



For immediate release  
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**CMAJ headlines:**

- Systematic SARS-CoV-2 testing of school children and other groups at increased risk of the virus: costs and resource needs
- Pediatric inflammatory multisystem syndrome and COVID-19

## **Systematic SARS-CoV-2 testing of school children and other groups at increased risk of the virus: costs and resource needs**

Canadian costing study and linked CMAJ editorial

Actively testing large groups of people at increased risk of severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) could be a component of Canada's strategy to get people safely back to school and work, finds new research published in CMAJ (Canadian Medical Association Journal). [VIEW ARTICLE](#)

“As workplaces and schools reopen after the first wave of COVID-19 in Canada, testing priorities and strategies are needed to prevent surges in community transmission of SARS-CoV-2,” write Dr. Dick Menzies and Dr. Jonathon Campbell, Research Institute of the McGill University Health Centre, Montreal, Quebec, with coauthors.

Researchers calculated the costs, staffing needs and laboratory capacity required for systematic testing of 5 groups:

- Household and non-household contacts of people newly diagnosed with SARS-CoV-2 infection
- All employees of acute care hospitals
- All community health care workers and employees and residents of long-term care facilities

- All employees of essential businesses with major interpersonal or public contact
- All students and employees in elementary and high schools

The authors estimate that one round of universal testing of these at-risk populations would cost \$1.3 billion.

“Even if repeated, these costs represent a small fraction of the \$169.2 billion in Canadian federal fiscal response to the COVID-19 pandemic as of June 2020,” they suggest.

The benefit of widespread testing would be detection and isolation of asymptomatic people infected with SARS-CoV-2. This could prevent community transmission, which otherwise could result in a second wave and a second shutdown.

“Actively testing those at increased risk of acquiring SARS-CoV-2 — and isolating individuals found to be infected — could be equally effective to arrest community transmission and is associated with far less social and economic cost,” the authors write.

Enlisting other health care professionals, medical students and partnering with academic and private laboratories could help build the capacity required to test on a massive scale, while using saliva-based sampling — as opposed to nasopharyngeal swabs — would cut costs and the number of trained health care professionals needed.

“We believe that a strategy of actively testing large population groups who are at increased risk of acquiring SARS-CoV-2 is feasible and affordable in Canada. This testing approach should be an integral component of a broad strategy to allow all Canadians to return safely to work and school,” the authors conclude.

A related CMAJ editorial focuses on the tracing and testing of close contacts of people with SARS-CoV-2. [VIEW ARTICLE](#)

“Rapid diagnosis and isolation of people with SARS-CoV-2 infection — whether they have symptoms or not — and aggressive tracing, testing and isolation of their contacts, are key to ensuring safety in Canada’s school, work and social environments,” writes Dr. Andreas Laupacis, editor-in-chief, CMAJ, with coauthors Drs. Larissa Matukas and Irfan Dhalla. “It’s time for our governments to fully invest in ‘find, test, trace and isolate.’”

The editorial also calls for support of people who may have difficulty self-isolating because of a need to earn income, crowded living conditions or their roles as caregivers.

“Governments must ensure that employees who test positive for SARS-CoV-2 infection continue to be paid while isolating, that facilities such as dedicated hotels are freely and easily available to individuals who cannot self-isolate where they live, and that additional supports — such as help obtaining groceries — are readily obtainable,” urge the authors.

The editorial calls for public reporting of the number of close contacts who are identified each day, the number of contacts tested and successfully quarantined, and the time from sample collection to the result becoming available, which they suggest should be less than 24 hours.

“Active testing of groups at increased risk of acquiring SARS-CoV-2 in Canada: costs and human resource needs” (research) and “Aggressively find, test, trace and isolate to beat COVID-19” (editorial) are published September 9, 2020.

**Media contact for research:** Fabienne Landry, media relations, McGill University Health Centre, [Fabienne.Landry@MUHC.MCGILL.CA](mailto:Fabienne.Landry@MUHC.MCGILL.CA)

**Media contact for editorial:** Kim Barnhardt, CMAJ, [kim.barnhardt@cmaj.ca](mailto:kim.barnhardt@cmaj.ca)

## [Pediatric inflammatory multisystem syndrome and COVID-19](#)

Podcast link: <https://soundcloud.com/cmajpodcasts/201600-case>

A practice article from The Hospital for Sick Children (SickKids) on pediatric inflammatory multisystem syndrome provides insight into this newly described hyperinflammatory disorder associated with COVID-19. The article is published in CMAJ (Canadian Medical Association Journal). [VIEW ARTICLE](#)

Children affected with the disease usually seek medical attention several weeks after exposure to SARS-CoV-2 for fever, gastrointestinal issues and symptoms similar to Kawasaki disease, another rare inflammatory condition.

“Canada is in an enviable position to benefit from the lessons learned from countries that experienced the COVID-19 pandemic earlier, giving us the ability to raise

awareness for pediatric inflammatory multisystem syndrome, and to develop and implement management pathways for suspected cases,” says Dr. Rae Yeung, Staff Physician in the Division of Rheumatology and Senior Scientist in the Cell Biology program at SickKids. “As Canadians navigate the return to school, it’s important to emphasize these cases are still exceedingly rare, and children in Canada have responded well to treatment.”

The article details the case of a 10-year-old boy who was brought to SickKids after experiencing a persistent fever and abdominal pain for almost a week. The patient and his family had tested positive for SARS-CoV-2 four weeks before he came to the hospital. He was discharged after a 10-day hospital stay and has done well.

The authors describe three clinical patterns of the disease: shock, Kawasaki disease, and fever and inflammation (the mildest).

In July 2020, the American College of Rheumatology (ACR) and Canadian Paediatric Society (CPS) issued guidelines for investigating and managing suspected pediatric inflammatory multisystem syndrome in children.

The authors outline recommended treatments for the disease, including drugs to suppress the immune system (such as intravenous immunoglobulin [IVIG] and steroids), therapy to prevent blood clots, close monitoring of heart function including electrocardiography and cardiac imaging, and other treatments.

“Pediatric inflammatory multisystem syndrome temporally associated with COVID-19: a spectrum of diseases with many names” is published September 9, 2020.

**Media contact:** Jessamine Luck, SickKids, [jessamine.luck@sickkids.ca](mailto:jessamine.luck@sickkids.ca)

**General media contact:** Kim Barnhardt, CMAJ, [kim.barnhardt@cmaj.ca](mailto:kim.barnhardt@cmaj.ca)

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