

The Newfoundland & Labrador Centre for Applied Health Research (NLCAHR) sends this COVID-19 e-bulletin to our health system stakeholders on a bi-weekly basis. This e-bulletin includes results from recent searches of health evidence and grey literature on the pandemic under specific subject headings, highlighting those findings considered to be of particular relevance to you.

We welcome your [feedback and suggestions](#).

To subscribe to this e-bulletin, please email: Rochelle.Baker@med.mun.ca

You can find NLCAHR e-bulletins and COVID-19 *Quick Response Reports* [online here](#).

*Please note that articles about new COVID-19 VARIANTS are
highlighted in RED below.

CLINICAL PRESENTATION AND BIOLOGY

YahooNews: [Almost a third of recovered COVID patients return to hospital in five months and one in eight die](#) (January 17, 2020)

“Almost a third of recovered COVID patients will end up back in hospital within five months and one in eight will die, alarming new figures have shown. Research by Leicester University and the Office for National Statistics (ONS) found there is a devastating long-term toll on survivors of severe coronavirus, with many people developing heart problems, diabetes and chronic liver and kidney conditions.” [LINK](#)

bioRxiv: [SARS-CoV-2 escape in vitro from a highly neutralizing COVID-19 convalescent plasma](#)
(December 28, 2020)

“The authors co-incubated authentic virus with a highly neutralizing plasma from a COVID-19 convalescent patient to investigate the evolution of SARS-CoV-2 in the immune population. Computational modeling predicts that the deletion and insertion in loops N3 and N5 prevent binding of neutralizing antibodies. The recent emergence in the United Kingdom and South Africa of natural variants with similar changes suggests that SARS-CoV-2 has the potential to escape an effective immune response and that vaccines and antibodies able to control emerging variants should be developed.” [LINK](#)

The Atlantic: [The Coronavirus Is Evolving Before Our Eyes](#) (January 15, 2020)

“Even if we cannot contain this particular variant, we’re learning from its spread. Preventing more virulent strains from becoming dominant—when they inevitably do arise—may be possible if we can track genomic patterns more widely, so that we have the context needed to determine whether a strain is indeed uniquely dangerous. If we can take steps to contain a new threat early enough, it may never become widespread. If we miss these opportunities,

we risk repeating the kind of mistake that allowed the original SARS-CoV-2 strain to escape China in the first place." [LINK](#)

Science: [New coronavirus variants could cause more reinfections, require updated vaccines](#) (January 15, 2020)

"The more transmissible variant, B.1.1.7, is already spreading rapidly in the United Kingdom, Ireland, and Denmark, and probably in many other countries. The U.S. Centers for Disease Control and Prevention released a modeling study on Friday showing the strain could become the predominant variant in the United States in March. But scientists are just as worried about 501Y.V2, a variant detected in South Africa. Some of the mutations it carries, including ones named E484K and K417N, change its surface protein, spike, and have been shown in the lab to reduce how well monoclonal antibodies combat the virus." [LINK](#)

HEALTH SYSTEM ADMINISTRATION

Brain, Behavior, & Immunity – Health: [Vaccines are not yet a silver bullet: The imperative of continued communication about the importance of COVID-19 safety measures](#) (January 20, 2021)

"This paper argues for the continued imperative for health experts and government officials to communicate and emphasize the importance of COVID-19 safety measures with the public, to make sure people are protected against COVID-19 till the pandemic ceases to pose a threat to personal or public health." [LINK](#)

Canadian Institute for Health Information (CIHI): [Impact of COVID-19 on Canada's health care systems](#) (November 19, 2020)

This national report details the impact of COVID-19 prevention and control measures on the health care systems Canada's provinces and territories from March to June 2020. [LINK](#)

The British Medical Journal: [COVID-19: Many ICU staff in England report symptoms of PTSD, severe depression, or anxiety, study reports](#) (January 13, 2021)

"Nearly half of intensive care unit (ICU) and anaesthetic staff surveyed for a study reported symptoms consistent with a probable diagnosis of post-traumatic stress disorder (PTSD), severe depression, anxiety, or problem drinking." [LINK](#)

- Link to original research article: [The mental health of staff working in intensive care during COVID-19](#)

National Institute for Health and Care Excellence (NICE): [COVID-19 rapid guideline: managing the long-term effects of COVID-19](#) (December 18, 2020)

"This guideline covers identifying, assessing and managing the long-term effects of COVID-19, often described as 'long COVID'. It makes recommendations about care in all healthcare settings for adults, children and young people who have new or ongoing symptoms 4 weeks or more after the start of acute COVID-19. It also includes advice on organizing services for long COVID." [LINK](#)

The British Medical Journal: [COVID-19 INNOVA testing in schools: don't just test, evaluate](#) (January 12, 2021)

The authors contend that "using testing to manage classroom outbreaks, without isolating close contacts, risks increasing disease spread." [LINK](#)

STAT News: [We lost to SARS-CoV-2 in 2020. We can defeat B-117 in 2021.](#) (January 09, 2021)

This article highlights how the lessons learned, policy interventions, and vaccines developed to curb the spread of COVID-19 could help win the fight against the new variant called B-117. [LINK](#)

Proceedings of the National Academy of Sciences of the United States of America: [The spread of COVID-19 shows the importance of policy coordination](#) (December 29, 2020)

The commentary argues that "the COVID-19 pandemic shines a light on the complications that come with an increasingly interconnected world" and the importance of coordinated policy making. [LINK](#)

INFECTION PREVENTION AND CONTROL

Public Health Ontario: [COVID-19 Epidemiological Parameters – What We Know So Far](#) (updated January 17, 2021)

"This document replaces the previous version.....and presents results of an updated rapid review. The updated version focuses on systematic reviews and meta-analyses, providing evidence concerning the epidemiological parameters of COVID-19." [LINK](#)

Centers for Disease Control and Prevention (CDC): [Improving Ventilation in Your Home](#) (January 7, 2021)

This guideline document from the CDC highlight various ways ventilation can be improved in indoor settings to prevent the spread and transmission of COVID-19. [LINK](#)

Canadian Medical Association Journal (CMAJ): [Have we misjudged the role of children in spreading COVID-19?](#) (September 21, 2020)

"Early suggestions that children are considerably less important drivers of SARS-CoV-2 transmission than adults are not confirmed by more recent research...Children could play a relevant role in SARS-CoV-2 transmission and school closures may have been important contributors to the containment of the COVID-19 pandemic." [LINK](#)

The British Medical Journal: [COVID-19: What have we learned about the new variant in the UK?](#) (December 23, 2020)

This article provides a quick summary of the current state of knowledge about the new (UK) variant of COVID-19. [LINK](#)

The British Medical Journal: [COVID-19 Vaccination: What's the evidence for extending the dosing interval?](#) (January 06, 2021)

"There isn't much [data] for the Pfizer-BioNTech vaccine, as trials did not compare different dose spacing or compare one with two doses. The trials of the Oxford-AstraZeneca vaccine did include different spacing between doses, finding that a longer gap (two to three months) led to a greater immune response, but the overall participant numbers were small." [LINK](#)

Science Focus: [Ventilation and viral loads: the key misunderstandings of how coronavirus spreads](#) (December 23, 2020)

In this article, a virologist explains recent research findings that "may reshape our understanding COVID-19." [LINK](#)

TREATMENT

Haaretz: [Thousands of Israelis Tested Positive for Coronavirus after First Vaccine Shot](#) (January 19, 2021)

"The infection statistics among those who have been vaccinated in the general population illustrate the significance of the passage of time in building immunity. According to Pfizer, the big jump in immunity is meant to

come between day 15 and day 21, when the vaccine's effectiveness is meant to go from 52 percent to 89 percent, after which the second dose is meant to bring the vaccinated percent to a state of 95 percent protection." [LINK](#)

SENIORS AND OTHER VULNERABLE GROUPS

American Journal of Kidney Diseases: [COVID-19 Infection Among U.S. Dialysis Patients: Risk Factors and Outcomes from a National Dialysis Provider](#) (January 16, 2021)

"During the COVID-19 pandemic, patients receiving maintenance dialysis are a highly vulnerable population due to their comorbidities and circumstances that limit physical distancing during treatment. This study sought to characterize the risk factors for and outcomes following COVID-19 infection in this population." [LINK](#)

Quarterly Journal of Medicine: [Why is COVID-19 more deadly to nursing home residents?](#) (January 16, 2021)

This article examined similarities and differences in COVID-19 risk factors experienced by nursing home residents and community-dwelling older people. [LINK](#)

Public Library of Science One: [Health conditions of potential risk for severe Covid-19 in institutionalized elderly people](#) (January 14, 2021)

This study investigated the health conditions considered potential risk factors for severe COVID-19 and analyzed its association with the BMI of elderly people living in Long-Term Care Facilities. [LINK](#)

The Lancet: [COVID-19 highlights Canada's care home crisis](#) (January 16, 2021)

"It was noticed very early on during the COVID-19 pandemic that some of the worst outbreaks were happening in for-profit, privately-owned homes," explains Nathan Stall, a geriatrician at Toronto's Mount Sinai Hospital, and lead author of a recent study investigating care quality and rates of mortality in 623 Ontario care homes. "When we investigated, we found that they tend to deliver inferior care." Stall and colleagues found that the incidence of COVID-19 was higher among residents in for-profit facilities than those in other homes. And in facilities with an outbreak, 6.5% of all residents in for-profit facilities died of COVID-19, whereas 5.5% died in non-profit facilities and 1.7% in municipal homes." [LINK](#)

Research Square: Coronavirus (COVID-19): [A Systematic Review and Meta-analysis to Evaluate the Significance of Demographics and Comorbidities](#) (January 18, 2021)

The study systematically reviews and summarizes COVID-19's impact based on symptoms, demographics, and comorbidities, and demonstrates the association of demographics in cases and mortality in the United States. [LINK](#)

Obesity Surgery: [Association of Bariatric Surgery with Clinical Outcomes of SARS-CoV-2 Infection: a Systematic Review and Meta-analysis in the Initial Phase of COVID-19 Pandemic](#) (January 8, 2021)

This study measured the association between a history of bariatric surgery and the severity of COVID-19. [LINK](#)

MENTAL HEALTH & WELLNESS

CBC News: [Pandemic driving more young people to seek mental health help](#) (January 18, 2021)

"Joanne Lowe, executive director of the youth services bureau at Children's Hospital of Eastern Ontario, says the hospital has seen a 63-per-cent increase in the number of youth seeking help for eating disorders since the start of the pandemic." [LINK](#)

BioMed Central Public Health: [A rapid review of the impact of COVID-19 on the mental health of healthcare workers: implications for supporting psychological well-being](#) (January 9, 2021)

This rapid review identified the psychological impact of the COVID-19 pandemic on the health and social care professions, more specifically identifying which sub-groups are most vulnerable to psychological distress. The review also identified the risk and protective factors associated with this population's mental health. [LINK](#)

Social Science & Medicine: [Psychological Distress in North America during COVID-19: The role of pandemic-related stressors](#) (February 2021)

This study examined the impact of pandemic-related disruptions on psychological distress during the initial adjustment phase to the pandemic in North America. [LINK](#)

British Medical Journal Open: [Examining the impacts of the COVID-19 pandemic on family mental health in Canada: findings from a national cross-sectional study](#) (January 12, 2021)

"In the first wave of the COVID-19 pandemic, social isolation, school/childcare closures and employment instability have created unprecedented conditions for families raising children at home. This study describes the mental health impacts of the COVID-19 pandemic on families with children in Canada." [LINK](#)

This **COVID-19 e-bulletin** was prepared by researchers at the Newfoundland & Labrador Centre for Applied Health Research (Kazeem Adefemi, Waseem Abu Ashour, Wendy Lasisi, and Pablo Navarro) to summarize research evidence and grey literature produced by a variety of sources that were accessed online in January, 2021, given the rapidly changing nature of the coronavirus pandemic, some of the references included in this e-bulletin may quickly become out-of-date.

We further caution readers that researchers at the Newfoundland & Labrador Centre for Applied Health Research are not experts on infectious diseases and are relaying work produced by others.

This report has been produced quickly and it is not exhaustive, nor have the included studies been critically appraised.

QUESTIONS/ SUGGESTIONS? CONTACT:

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