

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

Articles about **COVID-19 VARIANTS** are **highlighted in RED** below.

CLINICAL PRESENTATION AND BIOLOGY

CBC: [World Health Organization gives new names to COVID-19 variants of concern](#) (May 31, 2021)

"The World Health Organization revealed new names on Monday for COVID-19 variants of concern which have, to date, been known by multiple names and numbers. As such, the four variants considered of concern by the UN agency — and known generally by the public as the variants first identified in the U.K., South Africa, Brazil and India, and by sometimes clunky, technical names such as B117 or B1617 — will now be given the letters alpha, beta, gamma and delta according to the order of their detection. Others will continue down the alphabet." [LINK](#)

Nature: [Immune memory in individuals with COVID-19](#) (April 9, 2021)

"COVID-19 has led to a global pandemic, but the long-term immunological effects of the infection are only partially understood. A new study now provides important new clues by describing the transcriptional and epigenetic processes behind the immune memory of both adaptive and innate immune cells in individuals who have recovered from COVID-19." [LINK](#)

The Lancet: [Assessment of protection against reinfection with SARS-CoV-2 among 4 million PCR-tested individuals in Denmark in 2020: a population-level observational study](#) (April 9, 2021)

"The authors found that protection against repeat SARS-CoV-2 infection is robust and detectable in the majority of individuals, protecting 80% or more of the naturally infected population who are younger than 65 years against reinfections within the observation period. However, we observed that individuals aged 65 years and older had less than 50% protection against repeat SARS-CoV-2 infection. Because the older age group is more prone to a serious clinical course of illness, this finding highlights the need to implement protective measures for the older population in the form of effective vaccines and enhanced physical distancing and infection control, even in those known to be previously infected. Furthermore, our data indicate that vaccination of previously infected individuals should be done because natural protection cannot be relied on." [LINK](#)

The Lancet Health & Longevity: [Incidence of SARS-CoV-2 infection according to baseline antibody status in staff and residents of 100 long-term care facilities \(VIVALDI\): a prospective cohort study](#) (June 1, 2021)

"The presence of IgG antibodies to nucleocapsid protein was associated with substantially reduced risk of reinfection in staff and residents for up to 10 months after primary infection." [LINK](#)

STAT News: [How the COVID pandemic ends: Scientists look to the past to see the future](#) (May 19, 2021)

"We're approaching the year-and-a-half mark of the globe's collective experience with the SARS-CoV-2 virus and the COVID-19 pandemic it has triggered. At this point, it's fair to assume people the world over are asking themselves the same two questions: How will this end? And when?" [LINK](#)

HEALTH EQUITY AND ETHICS (VULNERABLE GROUPS)

Government of Canada: [From risk to resilience: An equity approach to COVID-19](#) (March 2021)

The Chief Public Health Officer of Canada's Report on the State of Public Health in Canada 2020. [LINK](#)

British Medical Bulletin: [Ethics of ICU triage during COVID-19](#) (May 31, 2021)

"The coronavirus disease 2019 pandemic has placed intensive care unit (ICU) triage at the center of bioethical discussions. National and international triage guidelines emerged from professional and governmental bodies and have led to controversial discussions about which criteria—e.g. medical prognosis, age, life-expectancy or quality of life—are ethically acceptable. This paper presents the main points of agreement and disagreement in triage protocols, and reviews the ethical debate surrounding them." [LINK](#)

Academic Medicine: [COVID-19 Threatens Progress toward Gender Equity within Academic Medicine](#) (June 1, 2021)

"Women remain underrepresented within academic medicine despite past and present efforts to promote gender equity. The authors discuss how the COVID-19 pandemic could stymie progress toward gender parity within the biomedical workforce and limit the retention and advancement of women in science and medicine." [LINK](#)

Vaccine: [Impact of the COVID-19 pandemic on the provision of routine childhood immunizations in Ontario, Canada](#) (June 1, 2021)

"The purpose of this study is to rapidly generate data to better understand the impact of COVID-19 on physicians' immunization practices in Ontario." [LINK](#)

MedPage Today: [More insight on which kids are most at risk for severe COVID-19](#) (June 7, 2021)

"Throughout this pandemic, pediatric practitioners have been making decisions extrapolated from adult data [...] To provide the best care for children, we need pediatric-specific data... The strongest risk factors for COVID-19 hospitalization included type I diabetes and obesity." [LINK](#)

Journal of the American Geriatrics Society: [Association of frailty with outcomes in individuals with COVID-19: A living review and meta-analysis](#) (May 28, 2021)

"A living review of frailty and COVID-19...to identify, describe, and synthesize studies reporting the association between frailty and outcomes (informed by the Institute for Healthcare Improvement's Triple Aim (health, resource use, and experience) in individuals with COVID-19." [LINK](#)

European Heart Journal - Quality of Care and Clinical Outcomes: [Cardiovascular risk factors, cardiovascular disease, and COVID-19: an umbrella review of systematic reviews](#) (June 9, 2021)

"Commissioned by Public Health England, the aim of this umbrella review of systematic reviews was to consolidate evidence which addressed the following two research questions: (i) What is the association between cardiovascular risk factors or cardiovascular disease and health outcomes, hospitalization, ventilation, and mortality caused by COVID-19? and (ii) What is the impact of COVID-19 on cardiovascular health?" [LINK](#)

HEALTH SYSTEM ADMINISTRATION

Healthcare Management Forum: [Evaluating the mental health and well-being of Canadian healthcare workers during the COVID-19 outbreak](#) (June 8, 2021)

"Our research examined the physical and mental well-being of healthcare workers in Canada during the COVID-19 pandemic and the protective effects that employers can have by instituting safety measures for employees." [LINK](#)

National Collaborating Centre for Environmental Health: [Indoor CO₂ Sensors for COVID-19 Risk Mitigation: Current Guidance and Limitations](#) (May 18, 2021)

"Throughout the pandemic, building managers and the public have been asked to ventilate their spaces adequately through HVAC adjustments, opening windows, installing local exhaust, etc. Without the assistance of an HVAC professional, it can be very difficult for building occupants to know whether ventilation objectives have been met. CO₂ monitoring is attractive in this sense: monitors are inexpensive and widely available, and they make indoor air quality visible, which can help to identify poorly-ventilated spaces for remediation." [LINK](#)

The Lancet: [Microbe SARS-CoV-2: eye protection might be the missing key](#) (February 23, 2021)

"COVID-19 has brought into focus many important factors that limit personal protective equipment efficacy, including frequent failure to use eye protection. Inadequate eye protection might explain why front-line workers who, despite wearing apparently adequate gloves, gowns, and masks, can still remain at increased risk of infection." [LINK](#)

INFECTION PREVENTION AND CONTROL

Canadian Journal of Public Health: [The social determinants of health as predictors of adherence to public health preventive measures among parents and young children during the COVID-19 pandemic: a longitudinal cohort study](#) (May 28, 2021)

This study investigated whether social determinants of health (SDOH) are predictive of adherence to public health preventive measures and to describe changes in adherence over time among parents and children. [LINK](#)

Nature: [The COVID lab-leak hypothesis: what scientists do and don't know](#) (June 8, 2021)

"Nature examines arguments that the coronavirus SARS-CoV-2 escaped from a lab in China, and the science behind them." [LINK](#)

Politico: [Canada eyeing June 22 to begin loosening restrictions at U.S. border](#) (June 08, 2021)

"The mayors of Canadian border cities say Prime Minister Justin Trudeau's government has signaled it could start easing COVID-19 restrictions at the Canada-U.S. frontier on June 22 if the country's vaccination campaign stays on its current trajectory." [LINK](#)

TREATMENT

BioMed Central Public Health: [Intention to receive a COVID-19 vaccine: results from a population-based survey in Canada](#) (May 29, 2021)

"The success of any COVID-19 vaccine program ultimately depends on high vaccine uptake. This study determined overall intention to receive a COVID-19 vaccine and identified factors that predict intentions to be vaccinated against COVID-19 in Canada, specifically in key priority groups identified by the American Committee on Immunization Practice (ACIP) and the National Advisory Committee on Immunization (NACI) for early immunization." [LINK](#)

Vaccine: [One size does not fit all: Lessons from Israel's COVID-19 vaccination drive and hesitancy](#) (June 1, 2021)

"Three real-world lessons concerning vaccine hesitancy (VH) have been demonstrated by the Israeli experience. First, VH characterizes socially excluded minority groups [...] Second, VH is not an either/or decision. It ranges from hesitancy that hinges on rational calculation, to anti-vaccination ideological objection. Third, VH thrives on social media that often lead to polarization since online users receive and select information adhering to their system of beliefs." [LINK](#)

Vaccine: [A new group at increased risk of a SARS-CoV-2 infection emerges: The recently vaccinated](#) (June 3, 2021)

"Making all members of the public aware that full protection will not be in effect until after the vaccination schedule of the administered COVID-19 vaccine has been completed is also essential to prevent public doubts about these vaccines extremely high efficacy, to combat novel "variants of concern", and therefore to unveil their full potential in preventing deaths, and ending the pandemic." [LINK](#)

Nature Medicine: [COVID-19 vaccination and immune thrombocytopenia](#) (June 9, 2021)

"A prospective cohort analysis finds a link between the ChAdOx1 vaccine and an autoimmune disorder known as immune thrombocytopenia—but questions remain and causality is yet to be established." [LINK](#)

The Japanese Journal of Antibiotics: [Global trends in clinical studies of ivermectin in COVID-19](#) (March, 2021)

"This review is written with the hope of increasing the understanding and support of all parties, by explaining the current situation in which doctors and researchers all around the world are actively attempting to expand the indication for ivermectin as a therapeutic/preventive drug for COVID-19. It is hoped that ivermectin will be utilized as a countermeasure for COVID-19 as soon as possible." [LINK](#)

MENTAL HEALTH & WELLNESS

Gerontology and Geriatric Medicine: [Impact of COVID-19 on the Health and Well-being of Informal Caregivers of People with Dementia: A Rapid Systematic Review](#) (May 31, 2021)

"This study focuses on informal caregivers of people with dementia, a disease that affects about 50 million older adults worldwide and requires much caregiving support." [LINK](#)

Canadian Geriatrics Journal: [Social Connection is Essential in Long-Term Care Homes: Considerations during COVID-19 and Beyond](#) (June 1, 2021)

"COVID-19 has had a profound impact on long-term care (LTC) homes in Canada. But the measures put in place to control infection within LTC homes have also had devastating impacts on the health and well-being of residents

through the effects on social connection. Here, we offer guiding principles to enable social connection and promote health and quality of life for LTC residents during COVID-19 and beyond. These principles were generated by a working group of the COVID-19 and Dementia Task Force, convened by the Alzheimer Society of Canada to identify the urgent and emerging issues raised by COVID-19 for Canadians with dementia.” [LINK](#)

Current Psychology: [Stay at home! When personality profiles influence mental health and creativity during the COVID-19 lockdown](#) (May 29, 2021)

“With the COVID-19 outbreak, the population was suddenly forced to “stay at home.” Although research suggests that social isolation affects health and wellbeing, reactions may vary depending on individuals. The current study assessed the relationships between personality variables (preference for solitude and Big Five personality), mental health (anxiety, stress, loneliness), and creativity, and tried to determine whether the identified personality profiles affect individuals’ mental health and creativity.” [LINK](#)

Public Library of Science One: [Smokers’ cognitive and behavioural reactions during the early phase of the COVID-19 pandemic: Findings from the 2020 ITC Four Country Smoking and Vaping Survey](#) (June 4, 2021)

“COVID-19 is primarily a respiratory illness, and smoking adversely impacts the respiratory and immune systems; this confluence may therefore incentivize smokers to quit. The present study, conducted in four high-income countries during the first global wave of COVID-19, examined the association between COVID-19 and: (1) thoughts about quitting smoking; (2) changes in smoking (quit attempt, reduced or increased smoking, or no change); and (3) factors related to a positive change (making a quit attempt or reducing smoking) based on an adapted framework of the Health Belief Model.” [LINK](#)

International Journal of Environmental Research and Public Health: [Resilience in the Storm: Impacts of Changed Daily Lifestyles on Mental Health in Persons with Chronic Illnesses under the COVID-19 Pandemic](#) (May 26, 2021)

“Studies have shown individuals with chronic illnesses tend to experience poorer mental health compared to their counterparts without a chronic illness under the COVID-19 pandemic. The pervasive disruption on daily lifestyles due to social distancing could be a contributing factor. In this study, we collaborated with local patient support groups to explore the psychological adjustment among a group of community-dwelling individuals with chronic illnesses under the COVID-19 pandemic in Hong Kong.” [LINK](#)

Journal of Human Rights and Social Work: [Comparing Macro Influences on Individuals’ Initial Coping and Response to COVID-19 in Canada and USA](#) (June 1, 2021)

“The purpose of this study was to compare how people in Canada and the USA coped to the COVID-19 pandemic, with an eye towards discerning if any differences relate to macro systems differences between the neighboring countries.” [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 May and June, 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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