



**COVID-19 IMMUNITY
TASK FORCE**

Spotlight on **CITF-FUNDED RESEARCH**



CITF Announcements

Infection-acquired seroprevalence in Canada increases slightly since end of summer

Our Seroprevalence in Canada page has just been updated and results from nearly two dozen studies show infection-acquired seroprevalence in Canada increased slightly at the end of September to reach 79%, up nearly two per cent compared to data from August 31. Findings from several seroprevalence studies across Canada show that seropositivity due to infection increased in Ontario and Quebec to catch up to Western Canada, but was stable in Western Canada and Atlantic Canada.

[Read more](#)

CITF Databank: new studies added, more harmonized data available

The CITF Databank continues to grow at a solid pace, and the Databank team has recently added new data from four studies bringing the total to 27 studies, including 16 with harmonized data. In the months ahead, the Databank expects to include data from some 65 studies. With individual-level questionnaire and serology data from tens of thousands of

participants, the Databank is a valuable resource to researchers from around the world.

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CITF-Funded Research Results

Seroprevalence due to infection stable at 80% at start of the back-to-school season

The latest CITF-funded report from Canadian Blood Services suggested that seroprevalence due to infection was 80.1% among Canadian blood donors in September 2023. This increased slightly from the 79.0% seroprevalence observed in August 2023. The percentage of younger donors (ages 17-24) who had infection-acquired seroprevalence was 90.3% by September 30th, 2023, higher than the 87.9% observed by August 31st, 2023. Self-declared Black, Indigenous, and racialized donors continued to have higher seroprevalence due to infection than self-declared white donors.

[Read more](#)

Maternal mRNA COVID-19 vaccination during pregnancy may be protective against adverse newborn outcomes

A CITF-funded study, published in *JAMA Pediatrics*, reported that maternal mRNA COVID-19 vaccination during pregnancy was associated with lower risks of severe neonatal morbidity, neonatal death, and neonatal intensive care unit (NICU) admission. Furthermore, there were no increases in neonatal and six-month readmissions among infants of mothers vaccinated during pregnancy.

[Read more](#)

Third mRNA vaccine dose induced strong humoral responses in participants with chronic kidney disease, with Moderna performing slightly better than Pfizer

A CITF-funded study, published in *the Clinical Journal of the American Society of Nephrology*, showed that a third dose of COVID-19 mRNA vaccine with Moderna (monovalent) given to patients with chronic kidney disease (CKD) elicited higher SARS-CoV-2 anti-RBD levels than with the Pfizer (monovalent) vaccine over a six-month period.

[Read more](#)

High-density peptide array helps identify that selective pressure for immune evasion occurs upon transmission

A CITF-funded study, published in *iScience*, found that most of the selective pressure for immune evasion appears to occur upon SARS-CoV-2 transmission between hosts rather than within patients. Immune evasion refers to the immune system not recognizing a virus and therefore not mounting a fight. The study also offered more evidence that exposure to other seasonal human coronaviruses (hCoVs) helps develop a better immune response to SARS-CoV-2.

[Read more](#)

Vaccine effectiveness against infection may be lower in people living with HIV with a history of injection drug use

A CITF-funded study, published in the *Journal of the International AIDS Society*, found that vaccine effectiveness against SARS-CoV-2 infection may be lower in people living with HIV (PLWH) with a history of injection drug use (IDU). The overall vaccine effectiveness during the first two months after second

dose was lower among PLWH with IDU history than PLWH with no IDU history, compared to matched HIV-negative individuals with or without history of IDU.

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People living with HIV frequently practiced COVID-19 preventive behaviours

A CITF-funded study, published in *AIDS Research and Therapy*, found that people living with HIV (PLWH) in Canada displayed a high level of adherence to COVID-19 preventive behaviours, including masking, physical distancing, limiting social gatherings, limiting contact with at-risk individuals, self-isolating due to symptoms, and self-quarantining after possible exposure. People with known prior COVID-19 infection were more likely to practise self-quarantine after possible exposure to COVID-19, whether they were symptomatic or not.

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Trans, nonbinary, and other gender nonconforming participants experienced significant barriers to healthcare during COVID-19 lockdowns

A paper, published in *Health & Social Care in the Community*, reported that trans, nonbinary, and other gender nonconforming (TGNC) participants in the CITF-funded Engage COVID-19 study experienced significant barriers to healthcare during COVID-19 in Canada. Additionally, the barriers increased as lockdowns were implemented and public health resources were redistributed to tackle the spread of the virus.

[Read more](#)

Seroprevalence due to SARS-CoV-2 infection among unvaccinated youth was highest among babies and young adults

A CITF-funded study, published as a preprint and not yet peer-reviewed, found that the highest seropositivity rates among unvaccinated youth were among children under four years old and young adults aged 20-24. This was evident even though school-aged children had returned to in-person schooling. Among unvaccinated participants of all ages in this study, those of South Asian descent had higher seropositivity than other ethnic groups (13.5% vs. 5.2%).

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