



COVID-19 IMMUNITY
TASK FORCE

Spotlight on **CITF-FUNDED RESEARCH**



CITF Announcements

Infection-acquired seroprevalence in Canada: new data from pediatric ERs

Our Seroprevalence in Canada page has just been updated. Results from 20+ studies show infection-acquired seroprevalence in Canada was stable at the end of July, much like it was at the end of June, around 77.7%. New in this report: data from children and adolescents from Ontario, but mostly from Quebec. These pediatric data suggest seroprevalence due to infection was 39% in children under 2 years, rising to 68% in children over 10 years between March and May 2023.

[Read more](#)

Multi-province studies in the CITF Databank

The CITF Databank contains data from 21 studies, including six multi-province studies which represent a wide range of population and community data from various regions of Canada. Access to the CITF Databank is free and researchers from around the world can explore what's available in the Databank to support their own research work.

Discover

Research assistant opportunity with the CITF and McGill School of Population and Global Health

The CITF Secretariat and the McGill School of Population and Global Health (SPGH) are hiring a research assistant to support SARS-CoV-2 serosurveillance research initiatives. The research assistant will initially contribute to project development currently underway through the CITF and linked to Hema-Net, and then transition to SPGH work as of April 2024. The ideal candidate has a master's in public health or related area and demonstrated health sciences research experience with an emphasis on serological testing and data monitoring. **Deadline: September 25.**

Apply Now



CITF-Funded Research Results

Seroprevalence due to infection stable at 80% in July

The latest CITF-funded report from Canadian Blood Services suggests that seroprevalence due to infection was stable at 80% among Canadian blood donors by the end of July. The report found that 79.9% had anti-nucleocapsid antibodies by July 31st, 2023, comparable to 80.0% by June 30th, 2023. The percentage of younger donors (ages 17-24) who had infection-acquired seroprevalence was 90.0% by July 31st, 2023, which is similar to the 90.2% observed by the end of June. Self-declared Indigenous and racialized donors continued to have higher seroprevalence due to infection than did self-declared white donors.

[Read more](#)

British Columbia experienced an increase in respiratory syncytial virus (RSV) during the COVID-19 pandemic

A CITF-funded study, published in *The Lancet Regional Health - Americas*, reported an increase in respiratory syncytial virus (RSV) infections among children over 2 years old during 2021–22, the first RSV season after a prolonged lack of virus circulation, compared to pre-pandemic years (2017–2020). In addition, hospitalisations due to RSV increased dramatically in the following year (2022–23), although the number of children with severe outcomes (mechanical ventilation and/or death) did not increase.

[Read more](#)

Seronegative children were 9 to 12 times more likely to develop antibodies due to infection in the early Omicron period, compared to before Omicron

A CITF-funded study, published in *Influenza and Other Respiratory Viruses*, found that previously seronegative children were 9 to 12 times more likely to seroconvert due to infection during the early Omicron-dominant period (May to October 2022) than in pre-Omicron periods.

[Read more](#)

Retail and food workers with hybrid immunity had the highest neutralizing antibody levels against all SARS-CoV-2 strains

A CITF-funded study, published in preprint and not yet peer-reviewed, found that vaccination was associated with higher neutralizing activity (the ability of antibodies to block entry of the virus into the cell) against pre-Omicron variants than against Omicron sub-lineages. Vaccination followed by infection was associated with higher neutralizing activity against Omicron

sub-lineages than vaccination alone. Interestingly, there was no significant difference in the neutralizing response in terms of sex, age, chronic diseases, and whether food and retail workers smoked or vaped.

[Read more](#)

T-cell responses against Omicron variants BA.4/5 and XBB.1.5 in solid organ transplant recipients were robust after three doses of monovalent mRNA vaccine but lower than against the ancestral strain

A CITF-funded study, published in preprint and not yet peer-reviewed, found that vaccination induced robust SARS-CoV-2-specific T-cell responses against Omicron variant BA.4/5 in solid organ transplant recipients (SOTRs). These responses remained detectable over time and further increased following a fourth dose. SOTRs also showed better T-cell responses against Omicron variant XBB.1.5 after three doses of vaccine. However, responses to Omicron BA.4/5 and XBB.1.5 were significantly lower in magnitude compared to ancestral strain responses after three doses of monovalent mRNA vaccine.

[Read more](#)

CITF-funded findings on immune responses to SARS-CoV-2 variants and hybrid immunity

CITF-funded studies continue to monitor immune responses to SARS-CoV-2 variants and increases in hybrid immunity among Canadians. Here, we summarize results from the four presentations given during the breakout session “Immune responses to SARS-CoV-2 variants and hybrid immunity” at the CITF Scientific Meeting in Vancouver, March 8-10, 2023. These findings on the strength and durability of immunity (whether hybrid, infection-acquired, or vaccine-induced) help to better inform public policy and recommendations for Canadians.

[Read more](#)

CITF-funded findings on breakthroughs in laboratory and in research infrastructure

Multiple platforms and novel technologies have been created over the past three years to aid Canadian clinical and research efforts in monitoring immune responses to SARS-CoV-2. These breakthroughs in laboratory and research infrastructure have been crucial to ensuring Canadian researchers have the necessary tools, infrastructure, resources, and procedural pipelines to enable rapid responses to this pandemic and any future one. Here, we elaborate on some of these breakthroughs and summarize research results from the four presentations given during the breakout session “Breakthroughs in laboratory and research infrastructure,” at the CITF Scientific Meeting.

[Read more](#)



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