



COVID-19 IMMUNITY
TASK FORCE

Spotlight on **CITF-FUNDED RESEARCH**



CITF Announcements

Infection-acquired seroprevalence in Canada decreases slightly in June

Our Seroprevalence in Canada page has just been updated with data to June 30, 2023. Results from more than 20 studies show that infection-acquired seroprevalence among people in Canada of all adult age groups was 77.8% at the end of June, slightly lower than at the end of April. The decrease is most likely due to nucleocapsid antibody levels waning at greater pace over time than the pace of new infections being acquired in the population.

[Read more](#)

More added to the CITF Databank

The CITF Databank now contains data from 18 studies, comprising either questionnaire or serology data from over 85,000 participants. The CITF Databank was developed to enhance the impact of our funded studies by providing researchers free access to the collected data to conduct their own research. Visit our newly improved CITF Databank webpage to find out more.

[Read more](#)



CITF-Funded Research Results

Most Canadians have acquired antibodies against SARS-CoV-2

A study funded and led by the CITF, published in *CMAJ*, found that as of March 2023, over 75% of people in Canada had antibodies due to a SARS-CoV-2 infection. This is in marked contrast to the findings for May 2020 when only 0.3% of people in Canada had infection-acquired antibodies.

[Read more](#)

Antibodies decay faster following SARS-CoV-2 infection in individuals 90 years and older

A CITF-funded study, published in *Open Forum Infectious Diseases*, reported that individuals 90 years and older had higher levels of infection-acquired SARS-CoV-2 antibodies and more efficient antibody neutralization than younger groups (under 65, and 65-89), but their antibodies decayed at a faster rate. Due to their higher risk of severe complications from COVID-19, it is important for older people to be vaccinated and to continue receiving booster vaccinations to maintain immunity against the virus.

[Read more](#)

Early Omicron infection is associated with increased reinfection risk in older adults

A CITF-funded study, published in *eClinicalMedicine*, found that residents of long-term care and retirement homes who had a SARS-CoV-2 infection early in the Omicron wave were more susceptible to get infected with a later Omicron variant than people who had never been infected or who had been infected with pre-Omicron variants. Current vaccination strategies for vulnerable older adults assume that all COVID-19 infections provide enhanced post-infection protection against subsequent infection; however, these data demonstrate that this is not true for all variants.

[Read more](#)

Vaccines can induce SARS-CoV-2 neutralization in people living with HIV

A CITF-funded study, published in *AIDS*, found that vaccine-induced SARS-CoV-2 neutralization capacity was similar between people living with HIV (PLWH) and HIV-negative people without past COVID-19 infection. Although both HIV-positive and HIV-negative people demonstrated hybrid immunity (immunity due to both vaccination and infection), neutralization was significantly higher among HIV-negative people than PLWH.

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Predictors of Post COVID-19 Condition

A CITF-funded study, published in preprint and not yet peer-reviewed, found positive associations between Post COVID-19 Condition (PCC), also known as Long COVID, and anti-spike (S), and anti-receptor binding domain (RBD) IgG concentrations, which were not statistically significant. It also found no association with infection-acquired anti-nucleocapsid (N) IgG concentrations. However, individuals with PCC had significantly higher neutralization efficiency, especially those that reported a deterioration in quality of life.

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Respiratory syncytial virus antibody functions diminished during peak of COVID-19 pandemic,

causing more severe RSV infections

A CITF-funded study, published in preprint and not-yet peer-reviewed, found that the almost complete absence of RSV circulation during the peak of COVID-19 pandemic mitigation measures led to waning antibody-mediated and cellular responses that protect against severe respiratory syncytial virus (RSV) infection. Since these RSV antibody functions are the main way for young children to fend off an RSV infection, this suggests that if pregnant people aren't exposed to the RSV virus regularly, the protection against the virus that can be transferred to their baby during pregnancy may be weakened.

[Read more](#)

CITF-funded findings on accelerated research in long-term care settings

Studying the immune responses of older Canadians to infections and to vaccines has helped inform the appropriate timing for booster vaccines in this vulnerable population, especially those living in long-term care (LTC) homes. Wastewater surveillance has also proven to be a useful early detection system for outbreaks in LTC homes. Here, we summarize the results from the five presentations given during the breakout session, "Accelerated research in long-term care settings," at the CITF Scientific Meeting in Vancouver, March 8-10, 2023.

[Read more](#)

CITF-funded findings on seroprevalence and effects of COVID-19 on children and adolescents

Ongoing monitoring of the serological status of children and adolescents is important, particularly in the context of new variants of concern, low vaccine coverage, and low uptake of testing. Here, we summarize results from the four presentations given during the breakout session, "Seroprevalence and effects of COVID-19 on children and adolescents," at the CITF Scientific Meeting in Vancouver, March 8-10, 2023.

[Read more](#)



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