

Exploring the association between annual income of never- and former PrEP-using gay, bisexual, and other men who have sex with men and their willingness to use injectable PrEP

Ashan Wijesinghe^{1,2}, Oscar Javier Pico-Espinosa², Mark Hull³, Paul MacPherson⁴, Daniel Grace¹, Mark Gaspar¹, Kevin Woodward⁵, Nathan Lachowsky⁶, Saira Mohammed³, Karla Fisher⁷, Simon Rayek⁸, Camille Arkell⁹, Tyllin Cordeiro¹⁰, Garfield Durrant¹¹, Warren Greene¹², David Hall¹³, Matthew Harding¹⁴, Jody Jollimore¹⁵, Marshall Kilduff¹⁶, John Maxwell¹⁷, Leo Mitterni¹⁸, Eric Peters¹⁹, Robinson Truong^{1,2}, Darrell H. S. Tan^{1,2}

¹University of Toronto, Toronto, ON, Canada

²St. Michael's Hospital, Toronto, ON, Canada

³BC Centre for Excellence in HIV/AIDS, Vancouver, BC, Canada

⁴University of Ottawa, Ottawa, ON, Canada

⁵McMaster University, Hamilton, ON, Canada

⁶University of Victoria, Victoria, BC, Canada

⁷Toronto General Hospital, Toronto, ON, Canada

⁸Health Initiative for Men, Vancouver, BC, Canada

⁹Canadian AIDS Treatment Information Exchange (CATIE), Toronto, ON, Canada

¹⁰Alliance for South Asian AIDS Prevention (ASAAP), Toronto, ON, Canada

¹¹Black Coalition for AIDS Prevention (Black CAP), Toronto, ON, Canada

¹²Canadian Aboriginal AIDS Network, Fort Qu'Appelle, SK, Canada

¹³Vancouver Coastal Health, Vancouver, BC, Canada

¹⁴MAX Ottawa, Ottawa, ON, Canada

¹⁵Community-Based Research Centre, Vancouver, BC, Canada

¹⁶AVI Health and Community Services, Victoria, BC, Canada

¹⁷AIDS Committee of Toronto, Toronto, ON, Canada

¹⁸Hassle Free Clinic, Toronto, ON, Canada

¹⁹The Gay Men's Sexual Health Alliance, Toronto, ON, Canada



Background



- HIV Pre-exposure prophylaxis (PrEP) is a highly effective biomedical HIV prevention strategy currently only available in pill form in Canada.
- Long-acting injectable cabotegravir has been shown to be superior to daily oral TDF/FTC as HIV PrEP in recent trials.
- Long-acting injectable cabotegravir has since been approved for PrEP use in the USA, however, has not been submitted for Health Canada approval yet.
- In eliminating the pill burden, injectable PrEP has the potential to improve adherence, minimize perceived stigma, and address other challenges with oral PrEP acceptability and adherence.
- Since injectable PrEP might be costlier than generic TDF/FTC, we sought to understand how its acceptability might vary with income.



Methods



- Data source: the PrEP Implementation Project (PRIMP) Community Survey – a multi-centre, cross-sectional survey of gay, bisexual and other MSM (GBM) in urban BC and ON.
- Eligibility: HIV-negative never/former PrEP-users meeting Canadian PrEP guideline criteria (syphilis, rectal chlamydia/gonorrhoea, recurrent PEP, HIRI-MSM>25)
- Analysis: Multivariable logistic regression model estimating the association between income and willingness to use injectable PrEP, adjusted for age, previous PrEP use, post-secondary education, and ethno-racial identity.
 - Survey question: “Would you take PrEP if it was an injection by nurse/doctor every 8 weeks, instead of pills?”



Results

- 238 individuals were included
- 78% (185) were from ON
- 64% (150) were White
- 89% (212) had completed post-secondary education
- 47% (111) were former PrEP users
- Mean age was 31 years (SD=8.3)





Results, contd.

- Overall, 72% were willing to use injectable PrEP
- There was a negative association between annual income and willingness to use injectable PrEP
- Fewer never PrEP-users appeared willing to use injectable PrEP compared to former PrEP-users (66% vs 77%, $\chi=3.2$, $p=0.07$)

Willingness to use injectable PrEP by income brackets						
Income	Willingness to use Injectable PrEP (Y/N)		OR (95% CI)	p-value	aOR (95% CI)*	p-value
	Y (n=163)	N(n=63)				
Less than \$40,000pa	57 (81%)	13 (19%)	ref	-	ref	-
\$40,001pa - \$60,000pa	67 (66%)	34 (34%)	0.45 (0.21 -0.92)	0.03	0.35 (0.15 -0.75)	0.01
More than \$60,000pa	39 (71%)	16 (29%)	0.56 (0.24 -1.28)	0.17	0.41 (0.16 -1.02)	0.06

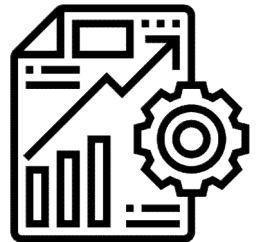
*Adjusted for previous PrEP use, age, education, and race.





Conclusions

- Among urban GBM meeting guideline criteria for HIV PrEP, those with lower income may be more amenable to injectable PrEP use than those with higher income.
- Investigating the reasons underlying this difference may help tailor PrEP delivery and optimize population-level impact in the future.



Acknowledgements:

- This work was supported by a grant from the Canadian Institutes of Health Research
- DHST is supported by a Tier 2 Canada Research Chair in HIV Prevention and STI Research
- DG is supported by a Tier 2 Canada Research Chair in Sexual and Gender Minority Health

