Notre santé : Enquête pancanadienne sur la communauté 2SLGBTQQIA+

Nuestra salud: Encuesta canadiense sobre la comunidad 2SLGBTQQIA+

Our Health: Canada-Wide 2SLGBTQQIA+ Community Study

SARS-CoV-2 seroprevalence among 2SLGBTQQIA+ populations in Canada:

a community-based mail-home Dried Blood Spot study

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CITF Scientific Meeting

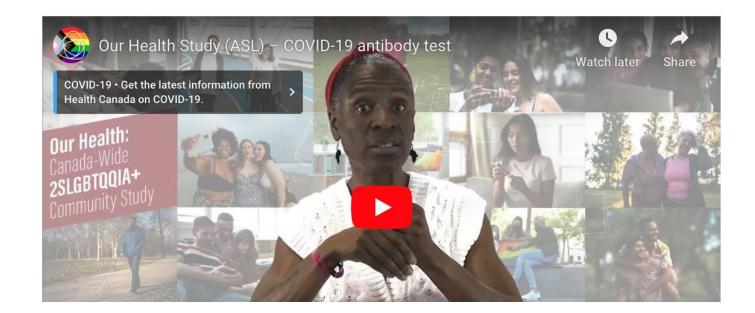
Lachowsky NJ, Klassen B, Slater A, Verma AR, Purzycki D, Arthur S, Draenos C, Babin C, Stark A, Walker M, Hare A, Stephany K, Neglia J, Amberber N, Hu A, Child S, Kim J

Outline

- Background
- Methods
 - Recruitment

• Results

- Study Sample Demographics
- Survey Results
- Dried Blood Spot Testing
- Knowledge Translation
- Lessons Learned





Background

- Public health actions to address COVID-19 may uniquely impact 2SLGBTQQIA+ people
 - Two-Spirit, lesbian, gay, bisexual, trans, queer, questioning, intersex, asexual, and other sexual and gender marginalized populations
- Due to stigma and discrimination that shape underlying social and health inequities, direct and indirect impacts of COVID-19 may be exacerbated for 2SLGBTQQIA+ people
 - Lack of routine collection/reporting of 2SLGBTQQIA+ in government data
- Study Aims:
 - Evaluate the impacts of COVID-19 on the health, wellness, stigma, and material security of 2SLGBTQQIA+ people
 - Estimate SARS-CoV-2 seroprevalence among 2SLGBTQQIA+ people



Methods

Community-based research

- Cross-sectional online survey from April-September 2022
 - Questionnaire with multiple domains: **sociodemographics**, **COVID-19**, chronic health, health and services, mental health, discrimination, community, sexual health, reproductive health, caregiving, economic security, substance use, and housing
 - Optional mail-home Dried Blood Spot self-collection kit
 - Measure RBD lgG, S1 lgG, and Nucleocapsid lgG

• Eligibility:

- Live in Canada
- Be 2SLGBTQQIA+
- Aged 15+ (18+ for DBS component)
- Complete survey in English, French or Spanish
- Honoraria: \$10 for survey, \$20 for returned DBS sample



Recruitment

- Social media
 - Sponsored posts, influencers
- News media
 - Multi-lingual
- Print media
 - Magazines, transit ads
- Accessibility
 - American Sign Language (ASL) and Langue des signes québécoise (LSQ) videos about the survey for Deaf and hard-of-hearing people



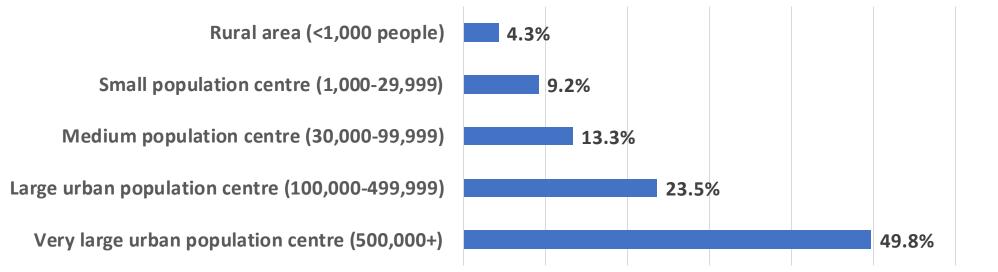
Survey Results (n=4,044)

- Age: average of 37.4 years old (SD 13.8)
- Indigenous: 8.4%, and of these 56.8% were Two-Spirit
 - 59.7% First Nations, 29.7% Metis, 6.5% Inuk
- Trans self-identified: 27.2%
- Gender: 39.8% men, 25.7% women, 20.9% non-binary, 10.1% genderqueer, 6.4% trans men, 6.1% genderfluid, 3.8% trans women, 3.0% agender
- Sex assigned at birth: 50.4% female, 46.7% male, 2.9% PNA
- Intersex self-identified: 2.0%
- Sexual Orientation: 38.4% gay, 35.2% queer, 23.0% bisexual, 14.3% pansexual, 13.3% lesbian, 6.0% asexual, 2.2% questioning, 2.2% homoflexible, 1.6% heteroflexible, 1.0% straight

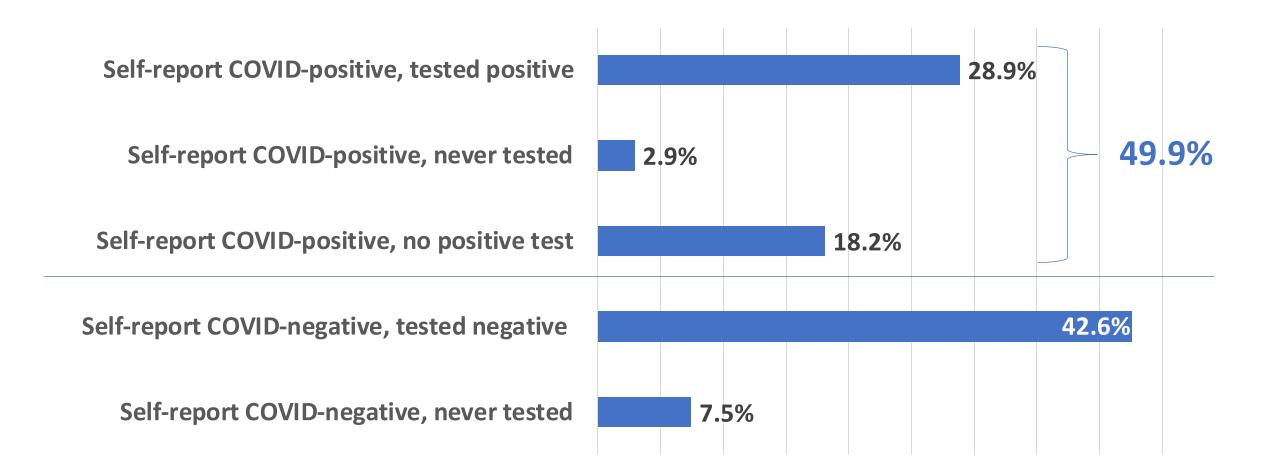


Socio-Demographics (continued)

- Ethnoracial identity: 79.5% white, 6.0% East/Southeast Asian, 4.2% Latina/o/x/e, 3.3% Black, 3.1% South Asian, 2.1% Middle Eastern
- **Disability self-identified:** 34.9%
- Born in Canada: 82.2%, 2.5% were non-citizen/non-PR
- Education: 55.4% bachelors+, 16.7% high school, 4% < high school



COVID Status: Self-Report & Testing History



COVID Hospitalization & Vaccination

- Of those with COVID, 2.2% hospitalized + 0.7% in ICU (2.9% total)
 - 14.2% had someone close to them hospitalized
- 9.2% had someone close to them die due to COVID
- Have you been vaccinated against COVID-19? Answer 'Yes' if you have received at least one dose of the COVID-19 vaccine. Certain types of vaccines require more than one dose.
 - 97.5% Yes, 2.1% no, 0.4% PNA



DBS Self-Sampling Process

- 1892 requested a kit (44.0% of survey participants)
 - Above-expected sampling in BC and Nova Scotia
 - Below-expected sampling in Quebec
- 1845 successfully shipped (97.5%)
 - Remaining unresolved shipping address inconsistencies
 - 55 replacement kits (2.8%)
- 1218 kits returned (66.0%)
 - Participants received their kit within average 7.85 days (prep and shipping)
 - Lab taking an average 65.4 days (~9 weeks) to provide testing results



for e you begin, wash your hands with soap and warm ter. Find a clean, tidy and flat surface, ideally a table or sk. Lay your materials* out on the table so that you have erything you need easily in reach. Your DBS card is in the in envelope. Take it out of the envelope and fold the flap of before you begin. Write the date on the DBS card with a



Finger selection o

ther hold the circular part of the lance ind middle finger or hold it in-between

🗸 🗙

tep two: Collect your sample

Choose a finger to prick. To reduce pain, most people e the middle or ring finger on their non-dominant hand, a hand they use the least. To increase blood flow in your inant hand ic you can rub your hands and fingers together, and "lean the finger with an alcohol swab. Make sure to clean th



the lancet firmly against your skin, press the purple

lold your finger above the DBS card, but avoid touching In the goal in the second seco touch the droplet to the circle on the card. o entirely fill 5 circles on the card. A minimum

circles is needed for the lab to process the sample. If e first drop of blood is not enough to fill a circle, let anothe ap of blood fall just next to the first drop in the same circle nue in this manner until the circle is completely full

step three: Bandage your finger and let you sample drv

posed to direct sublight

afe place to dry your DBS card for 3 hours

ing this time. Place your used lancet in a sharps co side a plastic bottle that can be sealed. This can be

to your local pharmacy, or you can contact your nuncipal waste collection service for sharps dispose

Once you've filled

Once your DBS card is dry, fold the flap back over the sample nd place the card in the coin envelope provided. Next, place he coin envelope inside the smaller plastic bag with the Jehumidifying pack and the humidity indicator. Return you s. Once bleeding has slowed enough or stopped, us ample to the Community-Based Research Centre by ma sing the postage paid envelope provided

Hold finger above card

Thank you for your participation For more information on this research project, please email covidstudy@uvic. or by calling toll-free at 1-844-900-2279.

step four: Seal and return your sample



DBS Self-Sampling Results (Preliminary)

- 815 DBS samples with results provided by the lab
 - Includes samples received up to September 2022
 - 98.1% had sufficient sample for testing

Laboratory Results

- 0.8% Negative for SARS-Cov-2 Antibodies
- 99.2% Positive for SARS-CoV-2 Antibodies
 - 25.3% Reactivity pattern indicates natural infection alone OR natural infection and vaccine induced immunity
 - 73.9% Reactivity pattern indicates probable vaccine induced immunity



Knowledge Translation

Continue with SGBA+ Approach:

 Stratified analyses by sex assigned at birth, gender identity, sexual orientation, Indigeneity, ethnoracial identity, age, socioeconomic status, rural versus urban, and province/territory

• Outputs in Progress:

- Open-access manuscripts
- Common language public reports
- Public data visualization dashboard

• Commitment to open science:

• Publicly available protocol and research tools, data sharing



Lessons Learned

- Deep community consultations helped ensure study accessibility and sample diversity: "nothing about us, without us"
 - Critical to apply community-based research principles: access, advance social justice, community empowerment, centre lived experience, etc.
- Primary data collection is needed this study provides rare insight into seroprevalence among 2SLGBTQQIA+ population
 - Consider comparisons with similarly timed studies and surveillance data to understand similarities and differences
- Community-based mailed DBS self-collection is highly acceptable for estimating COVID-19 seroprevalence for this community
 - High quality self-collected DBS specimens



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Thank-you. Questions?

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