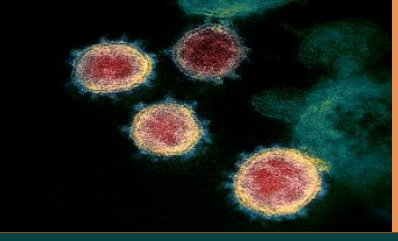
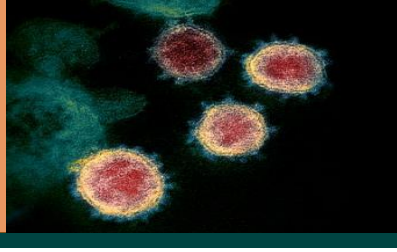


COVID-19 PANDEMIC – RAEB'S EVIDENCE UPDATE

Highlights of health research evidence synthesized by the Research, Analysis and Evaluation Branch (RAEB)

• May 19, 2020 •



FEATURED

- RAEB'S rapid responses for Ontario's health sector
- Evidence products produced with our partners
- Research evidence
- Jurisdictional experience
- Trusted resources

ABOUT RAEB

Through research funding, brokering, translating, and sharing, we promote an enhanced evidence use capacity that supports all aspects of health policy, programming, and investment decision making. Services include:

- Literature reviews
- Jurisdictional scans
- Economic analysis
- Evaluation planning
- Research fund management
- Knowledge translation services

CONTACT RAEB

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Erika Runions-MacNeil, Research Planning and Management

RAEB'S RAPID RESPONSES FOR ONTARIO'S HEALTH SECTOR

Please contact Evidence Synthesis Unit for the full read of these rapid responses.

- **Designating Hospitals and Long-Term Care (LTC) Facilities for COVID-19 Patients**

  To manage overflow of COVID-19 patients and reduce transmission of the disease in hospitals, two models of acute care management have been recommended in the literature: 1) the allocation of beds for COVID-19 patients in the existing hospitals; and 2) a more effective model may be to designate certain hospitals or blocks within hospitals exclusively for the care of COVID-19 patients. Three jurisdictions were identified that either recommended (India) or implemented (South Korea) designation of hospitals for COVID-19, or created a temporary hospital for mild-to-moderate cases (China). Additionally, there were recommendations in the US literature on designation of some LTC facilities as post-acute care facilities that exclusively treat COVID-19 patients (i.e., COVID-19 Skilled Care Centers), with the goals of increasing capacity in the acute care sector and providing safe and high-quality options for nursing homes. In designating such facilities, it is recommended to immediately identify and temporarily designate facilities that already have residents with COVID-19 and support them with increased staff and resources, access to COVID-19 tests, and appropriate personal protective equipment (PPE).

- **Improvement Designs for Long-Term Care Homes (LTCHs) to Control the Spread of Infection**

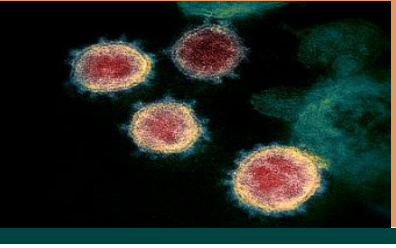
  The physical design of LTCHs can influence the spread of infection and disease among patients/residents and health care workers. Several improvements to the physical design of LTCHs can be made to lower the risk and spread of infection, including heating, ventilation, and air conditioning (HVAC), physical distancing devices (e.g., partitions to establish a two-metre distance), type of patient/resident room (e.g., single bed/private rooms, separate washrooms), and type of housekeeping room (e.g., having one room for every two-resident household). British Columbia, Nova Scotia, and the United States also noted the importance of designing LTCHs to promote hand hygiene through posting signs of where to perform hand hygiene, placing alcohol-based hand rub stations at entrances and exits of the facility, ensuring that paper towel dispensers and liquid soap dispensers are stocked in washrooms, and placing sinks at the entrance of medical/surgical patient rooms.

EVIDENCE PRODUCTS PRODUCED IN COLLABORATION WITH OUR PARTNERS

The COVID-19 Evidence Synthesis Network is comprised of groups specializing in evidence synthesis and knowledge translation. The group has committed to provide their expertise to provide high-quality, relevant, and timely synthesized research evidence about COVID-19 to inform decision makers as the pandemic continues. Please contact *Evidence Synthesis Unit* for the full read of these evidence products.

- Jurisdictional Lessons Learned from Re-opening Non-COVID-19 Activities in Hospitals
  (Produced in collaboration with McMaster Health Forum, Ontario Health (Quality), and the Ontario Medical Association).
  In Canada, most provinces and territories have resumed elective and non-urgent surgeries, as well as other specialized services in hospitals (e.g., oncology, medical imaging). A few provinces have made publicly available detailed strategies and frameworks to move forward (notably British Columbia, Ontario, and Quebec). These plans usually detail infection prevention and control measures, as well as other changes to delivery arrangements to ensure optimal and safe care for both patients and staff. These plans to resume non-COVID-19 activities in hospitals have often been flagged in provincial economic and social response plans as the first stage to re-emerge from COVID-19 shutdown. Australia and New Zealand have developed publicly available strategies to re-open non-COVID-19 activities in their hospitals. The findings from other countries (China, South Korea, Sweden, and the United Kingdom) focus particularly on the prioritization of elective procedures once services resume. Overall, innovative approaches include scaling up/down emergency room capacity and 'bypassing' hospitals and providing services in other locations, as well as implementing surge-management models, triage protocols for services and personal protective equipment, infection prevention and control measures, and virtual visits by dedicated 'internet hospitals'. Potential pitfalls to avoid include, among others: avoid overlap in roles and responsibilities among those coordinating changes in the hospital and reduce patient travel to receive health services.

- A History of Sudden Loss of Taste (Ageusia) and/or Smell (Anosmia) in Symptom Screening for COVID-19
  (Produced in collaboration with McMaster Health Forum).
  Most of the identified evidence identifies ageusia and/or anosmia as a strong predictor of COVID-19 and speaks to the value of including them, alongside other symptoms, in screening tools. No evidence was identified that directly addresses the incremental benefit of screening for ageusia and/or anosmia and how best to operationalize these symptoms with other types of symptom screening (e.g., self-screening prompted by signage). Many Canadian provinces, Australia, New Zealand, and Sweden have included ageusia/anosmia as a screening symptom. Using a list of COVID-19-related symptoms as a screening tool can be used: for those at high risk for COVID-19 (e.g., travellers) and for the entire population (e.g., on entering schools, stores, and workplaces); alongside other potential screening tools (e.g., temperature taking); and for operationalization in different ways (e.g., self-screening using a questionnaire). Symptom screening to date in Ontario initially focused on six symptoms, namely fever, cough, shortness of breath and/or difficulty breathing, headache, runny nose, and sore throat. The Ontario government's self-assessment tool, like the one used by the Government of Canada, now includes a much longer list of symptoms.



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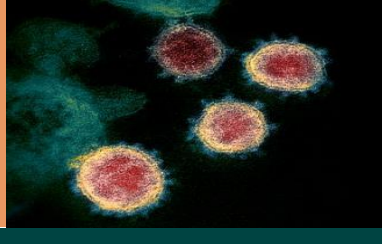
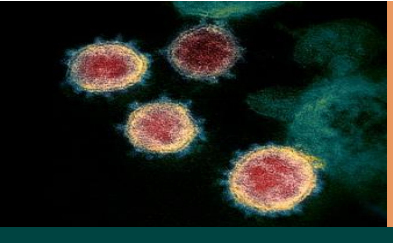


RESEARCH EVIDENCE

The research evidence profiled below was selected from highly esteemed academic journals, based on date of publication and potential applicability or interest to the Ontario health sector.

- **Preventing a parallel pandemic – a national strategy to protect clinicians' well-being in the US**
  May 13, 2020. Health care experts in the US recommend five high-priority national and organizational level actions for protecting clinicians' mental health during and after the COVID-19 crisis, including allocating federal funding to set up a national epidemiologic tracking program to measure clinician well-being and report on the outcomes of interventions. *Read*.
- **Kawasaki-like disease: emerging complications during the COVID-19 pandemic**
  May 13, 2020. Attention has shifted to the vulnerability of children in the pandemic for two reasons: 1) the degree to which children transmit COVID-19; and 2) new concerns about a novel severe Kawasaki-like disease (i.e., rare acute pediatric vasculitis, with coronary artery aneurysms) in children related to COVID-19. *Read*.
- **COVID-19 in children with cancer in New York City**
  May 13, 2020. This study assessed the risk associated with COVID-19 for pediatric cancer patients and reported that they may not be more vulnerable than other children to infection or morbidity resulting from SARS-CoV-2. *Read*.
- **Retinal findings in patients with COVID-19**
  May 12, 2020. Twelve adult patients (aged 25-68 years) hospitalized in Sao Paulo, Brazil for severe SARS-CoV-2, and examined 11-33 days after onset, were diagnosed with sub-clinical retinal changes. *Read*.
- **Characteristics and outcomes of children with COVID-19 admitted to US and Canadian pediatric Intensive Care Units (PICUs)**
  May 11, 2020. This early study shows that COVID-19 may result in a significant disease burden in children but confirms that severe illness is less frequent, and early hospital outcomes in children may be better than in adults. *Read*.
- **Factors associated with COVID-19 hospital deaths in England**
  May 7, 2020. Preliminary analyses of linked electronic health records of 17 million adult patients reveal that people of Asian or Black races are at a markedly increased risk of in-hospital death from COVID-19 that can only be partly attributed to pre-existing clinical risk factors. *Read*.
- **Observational study of hydroxychloroquine in hospitalized patients with COVID-19**
  May 7, 2020. Among COVID-19 patients administered with hydroxychloroquine upon admission to the New York Presbyterian/Columbia University Irving Medical Center, there was no significant association between treatment and intubation or death, but more research is needed. *Read*.
- **Cardiopulmonary resuscitation (CPR) in the age of COVID-19**
  May 6, 2020. A new ethical framework provides three specific recommendations for the use of CPR during a major surge in COVID-19 patients: 1) acknowledge resource constraints when discussing goals of care and do-not-resuscitate status; 2) forgo CPR in certain circumstances; and 3) ensure the safety of personnel justifies selective constraints on resuscitation. *Read*.



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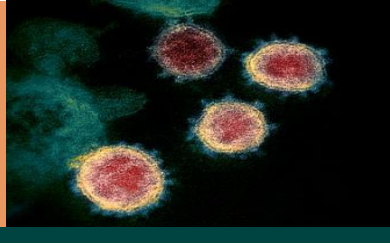

JURISDICTIONAL EXPERIENCE

- **Delivering core National Health Service (NHS) and care services during the COVID-19 pandemic and beyond in the UK**
  May 14, 2020. The House of Commons Health and Social Care Select Committee has launched an inquiry to better understand the impact the crisis has had on core NHS and care services during the pandemic and beyond. As part of that inquiry, The King's Fund, Health Foundation, and Nuffield Trust submitted a joint letter to the Committee, cautioning that it will be many months before NHS and social care organizations are able to fully restart services following the pandemic. Five immediate challenges that the government and the wider health and care system will face in resuming core services are identified. *Read*.
- **COVID-19 and the need for action on mental health**
  May 13, 2020. The United Nations released a policy brief that recommends three actions to minimize the mental health consequences of the pandemic: 1) apply a whole-of-society approach to promote, protect, and care for mental health; 2) ensure widespread availability of emergency mental health and psychosocial support; and 3) support recovery from COVID-19 by building mental health services for the future. *Read*.
- **Public health criteria to adjust public health and social measures (PHSM) in the context of COVID-19**
  May 12, 2020. The World Health Organization released a pragmatic decision process for adapting PHSM based on epidemiological and public health criteria, and it should be read in conjunction with the interim guidance (April 15, 2020) that provides advice on adjusting PHSM, while managing the risk of resurgence of cases. The document presents only public health criteria, while other critical factors, such as economic factors, security-related factors, human rights, food security, and public sentiment, should also be considered. *Read*.
- **First CRISPR test (a gene-editing technology) for the coronavirus approved in the US**
  May 8, 2020. The US Food and Drug Administration granted its first emergency-use approval for a new coronavirus diagnostic test that, within an hour, can detect a snippet of SARS-CoV-2 genetic material in a nose, mouth, or throat swab, or in fluid from the lungs. *Read*.

TRUSTED RESOURCES

An up-to-date and comprehensive list of sources, organized by type of research evidence, is available on McMaster Health Forum's COVID-19 Evidence Network to support Decision-making (COVID-END) website.

* Figures in the header: Transmission electron microscope image shows SARS-CoV-2, the virus that causes COVID-19, isolated from a patient in the United States. Virus particles are emerging from the surface of cells cultured in the lab. The spikes on the outer edge of the virus particles give coronaviruses their name, crown-like. *National Institutes of Health's National Institute of Allergy and Infectious Diseases – Rocky Mountain Laboratories*