

# Applying a conceptual model of health care access to explore PrEP-uptake in a community-based sample of HIV-negative gay, bisexual, and other men who have sex with men (gbMSM) in Montreal



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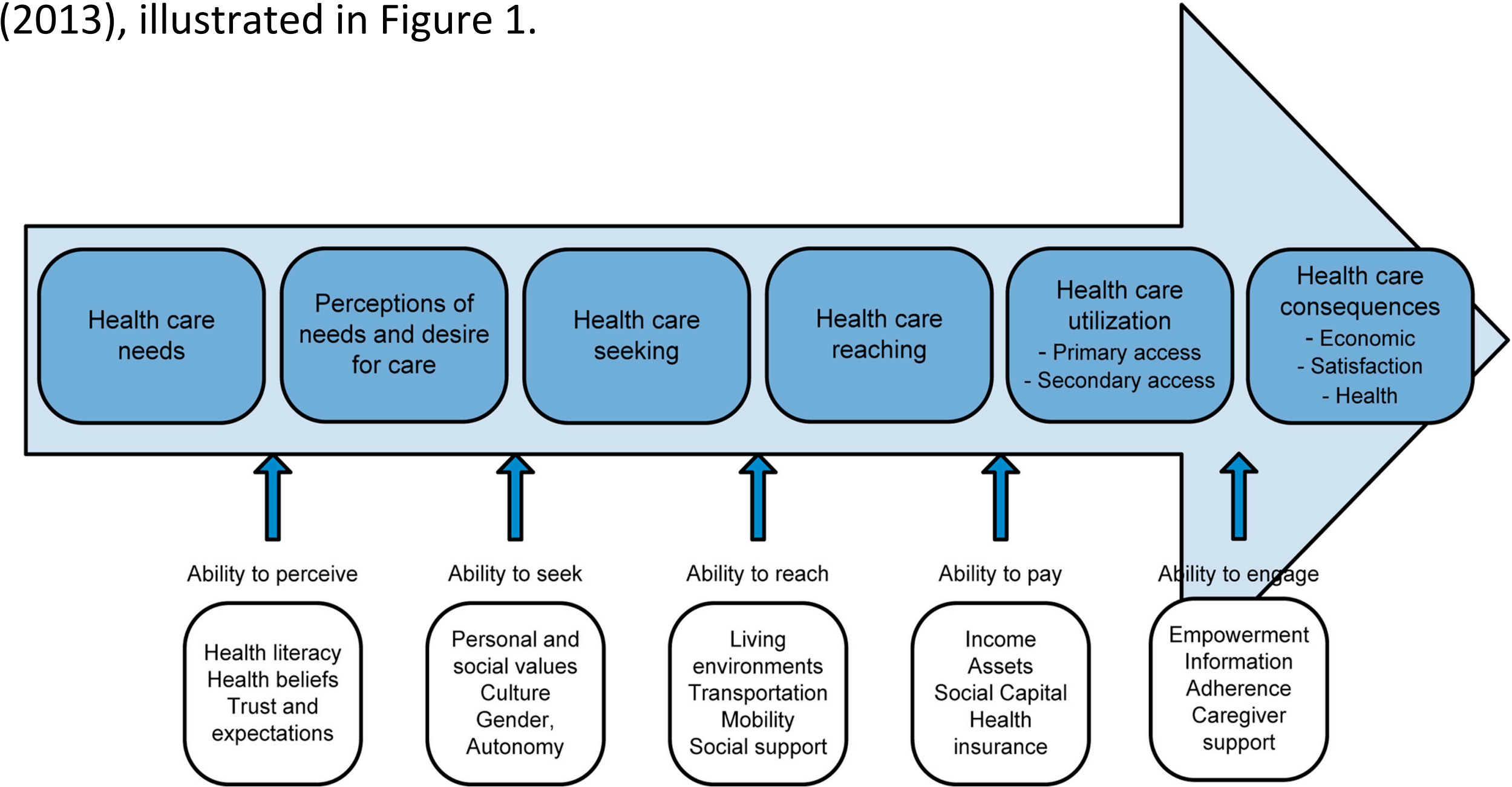
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## BACKGROUND

Pre-exposure prophylaxis (PrEP) is an emerging HIV prevention strategy. Canadian PrEP Guidelines have recently been published<sup>1</sup>. Previous studies have examined care cascades amongst gbMSM to identify barriers to PrEP-uptake<sup>2</sup>. We describe HIV-negative participants of the Engage study along a trajectory of access to PrEP, and explored factors related to PrEP-uptake.

## METHODS

Engage is a cross-sectional study in Montreal, Vancouver and Toronto. We recruited cisgender and transgender men ≥16 years who had sex with another man in the past 6 months via respondent-driven sampling (RDS) to undergo HIV/STI testing and a computer-assisted self-interview. Questionnaire items were developed to measure healthcare system user perspectives of the Levesque model of access to health services (2013), illustrated in Figure 1.



**Fig. 1: Trajectory of access to services from the user-side perspective, as conceptualized by Levesque et al. (2013)**

This cascade analysis describes the first three steps of access to PrEP (ability to perceive need, to seek out, & to reach). Participants are stratified by eligibility according to the current Canadian PrEP guidelines. A chi-squared test was utilized to identify possible barriers to PrEP-seeking amongst PrEP-aware participants meeting current Canadian PrEP Guidelines.

## RESULTS

As of February 2018, 906 participants were enrolled in Engage-Montreal, 710 (78%) were confirmed HIV-negative, and 581 (82%) of these were aware of PrEP. In the past 6 months, among PrEP-aware HIV-negative participants, 235 (42%) perceived their need for, 121 (21%) sought-out, and 108 (18%) reported lifetime use of PrEP. Figure 1 illustrates the differences in the proportion of participants meeting and not meeting the Canadian PrEP Guidelines along each step of the trajectory of access to PrEP. Possible barriers related to seeking-out PrEP are presented in Table 1.

## KEY FINDINGS

- 56% of participants met the Canadian PrEP guidelines at the time of their study visit. Among these, 93% were aware of PrEP.
- Amongst PrEP-aware participants meeting Canadian PrEP Guidelines, over half (56%) perceived a need for PrEP in the past 6 months, and among these 48% did not seek-out PrEP in the past 6 months.
- PrEP-aware participants meeting Canadian PrEP Guidelines who did not seek PrEP were significantly:
  - more likely to report: *that they did not feel at high enough risk to use PrEP; concerns about the side-effects of PrEP; concerns about the requirement to go to regular medical follow-up visits; doubts about their ability to take PrEP medication every day; doubts about their ability to find a doctor that accepts their sexual activities and choices.*
  - less likely to report: *that they knew enough about PrEP to tell if it was right for them; that they knew where to get a prescription for PrEP.*
- Globally, 75% of the participants meeting the Canadian PrEP Guidelines had never taken PrEP in their lifetime.

**Fig.1 : Trajectory of access to PrEP amongst HIV-negative participants (n=710)**

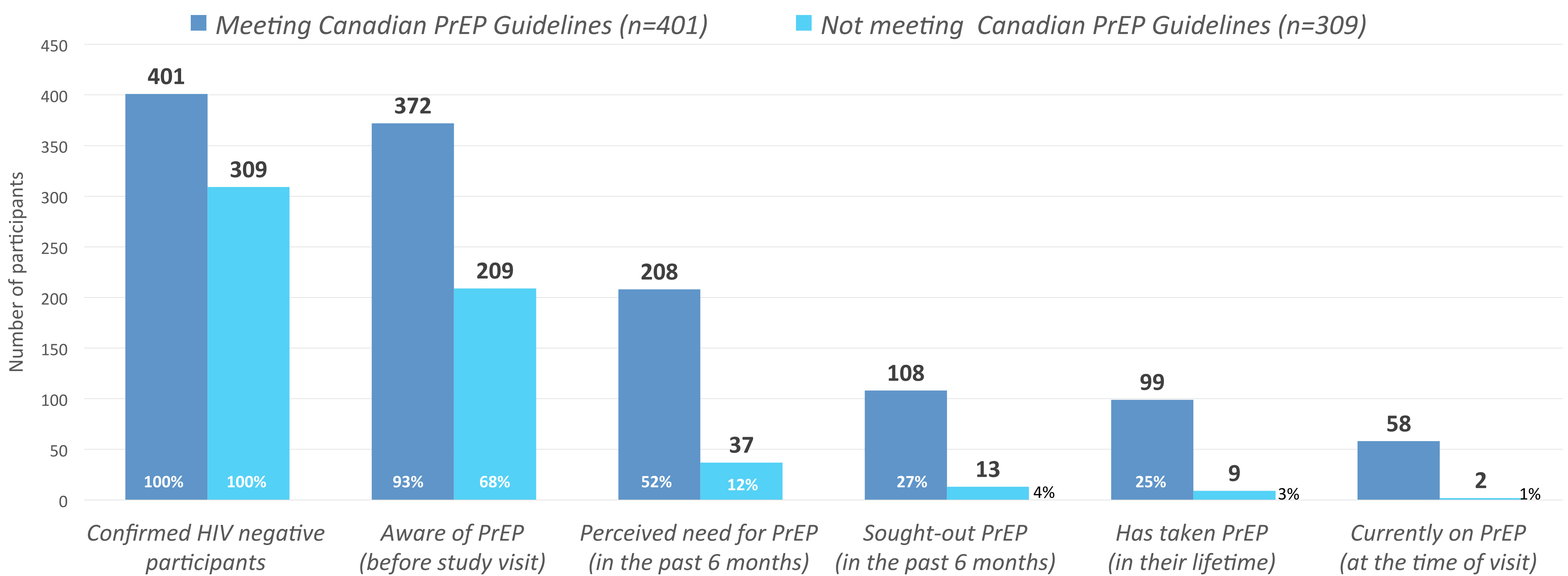


Table 1: Exploring factors related to PrEP-uptake amongst HIV-negative participants for whom PrEP is recommended by Canadian PrEP guidelines and who were aware of PrEP (n=372)	Proportion who sought-out PrEP in the past 6 months (n= 108)	Proportion who did not seek PrEP in the past 6 months (n=264)
I would assess that I am currently at risk of getting HIV. <sup>1</sup>	28%	23%
I know enough about PrEP to tell if it's right for me or not. <sup>2</sup>	74%	51% *
I don't feel that I am at high enough risk to use PrEP. <sup>2</sup>	12%	49% *
In your opinion, how effective is PrEP at preventing HIV infection? <sup>4</sup>	85%	78%
PrEP would allow me to have the sex I want. <sup>5</sup>	63%	38% *
If I was taking PrEP, I would most likely stop using condoms. <sup>5</sup>	44%	33% *
PrEP is well perceived in the community. <sup>5</sup>	47%	51%
I am worried about being negatively judged for taking PrEP. <sup>5</sup>	24%	26%
Most doctors do not know enough about PrEP to be comfortable prescribing it. <sup>5</sup>	29%	32%
I don't think I can find a doctor that is sensitive and accepting enough of my sexual activities to prescribe PrEP. <sup>5</sup>	3%	14% *
I don't like the idea of being required to go to the regular medical follow-up visits involved in taking PrEP. <sup>5</sup>	12%	32% *
I am worried about the short- and long-term side effects of taking PrEP. <sup>5</sup>	52%	65% *
I would have difficulty taking PrEP medication every day. <sup>5</sup>	24%	38% *
Clinics where I could get PrEP are too far away. <sup>5</sup>	16%	14%
I know where to go to get a prescription for PrEP. <sup>5</sup>	87%	58% *
I have not sought a prescription for PrEP in the past because of the cost of the medication. <sup>5</sup>	46%	52%
At this time, overall I would say it is easy to access PrEP. <sup>3</sup>	87%	83%

1 Response: somewhat likely, likely or very likely; 2 Response: agree or strongly agree; 3 Response: easy or very easy; 4 Response: completely effective or very effective; 5 Response: agree or strongly agree  
\* significant on Pearson's chi-squared test, alpha = 0.05

## LIMITATIONS

The findings presented are limited by the fact that they have yet to be RDS weighted, and result from an incomplete sample. Once participant recruitment has been completed and the dataset weighed for RDS, these analyses will be repeated, will include multivariate and subgroup analyses, and will explore socio-behavioural characteristics related to seeking-out PrEP.

## CONCLUSIONS

Preliminary findings suggest that awareness of PrEP is high amongst participants who are considered eligible for PrEP according to Canadian PrEP guidelines. Optimizing PrEP-uptake would involve targeting interventions along distinct steps in the PrEP-access trajectory. Possible interventions include promoting PrEP-literacy and awareness of the Canadian PrEP Guidelines in gbMSM communities, and supporting community outreach programs which address the concerns held by gbMSM relating to side-effects, daily adherence and the need for regular medical follow-up. Addressing systemic barriers to PrEP-uptake and organizing the health system to ensure a network of clinics with low barriers to PrEP access could also increase the proportion of gbMSM who seek out PrEP.

References: 1. Tan DHS et al. Canadian guideline on HIV pre-exposure prophylaxis and non-occupational post-exposure prophylaxis. *CMAJ* 2017; 189: 1448-1458; 2. Wilton J et al. Use of an HIV-risk screening tool to identify optimal candidates for PrEP scale-up among men who have sex with men in Toronto, Canada: disconnect between objective and subjective HIV risk. *JIAS* 2016; 19:20777; 3. Levesque JF et al. Patient-centered access to health care: conceptualizing access at the interface of health systems and populations. *Int J Equity Health* 2013; 12:18