

The Newfoundland & Labrador Centre for Applied Health Research (NLCAHR) sends this COVID-19 e-bulletin to 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

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CLINICAL PRESENTATION & BIOLOGY

Bulletin Item

CBC: [Omicron sub-variant BA.2 raises new questions about puzzling evolution of virus behind COVID-19](#) (January 26, 2022)

"The sub-variant is known as BA.2 in the classification system used to catalogue the evolution of SARS-CoV-2, and it's just one of a handful of Omicron sub-variants featuring different mutations, which also includes the original lineage, as well as BA.1, BA.1.1, and BA.3. BA.2 drew the close attention of virologists once it started to tick upward in multiple countries, including early signals of a slight rise here in Canada, suggesting it may be even more transmissible than its predecessor." [LINK](#)

See also:

- Globe and Mail: [U.K. designates Omicron sub-lineage a variant under investigation](#) (January 21, 2022)
- Nature: [Beyond Omicron: what's next for COVID's viral evolution](#) (December 7, 2021)

Nature: [How does Omicron spread so fast? A high viral load isn't the answer](#) (January 19, 2022)

"Two studies show that the variant has achieved success despite causing viral levels in the body that are similar to — or lower than — those of its main competitor, the Delta variant. The results suggest that Omicron's hyper-transmissibility does not stem from the release of large amounts of virus from infected people. Instead, the best explanation for its lightning-fast spread is its ability to evade SARS-CoV-2 immunity caused by either vaccination or past infection, says Emily Bruce, a virologist at the University of Vermont in Burlington. The studies have not yet been peer reviewed (see [here](#) and [here](#))."

See also:

- The Guardian: [COVID reinfection: how likely are you to catch virus multiple times?](#) (January 21, 2022)

EMBO Molecular Medicine: [Decreased memory B cell frequencies in COVID-19 delta variant vaccine breakthrough infection](#) (January 21, 2022)

"Vaccine breakthrough cases showed lower memory B cell frequencies against SARS-CoV-2 receptor-binding domain (RBD). Compared to plasma antibodies, antibodies secreted by memory B cells retained a higher fraction of neutralizing properties against the Delta variant. Inflammatory cytokines including IL-1 β and TNF were lower in

vaccine breakthrough infections than primary infection of similar disease severity, underscoring the usefulness of vaccination in preventing inflammation." [LINK](#)

See also:

- Eursurveillance: [Waning antibody levels after COVID-19 vaccination with mRNA Comirnaty and inactivated CoronaVac vaccines in blood donors, Hong Kong, April 2020 to October 2021](#) (January 13, 2022)

Journal of Clinical Laboratory Analysis: [Prognostic factors for predicting severity and mortality in hospitalized COVID-19 patients](#) (January 25, 2022)

"It was demonstrated that lymphopenia, prolonged aPTT, high INR, high D. dimer and high CK are valuable prognostic predictors of the severity of the disease at early stages that can determine the outcome. Based on the results of the multiple logistic regression, the variables that are associated with death outcome are aPTT, HR, RR, ALT and CK levels." [LINK](#)

Centers for Disease Control and Prevention: [Trends in Disease Severity and Health Care Utilization During the Early Omicron Variant Period Compared with Previous SARS-CoV-2 High Transmission Periods — United States, December 2020–January 2022](#) (January 25, 2022)

"Despite Omicron seeing the highest reported numbers of COVID-19 cases and hospitalizations during the pandemic, disease severity indicators, including length of stay, ICU admission, and death, were lower than during previous pandemic peaks. Although disease severity appears lower with the Omicron variant, the high volume of hospitalizations can strain local health care systems and the average daily number of deaths remains substantial. This underscores the importance of national emergency preparedness, specifically, hospital surge capacity and the ability to adequately staff local health care systems. In addition, being up to date on vaccinations and following other recommended prevention strategies are critical to preventing infections, severe illness, or death from COVID-19." [LINK](#)

Centers for Disease Control and Prevention: [Risk for Newly Diagnosed Diabetes >30 Days After SARS-CoV-2 Infection Among Persons Aged <18 Years — United States, March 1, 2020–June 28, 2021](#)

(January 14, 2022)

"Persons aged <18 years with COVID-19 were more likely to receive a new diabetes diagnosis >30 days after infection than were those without COVID-19 and those with pre-pandemic acute respiratory infections. Non-SARS-CoV-2 respiratory infection was not associated with an increased risk for diabetes." [LINK](#)

International Journal of Molecular Science: [Evidence for Biological Age Acceleration and Telomere Shortening in COVID-19 Survivors](#) (June 7, 2021)

"It was shown here that individuals belonging to a group of COVID-19 survivors exhibited a significant acceleration of their biological age, occurring mainly in the younger individuals. This information was correlated with TL shortening and the expression of ACE2 mRNA. It is too early to extrapolate whether relevant clinical indications may arise from this and other studies assessing the role of epigenetic changes in the COVID-19 syndrome." [LINK](#)

CBC: [COVID-19 can wreak havoc on your body. So will it cause health issues decades down the road?](#)

(January 24, 2022)

""We've already shown this virus, even in the acute stage, does have impact on the brain and on our central organs like the heart, and pancreas and areas where other viral infections have caused longer-term inflammatory changes that have led to chronic disease," said Dr. Cory Neudorf, the public health, health systems and social policy impacts pillar co-lead for CoVaRR-Net, a team of Canadian researchers who banded together during the pandemic." I wouldn't be at all surprised if we see more chronic diseases due to COVID in the years to come." [LINK](#)

HEALTH EQUITY AND ETHICS

The British Medical Journal: [COVID-19: Omicron variant is linked to steep rise in hospital admissions of very young children](#) (January 14, 2022)

“Hospital admissions of children under 1 year old have risen steeply, coinciding with transmission of the Omicron variant, show preliminary data presented to the government’s SAGE committee. The data, from the COVID-19 Clinical Information Network (CO-CIN) study, show that the proportion of children admitted to hospital with COVID-19 who were aged under 1 was 42.2% in the four week period studied (14 December 2021 to 12 January 2022), much higher than earlier in the pandemic.” [LINK](#)

See also:

- CBC News: [Hospitals see influx of children with COVID-19 as Alberta battles 5th wave](#) (January 18, 2022)
- medRxiv: [Comparison of outcomes from COVID infection in pediatric and adult patients before and after the emergence of Omicron](#) (January 2, 2022)

Child: Care, Health and Development: [The Unintended Consequences of COVID-19 Public Health Measures on Healthcare for Children with Medical Complexity](#) (January 18, 2022)

“The purpose of this study was to describe the unintended consequences of COVID-19 public health measures in the initial months of the pandemic on healthcare service usage by children with medical complexity. Public health measures implemented in the initial months of the pandemic decreased access to healthcare services for children with medical complexity. The long-term ramifications of these measures are unknown. Family structure was found to influence decisions to avoid accessing Emergency Department care. Given the volume of services used by these children, pediatric hospital leaders need to take their unique needs into consideration in disaster planning to ensure minimal disruptions in care.” [LINK](#)

Canadian Journal of Public Health: [Delay in childhood vaccinations during the COVID-19 pandemic](#) (January 20, 2022)

“The objective of this study was to determine whether the frequency of on-time routine childhood vaccinations among children age 0–2 years was lower following the COVID-19 declaration of emergency in Ontario, Canada, on March 17, 2020, compared to prior to the pandemic. The frequency of on-time routine childhood vaccinations was lower during the first wave of the COVID-19 pandemic. Sustained delays in routine vaccinations may lead to an increase in rates of vaccine-preventable diseases.” [LINK](#)

See also:

- British Medical Journal Open: [Impact of the COVID-19 pandemic on vaccine coverage for early childhood vaccines in Alberta, Canada: a population-based retrospective cohort study](#) (January 25, 2022)
- Canadian Medical Association Journal Open: [Routine childhood vaccination rates in an academic family health team before and during the first wave of the COVID-19 pandemic: a pre–post analysis of a retrospective chart review](#) (January 25, 2022)

Medical Journal of Australia: [Vaccination of young people from 12 years of age for COVID-19 against parents’ wishes](#) (January 23, 2022)

“In this article we examine the ethical considerations that would allow a vaccine provider to give a COVID-19 vaccine to a person from 12 years of age (generally referred to as a “young person” in clinical practice) when this request is against the wishes of the child’s parents. This analysis is intended for young people and for health care and other providers supporting young people, including general practitioners, pharmacists, nurse immunizers, schools, youth workers and residential care workers.” [LINK](#)

Obstetrics & Gynecology: [Association Between Menstrual Cycle Length and Coronavirus Disease 2019 \(COVID-19\) Vaccination: A U.S. Cohort](#) (January 5, 2022)

“Here, we present an analysis of prospectively collected menstrual cycle tracking data from U.S. individuals using the U.S. Food and Drug Administration–cleared digital fertility-awareness application “Natural Cycles” to assess whether COVID-19 vaccination is associated with changes in cycle or menses length during the menstrual cycles when vaccine doses are received. Coronavirus disease 2019 (COVID-19) vaccination is associated with a small change in cycle length but not menses length.” [LINK](#)

Canadian Agency for Drugs and Technologies in Health Lecture: [COVID-19 and Its Impact on Cancer Patients, Survivors, and Health Systems: Evidence, Economics, and Ethics](#) (February 17, 2022)

“The COVID-19 pandemic is having a profound impact on all Canadians, including cancer patients, survivors, and their families. During the pandemic, many jurisdictions curtailed early detection and cancer screening programs, some reduced access to operating rooms, and all have pivoted to virtual health. There will be significant psychosocial impacts for many patients and survivors, and we expect to see many more patients presenting with advanced disease. This lecture will present early evidence and lessons from Canada and internationally. It will include global modelling efforts to understand the impact of COVID-19 on cancer screening and treatment, early data on patient-reported experiences and outcomes, and the urgent need for more robust economic and ethics frameworks for allocating scarce resources during pandemics.” [LINK](#)

Clinical Transplantation: [Organ transplant and COVID-19 vaccination: Considering the ethics of denying transplant to unvaccinated patients](#) (January 14, 2022)

“Recently, a number of organ transplant centers in the United States have proposed to only allow patients who have received the COVID-19 vaccination to be active on their transplant waiting list. This raises numerous ethical issues. This analysis utilizes current empirical data and the guidelines on the ethics of organ allocation published by the Organ Procurement and Transplant Network to guide our ethical reasoning. We conclude that it would be permissible to mandate COVID-19 vaccination as a condition of being listed for an organ transplant at a transplant center and offer recommendations for how to do so.” [LINK](#)

CBC News: [After COVID-19 found at St. John's shelter, advocate says vulnerable population needs protection](#) (January 24, 2022)

“Robyn LeGrow says more could have been done in preparing vulnerable population for outbreak” [LINK](#)

Healthcare: [Super-Spreaders or Victims of Circumstance? Childhood in Canadian Media Reporting of the COVID-19 Pandemic: A Critical Content Analysis](#) (January 14, 2022)

“This qualitative research study, a critical content analysis, explores Canadian media reporting of childhood in Canada during the COVID-19 global pandemic. Popular media plays an important role in representing and perpetuating the dominant social discourse in highly literate societies. In Canadian media, the effects of the pandemic on children and adolescents’ health and wellbeing are overshadowed by discussions of the potential risk they pose to adults. The results of this empirical research highlight how young people in Canada have been uniquely impacted by the COVID-19 global pandemic.” [LINK](#)

Public Library of Science ONE: [Lives saved and lost in the first six month of the US COVID-19 pandemic: A retrospective cost-benefit analysis](#) (January 21, 2022)

“This study’s objective was to evaluate the cost and benefit of the US COVID-19-mitigating policy intervention during the first six month of the pandemic in terms of COVID-19 mortality potentially averted, versus mortality potentially attributable to the economic downturn. We conclude that the number of lives saved by the spring-

summer lockdowns and other COVID-19-mitigation was greater than the number of lives potentially lost due to the economic downturn. However, the net impact on quality-adjusted life expectancy is ambiguous.” [LINK](#)

HEALTH SYSTEM ADMINISTRATION

World Health Organization: [Enhancing response to Omicron SARS-CoV-2 variant: Technical brief and priority actions for Member States](#) (January 7, 2022)

“With the emergence of the Omicron variant, the use of well-fitting masks, physical distancing, ventilation of indoor spaces, crowd avoidance (especially during holiday periods) and hand hygiene remain critical to reducing transmission of SARS-CoV-2. Enhanced surveillance with rapid testing, cluster investigations, contact tracing, isolation of cases and supported quarantine of contacts are strongly advised to interrupt chains of transmission. WHO continues to advise implementing the comprehensive, multi-layered and targeted use of public health and social measures (PHSM) to reduce the spread of all variants of SARS-CoV-2” [LINK](#)

Journal of American Medical Association: [Preventing SARS-CoV-2 Transmission in Health Care Settings in the Context of the Omicron Variant](#) (January 24, 2022)

“Most hospitals have already implemented multifaceted infection control programs to prevent nosocomial SARS-CoV-2 transmission. These typically include universal mask wearing, strong encouragement or mandates for staff vaccination, requiring symptomatic staff members to stay home, contact tracing, and testing of all inpatients at admission. These measures have markedly reduced hospital-based transmissions, but the increase in nosocomial infections associated with the Omicron variant raises the urgent question of what more can be done to protect patients and staff. Hospitals could invoke 3 additional measures to further reduce the risk of nosocomial SARS-CoV-2 transmission as the Omicron variant continues to surge” [LINK](#)

The COVID-19 Evidence Network (COVID-END): [What measures and approaches can protect the most vulnerable in the hospital \(e.g., cancer chemotherapy patients\) when outbreaks of Omicron in hospital are becoming more common?](#) (January 6, 2022)

“The most recent guidance from December 2021 for infection prevention and control in the U.K. specifies that in hospitals, patients should be placed in single rooms, with ensuite facilities, and that a specialized isolation room is not necessary, but should be used if available for patients undergoing aerosol-generating procedures; if single/isolation rooms are not available, patients with confirmed respiratory infection can be cohorted with other patients confirmed to have the same infectious agent” [LINK](#)

STAT News: [It’s staff, not stuff: Applying crisis standards of care to allocating health care workers](#) (January 21, 2022)

“As hospitals face yet another staff shortage due to the latest pandemic-related surge of patients, it is beyond time for governors and legislators across the country to put these strategies to use on a statewide level. Their failure to enact crisis standards of care has effectively abandoned clinicians at the point of care, forcing them to make decisions one patient at a time. Enacting crisis standards of care requires elected leaders to make the unwelcome declaration that the threshold of scarcity exists and that rationing of care is necessary. A statewide, coordinated effort to enact a consistent, equitable, and coordinated framework reduces the burden on individual hospitals and health care workers, creates legal protections, and proactively addresses inequities on a larger scale” [LINK](#)

The Atlantic: [It’s a Terrible Idea to Deny Medical Care to Unvaccinated People](#) (January 20, 2022)

“To be clear, this debate is theoretical: Healthcare workers are not denying care to unvaccinated patients, even though, ironically, many told me they’ve been accused of doing so by not prescribing ivermectin or hydroxychloroquine, which are ineffective against COVID but are often wrongly billed as lifesavers. Still, I ran this

argument past several ethicists, clinicians, and public-health practitioners. Many of them sympathized with the exasperation and fear behind the sentiment. But all of them said that it was an awful idea—unethical, impractical, and founded on a shallow understanding of why some people remain unvaccinated.” [LINK](#)

Nature: [COVID-19: endemic doesn't mean harmless](#) (January 24, 2022)

“The best way to prevent more, more-dangerous or more-transmissible variants from emerging is to stop unconstrained spread, and that requires many integrated public-health interventions, including, crucially, vaccine equity. The more a virus replicates, the greater the chance that problematic variants will arise, most probably where spread is highest. The Alpha variant was first identified in the United Kingdom, Delta was first found in India and Omicron in southern Africa — all places where spread was rampant” [LINK](#)

See also:

- CTV News: [How a rise in long-haul COVID-19 symptoms could be a 'mass disabling event'](#) (January 20, 2022)

Maclean's News: [How did Newfoundland manage to vaccinate 75 per cent of 5-11-year-olds?](#) (January 19, 2022)

“Clear communication, speedy mobilization and a culture of vaccine acceptance has helped the province get first doses to more kids than any province or territory.” [LINK](#)

Ground Truths: [Where do we stand with Omicron?](#) (January 22, 2022)

“That level—about 50% effectiveness for the booster (vs Omicron)—would be associated with 10-fold more breakthrough infections than seen with a 95% effectiveness (Delta) So it's no wonder there is the public perception that Omicron breakthroughs are omnipresent, that “vaccines aren't working”. They aren't working well, but it isn't true that they're not working to protect vs infections and transmission. It's just much less. For context, remember that the FDA criteria for approving a COVID vaccine was set at a 50% reduction of symptomatic infections, so there's unquestionably some efficacy here, just not nearly what we've been accustomed to seeing” [LINK](#)

See also:

- University of California San Francisco Department of Medicine: [The Omicron Whirlwind: A Conversation with Eric Topol - The Current and Future State of the Pandemic](#)

INFECTION PREVENTION AND CONTROL

CTV News: [Latest research says combination of throat and nose swabs provides better COVID-19 rapid test results: Nova Scotia Health](#) (January 21, 2022)

“In a Canadian first, Nova Scotia researchers say COVID-19 rapid tests that include both throat and nose swabs provide greater accuracy in detecting the virus...Speaking to CTV Thursday, Dr. Todd Hatchette, the chief of the province's Division of Microbiology, Department of Pathology and Laboratory Medicine, said researchers found using a single swab on a person's throat first, and then in both nostrils is more effective at detecting Omicron than doing either site alone” [LINK](#)

Proceedings of the National Academy of Science: [An upper bound on one-to-one exposure to infectious human respiratory particles](#) (December 7, 2021)

“Wearing face masks and maintaining social distance are familiar to many people around the world during the ongoing SARS-CoV-2 pandemic. Evidence suggests that these are effective ways to reduce the risk of SARS-CoV-2 infection. However, it is not clear how exactly the risk of infection is affected by wearing a mask during close personal encounters or by social distancing without a mask. Our results show that face masks significantly reduce

the risk of SARS-CoV-2 infection compared to social distancing. We find a very low risk of infection when everyone wears a face mask, even if it doesn't fit perfectly on the face" [LINK](#)

BioRxiv: [Differences in environmental stability among SARS-CoV-2 variants of concern: Omicron has higher stability](#) (January 19, 2022)

"Our study showed that on plastic and skin surfaces, Alpha, Beta, Delta, and Omicron variants exhibited more than two-fold longer survival times than those of the Wuhan strain and maintained infectivity for more than 16 h on the skin surfaces. The high environmental stability of these VOCs could increase the risk of contact transmission and contribute to the spread of VOCs. Additionally, in this analysis, there was no significant difference in survival times between Alpha and Beta variants, and they had similar environmental stability, which is consistent with the results of previous studies" [LINK](#)

See also:

- WebMD: [Omicron Survives Longer on Plastic, Skin Than Other COVID Variants](#)

The COVID-19 Evidence Network (COVID-END): [What is the filtration performance of KN95 masks compared to surgical and N95 masks, and how can their use be optimized in hospital settings?](#)

(January 10, 2022)

"However, the Health Protection Surveillance Centre in the U.K. and the U.S. FDA recommend that if respirator masks (FFP2s or N95s) are not fluid repellent, additional protection, such as a visor, be used in situations where there is a splash risk. Both also recommend fit testing for all staff and prioritization of healthcare workers who are most likely to be involved in performing aerosol-generating procedures. Moreover, based on the RAG (red, amber, green) rating of wards, the Royal College of Physicians of Edinburgh recommends that in green zones (non-COVID-19 area), surgical masks must be worn when within two metres of a patient or in isolation rooms, in amber zones (COVID-19 cases without aerosol-generating procedures being performed), surgical masks must be worn at all times, and in red zones (COVID-19 cases with aerosol-generating procedures being performed), FFP3 respirators must be worn at all times" [LINK](#)

TREATMENT

Clinical Infectious Diseases: [Necessity of COVID-19 Vaccination in Persons Who Have Already Had COVID-19](#) (January 13, 2022)

"Both previous infection and vaccination provide substantial protection against COVID-19. Vaccination of previously infected individuals does not provide additional protection against COVID-19 for several months, but after that provides significant protection at least against symptomatic COVID-19." [LINK](#)

COVID-END: [COVID-19 Living Evidence. Synthesis #6](#) (January 5, 2022)

"The authors retrieved candidate studies and updates to living evidence syntheses on vaccine effectiveness. Overall, 315 studies were appraised and 121 used to complete this summary." [LINK](#)

CBC: [Pfizer-BioNTech launch trial of Omicron-targeted COVID-19 vaccine](#) (January 25, 2022)

"Pfizer and BioNTech said on Tuesday they started a clinical trial to test a new version of their vaccine specifically designed to target the COVID-19 Omicron variant, which has eluded some of the protection provided by the original two-dose vaccine regimen. They are also testing a fourth dose of the current vaccine against a fourth dose of the Omicron-based vaccine in people who received a third dose of the Pfizer-BioNTech vaccine three to six months earlier. The companies plan to study the safety and tolerability of the shots in the more than 1,400 people who will be enrolled in the trial." [LINK](#) See also [here](#).

AL Jazeera: [WHO adds new drugs to COVID treatments amid Omicron surge](#) (January 14, 2022)

"The World Health Organization (WHO) has added two more drugs to its guidelines for recommended treatments for COVID-19, as the more infectious Omicron variant of the coronavirus triggers an unprecedented surge in cases around the world. The drug baricitinib, which is also used to treat rheumatoid arthritis, is "strongly recommended" for patients with severe or critical COVID-19, in combination with corticosteroids, the UN agency's panel of international experts said in the guidelines which were published by the British Medical Journal on Friday. The panel also gave a "conditional recommendation" for sotrovimab, an experimental monoclonal antibody treatment, for those with non-severe COVID-19 but at the very highest risk of hospital admission." [LINK](#)

CBC: [Antivirals could be a pandemic game-changer — and they could be in Canada soon](#) (January 14, 2022)

"Two such drugs are making their way through the labyrinthine Health Canada approvals process: Pfizer's Paxlovid and Merck's molnupiravir. These antiviral treatments, which are prescribed by a doctor and administered in pill form, are designed to help the body fight off the SARS-CoV-2 virus, reduce symptoms from an infection and shorten the period of illness. While Merck has grappled with questions about the efficacy of its product — molnupiravir is said to reduce hospitalization or death by 30 per cent — Paxlovid earned especially high marks in testing." [LINK](#)

CBC: [How does Pfizer's COVID-19 pill work and who will get it?](#) (January 25, 2022)

"Paxlovid consists of two antiviral drugs packaged together: nirmatrelvir and ritonavir. Patients take three pills twice a day: two of nirmatrelvir and one of ritonavir. In total, the full course of treatment requires you take 30 pills over the span of five days. Nirmatrelvir is a new drug developed by Pfizer-BioNTech, while ritonavir is an existing drug often used in the treatment of HIV/AIDS. Canadians will need a prescription to get Paxlovid, according to Health Canada." [LINK](#)

STAT News: [It's too early to tell whether CBD helps against COVID-19 — but researchers worry that won't stop CBD makers](#) (January 25, 2022)

"The scientists stressed the caveats that early-stage research demands: the compounds they had studied showed hints — in cells in lab dishes and in animals — of being able to combat the coronavirus. Definite answers could only come from clinical trials." [LINK](#)

Open Forum Infectious Diseases: [Ivermectin for COVID-19: Addressing Potential Bias and Medical Fraud](#) (January 17, 2022)

"The results suggest that the significant effect of ivermectin on survival was dependent on largely poor-quality studies. According to the potentially fraudulent study (risk ratio [RR], 0.08; 95% CI, 0.02–0.35), ivermectin improved survival ~12 times more in comparison with low-risk studies (RR, 0.96; 95% CI, 0.56–1.66). This highlights the need for rigorous quality assessments, for authors to share patient-level data, and for efforts to avoid publication bias for registered studies." [LINK](#)

Science: [Making Paxlovid](#) (January 5, 2022)

"There's a fairly superficial look at what's going on, and I hope it gives people a view of what this sort of production involves. Remember, as complicated as this may seem, there's a lot more to setting up a production supply chain than this! What it all means is that when someone says "Oh, we can just make Paxlovid in plants all over the world", they have left out the rest of the sentence, which is ". . .if we can get the starting materials". And for now, supply of those starting materials is going to be tight." [LINK](#)

MENTAL HEALTH & WELLNESS

Mental Health Research Canada: [Psychological Health and Safety in Canadian Workplaces](#) (December 2021)

“Conducted in co-operation with Canada Life and Workplace Strategies for Mental Health from data gathered online from over 5500 respondents by Pollara Strategic Insights November-December 2021, this 72-page study covers a wide scope of Canadian workplaces, including the high levels of burnout reported by Canadians as a result of COVID-19.” [LINK](#)

WORK: A Journal of Prevention, Assessment & Rehabilitation: [Teachers feeling the burden of COVID-19: Impact on well-being, stress, and burnout](#) (January 20, 2022)

“The current study aimed to determine whether COVID-19 continued to increase teacher stress and burnout and decrease wellbeing a year into the pandemic. Stress and burnout continue to be high for teachers, with 72% of teachers feeling very or extremely stressed, and 57% feel very or extremely burned out. Many teachers struggled to have a satisfactory work-family balance (37% never or almost never; 20% only has sometimes). School systems must start to deal with the mental and physical health of teachers before a large number of them leave the profession.” [LINK](#)

BioMed Central Public Health: [Psychosocial impacts of home-schooling on parents and caregivers during the COVID-19 pandemic](#) (January 17, 2022)

“The aim of the current study was to comprehensively quantify the psychosocial impacts of home-schooling on parents and other caregivers, and identify factors associated with better outcomes. The mental health impacts of home-schooling were high and may rise as periods of home-schooling increase in frequency and duration. Recognising and acknowledging the challenges of home-schooling is important, and should be included in psychosocial assessments of wellbeing during periods of school closure. Emotional and instrumental support is needed for those involved in home-schooling, as perceived levels of support is associated with improved outcomes. Proactive planning by schools to support parents may promote better outcomes and improved home-schooling experiences for students.” [LINK](#)

Research on Child and Adolescent Psychopathology: [Maternal Mental Health and Child Adjustment Problems in Response to the COVID-19 Pandemic in Families Experiencing Economic Disadvantage](#) (January 18, 2022)

“The current study examines predictors of changes to maternal mental health from prior to the pandemic into the early pandemic, and in turn, examines whether changes in maternal mental health from April 2020 to October 2020 predict changes in children’s adjustment. The study examines these associations in a group of diverse women and children, all living in the context of low income, to both highlight the toll of cumulative hardships facing some American families, and also to highlight potential sources of resilience in a time of global public health crisis.” [LINK](#)

Journal of American Medical Association Pediatrics: [School Closures During Social Lockdown and Mental Health, Health Behaviors, and Well-being Among Children and Adolescents During the First COVID-19 Wave: A Systematic Review](#) (January 18, 2022)

“Is there an association between school closure during broader social lockdown measures during the COVID-19 pandemic and mental health symptoms, health behaviors, and well-being of children and adolescents, aged 0 to 19 years? In this systematic review of 36 studies from 11 countries, school closures and social lockdown during the first COVID-19 wave were associated with adverse mental health symptoms (such as distress and anxiety) and health behaviors (such as higher screen time and lower physical activity) among children and adolescents. The effects of school closures could not be assessed separately from broader social lockdown measures. The potential

epidemiologic benefits of school closures during broader social lockdown measures for controlling infectious diseases should be balanced with the potential for adverse mental health symptoms and health behaviors among children and adolescents.” [LINK](#)

Public Library of Science ONE: [Learning from work-from-home issues during the COVID-19 pandemic: Balance speaks louder than words](#) (January 13, 2022)

“This research sought to investigate how the work-from-home (WFH) environment affects individuals’ psychological well-being, and in turn how WFH impacts their work productivity and the frequency with which they conduct non-work-related activities during working hours when they are working from home. We found that among the three stress relievers, work-life balance was the only significant construct that affected psychological well-being. Stress when working from home promoted non-work-related activities during working hours, whereas happiness improved productivity. Interestingly, non-work-related activities had no significant effect on productivity. The research findings provide evidence that management’s maintenance of a healthy work-life balance for colleagues when they are working from home is important for supporting their psychosocial well-being and in turn upholding their work productivity.” [LINK](#)

International Journal of Mental Health and Addiction: [Mental Health Over Time and Financial Concerns Predict Change in Online Gambling During COVID-19](#) (January 20, 2022)

“This study examined online gambling behavior during COVID-19 land-based gambling restrictions and associations with changes in mental health, impacts on household income due to the pandemic, financially focused motivations, and symptoms of gambling problems. Results indicate a link between change in online gambling involvement during COVID-19 and increased mental health problems, elevated problem gambling severity, negative impacts on household income, and a greater financially focused self-concept. These results may help generate novel research questions examining short and long-term effects of the pandemic on online behaviors that inform policy and practice.” [LINK](#)

British Medical Journal Open: [Impact of the COVID-19 pandemic on the experience and mental health of university students studying in Canada and the UK: a cross-sectional study](#) (January 24, 2022)

“In this study, we aimed to explore university student experiences during the COVID-19 pandemic, including concerns related to the pandemic and the associated impact on education, daily life, career prospects and mental health support. We leveraged an ongoing longitudinal survey study of undergraduate students attending Queen’s University in Canada and the University of Oxford in the UK.” [LINK](#)

Brain, Behavior, & Immunity – Health: [Yoga and meditation, an essential tool to alleviate stress and enhance immunity to emerging infections: A perspective on the effect of COVID-19 pandemic on students](#) (January 19, 2022)

“In this review, we summarise the available evidence on the effect of lockdowns on students and discuss possible positive impacts of yoga and meditation on various psychological, emotional, and immunological parameters, which can significantly influence the general wellbeing and academic performance of students. Perspectives shared in the review will also bring awareness on how yoga and meditation could boost students' performance and assist them in maintaining physical and mental wellbeing during stressful conditions such as future epidemics and pandemics with novel infections. This information could help create better educational curriculums and healthy routines for students.” [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 2022.

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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