



**COVID-19 IMMUNITY
TASK FORCE**

Spotlight on **CITF-FUNDED RESEARCH**



CITF Announcements

CITF Databank now has individual-level data from 140,000 participants

With recent updates to the CITF Databank, researchers can now access data from 27 studies, including 16 with harmonized data. The Databank covers a wide range of professions and demographics from across Canada and has individual-level questionnaire and serology data from 140,000 participants.

[Explore](#)



CITF-Funded Research Results

Two and three COVID-19 mRNA vaccine doses

enhance T cell immune responses in older adults

A CITF-funded study, published in *Pathogens and Immunity*, found that adults 65 years and older showed strong CD4+ and CD8+ T-cell responses after receiving two COVID-19 mRNA vaccine doses, which increased significantly after the third dose. The older adults' T-cell immune responses were comparable in magnitude to those of healthcare workers under 50 years of age. A subsequent breakthrough infection further enhanced T-cell responses among those who had been vaccinated.

[Read more](#)

Dried blood spots can successfully be used to study immune SARS-CoV-2 vaccine responses in older people

A CITF-funded study, published in the *Journal of Community Medicine and Public Health*, highlighted that using self-collected dried blood spot (DBS) samples to assess the SARS-CoV-2 vaccine responses in older people is feasible and provides acceptable results. Participants in this study were highly engaged, submitting good quality DBS samples within the expected timeframe, and committing to the study for 48 weeks.

[Read more](#)

Two COVID-19 vaccine doses were well-tolerated, safe, and highly immunogenic

A CITF-funded study, published in *BMJ Open*, offers yet more evidence that COVID-19 vaccines are safe and effective. The study looked at the initial two COVID-19 vaccine doses and found they were safe, well-tolerated, and highly immunogenic across a broad spectrum of vaccine recipients, including those working in public-facing environments.

[Read more](#)

Antibody-mediated responses to RSV waned during the peak of implementation of COVID-19

mitigation measures

A CITF-funded study, published in the *Journal of the Pediatric Infectious Diseases Society*, showed that specific antibody immune characteristics previously linked to more severe respiratory syncytial virus (RSV) infections waned among women of childbearing age in 2020-2021. This period was characterised by COVID-19 mitigation measures that resulted in reduced RSV circulation. This could explain the increase in severe RSV cases observed among young children in BC and Canada over subsequent years.

[Read more](#)

COVID-19 vaccines are safe and offer protection against hospitalization for solid organ transplant recipients

A CITF-funded study, published in *Open Forum Infectious Diseases*, found that for solid organ transplant recipients (SOTRs), COVID-19 vaccines are safe, induce high levels of SARS-CoV-2 receptor binding domain (RBD) antibodies following a third dose (in most SOTRs), and offer protection from hospitalization. Recipients of solid organ transplants who experienced a breakthrough infection following three COVID-19 vaccine doses had increased levels of SARS-CoV-2 anti-RBD antibodies compared to those with three vaccine doses and no infection.

[Read more](#)

Cis-heteronormativity in health directives had negative effects for gay, bisexual, and queer men (GBQM) during COVID-19 pandemic

A CITF-funded study, published in *Critical Public Health*, reported that COVID-19 public health interventions based on cis-heteronormative sociality negatively affected the sense of belonging and identity formation of gay, bisexual, and queer men (GBQM) in Montreal, Toronto, and Vancouver.

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Validation of new tool to detect SARS-CoV-2 in wastewater

A CITF-funded study, published in *Science of the Total Environment*, reported a new method for molecular detection and quantification of SARS-CoV-2 in wastewater. Wastewater surveillance of SARS-CoV-2 has become a promising tool for estimating population-level changes in community infections, including the changing prevalence of SARS-CoV-2 infection. The study validated a molecular testing method by concentrating viruses from wastewater and detecting SARS-CoV-2 using the RT-qPCR assay. This method provides a useful tool for public health surveillance of COVID-19, supporting public health policy and actions for infection prevention and control.

[Read more](#)



From Preprint to Publication

Systematic review of the serology assays used in COVID-19 seroprevalence surveys

A systematic review carried out by the CITF-funded SeroTracker team, published in *Vaccines*, concluded that third-party or independent evaluations of serology test performance found that manufacturers report slightly higher sensitivity and specificity of their serological assays targeting SARS-CoV-2. This may have an impact on the validity of estimates and impose bias by under- or over-estimating seroprevalence by up to 9.5%.

[Read more](#)

Cohort of Canadian healthcare workers during the COVID-19 pandemic profiled

In this cohort profile published in *BMJ Open*, a CITF-funded study reported on the establishment of a longitudinal cohort of health care workers (HCWs) employed in hospitals, residential institutions, and the community. Researchers used the cohort to examine factors in the workplace that might serve to mitigate risk of either SARS-CoV-2 infection or mental distress related to work demands, availability of personal protective equipment, vaccination, and infection during the pandemic.

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