



PARIS

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I'm Ready Program: Racial and location disparities in PrEP awareness and uptake in Canada

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Background: HIV Infection and PrEP Use in Canada

New HIV Infection 2020-2022

An estimated **1,848 new infections** occurred in Canada in 2022.

15% increase from the estimate for 2020 (1,610)



5 people were infected each day



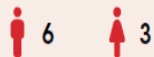
New infections occur more frequently in some populations compared to the general population

The estimated 2022 HIV incidence rates (per 100,000 people) were:



5

overall Canadian population



6

3



494

among people who have injected drugs in the past 6-12 months³

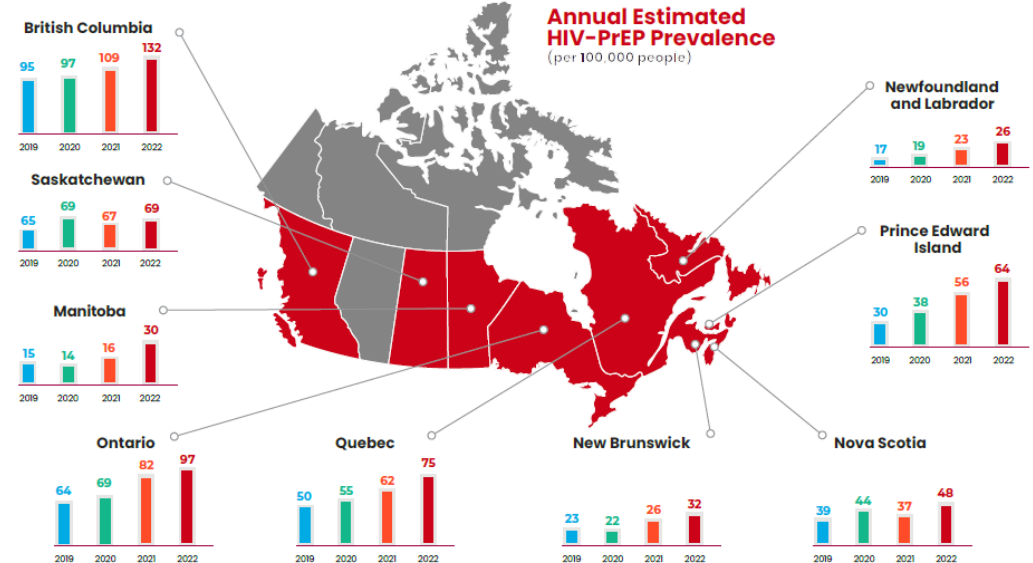


187

among sexually active gbMSM^{4,5}

HIV PrEP Use (2019-2022)

HIV prevention is critical to the goal of zero new HIV infections. HIV-PrEP is an important part of Canada's HIV prevention strategy.^{1,2,3}



Background and Context

- In the last 5 years, PrEP use has increased from 61 to 89 per 100,000 people in Canada.¹
- In the ENGAGE study, of the 1,159 gay, bisexual and men who have sex with men indicated for PrEP, only less than 25% reported use.
- Despite increased usage, disparities in HIV incidence and PrEP access persist among racialized communities and key populations.
- Race-based data on PrEP awareness and uptake among Indigenous, Black and racialized communities is very limited in Canada.
- Disaggregated data on PrEP awareness and uptake will enhance equity-focused policy and program implementation, and progress towards ending the HIV epidemic.

Source: 1. Public Health Agency of Canada, *Trends in HIV Pre-Exposure Prophylaxis [HIV-PrEP] use in 9 Canadian provinces, 2019 – 2022*, November 2023

ENGAGE Study: PrEP Access among GBMSM

- Recruited 2,449 sexually active gay, bisexual and men who have sex with men (gbMSM) between 2017 to 2019.¹
- Implemented in three large cities in Canada – Toronto, Montreal and Vancouver.
- Of the 1,159 people indicated for PrEP, 84.6% (Montreal) to 94.2% (Toronto) were aware of PrEP.
- Only 14.5% (Montreal), 21.6% (Toronto) and 21.8% (Vancouver) gbMSM used PrEP.
- Not using PrEP was associated with low-risk perception, distrust in its effectiveness, lack of a primary care provider, and no insurance.

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Research

Use of HIV pre-exposure prophylaxis among urban Canadian gay, bisexual and other men who have sex with men: a cross-sectional analysis of the Engage cohort study

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Abstract

Background: In Canada, gay, bisexual and other men who have sex with men (GBM) are disproportionately affected by HIV. Our objective was to describe access to HIV pre-exposure prophylaxis (PrEP) and identify factors associated with not using PrEP among self-reported HIV-negative or HIV-unknown GBM.

Methods: This was a cross-sectional analysis of the Engage study cohort. Between 2017 and 2019, sexually active GBM aged 16 years or more in Montréal, Toronto and Vancouver were recruited via respondent-driven sampling (RDS). Participation included testing for HIV and sexually transmitted and blood-borne infections, and completion of a questionnaire. We examined PrEP access using a health care services model and fit RDS-adjusted logistic regressions to determine correlates of not using PrEP among those for whom PrEP was clinically recommended and who were aware of the intervention.

Results: A total of 2449 GBM were recruited, of whom 2008 were HIV-negative or HIV-unknown; 1159 (511 in Montréal, 247 in Toronto and 401 in Vancouver) met clinical recommendations for PrEP. Of the 1159, 1100 were aware of PrEP (RDS-adjusted proportion: Montréal 84.6%, Toronto 94.2%, Vancouver 92.7%), 678 had felt the need for PrEP in the previous 6 months (RDS-adjusted proportion: Montréal 39.2%, Toronto 56.1%, Vancouver 48.0%), 406 had tried to access PrEP in the previous 6 months (RDS-adjusted proportion: Montréal 20.6%, Toronto 33.2%, Vancouver 29.6%) and 319 had used PrEP in the previous 6 months (RDS-adjusted proportion: Montréal 14.5%, Toronto 21.6%, Vancouver 21.8%). Not using PrEP was associated with several factors, including not feeling at high enough risk, viewing PrEP as not completely effective, not having a primary care provider and lacking medication insurance.

Interpretation: Although half of GBM met clinical recommendations for PrEP, less than a quarter of them reported use. Despite high levels of awareness, a programmatic response that addresses PrEP-related perceptions and health care system barriers is needed to scale up PrEP access among GBM in Canada.

The HIV epidemic continues to disproportionately affect gay, bisexual and other men who have sex with men (GBM) in Canada. Although GBM account for 2%–3% of the Canadian population, they represent almost half of all prevalent and newly reported cases of HIV infection.^{1–3} The disease burden is concentrated in Canada's 3 largest cities — Montréal, Toronto and Vancouver — where many GBM reside.⁴ HIV pre-exposure prophylaxis was approved in Canada in 2016⁵ and is increasingly available. It was approved in Quebec in 2013,^{1,4} in Ontario in 2017¹ and in British Columbia in 2018.¹⁶ Documenting PrEP uptake and related barriers, especially among GBM who may benefit, is important, as this intervention

Source: 1. Cox J et al; Engage Study Team. Use of HIV pre-exposure prophylaxis among urban Canadian gay, bisexual and other men who have sex with men: a cross-sectional analysis of the Engage cohort study. CMAJ Open. 2021 May 21;9(2):E529-E538. doi: 10.9778/cmajo.20200198. PMID: 34021010; PMCID: PMC8177951.

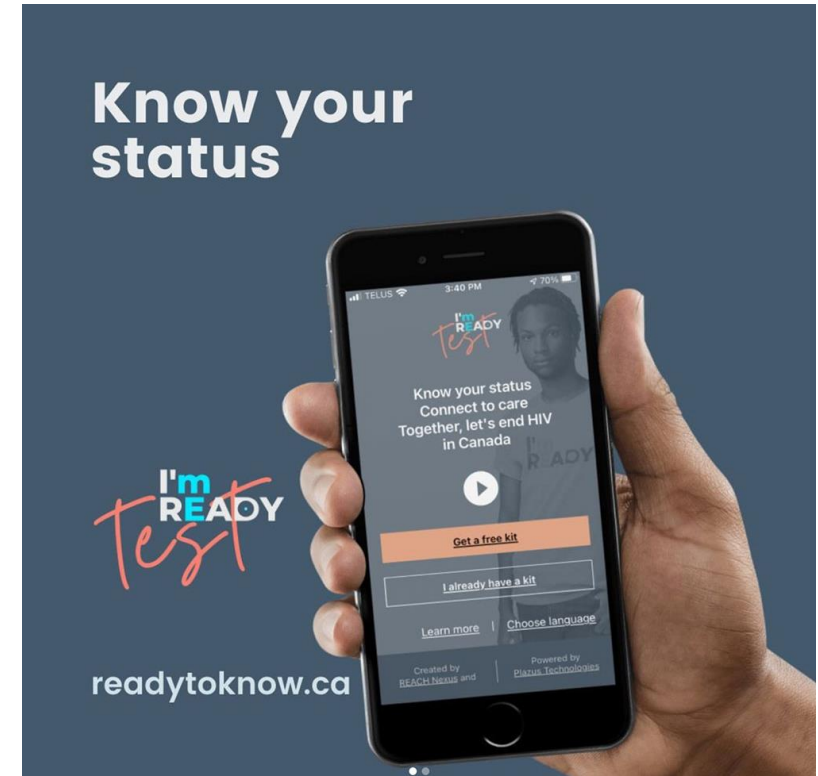


Objective

To examine differences in PrEP awareness and uptake among different potentially affected and key populations and in different locations across Canada.

I'm Ready: National HIV Self-Testing Program

- I'm Ready Research Program is the first Canadian national HIV self-testing program - a mobile app intervention to promote uptake of HIV self-testing across Canada.
- 12,007 participants downloaded the *I'm Ready Test* App and answered a pre-test survey.
- 8,803 participants (73%) answered three questions on HIV risk and two questions on PrEP awareness and uptake.
- Of these, 85% (n=7,439) had indications for PrEP, of which 54% (n=3,989) were aware of PrEP and 17% (n=682) used PrEP.



Participants Demographics (N=8,803)



Age

25-34 age group: **43%**
18-24 age group: **31%**



Sexual orientation

Gay or bisexual: **42%**
Heterosexual: **38%**
Sexual minorities²: **20%**



Location

Very large urban (>200k): **53%**
Large urban (100k-199k) and small (<29k): **23%**



Gender

Cis-man: **65%**
Cis-woman: **30%**
Gender minorities¹: **5%**



Education

> High school: **70%**
High school: **23%**



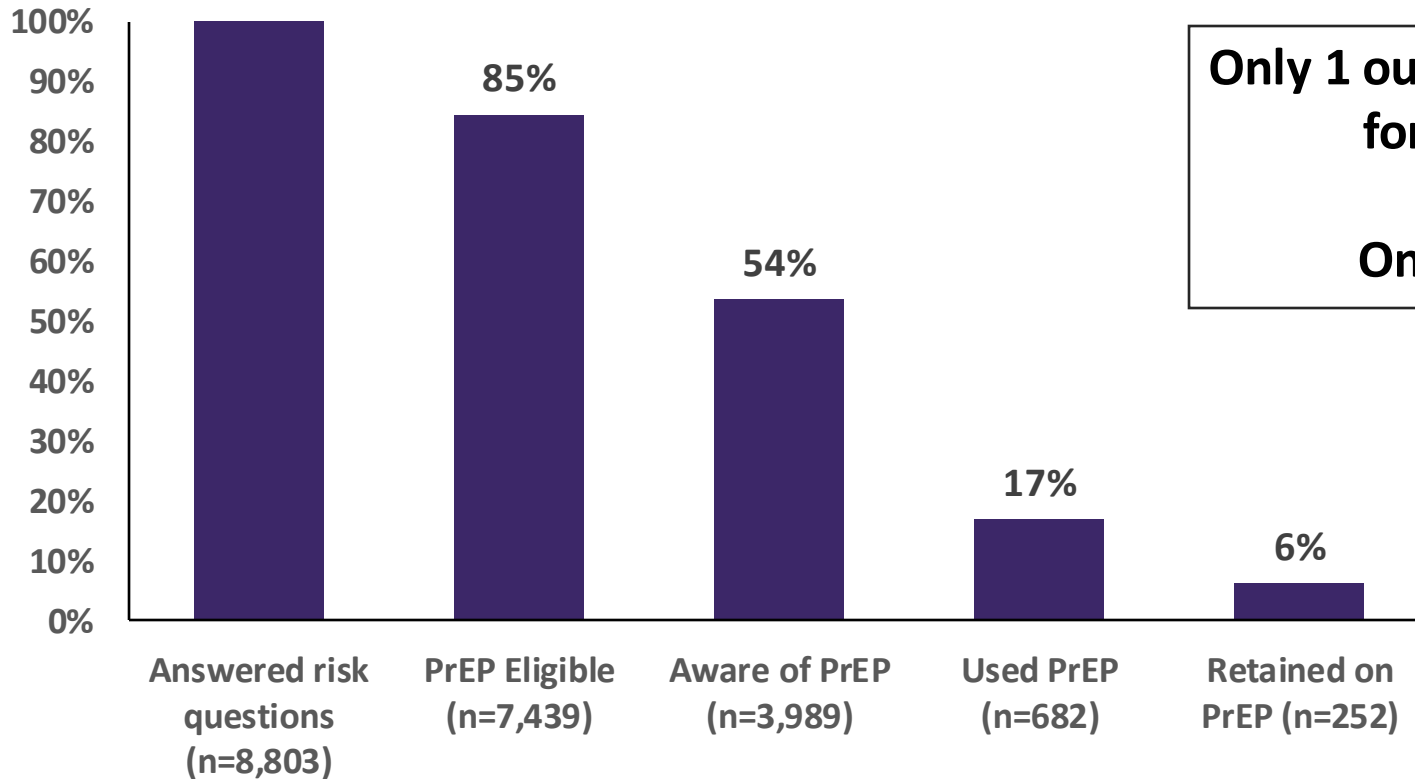
Employment

Full time: **47%**
Student: **21%**

1. Gender minorities: Transgender, non-binary, genderqueer and self-described gender

2. Sexual minorities: Queer, lesbian, pansexual, heteroflexible, questioning, asexual and self-described

PrEP Cascade

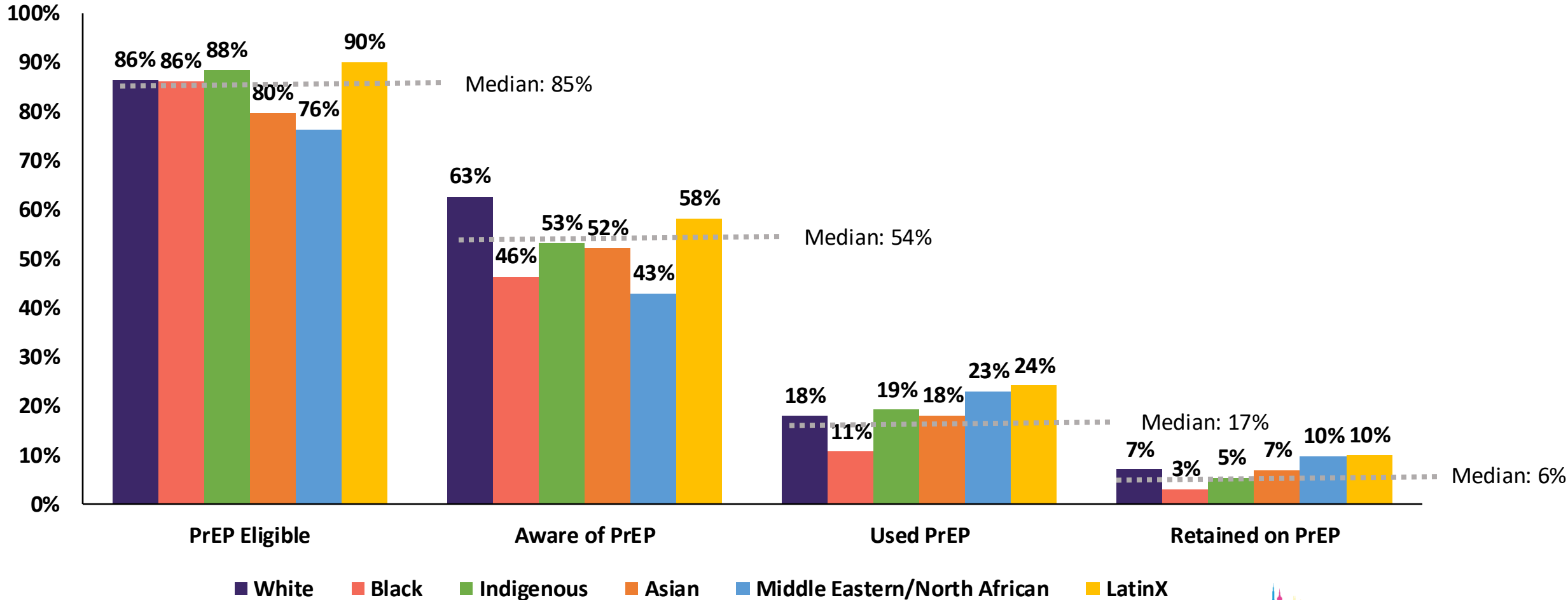


Only 1 out of 5 People who had indications* for PrEP ever used/accessed it

Only 6% were retained on PrEP

***Indications for PrEP:** We used responses to questions on sexual behavior (unprotected sex in the last 3 months and unprotected sex with multiple sexual partners with HIV positive or unknown status in the last 12 months) to determine indications (eligibility) for PrEP.

PrEP Cascade by Race



***Indications for PrEP:** We used responses to questions on sexual behavior (unprotected sex in the last 3 months and unprotected sex with multiple sexual partners with HIV positive or unknown status in the last 12 months) to determine indications (eligibility) for PrEP.



Intersecting identities among Black populations

	Heard of PrEP			Received PrEP		
	OR	95% CI	<i>p</i>	OR	95% CI	<i>p</i>
White gay/bi/queer cis-men		ref			ref	
Black gay/bi/queer cis-men	0.30	(0.22, 0.41)	<0.01	1.06	(0.69, 1.64)	0.78
Black straight cis-men	0.12	(0.09, 0.16)	<0.01	0.17	(0.08, 0.37)	<0.01
Black other cis-men	0.17	(0.12, 0.23)	<0.01	0.44	(0.22, 0.87)	0.02
Black gay/bi/queer cis-women	0.14	(0.09, 0.22)	<0.01	0.09	(0.01, 0.66)	0.02
Black straight cis-women	0.18	(0.14, 0.23)	<0.01	0.23	(0.13, 0.39)	<0.01
Black other cis-women	0.16	(0.11, 0.24)	<0.01	0.15	(0.05, 0.47)	<0.01

Note Analysis conducted among participants who have indications for PrEP
 Other sexual orientations include queer, lesbian, pansexual, heteroflexible, questioning, asexual and self-described

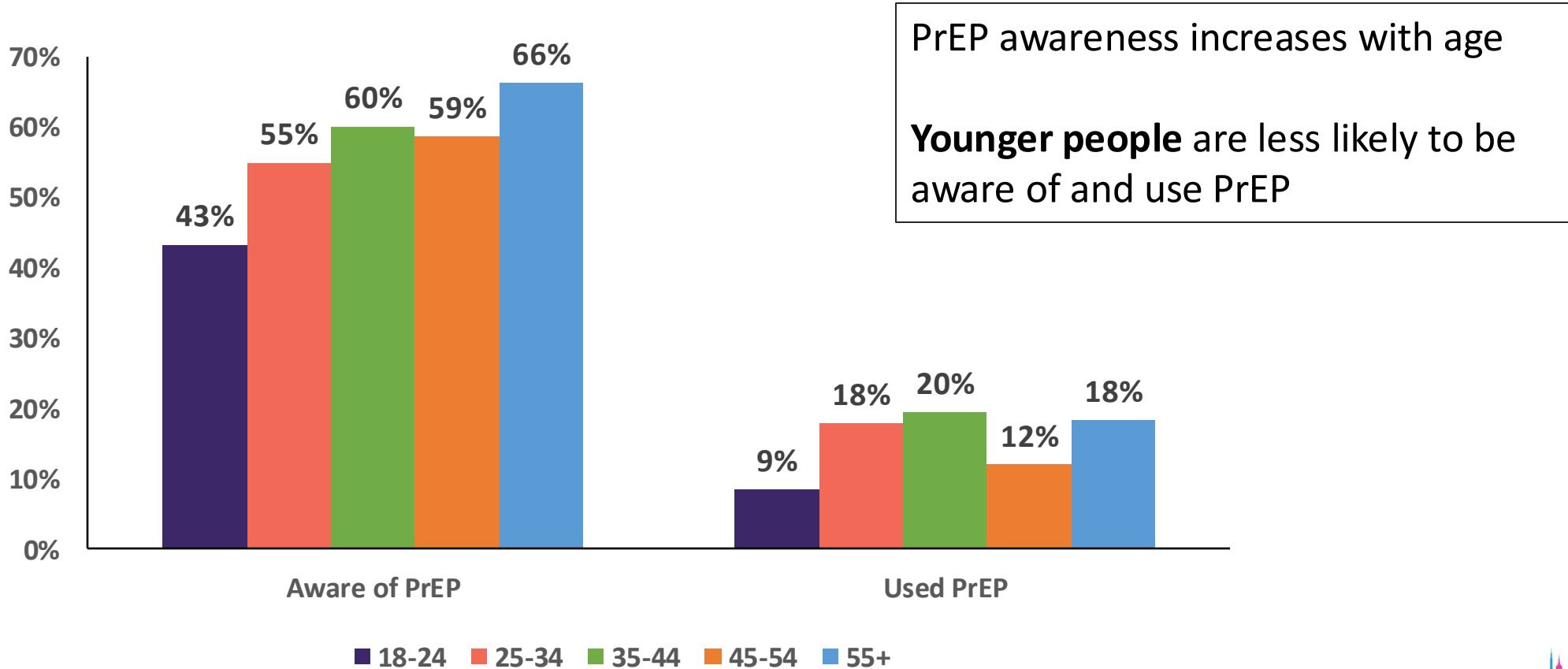
Intersecting identities among Indigenous populations

	Heard of PrEP			Received PrEP		
	OR	95% CI	<i>p</i>	OR	95% CI	<i>p</i>
White gay/bi/queer cis-men		ref			ref	
Indigenous gay/bi/queer cis-men	0.81	(0.50, 1.31)	0.39	1.31	(0.81, 2.10)	0.27
Indigenous straight/other cis-men	0.09	(0.06, 0.16)	<0.01	0.69	(0.23, 2.08)	0.51
Indigenous cis-women	0.13	(0.10, 0.19)	<0.01	0.30	(0.13, 0.69)	0.01

Note Analysis conducted among participants who have indications for PrEP
 Other sexual orientations include queer, lesbian, pansexual, heteroflexible, questioning, asexual and self-described

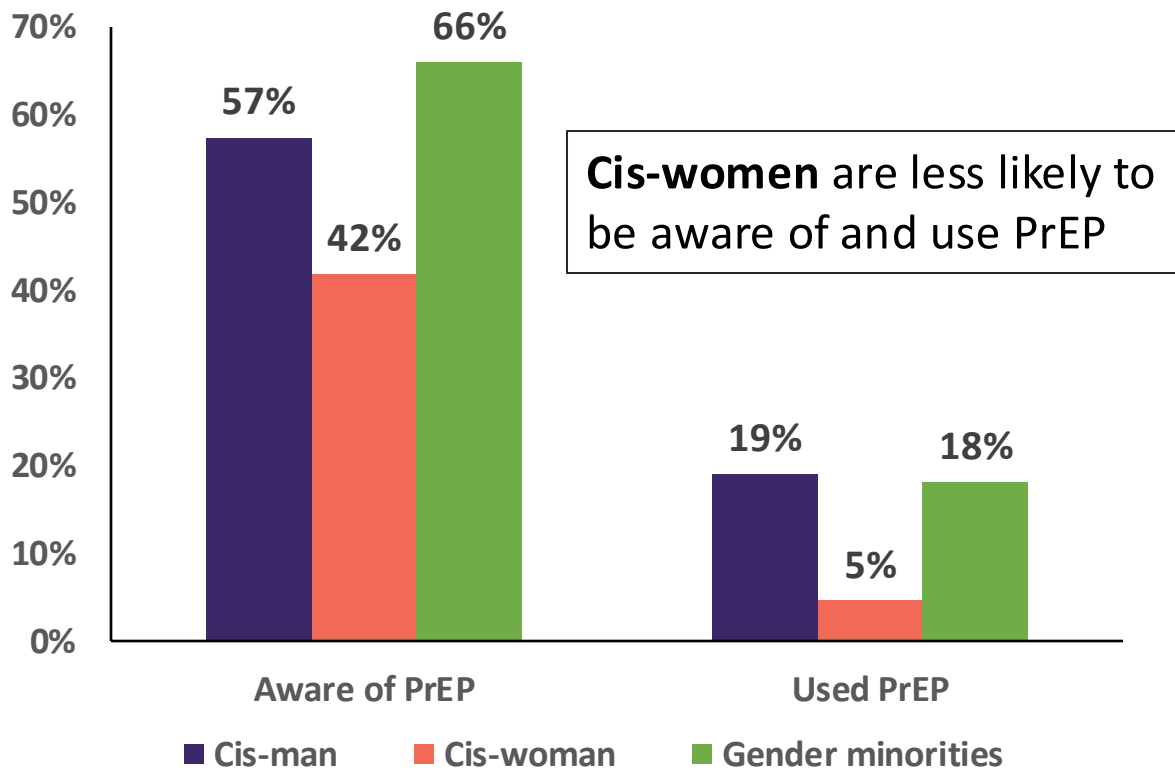


PrEP Awareness and Uptake: Differences in Age Groups

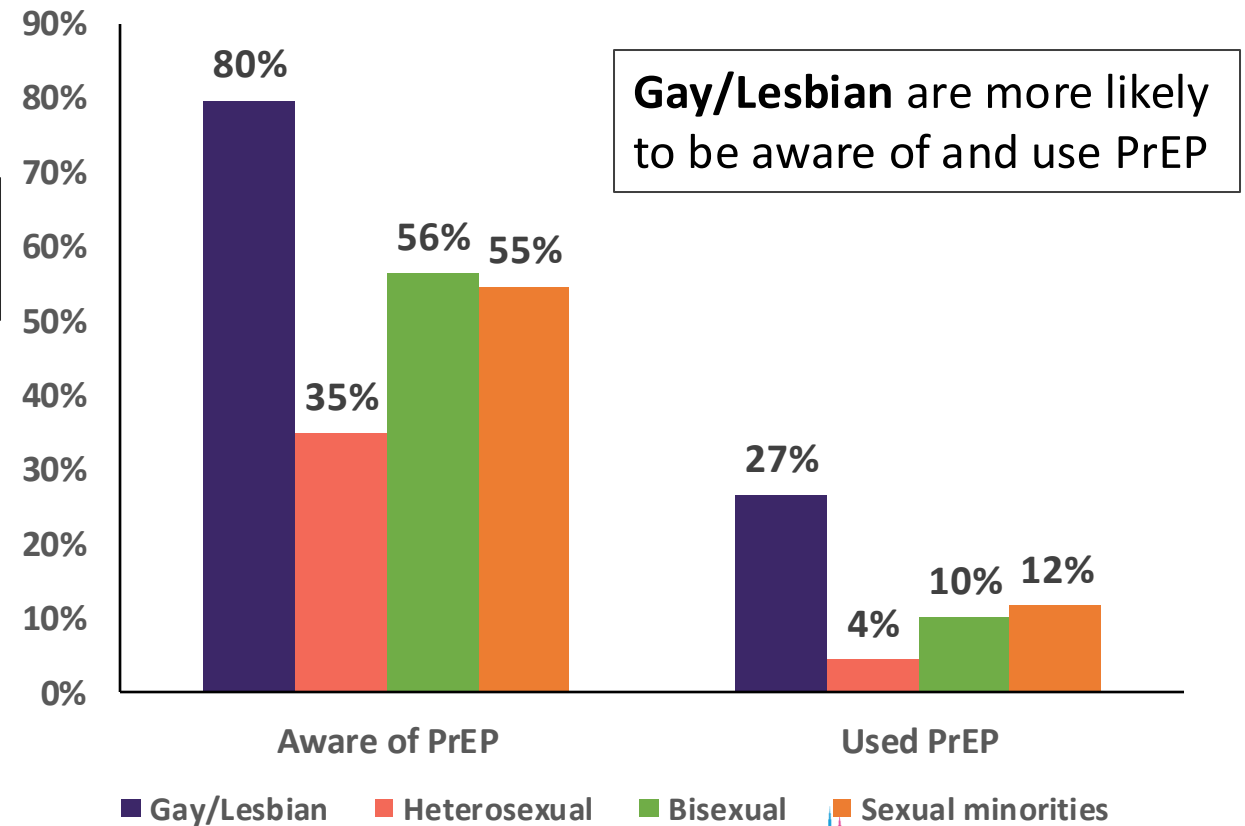


PrEP Awareness and Uptake: Differences in Identities

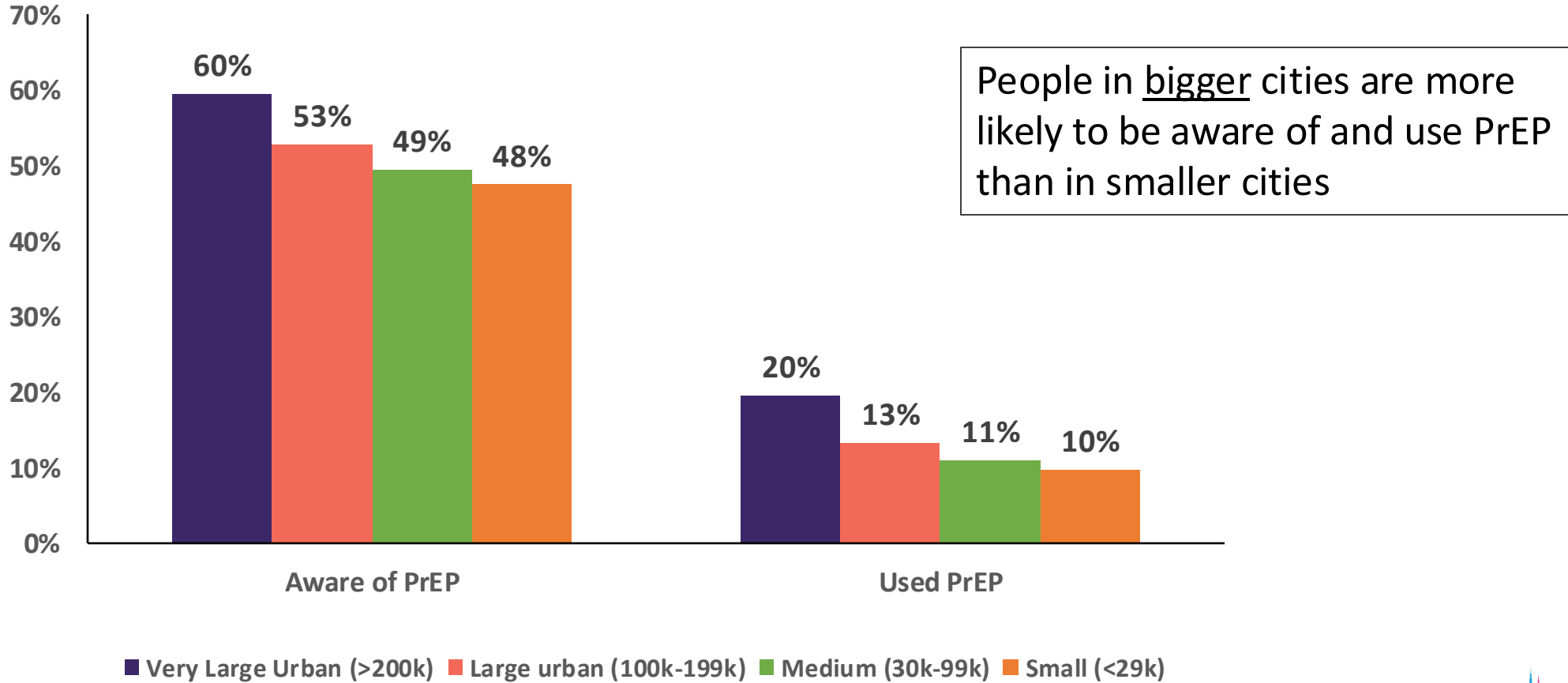
Gender



Sexual Orientation

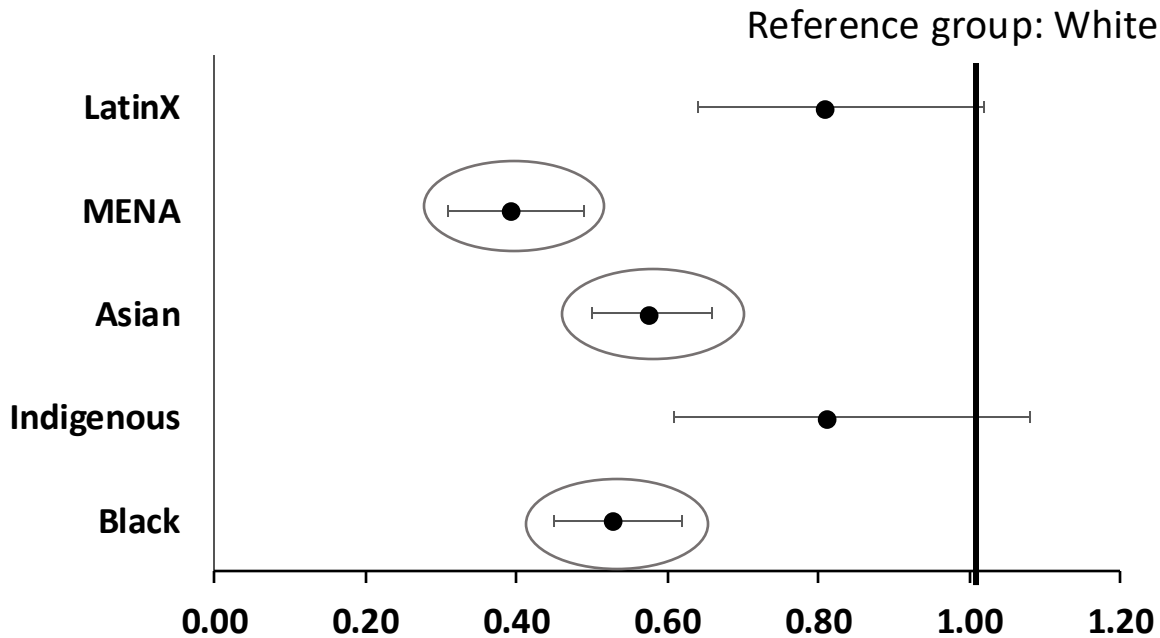


PrEP Awareness and Uptake: Differences in Location

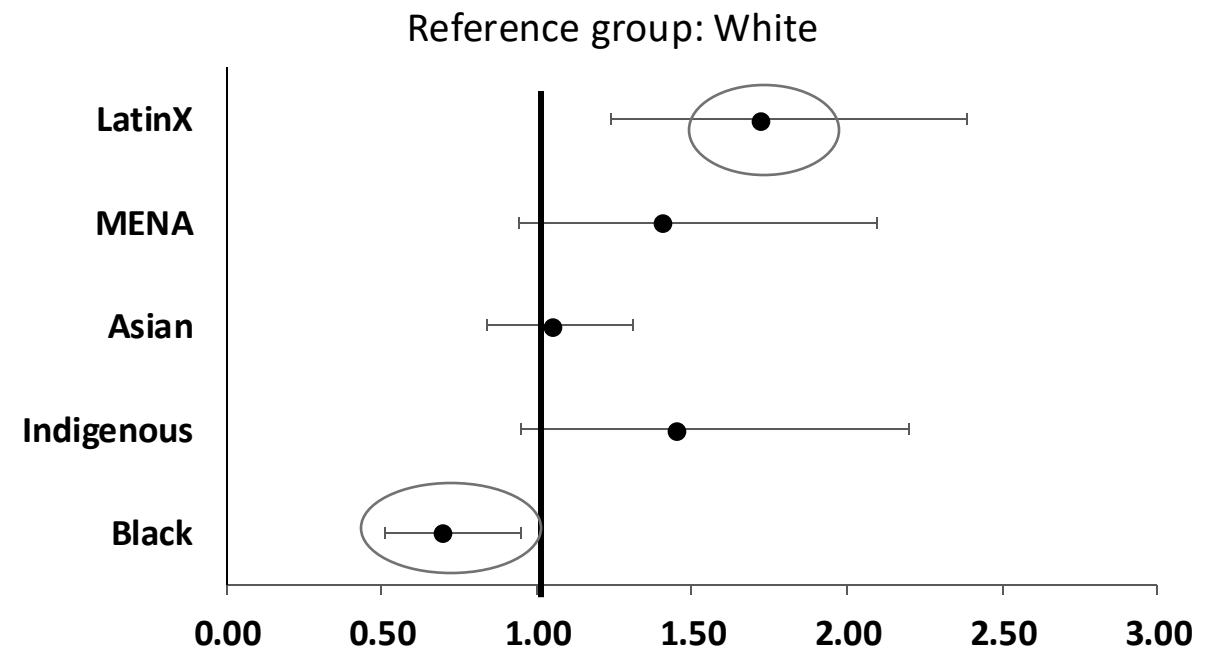


Likelihood of PrEP Awareness and Uptake in Urban Areas (population >100k)

Odds Ratios – Aware of PrEP



Odds Ratios – Used PrEP

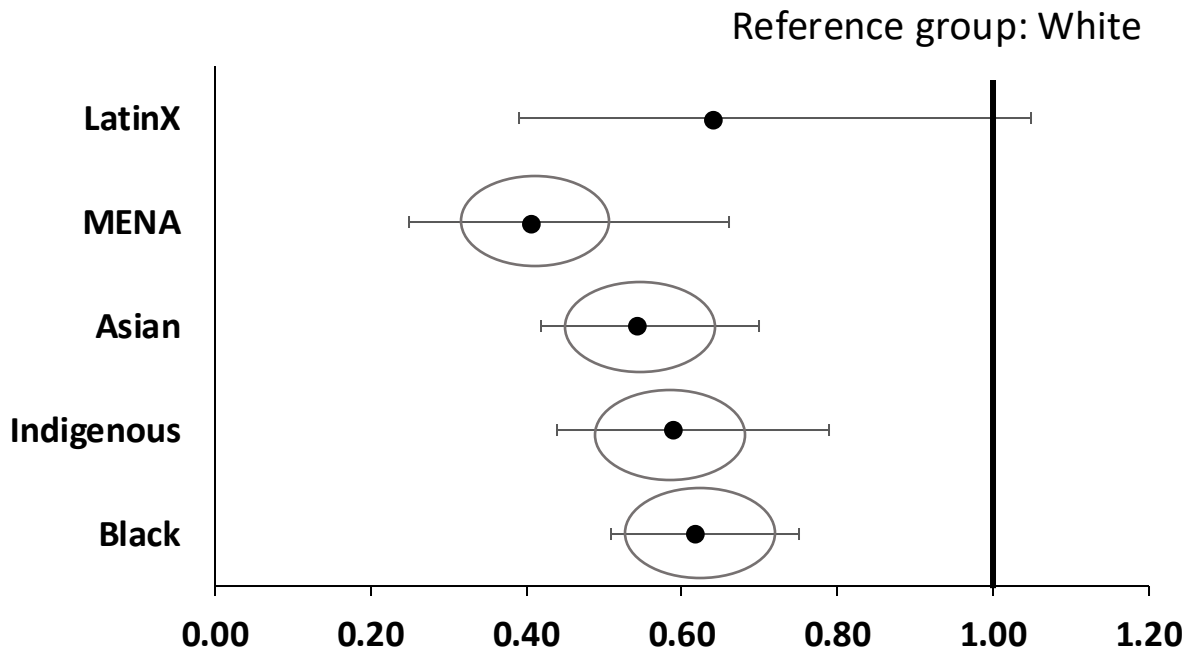


Black, Asian and Middle Eastern/North African (MENA) are less likely to be aware of PrEP

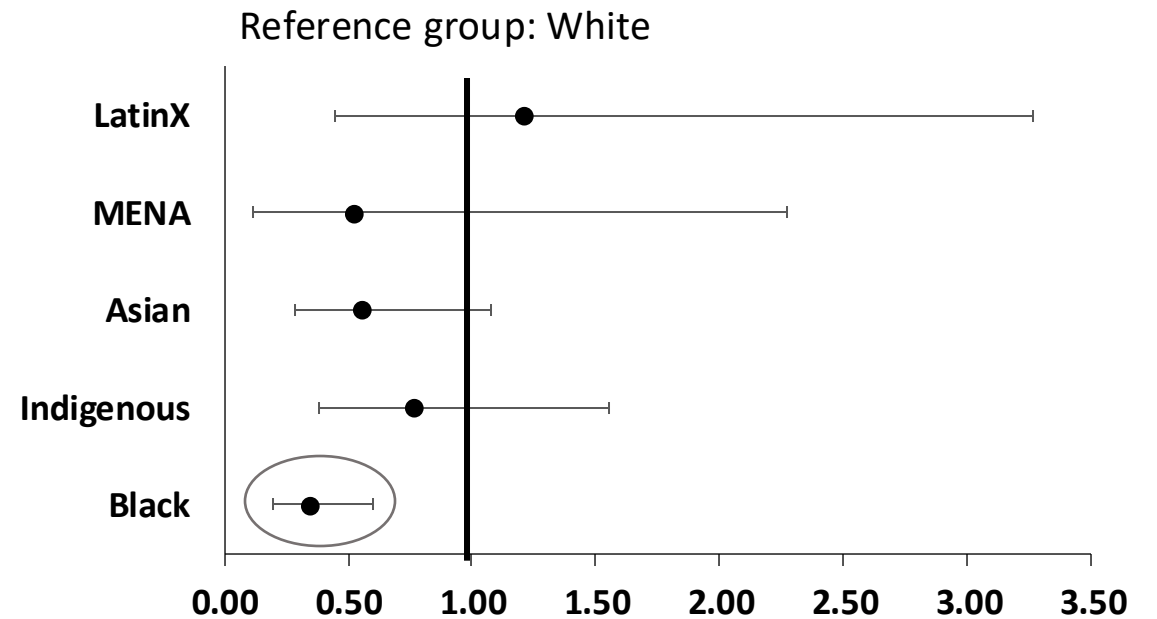
Black people are less likely to use PrEP, while **LatinX** are more likely to use PrEP.

Likelihood of PrEP Awareness and Use in Small Cities & Rural Areas (population <100k)

Odds Ratios – Aware of PrEP



Odds Ratios – Used PrEP



Black, Indigenous, Asian and Middle Eastern/North African (MENA) are less likely to be aware of PrEP.

Black people in small cities and rural areas are less likely to use PrEP.

Conclusion and Next Steps

- **Social Location and Social Position:** Considerable health disparities with PrEP exist by race/ethnicity and where people live.
- **PrEP awareness and uptake** were low in racialized communities compared to participants who identified as White.
- Black and Indigenous people have increased HIV rates in Canada, making targeted interventions crucial to improve their access to PrEP and other support services.
- The next phase of I'm Ready will explore barriers and willingness to connect to direct use of PrEP among these communities.
- We aim to strengthen our community partnerships to link HIV self-testing with PrEP, ensuring individuals can access prevention and PrEP resources and providers through the I'm Ready App.

