

Background

- Recent studies have suggested that PrEP is a potential facilitator of serodifferent partnerships among men who have sex with men (MSM).¹
- However, HIV stigma may diminish its influence.
 - HIV stigma has been found to be higher in people who have never used PrEP. Those who have higher HIV stigma rated online profiles with HIV-positive characteristics as less attractive and less desirable when compared to HIV-negative profiles with and without PrEP use specified.²
- Perceived societal HIV stigma is a well-documented barrier to accessing PrEP³, but little is known about its effect on the association between PrEP status and people's openness to engaging in serodifferent partnerships.

Study Objective

- This study evaluated the association between PrEP status and openness to serodifferent partnering and the moderating effect of perceived societal stigma.

Methods

- HIV-negative and status-unknown MSM completed an online survey ($n = 308$) (2019-2020).
- Participants were recruited via a dating app, social media, and participant referral.

Eligibility Criteria

- 18+ years old
- Identifies as "man" or "transgender man"
- HIV-negative or status unknown
- Living in the United States
- Has sex with men
- Able to read and answer questions in English

Online Survey

- Survey participants reported PrEP status, perceived social HIV stigma, openness to serodifferent sexual partnering, and background characteristics.
- Participants indicated that they are either currently using PrEP, used PrEP in the past but not currently, or have never used PrEP.
- Participants responded either agree or disagree to 12 dimensions of the Attributed Stigma Scale (e.g., "Most people would not date a person they know has HIV").⁴ These 12 dimensions were added together to create a Perceived Societal HIV Stigma score.
- Openness to serodifferent partnering was examined in 4 scenarios, which varied by condom use (with/without) and partner viral load status (detectable/undetectable). For each scenario, options ranged from 1 "Not at all Open" to 5 "Extremely Open."
- Regression analyses were conducted to test partial, conditional, and interaction effects, adjusting for background characteristics.

Results

Sample Characteristics

- Participant characteristics are presented in **Table 1**. Participants ranged in age from 18-75 years ($M(SD)=40(12.8)$). The majority of participants were gay, White, employed full-time, and do not currently have a main sexual partner.

Differences Based on PrEP Status

- Across scenarios, PrEP users expressed greater openness to serodifferent partnering: 33-91% of current users, 21-84% of former users, and 10-77% of never-PrEP users reported being "very" or "extremely" open. **Figure 1** presents mean ratings of openness for the 4 different partnering scenarios by PrEP status. Current PrEP users were more open across all 4 scenarios.
- Adjusting for background characteristics, HIV stigma moderated the association between PrEP status and openness to sexual partnering with a detectable partner using condoms.
 - HIV stigma was negatively associated with openness to serodifferent partnering [$b(SE)=-0.08(0.04)$, $p=0.038$] among never-PrEP users but not current or former PrEP users. **Figure 2** presents this moderating effect of perceived societal HIV stigma.
- HIV stigma did not moderate this association in the other scenarios, in which never PrEP users reported low openness for Without Condom scenarios and had no change in openness regardless of HIV stigma for the Undetectable/With Condom scenario.

Table 1. Survey Participant Characteristics ($n = 308$)

	n (%)
Age	
18-25 years	46 (15.0)
26-45 years	163 (52.9)
46+ years	99 (32.1)
Race	
American Indian or Alaska Native	3 (1.0)
Asian	23 (7.5)
Black or African American	17 (5.5)
White	229 (74.4)
Other	36 (11.6)
Ethnicity	
Non-Latinx/Hispanic	266 (86.4)
Latinx/Hispanic	42 (13.6)
Education	
<Bachelor's degree	116 (37.7)
≥Bachelor's degree	192 (62.3)
Employment Status	
Employed (full-time or part-time)	234 (76.0)
Unemployed	22 (7.1)
Student	25 (8.1)
Retired	14 (4.6)
Other	13 (4.2)
Annual Household Income	
<\$10,000	26 (8.4)
\$10,000-\$29,999	55 (17.9)
\$30,000-\$49,999	62 (20.1)
\$50,000-\$69,999	37 (12.0)
\$70,000-\$89,999	33 (10.7)
≥\$90,000	94 (30.5)
N/A	1 (0.3)
Sexual Orientation	
Gay	244 (79.2)
Bisexual	45 (14.6)
Heterosexual	2 (0.7)
Other	17 (5.5)
Main Sexual Partner	
No	269 (87.3)
Yes	39 (12.7)

Comparing the Mean Scores of the 4 Openness to Serodifferent Partnering Scenarios by PrEP Status

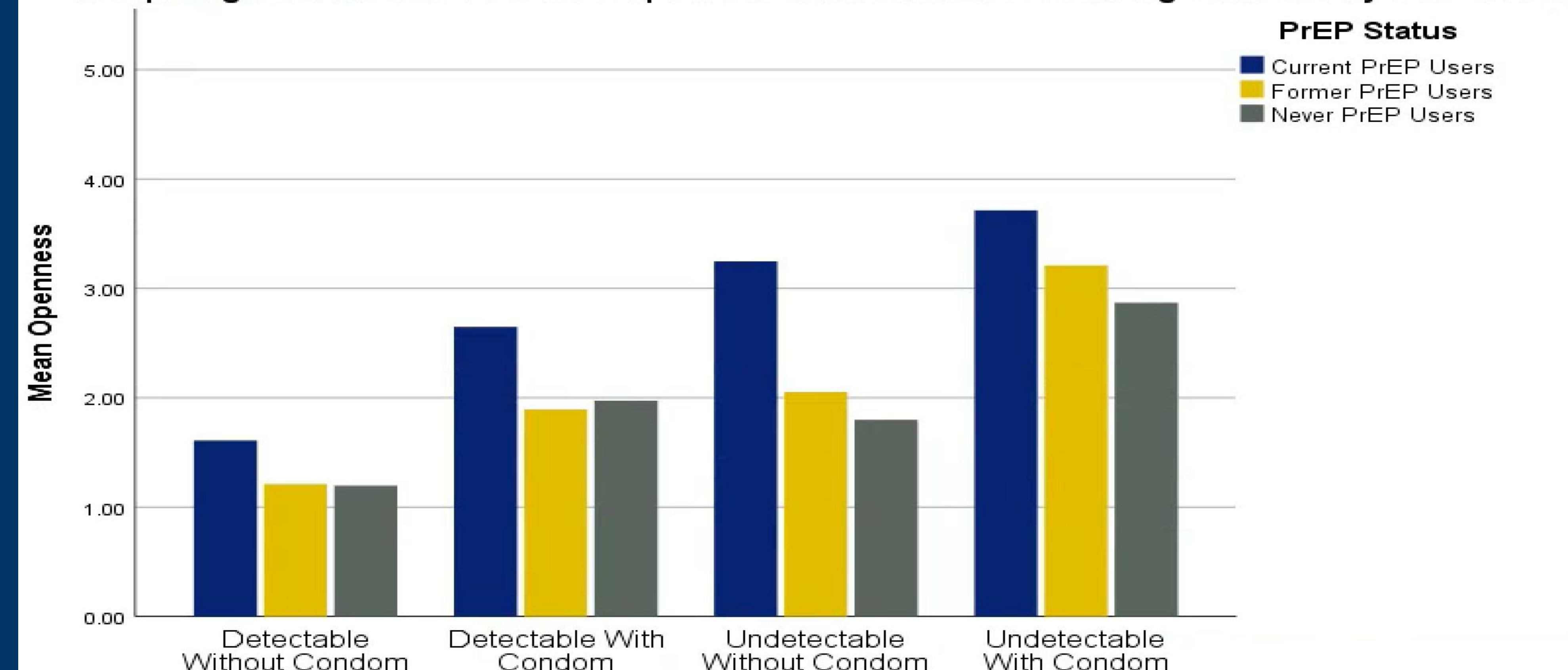


Fig 1. Openness to Serodifferent Partnering. Each participant indicated their openness to having sex with a person living with HIV in 4 different serodifferent partnering scenarios. Mean ratings are displayed by PrEP Status.

The Association Between PrEP Status and Openness to Serodifferent Partnering Moderated by HIV Stigma [Detectable Viral Load with Condoms Scenario]

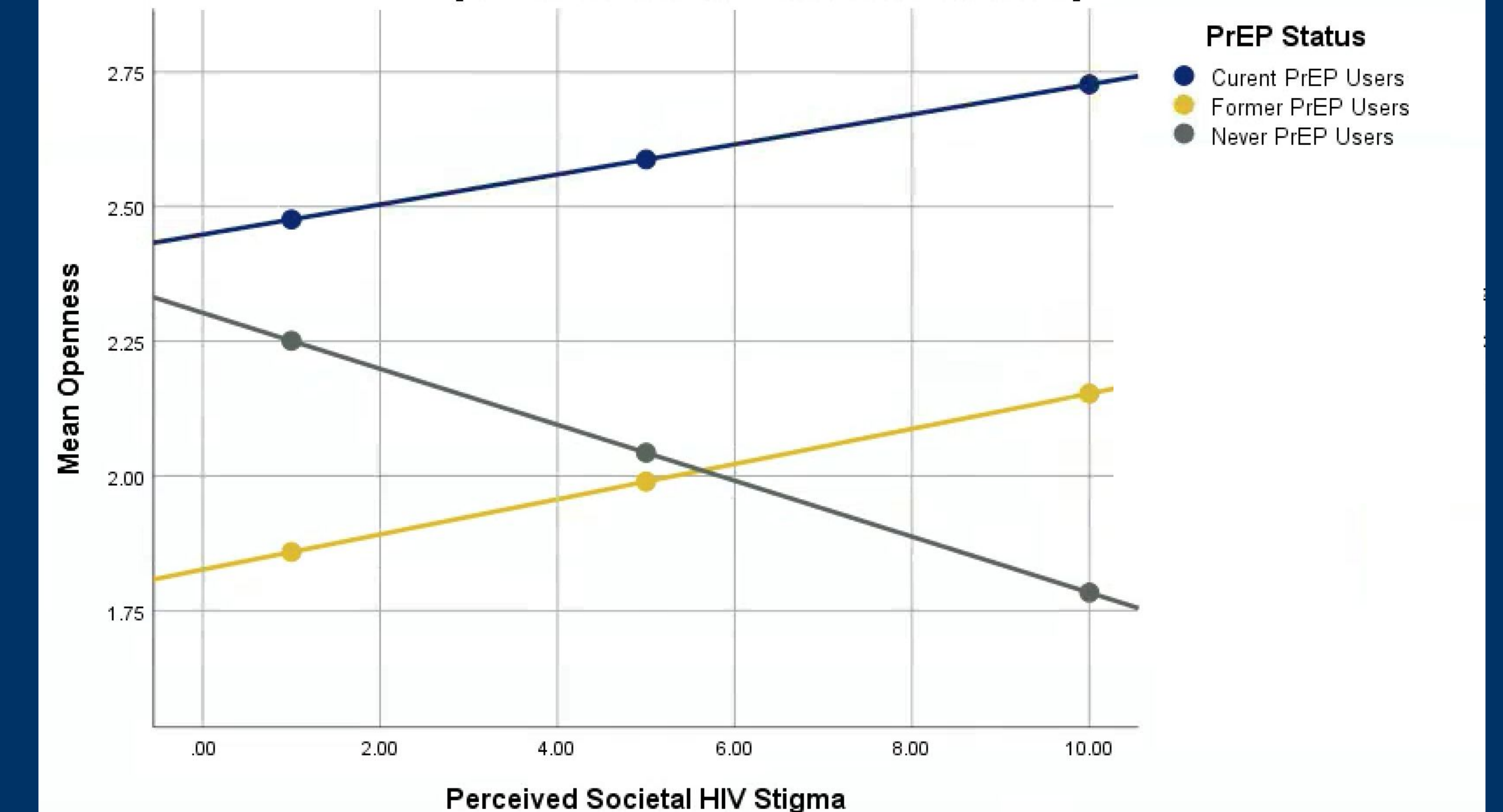


Fig 2. The Effect of HIV Stigma. Each participant indicated agree or disagree for 12 questions related to perceived societal HIV Stigma. The moderating effect of HIV stigma on the association between PrEP status and openness to serodifferent partnering is displayed.

Discussion

- Current PrEP users expressed far more openness to serodifferent partnering compared to both former and never PrEP users.
- While greater levels of perceived societal HIV stigma decreased the openness to serodifferent partnering in the Detectable/With Condom scenario for never-PrEP users, this association was non-significant in the other 3 partnering scenarios, and was non-significant in all scenarios for current and former PrEP users.

Limitations

- Surveys were completed online and all responses were self-reported.
- It remains unclear whether people who use PrEP had higher openness to serodifferent partnerships prior to PrEP uptake, or if currently using PrEP increases such openness.

Conclusions

- Current PrEP users may be more open to serodifferent partnering and less vulnerable to societal HIV stigma than non-users.
- Results suggest PrEP may help facilitate serodifferent partnering and overcome HIV stigma as a barrier to such partnerships.

1 Holt M, Draper BL, Pedrana AE, Wilkinson AL, Stoové M. Comfort Relying on HIV Pre-exposure Prophylaxis and Treatment as Prevention for Condomless Sex: Results of an Online Survey of Australian Gay and Bisexual Men. *AIDS Behav.* 2018;22:3617-3626.
 2 Golub SA, Lelutiu-Weinberger C, Surace A. Experimental Investigation of Implicit HIV and Preexposure Prophylaxis Stigma: Evidence for Ancillary Benefits of Preexposure Prophylaxis Use. *J Acquir Immune Defic Syndr.* 2018;77:264-271.
 3 Galea J, Kinsler J, Salazar X, et al. Acceptability of pre-exposure prophylaxis as an HIV prevention strategy: Barriers and facilitators to pre-exposure prophylaxis uptake among at-risk Peruvian population. *Int J STD AIDS.* 2011;22:256-262.
 4 Visser MJ, Kershaw T, Makin JD, Forsyth BWC. Development of parallel scales to measure HIV-related stigma. *AIDS Behav.* 2008;12:759-771.

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 - (e.g., “If you were not in a monogamous sexual relationship, how open would you be to having sex with: A man who is living with HIV and has a DETECTABLE viral load (NOT virally suppressed), WITHOUT a condom”).
- Regression analyses were conducted to test partial, conditional, and interaction effects, adjusting for background characteristics.

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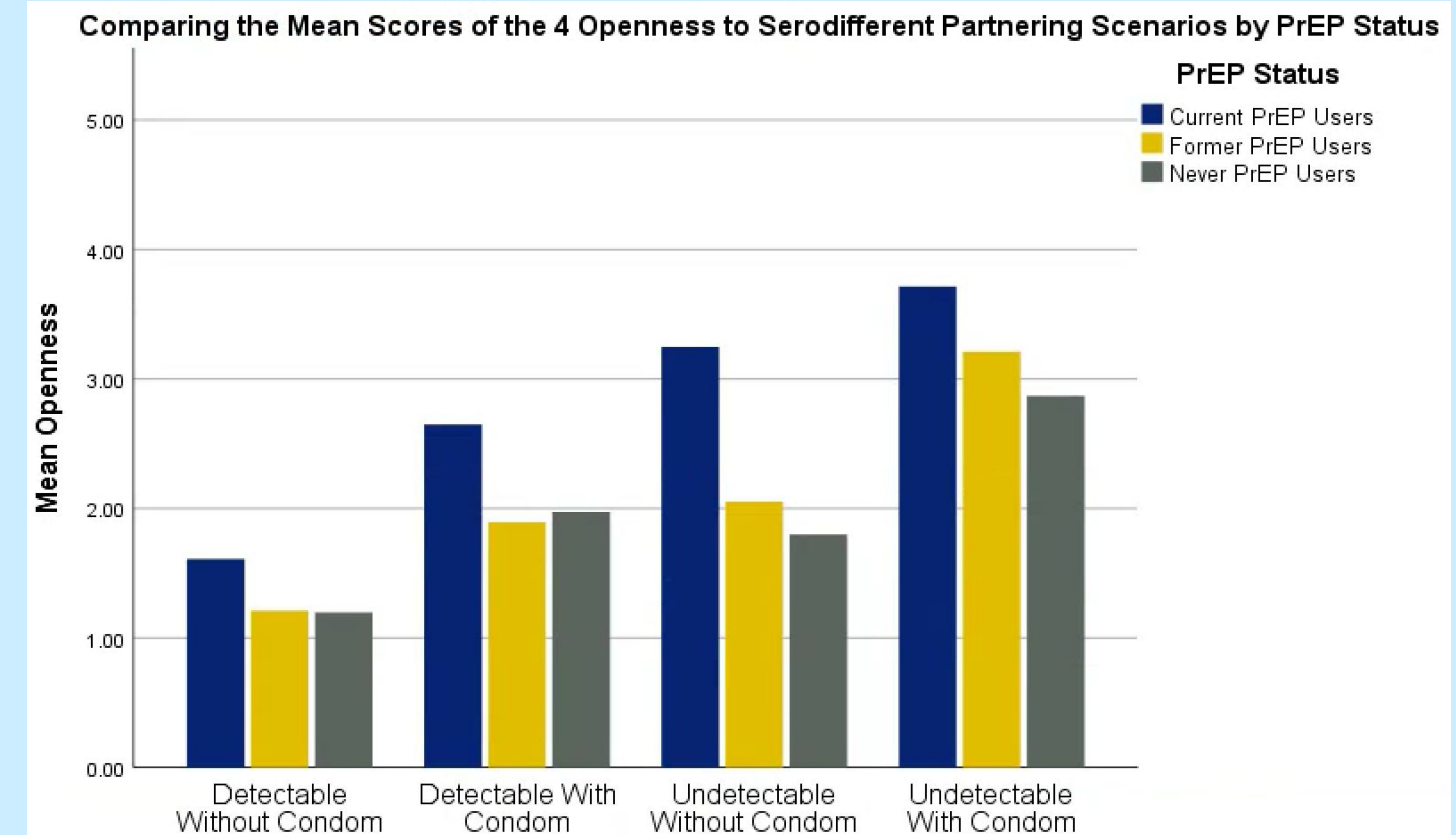


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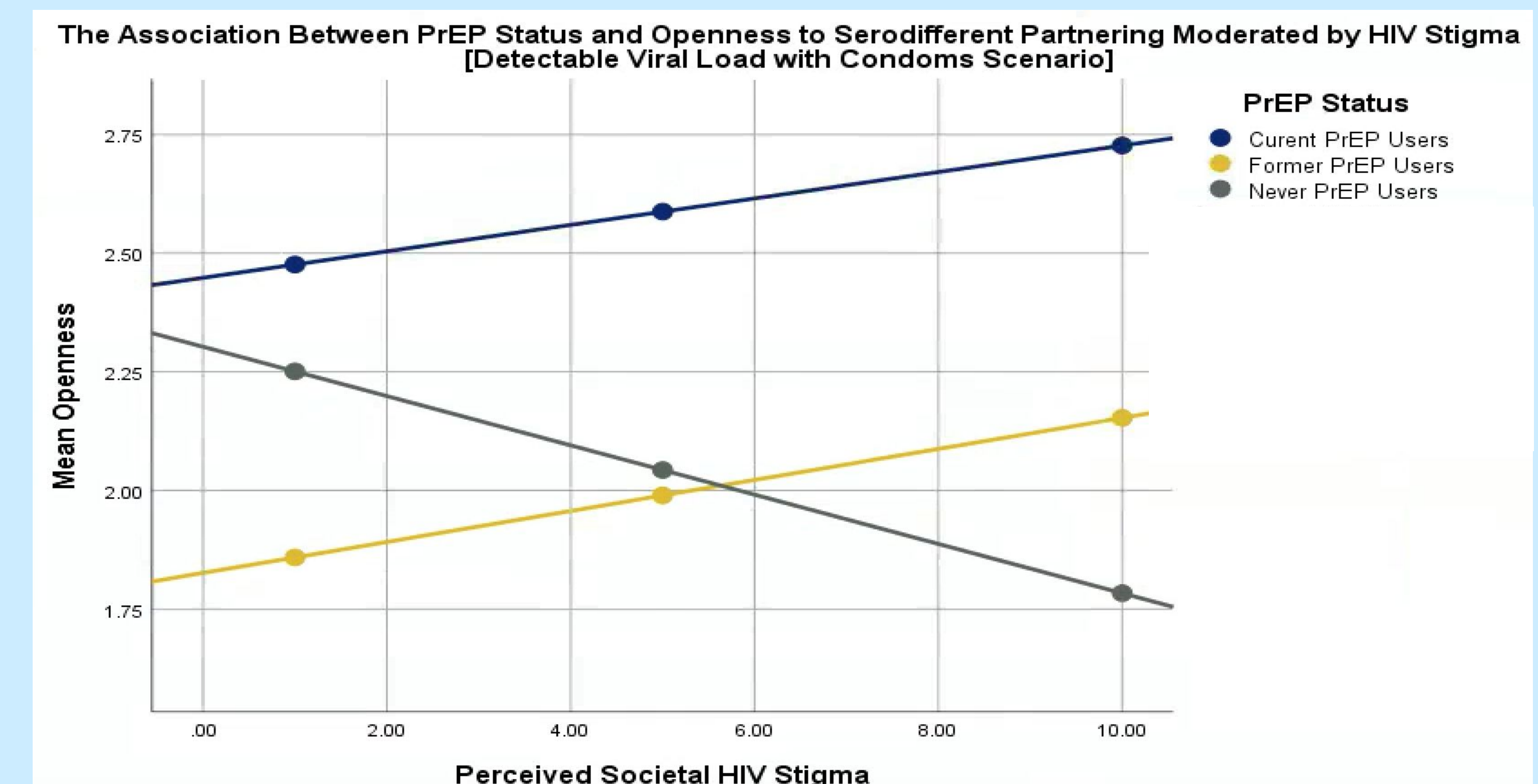


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