

A Longitudinal Evaluation of Over-Recommendation in GetCheckedOnline

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Background

- Sexually transmitted and blood-borne infection (STBBI) rates have risen, disproportionately affecting equity-deserving populations who face barriers to testing.
- BC's digital STBBI testing service GetCheckedOnline (GCO) expands access, however, funding constraints have stalled further expansion. As a cost-saving measure, decision-makers have considered reducing potentially unnecessary testing.
- Currently, GCO routinely recommends chlamydia, gonorrhoea, syphilis and HIV tests for all clients, warranting exploration of over-recommendation.
- This study explored the extent of potential over-recommendation based on clinical guidelines and the demographic and behavioural characteristics 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, aligned with the Andersen Healthcare Utilisation model, were used to explore associations with potential over-recommendation.
- Negative binomial regression estimated rates of potential over-recommendation.
- Positivity rates were compared across over-recommendation categories.

Conclusion

- Potential over-recommendation mainly reflected high-frequency testing and was more common among populations with disproportionately higher risk for STBBIs.
- 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.

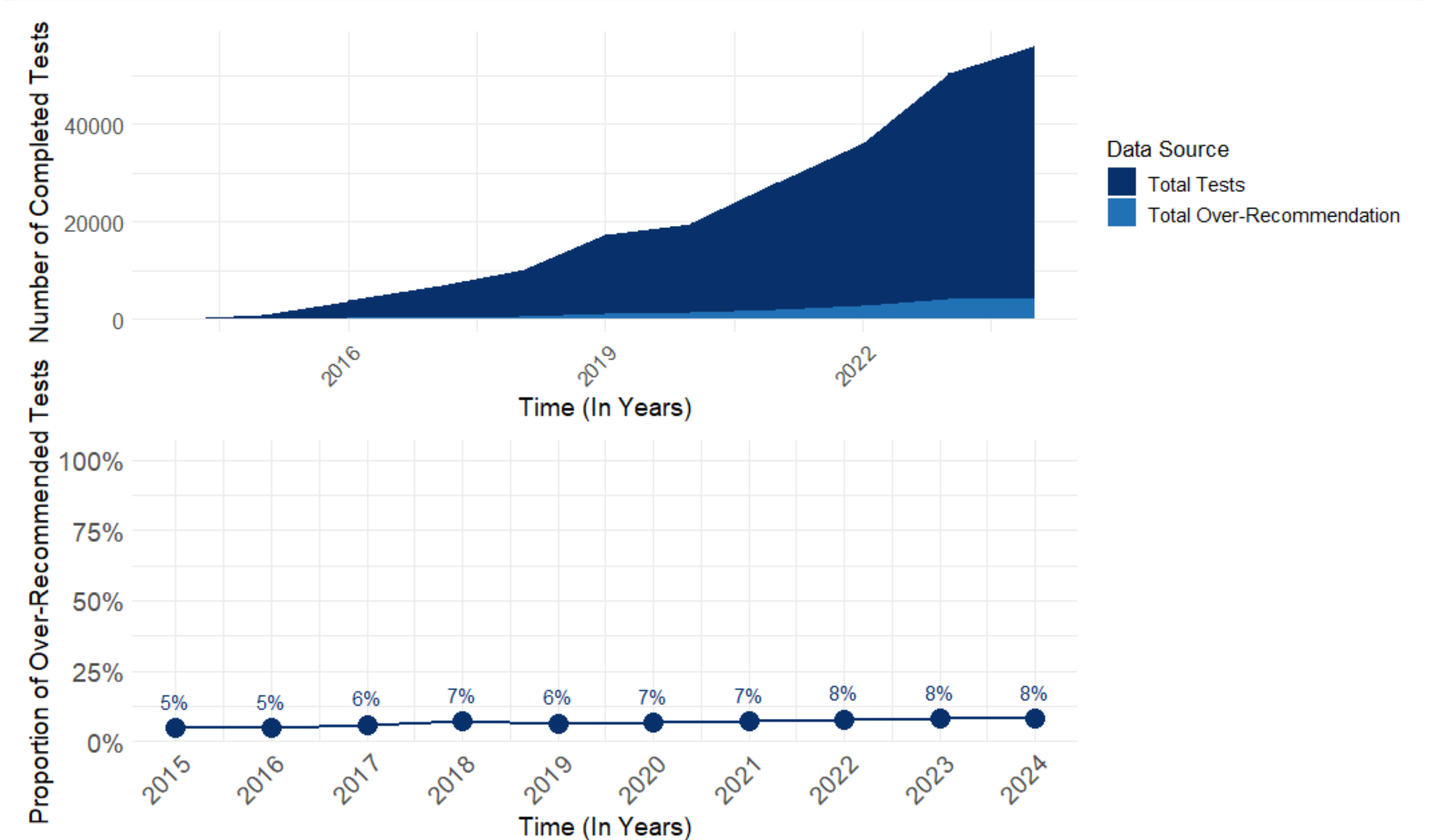
Table: Proportion of Test Episodes Containing at Least One Positive Result, by Over-Recommendation Category

| Recommendation Category | Positivity Rate | P-Value |
|-------------------------|-----------------|---------|
| Over-Recommendation | 4.2% | < 0.01 |
| Non-Over-Recommendation | 3.6% | |

Results

- Out of 22,267 clients, 7,556 (33.9%) had at least one test categorized as a potential over-recommendation. Of 59,582 total testing episodes, 17,031 (28.6%) were categorized as potential over-recommendations.
- Among clients with at least one over-recommended test, 12.8% never reported any risk factors ("no-risk testers") across any of their GCO tests.
- On average, 6.7% of all GCO testing episodes per year were categorized as potential over-recommendations over the study period.
- Rates of potential over-recommendation of testing were higher among racialised clients, those considered 2SLGBTQIA+, and those who preferred not to answer sexual orientation related questions, and those reporting no condom use, having multiple sex partners, previous STBBI diagnoses, and HCV risk.
- Most potential over-recommendations (96%) occurred when clients tested within three months of a previous episode.
- Among over-recommendation episodes occurring within < 3 months between tests, only 10.9% reported no risk factors.
- Positivity was higher among potential over-recommendations (4.2%) than non-over-recommendations (3.6%, $p < 0.01$).

Graph: Trends in Over-Recommendation Over Time Based on Absolute Count and Proportion of Total Tests Completed



Graph: Time Between GCO Tests Categorised As Over-Recommendation

