

Investigating selection bias: Cross-sample comparison of gay and bisexual men concurrently recruited from an STI clinic, sexseeking apps, and a pride event in British Columbia, Canada

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Vancouver, Canada

July 12, 2017 STI & HIV World Congress



# Sampling gay and bisexual populations

- 1. Random sampling?: No defined sampling frame
- 2. **RDS**?: Costly/time-intensive, unclear generalizability
- 3. Convenience samples







#### What can I test for?

Chlamydia Gonorrhea HIV Syphilis Hepatitis C

#### What about other STIs?

GetCheckedOnline does not test for all STIs. If you want to get tested for other kinds of STIs, you will need to visit a clinic or see your doctor.

#### Learn more

#### What's GetCheckedOnline?

GetCheckedOnline is a new and easy way to test for sexually transmitted infections (STI) in British Columbia, Canada. In a few steps, you can print a lab form, then go to a participating LifeLabs site to give your samples and get your results online or over the phone.

#### Who can use it?

Learn more

GetCheckedOnline is operated by the BC Centre for Disease Control. It is available in Vancouver and select communities on Vancouver Island and in the Interior. You will need a valid promotional code to create your account; visit Getting a Code to find out how and where to get a code. We hope to expand GetCheckedOnline to other areas in BC in the future.

Your

Privacv

us. Any personal

provincial privacy

legislation.

Learn More..

Your privacy is important to

information collected by this

online service is protected

by our privacy policy and



Create Account

GetCheckedOnline is available at select LifeLabs locations in British Columbia.

#### What's New?

#### Throat and rectal swabs are now available!



Good news! GetCheckedOnline now offers throat and rectal swabs for chlamydia and gonorrhea testing. Please be aware that if

swabs are recommended for you but you do not bring your swabs back to LifeLabs, you will not be able to see your results online.

Have Questions?

> If you can't find answers here, you can ask your questions online at SmartSexResource. A sexual health nurse is available to answer your questions through the website or private chat.

Learn More

#### Having Safer Sex

Using condoms and other kinds of protection is a very effective way to prevent STIs. Spice up your safer sex life. Use protection and learn how to talk about safer sex with partners

Learn More ...

## getcheckedonline.com



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Learn More ...

with sexual health and STIs.

Other

Resources

## **Motivation**



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#### GetCheckedOnline.com

## **Motivation**



Want to **get tested** for sexually transmitted infections?



### Online HIV and STI testing... Love it? Hate it? Never heard of it?

The BC Centre for Disease Control wants your feedback.





Now you can **get checked online**. From laptop to lab, STI testing is in your hands.

#### GetCheckedOnline.com

# Survey of GBMSM

- Objectives:
  - Survey: To measure awareness and acceptability of GetCheckedOnline among GBMSM
  - Analysis: To characterize differences across multiple venue convenience samples, and overlap between samples
- Methods:
  - July December 2016
  - Eligibility:
    - Identification as gay, bisexual or MSM (including cis & trans men)
    - Age > 15
    - Able to complete a survey in English
    - Resides in BC

## Multi-venue sampling

### Pride



## **Multi-venue sampling**

### Pride





## **Multi-venue sampling**

### Pride







# Methods for estimating sample overlap



### Results: N=1272



### GetCheckedOnline.com



### **Socio-demographics**



## Sex partners & testing

■ Pride ■ Apps ■ STI clinic



### Tech use





Pokémon Go user









## Conclusions

#### • Cross-sample comparisons:

- STI clinic: younger, greater ethno-racial diversity, highest rate of testing
- Apps\*: older, more bisexual men, greatest number of sex partners
- Pride: somewhere in the middle
- \* Scruff, Squirt, Hornet

#### • Overlap:

- Only 19% of respondents were 'eligible' to be sampled from all 3 venues
- 11-18% of respondents would be absent from the sample if we had used only one sampling method

## Recommendations

- **Design stage:** Increase application of diverse sampling methods (both old and new)
- Analysis stage: post hoc assessments of selection bias; and/or adjustment techniques
- Feasibility



ORIGINAL ARTICLE

Men who have sex with men in Great Britain: comparing methods and estimates from probability and convenience sample surveys

Philip Prah,<sup>1</sup> Ford Hick Sonali Wayal,<sup>1</sup> Soazig Andrew J Copas,<sup>1</sup> Juli



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Practice of Epidemiology

Impact of Statistical Adjustment for Frequency of Venue Attendance in a Venuebased Survey of Men Who Have Sex With Men

Paul Gustafson\*, Mark Gilbert, Michelle Xia, Warren Michelow, Wayne Robert, Terry Trussler, Marissa McGuire, Dana Paquette, David M. Moore, and Reka Gustafson



CKED

Reach and acceptability of an online HIV/STI testing service among gay, bisexual, and other men who have sex with men living in British Columbia, Canada

#### BACKGROUND:

- Gay, bisexual, and other men who have sex with men (GBMSM) in British Columbia (BC) have high incidence of HIV/STI, and many report barriers to accessing testing.
- GetCheckedOnline (GCO, getcheckedonline.com) was launched in 2014 to reduce these barriers.
- · GCO involves 3 main steps:
- Create account, complete an assessment, and print a laboratory requisition (online)
- Provide blood, urine, and swab specimens at a laboratory (in-person)
- 3. Receive test results (online or by phone)
- During 2015, promotional efforts were focused on inviting GBMSM to access the service.

#### OBJECTIVE:

 To assess reach and acceptability of GCO within the BC GBMSM community, 2 years after its launch

#### SURVEY METHODS:

- Eligibility: self-identification as GBMSM; age >16; English-speaking; resides in BC
- Recruitment (July September 2016), see Figure 1:
- Vancouver Pride events, bars, streets (inperson surveys)
- Sexual health clinics targeting GBMSM (clinic surveys)
- Social media, gay hook-up apps and websites (online surveys)
- Analysis was descriptive, focused on the following **outcomes**:
- Awareness of GCO
- Use of GCO
- o Intention to use GCO in future
- Perceived benefits/drawbacks of GCO

#### Figure 1: Survey recruitment



#### Online HIV and STI testing... Love it? Hate it? Never heard of it?

UBC

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CIHR IRSC

50%

%

50

46

38

39

26

20

22%

BC Centre for Disease Control

**RESULTS:** 

Aware 32%

online testing

Saving time

information

Drawbacks:

Benefits:

Unaware 68% 52% were single

N=1272 GBMSM participated

Median age was 38 (range: 18-86)

· 78% identified as gay, 16% as bisexual

Figure 2: GCO awareness and use

55% resided in Vancouver, BC (urban centre)

Tested 10%

Intend to test

Would use GCO at times over usual place of testing

Talked about GCO with

Know someone who's used

GCO

Table: Perceived benefits and drawbacks of

Outcome

Testing without waiting for an

appointment at the clinic

Getting results online

73% reported a white ethnic identity

The BC Centre for Disease Control wants your feedback.

Not speaking with a doctor or nurse

Not understanding how service works

Worried about privacy of one's online

#### CONCLUSIONS:

- Reach: Two years after GCO's launch, 1/3 of GBMSM are aware of the service (of whom 1/10 have used it).
- · Acceptability: Half of those aware intend to use GCO.
- Diffusion: An additional 51% of those aware of GCO have talked about the service, while 22% know someone who has used it, indicating substantial observability-a theoretical factor thought to induce ongoing diffusion of new technologies (Berwick, JAMA 2003).
- Overall, these findings highlight the importance of ongoing promotion to raise awareness of this testing alternative for GBMSM.

#### ACKNOWLEDGEMENTS:

The authors would like to thank the individuals who participated in this study. This study was funded in part by the Canadian Institutes of Health Research. The authors have no conflict of interest to disclose. FOR MORE INFORMATION: During or after the conference: mark.gibert@bcodc.ca To find out more about our research projects including this one please visit our website www.lovebytesresearch.ca.

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Researching Digital Interventions to Improve Sexual Health

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