

*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](mailto: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 & BIOLOGY

### **Nature: [Heavily mutated Omicron variant puts scientists on alert](#) (November 27, 2021)**

“So far, the threat B.1.1.529 poses beyond South Africa is far from clear, researchers say. It is also unclear whether the variant is more transmissible than Delta... because there are currently low numbers of COVID-19 cases in South Africa... We need to see what this virus does in terms of competitive success and whether it will increase in prevalence.” [LINK](#)

See also:

- Al Jazeera: [Infographic: How Omicron compares with other COVID variants](#) (November 29, 2021)
- The Atlantic: [We Know Almost Nothing About the Omicron Variant](#) (November 27, 2021)
- CBC: [What we know about the new coronavirus variant omicron](#) (November 30, 2021)
- The Conversation: [The hunt for coronavirus variants: how the new one was found and what we know so far](#) (November 26, 2021)
- Guardian: [Omicron COVID variant poses very high global risk says WHO](#) (November 29, 2021)
- Stat Health: [Scientists rapidly identified the Omicron variant. But firm answers about its impact could take weeks](#) (November 28, 2021)

### **Science: [The Body Is Far from Helpless against Coronavirus Variants](#) (February 12, 2021)**

“The biggest misconception is these immune responses are all or none... vaccines function more like a dimmer than a light switch, tuning down the risk of serious COVID-19 along a hazy spectrum. Importantly, the vaccines still seem to largely ward off severe disease and death—a hint that residual antibodies and T cells are still making a dent.” [LINK](#)

See also:

- CBC: [Omicron could threaten COVID-19 immunity — but we're not going back to 'square one](#) (December 1, 2021)

- Nature: [High genetic barrier to SARS-CoV-2 polyclonal neutralizing antibody escape](#) (September 20, 2021)
- Stat Health: [A reason for optimism on Omicron: Our immune systems are not blank slates](#) (December 1, 2021)

**Center for Infectious Disease Research & Policy: [Weak immune systems tied to more COVID-19 breakthrough infections](#)** (November 30, 2021)

"While COVID-19 breakthrough infections—cases after vaccination—are rare, fully vaccinated people with compromised immune systems have them three times more often than those with strong immune systems and have more severe illnesses, according to a real-world US study involving nearly 1.3 million people." [LINK](#)

Original research:

- Journal of Medical Economics: [Evaluation of COVID-19 vaccine breakthrough infections among immunocompromised patients fully vaccinated with BNT162b2](#) (November 30, 2021)

**Nature Neuroscience: [The SARS-CoV-2 main protease M<sup>pro</sup> causes microvascular brain pathology by cleaving NEMO in brain endothelial cells](#)** (October 21, 2021)

"In brains of [SARS-CoV-2]-infected individuals and animal models, we found an increased number of empty basement membrane tubes, so-called string vessels representing remnants of lost capillaries. We obtained evidence that brain endothelial cells are infected and that the main protease of SARS-CoV-2 (M<sup>pro</sup>) cleaves NEMO, the essential modulator of nuclear factor- $\kappa$ B. By ablating NEMO, M<sup>pro</sup> induces the death of human brain endothelial cells and the occurrence of string vessels in mice. Deletion of [RIPK 3], a mediator of regulated cell death, blocks the vessel rarefaction and disruption of the blood–brain barrier due to NEMO ablation. Importantly, a pharmacological inhibitor of RIPK signaling prevented the M<sup>pro</sup>-induced microvascular pathology. Our data suggest RIPK as a potential therapeutic target to treat the neuropathology of COVID-19." [LINK](#)

See also:

- New Atlas: [Study reveals how COVID-19 can directly damage brain cells](#) (October 24, 2021)

**JAMA Network Open: [Short-term and Long-term Rates of Post-acute Sequelae of SARS-CoV-2 Infection: A Systematic Review](#)** (October 13, 2021)

"In this systematic review of 57 studies comprising more than 250 000 survivors of COVID-19, most sequelae included mental health, pulmonary, and neurologic disorders, which were prevalent longer than 6 months after SARS-CoV-2 exposure. These findings suggest that long-term PASC must be factored into existing health care systems, especially in low- and middle-income countries." [LINK](#)

See also:

- CADTH: [Post–COVID-19 Condition: A Condition-Level Review](#) (October 29, 2021)
- Gothamist: [Chronic Weight Loss And Malnutrition Join Devastating List Of Long COVID Symptoms](#) (October 18, 2021)
- Neurology: [Frequency of Neurologic Manifestations in COVID-19: A Systematic Review and Meta-analysis](#) (October 11, 2021)

**The Times of Israel: [One in Four COVID patients hospitalized while vitamin D deficient die – Israeli study](#)** (June 17, 2021)

"Hospitalized COVID-19 patients are far more likely to die or to end up in severe or critical condition if they are vitamin D-deficient, Israeli researchers have found. In a [study](#) conducted in a Galilee hospital, 26 percent of vitamin D-deficient coronavirus patients died, while among other patients the figure was at 3%." [LINK](#)

## HEALTH EQUITY AND ETHICS

**Health Affairs:** [Why A Universal COVID-19 Vaccine Mandate Is Ethical Today](#) (November 3, 2021)

“Many organizations and individuals are calling for the mandatory vaccination of all Americans against COVID-19. But others have objected to vaccine mandates, calling them unethical. As members of the Association of Bioethics Program Directors (an organization representing more than 90 bioethics centers in the US and Canada), we’ve had vigorous debates on these issues. We have concluded that broad vaccine mandates for COVID-19 are ethically justified at this time.” [LINK](#)

**Journal of Gastrointestinal Cancer:** [Impact of the COVID-19 Pandemic on Colorectal Cancer Diagnosis and Treatment: a Systematic Review](#) (November 29, 2021)

“During the COVID-19 pandemic, the diagnosis and treatment of other diseases have also been challenging, so knowing the effect of COVID-19 on the diagnosis and treatment of cancer is essential for healthcare systems for better planning. Therefore, the present study was conducted to investigate the effects of COVID-19 pandemic on the diagnosis and treatment of colorectal cancer.” [LINK](#)

**Public Health Agency of Canada:** [Statement from the Chief Public Health Officer of Canada - Importance of COVID-19 Vaccination in Pregnant, Recently Pregnant and Breastfeeding People](#) (November 26, 2021)

“While Canada has achieved great success in vaccinating a significant proportion of our population against COVID-19, some groups lag behind in uptake. One key group that appears to have lower uptake of COVID-19 vaccines is people who are pregnant. This is particularly concerning because there is growing evidence that pregnant people and their babies are at increased risk of severe illness due to COVID-19.” [LINK](#)

See also:

- Statistics Canada. [Changes in fertility intentions in response to the COVID-19 pandemic](#) (December 1, 2021)

**Violence against Women:** [Preventing Gender-Based Homelessness in Canada During the COVID-19 Pandemic and Beyond: The Need to Account for Violence against Women](#) (September 17, 2021)

“The coronavirus disease of 2019 (COVID-19) pandemic has led to increases in intimate partner violence (IPV), a leading cause of women's homelessness. Although the Canadian Government provided emergency funding to the violence against women and housing and homelessness sectors in response to COVID-19, Canada lacks a national legislative and funding framework to support coordinated prevention efforts. We review the context of IPV and homelessness among women and international policy exemplars. We then propose several starting points for developing a Canadian strategic framework, including adopting inclusive definitions of IPV and homelessness as well as evaluating a broad continuum of IPV-housing options and inter-sectoral partnership models.” [LINK](#)

**Government of Canada:** [Helping people who use substances during the COVID-19 pandemic](#) (2021)

“Health Canada and the Public Health Agency of Canada have been working with provinces, territories and other partners, including researchers, advocates and people with lived and living experience. The goal of this work is to help make sure that people who use (d) substances can continue to access treatment and harm reduction services during the pandemic.” [LINK](#)

**Statistics Canada: [Labour market impacts of COVID-19 on Indigenous people living off reserve in the provinces: March 2020 to August 2021](#)** (November 16, 2021)

“The COVID-19 pandemic continues to have significant health and socio-economic impacts among First Nations, Métis, Inuit and non-Indigenous populations. Since the beginning of the pandemic, provinces and territories across Canada have imposed restrictions on businesses, schools, universities, and colleges, resulting in precarious work situations for millions of Canadians. Many of these restrictions have gradually been eased, as vaccination rates increased.” [LINK](#)

**Statistics Canada: [Outlook of rural businesses and impacts related to COVID-19, third quarter of 2021](#)** (October 18, 2021)

“With vaccination rates increasing and an easing of restrictions across the country as summer approached, rural businesses in Canada continued to adapt to the evolving economic landscape. Real gross domestic product (GDP) decreased by 0.3% during the second quarter from the first quarter, after three consecutive quarterly increases. GDP had still not recovered to pre-pandemic levels as of June 2021, down 1.5% from February, 2020.” [LINK](#)

## HEALTH SYSTEM ADMINISTRATION

**European Centre for Disease Prevention and Control: [Threat Assessment Brief: Implications of the emergence and spread of the SARS-CoV-2 B.1.1. 529 variant of concern \(Omicron\) for the EU/EEA](#)** (November 26, 2021)

"The variant is characterized by 30 changes, three small deletions and one small insertion in the spike protein, of these, 15 are in the receptor binding domain. This variant was first detected in samples collected on 11 November 2021 in Botswana and on 14 November 2021 in South Africa. As of 26 November 2021, travel-related cases have also been detected in Belgium, Hong Kong and Israel. The Omicron variant is the most divergent variant that has been detected in significant numbers during the pandemic so far, which raises concerns that it may be associated with increased transmissibility, significant reduction in vaccine effectiveness and increased risk for reinfections."

[LINK](#)

See also:

- European Centre for Disease Prevention and Control: [Epidemiological update: Omicron variant of concern \(VOC\) – data as of 30 November 2021 \(12.00\)](#) (November 30, 2021)

**Psychiatry: [Morally Injurious Experiences and Emotions of Health Care Professionals during the COVID-19 Pandemic before Vaccine Availability](#)** (November 24, 2021)

"In this qualitative study of 1344 health care professionals in 2020, respondents reported significant changes in their personal and professional lives during the course of the pandemic. Common themes were feeling isolated from non-health care professionals, alienated from patients, and betrayed by coworkers, administrators, and the public... Moral injury can result from chronic stressors in morally injurious environments; leadership must identify and address these stressors to effectively support health care professionals as COVID-19 continues to strain staff's physical, mental, and emotional resources." [LINK](#)

See also:

- Center for Infectious Disease Research & Policy: [Emotional toll of COVID-19 on health workers is vast, varied](#) (November, 2021)
- Psychiatry: [Mental Health Outcomes among Italian Health Care Workers during the COVID-19 Pandemic](#) (November 24, 2021)

**The Canadian Agency for Drugs and Technologies in Health (CADTH): [Direct to Patient Virtual Visits](#)**  
(June 4, 2021)

"The purpose of this report is to provide an overview of virtual visits in Canada — including a description of how virtual visits are delivered and how virtual visits are used — including potential benefits and challenges. Direct-to-patient virtual visits have the potential to change and potentially improve the delivery of health care in Canada. However, there are unresolved issues related to standards, licensure, equity, quality care provision, payment, and medical education that need to be addressed to prepare for a post-COVID-19 health care system that includes virtual visits. Understanding which patients stand to benefit most from virtual visits (and through which modality) could also improve future care." [LINK](#)

**The British Medical Journal: [Aggressive containment, suppression, and mitigation of COVID-19: lessons learnt from eight countries](#)**  
(November 29, 2021)

"The lessons drawn from eight countries are useful to guide the development of a comprehensive response to COVID-19 and future pandemics. Although the development of vaccines has raised the hope of returning to normal life, relying solely on vaccines to control the pandemic is uncertain given the inequitable global vaccination rollout. Implementing the aggressive containment strategy—which uses public health interventions built on trust and community engagement coupled with strong political will, health system preparedness, and receptiveness to scientific inputs—will reduce the impact on lives and livelihoods, particularly at the earlier stages of the pandemic. As more countries, including those successful in containment, transition to COVID-19 endemicity, continuing investments and efforts are needed to reduce inequalities, enhance health system capacities, and strengthen public health preparedness in the event of potential emergent strains and waning vaccine immunities." [LINK](#)

**Authorea: [How COVID-19 spreads: narratives, counter-narratives, and social dramas](#)**  
(November 16, 2021)

"At the root of the UK's limited success in controlling transmission of SARS-CoV-2 lay flawed droplet-but-not-airborne and situationally-airborne narratives. By presenting elements of the pandemic as social dramas, we have argued that these narratives, and the false certainty with which they were conveyed, produced ineffective public health measures, contributed to shocking levels of care home deaths, exacerbated toxic discourse on masking, and justified withholding adequate protection from healthcare staff." [LINK](#)

**Medpage Today: [A Breath of Virus-Free Air](#)**  
(November 23, 2021)

"Three years later, the results are in: the deployment of advanced air purification measures significantly contributed to a 45% reduction in healthcare-associated infections, according to the study recently published in the Journal of Hospital Infection. If we extrapolate those results nationally, it could mean 765,000 fewer hospital infections each year... As promising as these results are for hospitals, they also provide a blueprint for reducing the airborne transmission of diseases in other indoor settings such as schools, restaurants, retail stores, office buildings, nursing homes, and more. Indeed, we focus most of our time on cleaning the world we can see, the surfaces we touch, and not nearly enough energy on the world we can't see -- the air we breathe." [LINK](#)

See also:

- Original research- Journal of Hospital Infection: [Healthcare-associated infection impact with bioaerosol treatment and COVID-19 mitigation measures](#) (July 22, 2021)
- PNAS: [A guideline to limit indoor airborne transmission of COVID-19](#) (April 27, 2021)

**SPOR Evidence Alliance and COVID-END: [Rapid Diagnostic Testing for COVID19: social and economic impacts](#)** (November 8, 2021)

"Where RDT has been reported in specific settings, such as schools or workplaces, it appears to have been largely accepted by the affected audiences, judging by rates of participation. This holds even for one instance of nation-wide mass testing, in Slovakia. Studies are also optimistic that testing will have high, even very high, cost-effectiveness. The literature here suggests that such programs are also feasible to implement, although marshalling the necessary resources is a very real challenge and potentially could be quite burdensome to organizations without some form of external government support. Overall, these findings suggest that for the duration of the pandemic, exploration of RDT programs holds promise as an additional strategy for protecting the public's health from COVID-19." [LINK](#)

## INFECTION PREVENTION AND CONTROL

**Public Health Agency of Canada: [Government of Canada introduces additional measures to address COVID-19 Omicron variant of concern](#)** (November 30, 2021)

"On November 26, 2021, WHO classified B.1.1.529 as a variant of concern called Omicron. Since then it has been found in a number of countries and regions, including the confirmation of several travel-related cases in Canada... [We] announced additional border measures to reduce the risk of the importation and transmission of COVID-19 and its variants in Canada related to international travel." [LINK](#)

**CBC News: [Canada's mask guidance has changed. Here's why you might need an upgrade](#)** (November 25, 2021)

"Now that the cold weather has hit and people are moving inside, many doctors and scientists are urging Canadians not only to resist getting complacent about wearing masks to protect against COVID-19 — but also to take a closer look at whether that cloth mask is keeping you and others as safe as possible. "In general, while non-medical masks can help prevent the spread of COVID-19, medical masks and respirators provide better protection," the Public Health Agency of Canada (PHAC) said in its COVID-19 mask information webpage, which was updated on November 12." [LINK](#)

**European Centre for Disease Prevention and Control: [Assessment of the current SARS-CoV-2 epidemiological situation in the EU/EEA, projections for the end-of-year festive season and strategies for response, 17th update](#)** (November 24, 2021)

"Modelling scenarios that consider vaccine uptake (including 'additional dose' and 'booster' vaccinations), vaccine effectiveness, waning vaccine-induced immunity, vaccination of children, natural immunity and population contact rates, indicate that the potential burden of disease risk in the EU/EEA from the Delta variant is expected to be very high in December and January, unless NPIs are applied now in combination with continued efforts to increase vaccine uptake in the total population." [LINK](#)

**National Collaborating Centre for Environmental Health: [A rapid review of the use of physical barriers in non-clinical settings and COVID-19 transmission](#)** (November 17, 2021)

"The evidence reviewed here suggests that physical barriers may be effective in reducing overall exposure to respiratory particles. However, the literature raises a number of concerns. A rapid scan of the public health

guidance shows that very few online resources deal substantively with how to implement barriers, perhaps because of the complexity of indoor spaces and the difficulty in devising such guidelines. However, it also appears that the basic objectives for using barriers are not clearly understood, leading to counterproductive actions (e.g., enclosing several people within barriers) and use in inappropriate settings (e.g., classrooms). In addition, key requirements such as the need for complementary ventilation have not been observed. These issues are unsurprising given the extremely rapid rate at which barriers were implemented in diverse workplaces and public spaces, often without technical assistance or specific guidance, and given the evolving understanding of how COVID-19 is transmitted." [LINK](#)

See also:

- Eurosurveillance: [The impact of public health interventions in the Nordic countries during the first year of SARS-CoV-2 transmission and evolution](#) (November 4, 2021)

**Phys Org:** [Two-meter COVID-19 rule is 'arbitrary measurement' of safety](#) (November 23, 2021)

"A team of engineers from the University of Cambridge used computer modeling to quantify how droplets spread when people cough. They found that in the absence of masks, a person with COVID-19 can infect another person at a two-meter distance, even when outdoors...The results, published in the Journal Physics of Fluids, suggest that social distancing is not an effective mitigation measure on its own, and underline the continued importance of vaccination, ventilation and masks as we head into the winter months in the northern hemisphere." [LINK](#)

**National Public Radio:** [Does Your Kid's Classroom Need An Air Purifier? Here's How You Can Make One Yourself](#) (August 26, 2021)

"Blair has been pulling together resources on a website and making step-by-step instructions to help parents and teachers build this box. The idea is simple: The fan sucks air through the filters, effectively cleaning it of particles the virus might be floating along on. Experts say filters with a so-called MERV 13 rating or better are ideal... "It probably takes about 10 or 20 minutes really to just assemble these things and tape them up. And if you do goof up then, no problem, it'll take you 30 minutes," Blair said. The materials cost somewhere between \$70 and \$120, and the box should last an entire school year." [LINK](#)

See also

- Centers for Disease Control and Prevention: [Interactive Ventilation Tool](#) (November 24, 2021)
- Phys Org: [Free online tool calculates risk of COVID-19 transmission in poorly-ventilated spaces](#) (January 19, 2021)

## TREATMENT

**COVID-END:** [COVID-19 Living Evidence: What is the efficacy and effectiveness of available COVID-19 vaccines for variants of concern?](#) (November 17, 2021)

"The authors summarized the evidence by presenting narrative evidence profiles across studies, with or without pooling, as appropriate." [LINK](#)

**SPOR Evidence Alliance:** [Change in the level of vaccine protection over time in COVID-19 vaccinated individuals](#) (November 19, 2021)

"Key points:

- Based on data from six (11 cohorts) and five (6 cohorts) studies, respectively, for COVID-19 related hospitalizations and death, vaccine effectiveness for confirmed COVID-19 cases from 7-30 days to 7 months post full schedule seemed to be stable over time. These changes seemed to be consistent in response to the Delta variant and across vaccines (especially BNT162b2 vs. mRNA-1273). Data for

hospitalizations was the most consistent, though there was greater heterogeneity in the available data for mortality.

- Based on the data from 9 studies (16 cohorts), there would seem to be a decrease in vaccine effectiveness for confirmed COVID-19 cases from 7-30 days post full schedule to 7 months post full schedule. Given the heterogeneity in the available data it was not possible to provide specific point estimates for the magnitude of change. Generally, there seemed to be no difference in response between the BNT162b2 and mRNA-1273 vaccines." [LINK](#)

**CBC: [Booster shots, third doses, and who needs them](#)** (October 29, 2021)

"The three approved COVID-19 vaccines in Canada (Pfizer-BioNTech, Moderna and AstraZeneca) are all two-dose regimens. A third dose is for people who may not have mounted a strong enough immune response to fight off COVID-19 after two doses. A booster shot is for people who likely had a fulsome immune response to the regular two-dose vaccine regimen, but "with time, the immunity and clinical protection has fallen below a rate deemed sufficient in that population," according to the World Health Organization." [LINK](#)

**Nature: [Do vaccines protect against long COVID? What the data say](#)** (November 23, 2021)

"At present, public-health officials are flying blind when it comes to long COVID and vaccination. Although vaccines greatly reduce the rates of serious illness and death caused by COVID-19, they are not as effective at completely preventing the disease, and long COVID can arise even after a mild or asymptomatic coronavirus infection. Countries with high infection rates could still end up with many cases of long COVID, even if nations have high rates of vaccination." [LINK](#)

See also:

- MedRxiv: [Reduced Incidence of Long-COVID Symptoms Related to Administration of COVID-19 Vaccines Both Before COVID-19 Diagnosis and Up to 12 Weeks After](#) (November 18, 2021)

**The Jerusalem Post: [Aspirin lowers risk of COVID: New findings support preliminary Israeli trial](#)**

(October 6, 2021)

"The treatment reduced the risk of reaching mechanical ventilation by 44%. ICU admissions were lower by 43%, and an overall in-hospital mortality saw a 47% decrease." [LINK](#)

See also:

- Popular Science: [How much does vitamin D protect us from diseases like COVID?](#) (November 23, 2021)

**Diabetes & Metabolic Syndrome: Clinical Research & Reviews: [Molnupiravir in COVID-19: A systematic review of literature](#)** (November-December, 2021)

"Molnupiravir is first oral antiviral drug to demonstrate a significant benefit in reducing hospitalization or death in mild COVID-19 and could be an important weapon in the battle against SARS-CoV-2. However, its role in moderate to severe COVID-19 is questionable and more studies are needed." [LINK](#)

See also:

- Los Angeles Times: [FDA review finds Merck's COVID-19 pill effective, but flags safety concerns](#)(November 29, 2021)
- FDA: [U.S. Food and Drug Administration Center for Drug Evaluation and Research FDA Briefing Document Antimicrobial Drugs Advisory Committee Meeting](#) (November 30, 2021)

**Science Insider: A prominent virologist warns COVID-19 pill could unleash dangerous mutants. Others see little cause for alarm** (November 7, 2021)

"The drug's ability to mutate RNA has raised persistent fears that it could induce mutations in a patient's own genetic material, possibly causing cancer or birth defects; studies so far have not borne out those fears." [LINK](#)  
See also:

- Forbes: [Supercharging New Viral Variants: The Dangers Of Molnupiravir \(Part 1\)](#) (November 1, 2021)
- Forbes: [Harming Those Who Receive It: The Dangers Of Molnupiravir \(Part 2\)](#) (November 2, 2021)
- Journal of Biological Chemistry: [Molnupiravir promotes SARS-CoV-2 mutagenesis via the RNA template](#) (July, 2021)
- Nature Structural and Molecular Biology: [Molnupiravir: coding for catastrophe](#) (October 11, 2021)

## MENTAL HEALTH & WELLNESS

**Mental Health Research Canada: [Mental Health during COVID-19 Outbreak: Poll #9](#)** (November 2021)

"This online survey was conducted among a sample of 4,108 adult Canadians. This was the ninth poll of this study. Results between the polls are compared where applicable. Two provinces, New Brunswick and Saskatchewan have been up-sampled in this poll. National results have been weighted by the most current census data in terms of gender, age, and region to ensure the total sample is representative of the population as a whole." [LINK](#)

See also:

- CTV News: ['It's a problem': As society reopens, many still suffering from pandemic anxiety](#) (September 29, 2021)

**International Journal of Environmental Research and Public Health: [Impacts of the COVID-19 Pandemic on Family Mental Health in Canada: Findings from a Multi-Round Cross-Sectional Study](#)** (November 17, 2021)

"The current study sought to explore the self-reported impacts of the pandemic on another population subgroup at potentially heightened mental health risks—parents with children living at home. In addition to the anxieties and harms associated with the disease itself, financial and employment stressors, school and child care closures, caregiver burden, and physical distancing from family and friends have created unprecedented disruptions to the lives of families. Understanding the pandemic-related stressors facing parents and children is therefore critical to maintaining and strengthening the mental health of families during the pandemic and beyond." [LINK](#)

**Journal of Affective Disorders Reports: [Systematic review of the impact of the COVID-19 pandemic on suicidal behaviour amongst health and social care workers across the world](#)** (November 17, 2021)

"This systematic review identified and appraised the published literature that has reported on the impact of COVID-19 on suicidal thoughts and behaviour and self-harm amongst healthcare and social care workers worldwide up to May 31, 2021) The clinical relevance of this work is to bring attention to what evidence exists, and to encourage, in practice, proactive approaches to interventions for improving healthcare and social care worker mental health." [LINK](#)

**International Journal of Environmental Research and Public Health: [Increases in Alcohol and Cannabis Use Associated with Deteriorating Mental Health among LGBTQ2+ Adults in the Context of COVID-19: A Repeated Cross-Sectional Study in Canada, 2020–2021](#)** (November 19, 2021)

“This study examines the extent of, and associations between, increased alcohol and cannabis use and deteriorating mental health among LGBTQ2+ adults in Canada during the COVID-19 pandemic. Data are drawn from LGBTQ2+ respondents to a repeated, cross-sectional survey administered to adults living in Canada (May 2020–January 2021).” [LINK](#)

**Journal of Psychoeducational Assessment: [In-Person Versus Online Learning in Relation to Students’ Perceptions of Mattering During COVID-19: A Brief Report](#)** (October 29, 2021)

“We examined students’ perceptions of mattering during the pandemic in relation to in-person versus online learning in a sample of 6578 Canadian students in Grades 4–12. The results of this brief study show that in-person learning seems to help convey to students that they matter. This is important to know because students who feel like they matter are more protected, resilient, and engaged. Accordingly, mattering is a key educational indicator that ought to be considered when contemplating the merits of remote learning.” [LINK](#)

**Facets Journal: [School recess and pandemic recovery efforts: ensuring a climate that supports positive social connection and meaningful play](#)** (November 4, 2021)

“As Canada’s schools reopen, attention to healing the school community is essential. Given the considerable stressors of the COVID-19 pandemic, it is unsurprising that recent studies find Canadian children’s mental health in decline. As social connection is tightly entwined with children’s mental health, supporting school-based spaces for quality social interactions and play will be an important post pandemic recovery strategy. Children will need opportunities to re-establish positive social connections at school, and informal spaces such as recess and lunch are an ideal time to afford these opportunities. Yet many schoolyards have long been challenged by social conflict that can interfere with children’s need to connect with peers. Therefore, efforts should be directed not only at mitigating the effects of social harm, but also toward ensuring social and physical landscapes that are meaningful, inclusive, and engaging for children and adolescents of all ages. Recommendations for post pandemic recovery are provided.” [LINK](#)

**Deloitte: [Cultivating resilience through culture and a focus on well-being](#)** (accessed December 6, 2021)

“Canadian Blood Services (CBS), a non-profit organization that provides life-saving products and services for transfusion and transplantation, learned a lot during the pandemic about its people and what they needed to feel safe at work. Andrew Pateman, vice president of people, culture, and performance, shares his thoughts about how its resilience and workplace culture evolved.” [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 November and December of 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.

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