



**COVID-19 IMMUNITY  
TASK FORCE**

# Research Roundup

Your weekly review on COVID-related research



## Spotlight on CITF-funded Research

### **Study reveals children and youth had highest rates of SARS-CoV-2 infection in Canada before third wave**

Results are in from Statistics Canada's Canadian COVID-19 Antibody and Health Survey (CCAHS), the most representative study in this country to date investigating how many Canadians have antibodies to SARS-CoV-2. Overall immunity in Canadians tested between November 2020 and April 2021 was low. Children and youth had the highest infection-acquired immunity rates among age groups in Canada, while visible minorities were twice as likely to have caught the virus.

[Read More](#)



## CITF Events

We have two events coming up in collaboration with Statistics Canada to present the results of their survey. We welcome you to both and invite you to spread the word!

## CanCOVID Workshop Event

**Monday, July 12, 2021**  
**4pm - 5:30pm EDT**

**Final Results from  
Canadian  
Seroprevalence Study**

### Topics will include:

- Seroprevalence in Canada before the third wave
- Age groups most affected by SARS-CoV-2
- A breakdown of the Canadians with immunity
- Updated modelling from the CITF team
- What this means for the next steps in our pandemic response



**CanCOVID**



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FACE À LA COVID-19

## For academics and policymakers

This presentation, hosted by CanCOVID and featuring presenters from the CITF and Statistics Canada will be geared to the academic, research and policymaking community. Presenters will give an overview and analysis of the data, including through the CITF's in-house modelling capabilities and provide a clear and detailed reading of what they mean for the future of our pandemic response.

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THURSDAY, JULY 15 | 12 P.M. EDT | ONLINE

## Presenting final results from Canada's most representative seroprevalence study

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## A Townhall for all Canadians

Invite your friends and family! This presentation, hosted by the CITF in collaboration with Statistics Canada will be geared to the general Canadian public. We invite anyone interested in the science and data behind this pandemic to join, learn and participate by asking questions! Presenters will give an overview and analysis of the data from Statistics Canada's Canadian COVID-19 Antibody and Health Survey (CCAHS), including by province or region, age, occupation, visible minority status and more! The CITF will explain its in-house modelling capabilities and provide conclusions as to what the data means for the future of our pandemic response.

[Register](#)



## Our Funded Research: Now Published in French

**Not all retirement homes have the same COVID-19 risk for residents**

Dr. Andrew Costa, from McMaster University, and colleagues, have studied the risk factors for SARS-CoV-2 outbreaks at retirement homes or assisted living facilities in Ontario. In a publication in the *Canadian Medical Association Journal*, now also available in French, they find that the risk of a COVID-19 outbreak is higher in homes with larger resident capacity, that share space with a long-term care facility, and that offer more services onsite. The authors recommended priority vaccination for those living in homes that fit these criteria.

[Read More](#)



## Publications from our Experts

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### **International panel of experts states that allergic reactions to SARS-CoV-2 vaccines are very rare**

A multi-disciplinary group of international experts including CITF Associate Scientific Director Dr. Bruce Mazer, appraised the risk of allergic reactions to SARS-CoV-2 vaccines by reviewing 26 studies encompassing data from the administration of 41 million vaccines. The team, whose manuscript was published in *The Journal of Allergy and Clinical Immunology: In Practice*, reported that allergies to various SARS-CoV-2 vaccines were rare with less than eight cases of allergic reactions observed per million vaccines administered. Given the low risk of allergic reactions observed, experts recommended vaccination and did not think that performing pre-emptive allergy testing was necessary for individuals without a history of severe allergic reactions to the first dose of SARS-CoV-2 vaccine or its individual components.

[Read Summary](#)

**Population protective levels of immunity could be reached by the end of 2021, thanks to effective**

## **vaccination and sustained public health measures.**

Several SARS-CoV-2 variants are known to be more infectious, but the net effect of the Alpha variant (B.1.1.7) on epidemic control measures has been unclear. Matthew Betti and a team of Canadian researchers, including CITF Scientific Advisor Jane Hefferman, completed a mathematical modelling study to estimate how Alpha could overtake the initial circulating viral strains, using Ontario as a case study. They concluded that if vaccine efficacy is maintained across circulating variants, then it would be possible to achieve high levels of immunity in the population by the end of 2021.

[Read Summary](#)



## **International Research Review**

### **Literature Review: effectiveness of the COVID-19 vaccines approved for use in Canada against circulating variants of concern**

Variants of concern (VOCs) can potentially make COVID-19 vaccines less effective, both in terms of the immediate immune response and the durability of immunity. Over 20 manuscripts studying the effectiveness of the four vaccines approved for use in Canada against the circulating SARS-CoV-2 VOCs were reviewed and summarized. Neutralization titers from VOCs were compiled and compared to the titers from the virus' original strain (used to engineer the COVID-19 vaccines). Overall, neutralization was observed for all vaccines and variant combinations, albeit at different levels.

[Read Summary](#)

### **Are three doses of the Pfizer vaccine needed for**

# transplant patients?

Despite having two doses of the COVID-19 vaccine, weak antibody responses have been observed in immunosuppressed patients. A recent study published in *The New England Journal of Medicine* assessed the antibody responses in solid-organ transplant recipients after receiving three doses of the Pfizer vaccine. SARS-CoV-2 antibodies were found in 68% of all patients one month after the third dose compared to 40% of all patients after the second dose. These antibody levels increased significantly after the third dose (titers of  $2676 \pm 350$ ) compared to the levels after the second dose ( $36 \pm 12$ ). No known cases of COVID-19 were reported in patients that received three vaccine doses.

[Read Summary](#)

## Beating the pandemic blues



Comic thanks to [xkcd.com](http://xkcd.com)



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