Health equity analysis of awareness and use of GetCheckedOnline in communities where the service has expanded in British Columbia

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Background

Digital interventions for sexually transmitted and blood-borne infections (STBBI) testing might replicate or create new inequities in access. While GetCheckedOnline – a digital service for STBBI testing in British Columbia (BC) – has been shown to improve testing access in the province, assessing the equity of its outcomes is essential to ensure service appropriateness and accessibility.

Objective: To assess the association between sociodemographic characteristics and differences in awareness and use of *GetCheckedOnline* in communities where it is available outside Vancouver, BC.

Methods

- From July to September 2022, we conducted a cross-sectional survey in 5 communities (Kimberley, Kamloops, Maple Ridge, Nelson, and Greater Victoria), recruiting in-person and online with oversampling of populations experiencing increased barriers to STBBI testing.
- Eligible participants were BC Residents ≥16 years old, and sexually active (≥1 oral, anal or vaginal intercourse in the past year)
- We studied the association between use and awareness of GCO and age, gender identity, sexual identity, race/ethnicity, educational attainment, and income, using directed acyclic graph (DAG)-informed logistic regression models.

Results

Our sample comprised 1,658 individuals. A large proportion of this sample represented people from equity-owed groups (Table 1). 66.8% (990/1483) reported experiencing barriers to accessing provider-based testing in the past year (e.g., long wait times).

Overall implementation outcomes: 35.3% (586/1,658) were aware of GCO, of whom 56.3% had used the service (324/576), which corresponded to 19.5% (324/1,658) of the sample.

Table 1: Description of study sample

Characteristic	n = 1658
Age	
Mean	33 years
Standard Deviation	11.75 years
Gender	n (%)*
Man (only)	459 (30.7%)
Woman (only)	784 (52.5%)
Genderfluid, genderqueer, agender, non-binary and multiple gender identities (GGANB+)	251 (16.8%)
	1246 (89.8%)
Cisgender	151 (10.2%)
Transgender	
Race/Ethnicity	n (%)
White (only)	1099 (68.3%)
Indigenous	208 (12.9%)
People of Colour	301 (18.7%)
Non-heterosexual Sexual Identity (yes)	793 (53.0%)
Annual pre-tax income in 2021 < $20,000	392 (26.9%)
Drug Use (Illegal/non-prescribed, past year) (yes)	566 (39.1%)
Ever been homeless (yes)	315 (21.5%)
Never tested for STBBIs (yes)	319 (20.7%)
Reported 3+ sexual partners in the last year (yes)	463 (30.9%)
Diagnosed with 1+ STBBI during past year (yes)	104 (7.8%)

* All percentages were calculated based on valid responses

Table 2: Odds ratios (OR) of awareness and use of GCO

Sociodemographic	Awareness	Use
Age*		
Q1: Less than 25 y	**0.39 [0.28 - 0.53]**	**0.28 [0.18 - 0.41]**
Q2: 25-29 y	Reference	Reference
Q3: 30-37 y	**0.60 [0.45 - 0.81]**	0.73 [0.53 - 1.01]
Q4: 38+ y	**0.23 [0.17 - 0.32]**	**0.19 [0.12 - 0.28]**
Gender Identity*		
Man (only)	Reference	Reference
Woman (only)	0.82 [0.64 - 1.04]	**0.68 [0.50 - 0.92]**
GGANB+	**2.27 [1.63 - 3.18]**	**1.97 [1.36 - 2.84]**
Cisgender	Reference	Reference
Transgender	**2.17 [1.54 - 3.06]**	**2.15 [1.46 - 3.13]**
Race/ethnicity*		
White (only)	Reference	Reference
Indigenous	**1.65 [1.19 - 2.20]**	1.33 [0.91 - 1.93]
People of Color	**1.74 [1.34 - 2.26]**	**2.01 [1.48 - 2.72]**
Sexual Identity*		
Heterosexual	Reference	Reference
LGB+	**2.37 [1.89 - 2.97]**	**2.53 [1.91 - 3.38]**
Income‡		
Less than $20,000	**0.40 [0.25 - 0.64]**	**0.36 [0.20 - 0.65]**
$20,000 to less than $40,000	0.79 [0.50 - 1.25]	0.59 [0.34 - 1.03]
$40,000 to less than $60,000	0.95 [0.61 - 1.49]	0.71 [0.42 - 1.21]
$60,000 to less than $80,000	1.30 [0.81 - 2.11]	1.31 [0.76 - 2.27]
$80,000 and more	Reference	Reference
Educational attainment‡		
Elementary or some high school	0.79 [0.38 - 1.62]	1.39 [0.56 - 3.34]
High school	0.84 [0.52 - 1.38]	1.09 [0.58 - 2.08]
Post-secondary certificate	0.97 [0.62 - 1.53]	1.34 [0.76 - 2.43]
Bachelor's degree	1.48 [0.94 - 2.35]	**1.81 [1.03 - 3-31]**
Graduate degree	Reference	Reference

* Univariate models
‡Adjusted for age, gender and sexual identities, and race/ethnicity

Conclusion

- Differences in awareness and use between sociodemographic groups point to a complex pattern of GCO outcomes distribution.
- Some differences favoured equity-owed groups (i.e., People of Color, LGB+, and transgender people), while others favoured privileged groups (i.e., income, men compared to women).
- Community-specific balances of relative advantage of GCO over provider-based testing and communication networks may account for the differences observed in this study.
- Further comprehension of these differences is necessary to guide service promotion and adaptation to improve equity indicators.

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