

**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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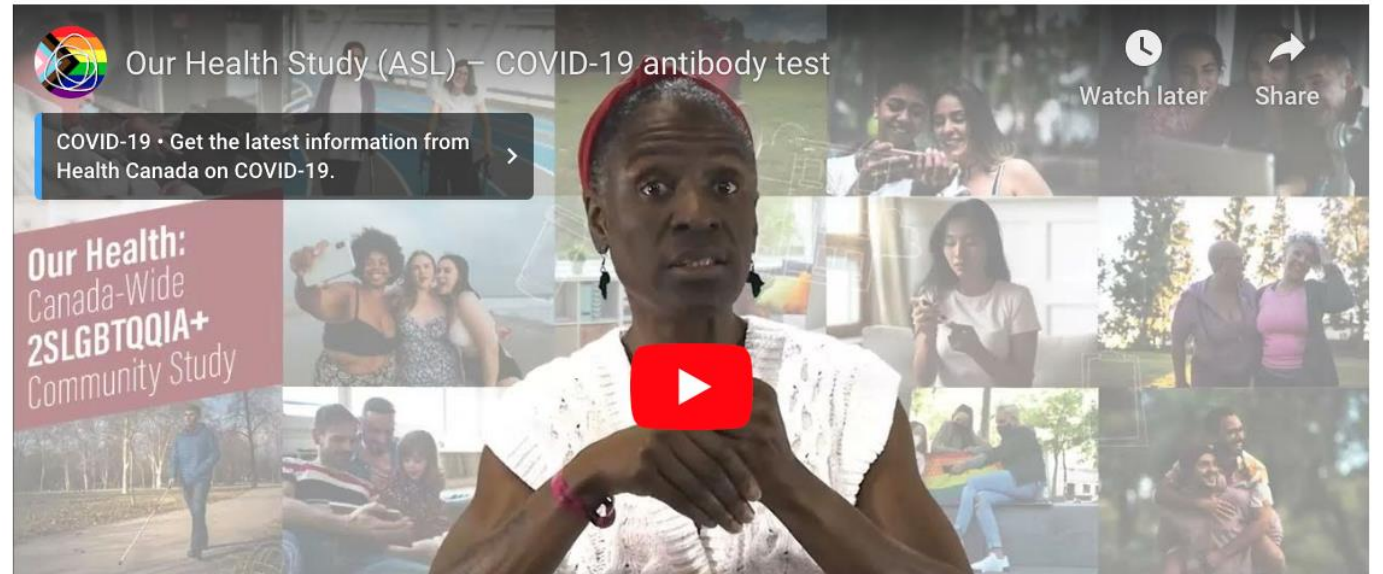
**March 9, 2023**

**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

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# 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 IgG, S1 IgG, and Nucleocapsid IgG
- **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

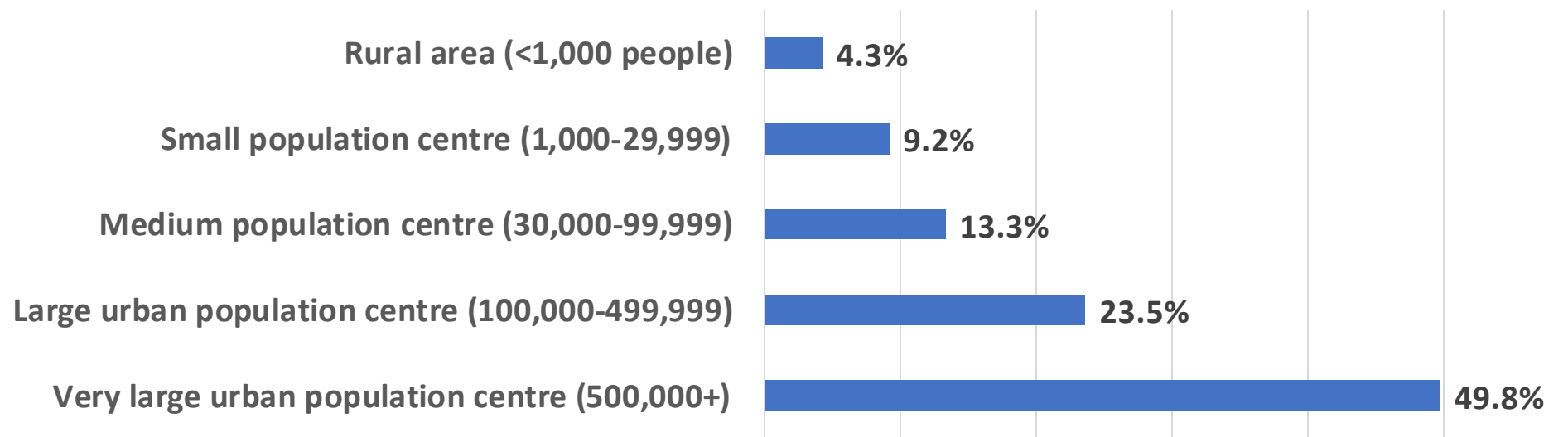


# Survey Results (n=4,044)

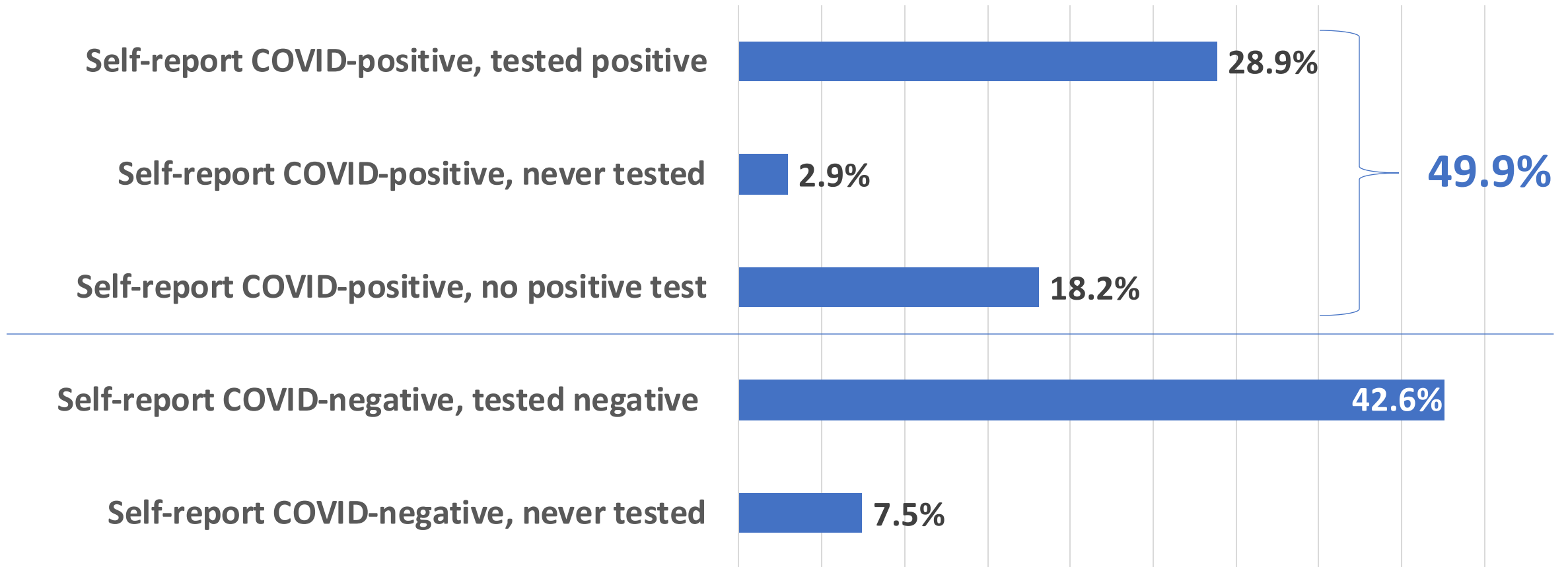
- **Age:** average of 37.4 years old (SD 13.8)
- **Indigenous:** 8.4%, and of these **56.8% were Two-Spirit**
  - 59.7% First Nations, 29.7% Metis, 6.5% Inuk
- **Trans self-identified:** 27.2%
- **Gender:** 39.8% men, 25.7% women, 20.9% non-binary, 10.1% genderqueer, 6.4% trans men, 6.1% genderfluid, 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**

- **1892 requested a kit (44.0% of survey participants)**

- **1218 kits returned (66.0%)**

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# 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



# Acknowledgements

- **All of our participants!**
- **Community Partners:** CBRC, Egale, Enchanté, 2SiMs, and more
- **Collaborators & Knowledge Users:**
  - John Kim, National Microbiology Lab
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  - 2SLGBTQI+ Secretariat
  - Women and Gender Equality
- **Academic team & 2SLGBTQQIA+ Community Advisors**
- **Research staff and trainees**
- **Our Funders**

# Thank-you. Questions?

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