



**Summit
Sommet**

Substance use, condomless anal sex, and STI outcomes among MSM who do and do not use PrEP: Preliminary results from the Engage Study

Trevor A. Hart^{1,2}, Syed W. Noor¹, Shayna Skakoon-Sparling¹, Herak Apelian^{2,3}, Daniel Grace⁴, Joseph Cox³, Gilles Lambert⁴, Nathan Lachowsky⁵, David Moore^{6,7}

¹ Ryerson University, ² McGill University, ³ Santé Publique Montréal, ⁴ University of Toronto, ⁵ University of Victoria, ⁶ University of British Columbia, ⁷ BC Centre for Excellence in HIV/AIDS

Background

- ▶ Following Health Canada's approval in 2016, use of Pre-Exposure Prophylaxis (PrEP) seems to have increased among gay, bisexual, and other men who have sex with men (GBM) (Dulai et al. 2017; Lachowsky et al. 2016)
- ▶ However, GBM on PrEP may engage in more condomless anal sex (CAS) while using PrEP (Chen et al. 2016; 2018)
- ▶ The current study compared GBM PrEP users and non-users on CAS with a male partner, substance use, and STI diagnoses.

Methods

- ▶ Mixed-Method Cross-Sectional study being conducted in Vancouver, Toronto, and Montreal
- ▶ Data collected using Respondent-Driven Sampling
- ▶ Recruiting cisgender and transgender men who:
 - ▶ Are 16 years of age or older
 - ▶ Reported having sex with another man in the past 6 months
- ▶ Participants complete computer-assisted surveys and biomedical testing (i.e.: STI testing)

Results – Prevalence of PrEP Use

► PrEP Use (within last 6 months)

	YES	NO
	418 (23%) RDS Adj. = 16%	1,401 (77%) RDS Adj. = 84%
Vancouver	23%	77%
Toronto	21%	79%
Montreal	11%	89%

Sexual and substance use - binary

- ▶ Multivariable Comparisons
(adjusted for city of recruitment, age, race/ethnicity, annual income, relationship status, sexual orientation and recruitment clustering.)

	PrEP Users	Not PrEP Users	aOdds Ratio	95% CI	<i>p</i>
Condomless Anal Sex (Yes)	86%	62%	3.51	2.64 – 4.68	< .001
Party Drug Use (2 or more)	53%	33%	2.38	1.91 – 2.97	< .001
Substance use before/during Sex (Yes)	51%	48%	1.16	.94 – 1.45	.16
Transactional Sex (Yes)	2%	3%	.72	.35 – 1.51	.39

Sexual and substance use - count outcomes

- ▶ Multivariable Comparisons
(adjusted for city of recruitment, age, race/ethnicity, annual income, relationship status, sexual orientation and recruitment clustering.)

	PrEP Users	Not PrEP Users	aBeta*	95% CI	P
Number of male sex partners, last 6 months (Median)	6	2	12.92	9.75 – 16.08	< .001
Number of male anal sex partners (Median)	3	1	10.16	7.84 – 12.49	< .001
Number of substance use (Median)	1	0	0.96	0.67 – 1.22	< .001

* = Poisson model

STBBI Outcomes

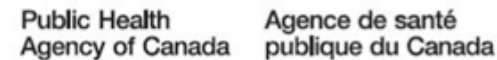
- ▶ Multivariable Comparisons
(adjusted for city of recruitment, age, race/ethnicity, annual income, relationship status, sexual orientation and recruitment clustering.)

	PrEP Users	Not PrEP Users	Odds Ratio	95% CI	<i>p</i>
Presence of Gonorrhea (Yes)	6%	4%	2.15	1.32 – 3.51	.002
Presence of Chlamydia (Yes)	8%	4%	1.94	1.29 – 2.92	.001
Presence of Syphilis (Yes)	17%	10%	1.98	1.46 – 2.69	<.001
Presence of Hep C (Yes)	1%	3%	0.64	.23 – 1.82	.41

Conclusions

- ▶ Although previous research suggests that not all guys at risk for HIV use PrEP (Wilton et al. 2016), our data suggest that guys on PrEP are more likely to be the men we need to be reaching to reduce the burden of STIs in our community
 - ▶ More likely to have CAS and more sex partners
- ▶ Continued need to test and treat PrEP users for STIs
 - ▶ Higher point-prevalence of syphilis, gonorrhea, and chlamydia

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