational Attainment – n (%)			0.32
Less than High School	31 (75.6)	10 (24.4)	
Completed High School	56 (62.2)	34 (37.8)	
Some College or Associates Degree	49 (57.7)	36 (42.4)	
Completed 4 years of college	31 (58.5)	22 (41.5)	
Attended or Completed Graduate School	18 (69.2)	8 (30.8)	
Lifetime History of Any Pregnancy – n (%)	112 (67.5)	54 (32.5)	0.06
Contraception Use <sup>c</sup> – n (%)	27 (52.9)	24 (47.1)	0.11

\*PrEP Aware - persons who heard about PrEP; PrEP Unaware – persons who never heard about PrEP.

<sup>a</sup>Asian, Native American, Native Hawaiian or Pacific Islander were collapsed into Other.

<sup>b</sup>Widowed, divorced, separated, and never married were collapsed into Unmarried.

<sup>c</sup>Contraceptive use refers to pills, patch, ring, implant (etonogestrel), or depot (DMPA).

**Table 2. Risk Behaviors, BV, and STI by PrEP Awareness Status (n = 295)**

	PrEP Aware* (n = 185)	PrEP Unaware* (n = 110)	p
Current PrEP use – n (%)	10 (100.0)	N/A	N/A
Lifetime History of HIV Test – n (%)	159 (70.7)	66 (29.3)	<b>&lt;0.01</b>
Current Diagnosis of Bacterial Vaginosis – n (%)	105 (72.4)	40 (27.6)	<b>&lt;0.01</b>
Lifetime History of Any Substance Use <sup>a</sup> – n (%)	98 (65.3)	52 (34.7)	0.34
Any Alcohol Use in Past Month – n (%)	109 (63.4)	63 (36.6)	0.78
Age at First Sexual Encounter – median (IQR)	16 (14–18)	17 (15–18)	0.12
Any Sexual Encounters in Past Month <sup>b</sup> – n (%)	161 (62.4)	97 (37.6)	0.77
Condom Use during Vaginal Sex in Past Month – n (%)			0.11
Always used Condoms	41 (69.5)	18 (30.5)	
Sometimes used Condoms	25 (50.0)	25 (50.0)	
Never used Condoms	88 (62.9)	52 (37.1)	
New Male Sexual Partners in Past Month – n (%)	34 (54.0)	29 (46.0)	0.11
Number of Male Sexual Partners in Past Month – $\mu \pm SD$	1.8 $\pm$ 3.15	1.3 $\pm$ 0.95	<b>0.04</b>
Number of Male Sexual Partners in past 5 years – $\mu \pm SD$	5.5 $\pm$ 7.95	4.5 $\pm$ 5.98	0.25
Number of Sexual Encounters in Past Month <sup>b</sup> – $\mu \pm SD$	6.5 $\pm$ 7.92	6.8 $\pm$ 7.33	0.68
Lifetime History of Sex with Women – n (%)	57 (77.0)	17 (23.0)	<b>&lt;0.01</b>
Lifetime History of Sex for Drugs, Money, or Shelter – n (%)	17 (85.0)	3 (15.0)	<b>0.03</b>
Current STI <sup>c</sup> (n = 140) - n (%)	29 (80.6)	7 (19.4)	0.19

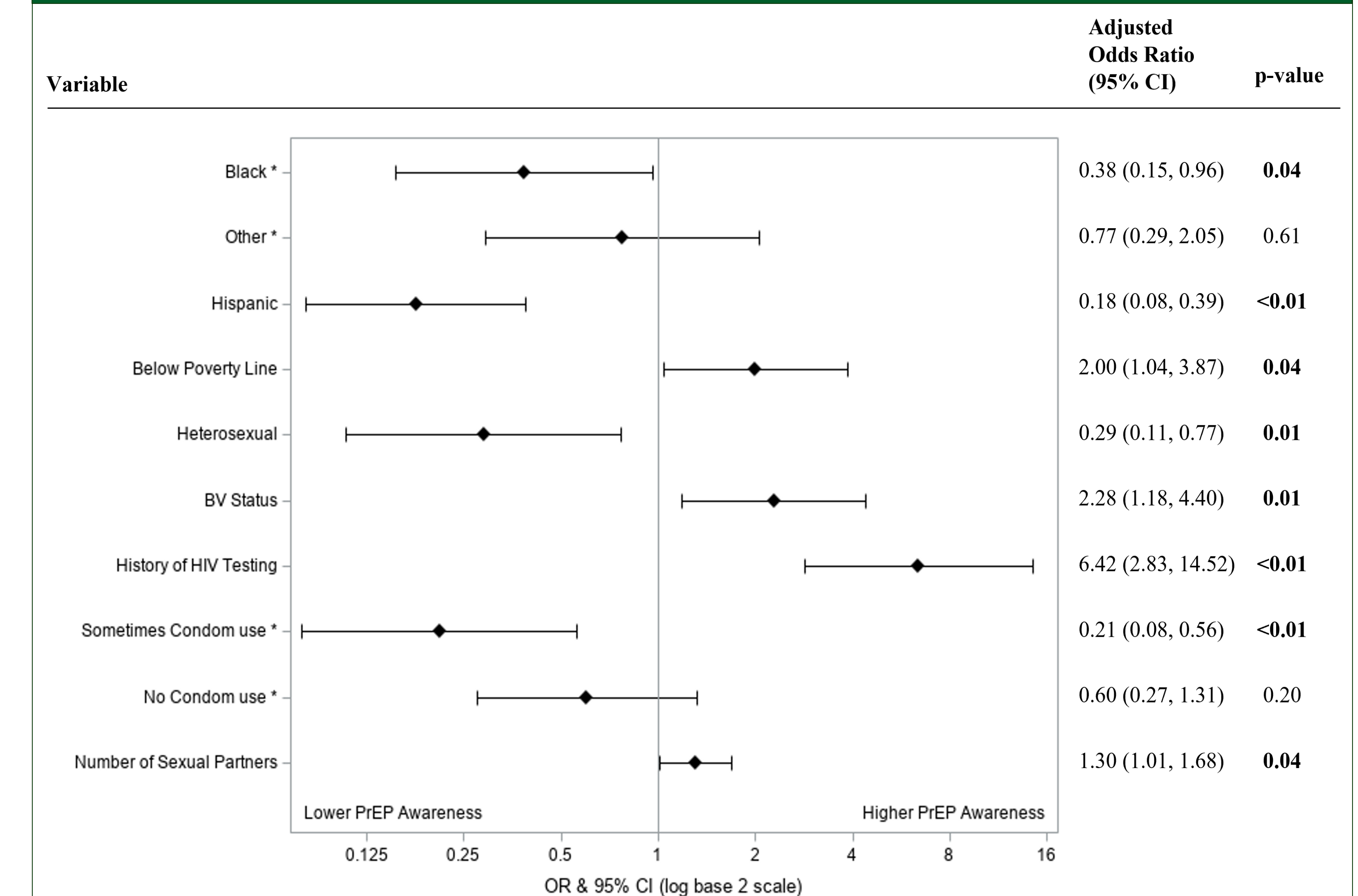
\*PrEP Aware - persons who heard about PrEP; PrEP Unaware – persons who never heard about PrEP.

<sup>a</sup>Substance use includes medical or recreational marijuana, cocaine, crack, heroin, methamphetamine, hallucinogens, club drugs, or any other illicit or recreational drugs.

<sup>b</sup>Sexual Encounters includes any vaginal, oral, or anal sex with any partner.

<sup>c</sup>Sexually transmitted infections were laboratory confirmed and include gonorrhea, chlamydia, and trichomonas.

**Figure 1. Adjusted Odds Ratios for PrEP Awareness, by Predictors (n = 247)**



\*Note. Reference Category for Race was White & Condom Use was “Always”

**Legend.** Predictors of PrEP awareness in a multivariable logistic regression model containing race, ethnicity, poverty line status, sexual orientation, current diagnosis of bacterial vaginosis, lifetime history of HIV testing, past-month condom uses with men, and number of male sexual partners. Adjusted odd ratios (aORs) were calculated and presented using a log base 2 scale in a Forest Plot. Null line is indicated for no predictor effects and bolded lines represent aORs with 95% confidence intervals. Bolded lines above and below the null line indicate increased or decreased odds of PrEP awareness, respectively.

## Discussion

- Ethnic and racial disparities in PrEP awareness persist. PrEP awareness was lower among Hispanic women vs non-Hispanic women; and Black vs white women.
- Heterosexual women and women with inconsistent condom use were less likely to know about PrEP compared to lesbian/bisexual women and women who always used condoms.
- Multi-level interventions to provide access to PrEP information, address medication costs, and heighten motivation for PrEP should be explored as strategies to increase PrEP awareness and uptake among Black, Hispanic, and heterosexual women in South Florida.