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# Comparison of Behavioral Factors in Men Who Have Sex with Men who go on PrEP by Partner Status

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CV AND HIV DIAGNOSIS. PREVENTION AND ACCESS TO CARE

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## Background

Men who have sex with men (MSM) who have a single serodiscordant partner have a relatively low risk of HIV transmission if that partner's HIV viral load is suppressed, however, these same individuals still seek pre-exposure prophylaxis (PrEP) with tenofovir/emtricitibine (TDF/FTC)

# Objective

• To explore the behavioral risk factors of MSM in single serodiscordant partnerships compared to other MSM that started PrEP.

### **Methods**

- Subjects were sexually active HIV-uninfected MSM enrolled at four Southern California sites to receive pre-exposure prophylaxis
- Subjects are in study that is randomized (1:1) to either TDF/ FTC with routine prevention services or TDF/FTC/ prevention services and text message reminders for adherence.
- Subjects with single serodiscordant partnerships were asked if their partner was on antiviral therapy and if his HIV viral load was undetectable.
- Baseline factors were compared between subjects that reported a single serodiscordant partner (one HIV serodiscordant partner for  $\geq$  4 weeks and those  $\geq$ 3 male partners with HIV-positive or unknown HIV status OR condomless anal sex with  $\geq 1$  male partner and had a sexually transmitted infection (STI).
- Groups were compared at baseline for demographics, number of condomless anal sex acts, STI prevalence, sexual compulsivity, and use of methamphetamine and other substances of abuse.

•Baseline characteristics (table 1) found that 49% had at least one regular HIV+ partner, and 12% had only a single serodiscordant partner as their risk for HIV. Among that group 91% reported that their single partner was on antiretroviral medication and all but two of them were confident their partners were suppressed on there medication.

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> *Table 1* N (%): number (percentage) of participants; HIV: human immunodeficiency virus, ARV: antiretroviral therapy; STI: sexually transmitted infection; RPR: rapid plasmin reagin; GC: gonorrhea; CT: chlamydia \*condomless sex with 3 or more partners past 3 months \*\* had at least one male partner and a diagnosis of STI in past 3 months

### Results

### **Baseline Characteristics**

•There were 399 individuals in analysis.

racteristics		
		N (%)
		399
n Age		35.2
9	White Black Other	289 (74%) 61 (16%)
icity	Hispanic	116 (30%)
cation	≤High school	36 (9%)
thly Income	<\$2000	81 (24%)
der of Partners (n=384)	Male M to F	379 (99%) 7 (2%)
	Female	2 (<1%)
le Serodiscordant partner	Total (n=351) Partner on ARVs (n=43)	43 (12%) 39 (91%)
	Partner Suppressed (n=39)	37 (95%)
IV+ partner for >4weeks		193 (49%)
ale partners in 3 months*		272 (69%)
diagnosis pat 3 months**		64 (16%)
at baseline	RPR+ GC or CT any site	30 (8%) 77 (20%)

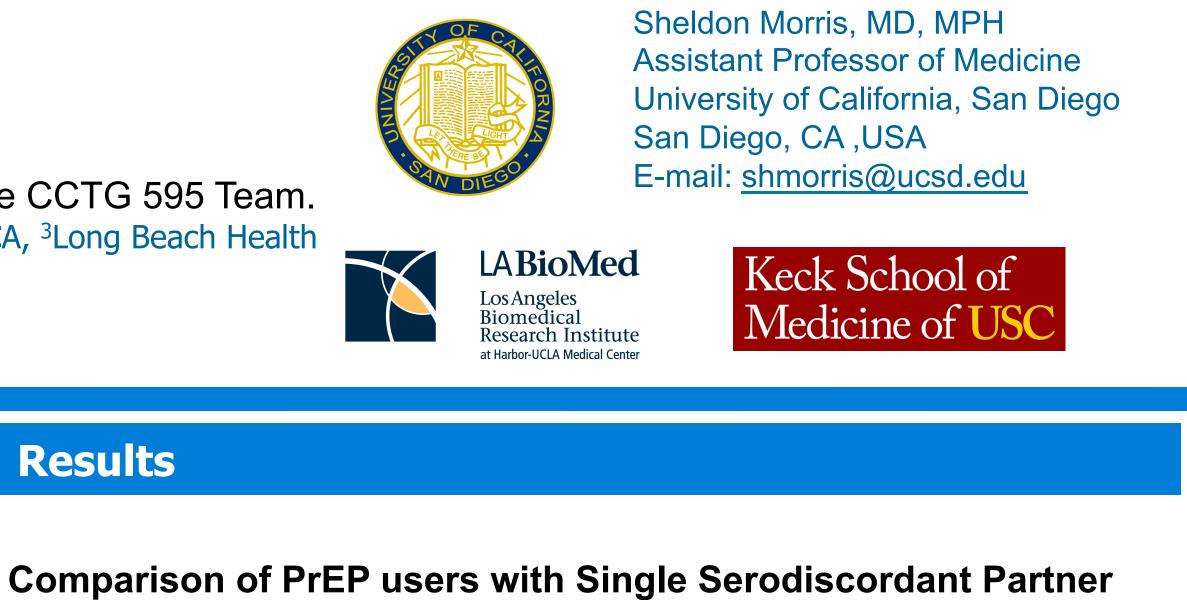
### **Tables 1: Baseline Characteristics**

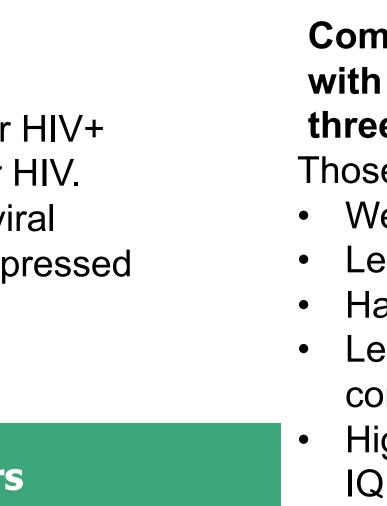
### **Table 2: Sexual Behaviors**

	Single Serodiscordant Partner
Subjects (N)	N (%)
Mean Age	35.0
Race: White	38 (79.2)
Hispanic Ethnicity	24 (51.1)
Any STI	5 (10.6)
RPR+	1 (2.1)
GC or CT any site	4 (8.5)
Median condomless anal sex acts past month (range)	2 (0-120)
Mean Sexual Compulsivity Score	1.38
Mean DAST Score	2.0
Mean AUDIT Score	5.1
Methamphetamine use	3 (6.3)

Table 2 N (%): number (percentage) of participants; STI: sexually transmitted infection; RPR: rapid plasmin reagin; GC: gonorrhea; CT: chlamydia; DAST: drug abuse screening test; AUDIT: alcohol use disorder identification tool; methamphetamine use is any use in past 3 months









Those with a single serodiscordant partner:

- Were more likely to be Hispanic (51.1% vs. 27.2%, p=0.002)
- Less likely to have an STI (10.6% vs. 27.9%, p=0.01)
- Had lower sexual compulsivity scores (1.4 vs. 1.7, p<0.001).
- Less than half the rate of any reported methamphetamine use (6.3%) compared to 17.3%, p=0.057)
- Higher median condomless anal sex acts in past month (median of 2, IQR 0-8.5, versus 1, IQR 0-4, p=0.162).

# Conclusions

- Individuals who have a single serodiscordant partner usually suppressed on ARVs still seek HIV pre-exposure prophylaxis.
- Sexual behavior and STI data support that these individuals are lower risk for HIV acquisition.
- These findings suggest that despite possible low risk of transmission there are perceived benefits of PrEP for individuals with a single serodiscordant partner.
- Further longitudinal data are needed to study changes in sexual behaviors of PrEP users in serodiscordant partnerships for change in partner number and practices.

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