

**Background**

This observational cohort study measured the impact of same-day PrEP initiation among gay, bisexual, and other men who have sex with men (gbMSM) in Ontario. Traditional PrEP care cascades involve multiple steps over time often at different locations, as well as significant wait times. Same-day initiation of PrEP could increase PrEP uptake through consolidation of the offer of PrEP, acceptance, screening, referral and initiation.

**Materials and Methods**

Individuals at HQ clinic, aged 16 years and older, seeking either sexually transmitted and bloodborne infection (STBBI) testing or to start PrEP, and not currently on PrEP, were eligible to participate. PrEP eligibility and identification was determined using a modified HIRI score during intake. Participants underwent HIV testing at baseline by 4th generation serologic testing after patients accepted PrEP initiation (in contrast with past studies where HIV testing occurred prior to identification) [1]. PrEP offers (TAF/FTC) were made immediately following HIV testing. The primary endpoint was the proportion of eligible PrEP users initiating PrEP within 24 hours compared to historical rates within other clinics in Ontario. Secondary endpoints included demographic data analysis, renal safety, and PrEP retention at 6 months (defined as receiving a 90-day supply 3 or more times in the 6 month period).

**Results**

887 individuals were offered testing with rapid PrEP initiation (identification). Baseline HIV positivity was 1.5%, and those individuals were excluded from the study (n=13, excluded at offer).

Fifty-seven individuals did not start PrEP within twenty-four hours from initial screening (6.4%, excluded at acceptance/uptake), while 817 individuals initiated PrEP, (92.1%, attendance/uptake).

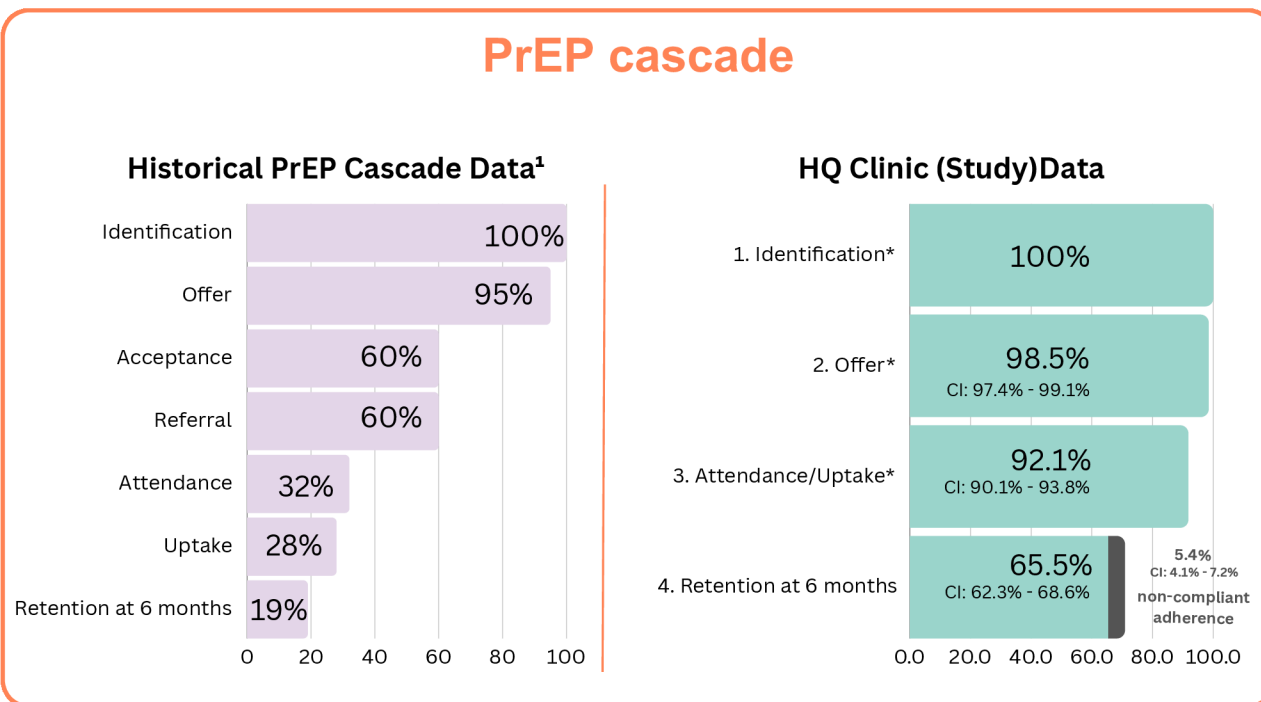
By six months, 188 individuals had either stopped PrEP or were lost to follow-up (21.2%), 581 individuals were retained on PrEP (65.5%), and 48 individuals (5.4%) were inconsistently taking their PrEP leading to non-compliant adherence (individuals with a gap of at least 6 months between prescriptions).

Five individuals had an eGFR less than 60mL/min/1.73m<sup>2</sup> when starting PrEP with TAF/FTC, no one had an eGFR of less than 30mL/min/1.73m<sup>2</sup>. Eighteen individuals had eGFR less than 60 sometime during the study with return to normality for those without baseline renal dysfunction, these were deemed to be unrelated to the study drug.

**Table 1 - PrEP Cascade Study Demographics**

		HQ Clinic Study (n (%))
<b>Age (Mean (SD))</b>		31 (8.5)
<b>Gender</b>	Cis-gender	732 (89.6%)
	Non-Cis	68 (8.3%)
	Prefer not to answer	17 (2.1%)
<b>Ethnicity</b>	Asian	191 (23.4%)
	Latine	191 (23.4%)
	Black	52 (6.4%)
	Middle Eastern	36 (4.4%)
	Indigenous	4 (0.5%)
	Mixed Race	44 (5.4%)
	White	259 (31.7%)
	Other	17 (2.1%)
	Prefer not to answer	23 (2.8%)
<b>Immigration status</b>	Citizen	368 (45.0%)
	Permanent Resident	112 (13.7%)
	Refugee	29 (3.5%)
	Temporary resident	308 (37.7%)

**PrEP cascade**



**Table 2 - Renal Safety**

		Value
<b>Baseline eGFR &lt;60</b>	Count	5
	Count	18
<b>eGFR &lt;60 during study period</b>	Cr (µmol/L) Min	94
	Cr (µmol/L) Max	178
	eGFR (mL/min/1.73m <sup>2</sup> ) Min	40
	eGFR (mL/min/1.73m <sup>2</sup> ) Max	59
<b>Overall eGFR (mL/min/1.73m<sup>2</sup>)</b>	Median	102

**Conclusions**

Same-day initiation of PrEP significantly streamlines the PrEP cascade for high-risk populations, demonstrating improved uptake and retention rates among gay, bisexual, and other men who have sex with men (gbMSM) when compared to the traditional cascade. There were no renal safety concerns with rapid initiation using TAF/FTC.

**Affiliations**

- 1. Department of Medicine, McMaster University, Hamilton, Ontario, Canada
- 2. Department of Psychiatry, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada
- 3. HQ Health Hub, Toronto, Canada



**References**

[1] Pico Espinosa, O. J., Hull, M., Fisher, K., Mohammed, S., Tengra, Z., Chris, A., Clarke, B., Selfridge, M., Fraser, C., Lundgren, K., El Helou, P., Bannar Martin, S., Stark, W., Grennan, T., MacPherson, P., Bogoch, I., Hall, D., Junek, K., Woodward, K., Tran, N., & Tan, D. H. S. (n.d.). PrEP cascade among HIV negative gay, bisexual and other men who have sex with men (gbMSM) in Ontario and British Columbia. Baseline data from the PrEP Implementation Project (PRIMP). Presented at the European AIDS Conference. This research was supported by Gilead Sciences.