

A Longitudinal Evaluation of Testing Utilisation and Over-Recommendation in GetCheckedOnline

Pierce Gorun^{1,2}, Sofia Bartlett^{1,2}, Lang Wu¹, Ihoghosa Iyamu^{1,2}, Hsiu-Ju Chang^{1,2}, Mark Gilbert^{1,2}

¹School of Population and Public Health (SPPH), University of British Columbia (UBC), Vancouver, British Columbia (BC), Canada; ²British Columbia Centre for Disease Control (BCCDC), Vancouver, BC, Canada

Background

- GetCheckedOnline (GCO) expands access to STBBI testing, however funding constraints challenges further expansion.
- As a cost-saving measure, decision-makers have considered reducing potentially unnecessary testing.
- Currently, GCO routinely recommends chlamydia, gonorrhea, syphilis and HIV tests for all clients, warranting exploration of utilisation and potential over-recommendation of testing.

Objectives

1. To determine which demographic and behavioural characteristics were associated with repeat testing through GCO.
2. To assess the extent of potential over-recommendation of testing through GCO and the factors associated with it.

Methods

- Between September 2014 - December 2024, we conducted a retrospective cohort study using GCO program data of repeat testers
- Self-reported demographic and behavioural characteristics through GCO were used to explore associations with repeat testing and potential over-recommendation.
- Andersen-Gill survival models estimated risks of repeat testing, and negative binomial regression estimated rates of potential over-recommendation.
- Positivity rates were compared across over-recommendation categories

Results

- Repeat testing was positively associated with racialised clients, reporting no condom use, multiple partners, previous STBBI diagnosis, and partners reporting STBBIs. Negative associations were observed for clients under 30 and those reporting symptoms, while gender identity and client-partner gender groups showed time-varying effects.
- Most potential over-recommendations (96%) occurred when clients tested within three months of a previous episode. Overall, 27.8% of screening episodes were classified as potential over-recommendations, with lower rates among women, those with unknown gender identity and older adults, and higher rates among racialised clients, and those reporting no condom use, multiple partners, and previous STBBI diagnosis.
- Positivity was higher among potential over-recommendation (4.1%) than non-over-recommendation (3.5%, $p < 0.01$) episodes.

Thee eat – The Truth

- Settler colonialism and the intergenerational impacts of residential schools continue to shape health inequities among Indigenous Peoples in Canada, resulting in disproportionate rates of sexually transmitted and blood-borne infections (STBBIs) due to ongoing racism, trauma, and socioeconomic disadvantage
- Indigenous Peoples continue to face significant barriers to accessing STBBI testing and care, including systemic racism, culturally safe and appropriate care, and active avoidance of healthcare settings due to discrimination, leading to lower rates of healthcare utilisation.

Foundational Obligations

Truth and Reconciliation Call to Action 18	We call upon the federal, provincial, territorial, and Aboriginal governments to acknowledge that the current state of Aboriginal health in Canada is a direct result of previous Canadian government policies, including residential schools, and to recognize and implement the health-care rights of Aboriginal people as identified in international law, constitutional law, and under the Treaties.
UNDRIP 21.1	Indigenous peoples have the right, without discrimination, to the improvement of their economic and social conditions, including, inter alia, in the areas of education, employment, vocational training and retraining, housing, sanitation, health and social security
MMIWG2SLGBTQQIA + 3.2	We call upon all governments to provide adequate, stable, equitable, and ongoing funding for Indigenous-centred and community-based health and wellness services that are accessible and culturally appropriate, and meet the health and wellness needs of Indigenous women, girls, and 2SLGBTQQIA people. The lack of health and wellness services within Indigenous communities continues to force Indigenous women, girls, and 2SLGBTQQIA people to relocate in order to access care. Governments must ensure that health and wellness services are available and accessible within Indigenous communities and wherever Indigenous women, girls, and 2SLGBTQQIA people reside
MMIWG2SLGBTQQIA + 7.5	We call upon governments, institutions, organizations, and essential and non-essential service providers to support and provide permanent and necessary resources for specialized intervention, healing and treatment programs, and services and initiatives offered in Indigenous languages
MMIWG2SLGBTQQIA + 7.6	We call upon institutions and health service providers to ensure that all persons involved in the provision of health services to Indigenous Peoples receive ongoing training, education, and awareness in areas including, but not limited to: 1) the history of colonialism in the oppression and genocide of Inuit, Métis, and First Nations Peoples; 2) anti-bias and anti-racism; 3) local language and culture; and 4) local health and healing practices.

Table: Proportion of Test Episodes Containing at Least One Positive Result, by Over-Recommendation Category

Recommendation Category	Positivity Rate	P-Value
Over-Recommendation	4.1%	< 0.001
Non-Over-Recommendation	3.5%	

Conclusion

- Repeat testing and potential over-recommendations were shaped by similar demographic and behavioural characteristics. As over-recommendation mainly reflected high-frequency testing, eliminating such episodes could reduce utilisation but pose potential testing barriers and miss diagnoses. Strategies that optimise resources while maintaining autonomy and accessibility are needed.