

The Newfoundland & Labrador Centre for Applied Health Research (NLCCHR) 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 You will find all NLCCHR e-bulletins and COVID-19 Quick Response Reports [online here](#).

CLINICAL PRESENTATION & BIOLOGY

Stat Health: [Omicron's sister variant spreads faster. So why did the one we call Omicron hit first?](#)

(February 2, 2022)

"The Omicron family hasn't really been around long enough to see if people who recover from BA.1 are immune to infection from BA.2, or after how long they might become susceptible again. Scientists are trying to study that in lab experiments as well." [LINK](#)

Eurosurveillance: [Reduced risk of hospitalization among reported COVID-19 cases infected with the SARS-CoV-2 Omicron BA.1 variant compared with the Delta variant, Norway, December 2021 to January 2022](#) (January 27, 2022)

"The authors estimated a 73% reduced risk of hospitalization (adjusted hazard ratio: 0.27; 95% confidence interval: 0.20–0.36) for Omicron compared with Delta. Compared with unvaccinated groups, Omicron cases who had completed primary two-dose vaccination 7–179 days before diagnosis had a lower reduced risk than Delta (66% vs 93%). People vaccinated with three doses had a similar risk reduction (86% vs 88%)." [LINK](#)

Centres for Disease Control: [Clinical Characteristics and Outcomes among Adults Hospitalized with Laboratory-Confirmed SARS-CoV-2 Infection During Periods of B.1.617.2 \(Delta\) and B.1.1.529 \(Omicron\) Variant Predominance — One Hospital, California, July 15–September 23, 2021, and December](#) (February 4, 2022)

"Among adults hospitalized with SARS-CoV-2 infection during Omicron predominance, COVID-19 vaccination, including with a booster dose, was associated with lower likelihood of intensive care unit admission. Compared with patients during the period of Delta predominance, Omicron-period patients had less severe illness, largely driven by an increased proportion who were fully vaccinated. Approximately 20% of early Omicron-period hospitalizations were for non-COVID-19 conditions, particularly among young and vaccinated adults." [LINK](#)

BioRxiv: [SARS-CoV-2 invades cognitive centers of the brain and induces Alzheimer's-like neuropathology](#) (February 1, 2022)

"The authors show that SARS-CoV-2 invaded the brains of five patients with COVID-19 and Alzheimer's, autism, frontotemporal dementia or no underlying condition by infecting neurons and other cells in the cortex. SARS-CoV-

2 induces or enhances Alzheimer's-like neuropathology with manifestations of β -amyloid aggregation and plaque formation, tauopathy, neuroinflammation and cell death." [LINK](#)

Journal of the American Medical Association: [Clinical Outcomes among Patients with 1-Year Survival Following Intensive Care Unit Treatment for COVID-19](#) (January 24, 2022)

"In this exploratory multi-centre prospective cohort study that included 246 patients who were alive 1 year following ICU treatment for COVID-19, 74.3% reported physical symptoms, 26.2% reported mental symptoms, and 16.2% reported cognitive symptoms." [LINK](#)

Oxford University: [Attention and memory deficits persist for months after recovery from mild COVID](#) (January 19, 2022)

"Researchers from Oxford's Department of Experimental Psychology and Nuffield Department of Clinical Neurosciences have shown that people who have had COVID but don't complain of long COVID symptoms in daily life nevertheless can show degraded attention and memory for up to 6-9 months." [LINK](#)

- See also [here](#).

National Institutes for Health Research: [Lung abnormalities found in long COVID patients with breathlessness](#) (January 29, 2022)

"Researchers have identified abnormalities in the lungs of long COVID patients with breathlessness but whose other tests are normal. The EXPLAIN study is using hyper-polarized xenon MRI scans to investigate possible lung damage in long COVID patients who experience breathlessness and were not hospitalized when they had COVID-19. These early results suggest that COVID-19 may result in persistent impairment in gas transfer and underlying lung abnormalities. However, the extent to which these abnormalities contribute to breathlessness is currently unclear." [LINK](#)

- See also [here](#).

Nature: [Long-COVID symptoms less likely in vaccinated people, Israeli data say](#) (January 25, 2022)

"People who've both been vaccinated and had COVID-19 are less likely to report fatigue and other health problems than unvaccinated people." [LINK](#)

Nature Communications: [Immunoglobulin signature predicts risk of post-acute COVID-19 syndrome](#) (January 25, 2022)

"The authors discover an immunoglobulin (Ig) signature, based on total IgM and IgG3 levels, able to predict the risk of post-acute coronavirus disease 2019 (COVID-19) syndrome (PACS) independently of time-point of blood sampling. Their results highlight the benefit of measuring Igs for the early identification of patients at high risk for PACS, which facilitates the study of targeted treatment and patho-mechanisms of PACS." [LINK](#)

HEALTH EQUITY AND ETHICS

Journal of Korean Medical Science: [Risk Factors for Severe COVID-19 in Children: A Systematic Review and Meta-Analysis](#) (January 21, 2022)

"We performed a systematic review and meta-analysis to identify children at high risk of severe COVID-19, with a focus on comorbidities and age. Children with comorbidities such as obesity, diabetes, heart disease, chronic lung diseases other than asthma, seizure disorders, and an immunocompromised status had a high prevalence of severe COVID-19. Neonate and premature infants had a high risk of severe COVID-19. Defining the high-risk group for severe COVID-19 could help to guide hospital admission and priority for vaccination against SARS-CoV-2." [LINK](#)

The Lancet Regional Health – Europe: [COVID-19 outbreaks in acute and long-term care: Conceptualizing patterns of vulnerability and benefits of interventions](#) (February 1, 2022)

“SARS-CoV-2 outbreaks in acute and Long-Term Care (LTC) settings have taken a great toll, both in terms of morbidity and mortality from associated COVID-19 cases, and due to the dramatic impact on provision of other health and social services. Institutional outbreaks, and efforts to control and prevent them, have thus been important drivers of policy responses. As policies are implemented and evaluated, it is clear that we must aim to understand their incremental benefits and impacts to inform planning for ongoing pandemic response efforts.” [LINK](#)

The Lancet Regional Health – Americas: [Factors associated with SARS-CoV-2 test positivity in long-term care homes: A population-based cohort analysis using machine learning](#) (January 17, 2022)

“SARS-Cov-2 infection rates are high among residents of long-term care (LTC) homes. We used machine learning to identify resident and community characteristics predictive of SARS-Cov-2 infection. Machine learning informed evaluation of predicted and observed risks of SARS-CoV-2 infection at the resident and LTC levels, and may inform initiatives to improve care quality in this setting.” [LINK](#)

Clinical Nutrition ESPEN: [COVID-19 mortality is associated with low vitamin D levels in patients with risk factors and/or advanced age](#) (February 1, 2022)

“Although conclusive evidence is yet lacking, it has been suggested that vitamin D deficiency may be associated with a more severe course of SARS-CoV-2 Infection (COVID-19). In this retrospective study we assessed the association of vitamin D deficiency with mortality in a group of COVID-19 patients treated in a tertiary referral center.” [LINK](#)

Canadian Journal of Aging: [COVID-19 and the Experiences and Needs of Staff and Management Working at the Front Lines of Long-Term Care in Central Canada](#) (February 9, 2022)

“This is the first study to examine the experiences and needs of long-term care staff and management during COVID-19, in the Canadian context. Our group conducted online survey research with 70 staff and management working at public long-term care facilities in central Canada, using validated quantitative measures to examine perceived stress and caregiver burden; and open-ended items to explore stressors, ways of coping, and barriers to accessing mental health supports. Novel findings of this research highlight the significant and unmet needs of this high-risk segment of the population.” [LINK](#)

Current Obesity Reports: [The COVID-19, Obesity, and Food Insecurity Syndemic](#) (February 9, 2022)

“The purpose of this review is to introduce and provide evidence for the new Syndemic of COVID-19, Obesity, and Food Insecurity and propose strategies for mitigating its impact, particularly among vulnerable populations. Strengthening local and regional food systems provides a common solution to both the new Syndemic of COVID-19, Obesity, and Food Insecurity and the Global Syndemic of Obesity, Undernutrition, and Climate Change by promoting sustainable food production and consumption, and prioritizing the food supply chain workforce.” [LINK](#)

Journal of Infection and Public Health: [Association between COVID-19 morbidity, mortality, and gross domestic product, overweight/ obesity, non-communicable diseases, vaccination rate: A cross-sectional study](#) (January 20, 2022)

“The spread of COVID-19 depends on a lot of social and economic factors. The aim: to study the influence of country’s gross domestic product, population prevalence of overweight/ obesity, NCD mortality, and vaccination on COVID-19 morbidity and mortality rates. The study provides evidence of a significant impact of overweight/obesity prevalence on the increase in COVID-19 morbidity/mortality. Countries with higher GDP have a high overweight/obesity prevalence and possibility to get vaccinated.” [LINK](#)

The Journal of Rheumatology: [COVID-19 hospitalizations, intensive care unit stays, ventilation and death among patients with immune mediated inflammatory diseases compared to controls](#) (February 1, 2022)

“The objective of this study was to investigate COVID-19 hospitalization risk in patients with immune mediated inflammatory diseases (IMIDs) compared with matched non-IMID comparators from the general population. Patients with IMIDs were at higher risk of being hospitalized with COVID-19. This risk was explained in part by their comorbidities.” [LINK](#)

Preventive Medicine: [Evaluating the impact of the COVID-19 pandemic on cancer screening in a central Canadian province](#) (January 22, 2022)

“We evaluated the impact of COVID-19 on cancer screening in Manitoba, Canada using an interrupted time series (ITS) design and data from Manitoba’s population-based, organized cancer screening programs from April 2020 to August 2021. Overall, screening programs adapted quickly to the COVID-19 pandemic. Additional strategies may be needed to address remaining backlogs.” [LINK](#)

HEALTH SYSTEM ADMINISTRATION

Nature: [COVID’s lesson for governments? Don’t cherry-pick advice, synthesize it](#) (February 01, 2022)

“Handling complex scientific issues in government is never easy — especially during a crisis, when uncertainty is high, stakes are huge and information is changing fast. But for some of the nations that have fared the worst in the COVID-19 pandemic, there’s a striking imbalance between the scientific advice available and the capacity to make sense of it. Some advice is ignored because it’s politically infeasible or not pragmatic. Nonetheless, much good scientific input has fallen aside because there’s no means to pick it up.” [LINK](#)

CanCOVID: [Structures and processes for coordinated policy and public health response in Federated Countries](#) (December 10, 2021)

“In Canada, the health care system is more decentralized than is the case in other Organization for Economic Co-operation and Development (OECD) federal states. As the responsibilities are shared across levels of government, coordination challenges become more apparent. The capacity for rapid, coordinated policy and public health efforts between national and sub-national levels of government is critical in the context of a global pandemic to optimize outcomes for populations and health systems. This issue note describes key structures and processes adopted in selected federated countries to promote a coordinated response. Similarities and differences in the approaches instituted by the federal governments are explored, and considerations for Canada are proposed. The evidence for this report draws from the academic and grey literature as well as expert opinion from Australia, Germany, Switzerland, and the United States of America to answer the questions.” [LINK](#)

Insight: [The other long COVID: impacts on health systems and clinicians](#) (January 31, 2022)

“We argue that the systemic impacts of COVID-19 may be even longer lasting than the illness itself, taking a toll on our profession that might require years or even decades of recovery. These impacts are evident across the career cycle, intersecting the work lives of medical students, pre-vocational doctors, registrars and consultants in similar but also unique ways.” [LINK](#)

Insight: [Building an evidence ecosystem: what's worked in the pandemic](#) (January 31, 2022)

“In Australia and internationally, gains made in the response to COVID-19 in terms of evidence generation and synthesis; knowledge distribution to support timely clinical, policy and managerial decision-making; and

collaborative approaches to data sharing, analysis and modelling mean we now have a once-in-a-lifetime opportunity to shift the way we generate, disseminate, synthesize, use and communicate evidence.” [LINK](#)

The Lancet Regional Health – Americas: [Minimizing COVID-19 disruption: Ensuring the supply of essential health products for health emergencies and routine health services](#) (January 30, 2022)

“Leveraging economies of scale and scope through multi-country pooled procurement enables countries to increase access to quality affordable essential medicines and supplies that meet priority health objectives as well as effectively respond to health emergencies. Strategic partnerships and tools can minimize supply chain disruptions and streamline procurement and deployment in health emergencies, thus mitigating stockouts and ensuring cost efficiencies across various therapeutic areas, including for public health programs at a time when countries may struggle to meet complex needs.” [LINK](#)

Journal of Medical Internet Research: [Opportunities and Challenges for Professionals in Psychiatry and Mental Health Care Using Digital Technologies During the COVID-19 Pandemic: Systematic Review](#)

(February 4, 2022)

“The COVID-19 pandemic has required psychiatric and mental health professionals to change their practices to reduce the risk of transmission of SARS-CoV-2, in particular by favoring remote monitoring and assessment via digital technologies. As part of a research project that was co-funded by the French National Research Agency (ARN) and the Centre-Val de Loire Region, the aim of this systematic literature review was to investigate how such uses of digital technologies have been developing.” [LINK](#)

The British Medical Journal: [Healthcare use in 700,000 children and adolescents for six months after COVID-19: before and after register based cohort study](#) (January 17, 2022)

“In 706,885 children and adolescents who were or were not tested for SARS-CoV-2 in Norway, we found that those aged 1-19 years had symptoms severe enough to increase their use of primary, but not specialist, care after a positive test result. The length of increased primary care use depended on age. Preschool aged participants (1-5 years) showed a longer increased use of primary healthcare services (~3-6 months) than 6-19 year olds (~1-3 months). By including all children and adolescents tested and not tested for SARS-CoV-2 in Norway, our study provides a detailed picture of post-COVID healthcare use for the different age groups.” [LINK](#)

Public Library of Science Medicine: [Overall and cause-specific hospitalization and death after COVID-19 hospitalization in England: A cohort study using linked primary care, secondary care, and death registration data in the OpenSAFELY platform](#) (January 25, 2022)

“In this study, we observed that people discharged from a COVID-19 hospital admission had markedly higher risks for re-hospitalization and death than the general population, suggesting a substantial extra burden on healthcare. Most risks were similar to those observed after influenza hospitalizations, but COVID-19 patients had higher risks of all-cause mortality, readmission or death due to the initial infection, and dementia death, highlighting the importance of post-discharge monitoring.” [LINK](#)

The British Medical Journal: [“Excess deaths” is the best metric for tracking the pandemic](#) (February 04, 2022)

“Moreover, data on deaths from COVID-19 are far from accurate or complete. Multiple factors contribute to inaccuracies in documenting causes of death. First, not everyone who dies from COVID-19 is tested, especially in resource-poor settings. Second, diagnostic tests for SARS-CoV-2 may fail to detect the virus (false negative) resulting in misclassification. Third, the definition of COVID-19 deaths has changed over time. When Public Health England changed its definition of COVID-19 deaths in July 2020, for example, the number of officially reported

deaths fell by 73%. Measuring the pandemic's effects only in terms of deaths due to COVID-19 fails to accommodate these important outcomes." [LINK](#)

INFECTION PREVENTION AND CONTROL

CANCOVID: [Achieving continued compliance with public health measures among youth and young adults experiencing COVID-19 isolation and fatigue](#) (December 10, 2021)

"This report summarizes existing evidence and knowledge about effective strategies to achieve continued compliance with public health measures amongst youth and young adults who may be experiencing COVID-19-related isolation and fatigue." [LINK](#)

The British Medical Journal: [Omicron sub-lineage BA.2 may have "substantial growth advantage," UKHSA reports](#) (January 31, 2022)

"Susan Hopkins, UKHSA chief medical adviser, said, "We now know that BA.2 has an increased growth rate which can be seen in all regions in England. We have also learnt that BA.2 has a slightly higher secondary attack rate than BA.1 in households. Although hospital admissions and deaths remain low, cases are still high in some areas and some age groups so it's important that we continue to act cautiously as restrictions are lifted." [LINK](#)

Nature: [Impacts of rapid mass vaccination against SARS-CoV2 in an early variant of concern hotspot](#) (February 01, 2022)

"This retrospective observational study examines COVID-19 vaccine effectiveness at the population level in the district of Schwaz, an early VoC hotspot that became one of the first highly vaccinated regions in Europe. Our analysis uses a control group of districts highly similar to Schwaz regarding many population characteristics. Our analysis reveals that the mass vaccination campaign is associated with a significant reduction in new SARS-CoV-2 infections of around 40% relative to control districts, and around 70% when using bordering municipalities for comparison. We find similar significant reductions in variant cases." [LINK](#)

Nature: [Three exposures to the spike protein of SARS-CoV-2 by either infection or vaccination elicit superior neutralizing immunity to all variants of concern](#) (January 28, 2022)

"Using live-virus neutralization assays, we show that a superior infection-neutralizing capacity against all VoCs, including omicron, developed after either two vaccinations in convalescents or after a third vaccination or breakthrough infection of twice-vaccinated, naive individuals. These three consecutive spike antigen exposures resulted in an increasing neutralization capacity per anti-spike antibody unit and were paralleled by stepwise increases in antibody avidity. We conclude that an infection-plus-vaccination-induced hybrid immunity or a triple immunization can induce high-quality antibodies with superior neutralization capacity against VoCs, including omicron." [LINK](#)

The British Medical Journal: [COVID-19: Past infection may not protect against future variants, researcher warns](#) (February 07, 2022)

"Wendy Barclay, head of infectious disease at Imperial College London, told an event organized by the Zoe study group1 on 3 February, "Each variant is different from the starting virus, but it's not necessarily a linear difference...She said people who think their past infection will give them good protection against future variants may be mistaken, and that this is a powerful reason to get vaccinated. "You're actually better off being vaccinated, even if you get infected on top of that vaccine, as we can see that it broadens out the immune response and gives you potentially better protection against all the other variants that are going to come a little later." [LINK](#)

MedRxiv: [High Rates of Rapid Antigen Test Positivity after 5 days of Isolation for COVID-19](#) (February 02, 2022)

"More than 40% of vaccinated HCW who felt well enough to work still had positive RAT tests when presenting for a first test between days 5 and 10. Boosted individuals were nearly 3x as likely to result positive on day 5, their first day eligible for return, and ~2x as likely to result positive on first RAT overall...These results indicate that a substantial proportion of individuals with COVID-19 are likely still contagious after day 5 of illness regardless of symptom status. Early liberation from isolation should be undertaken only with the understanding that inclusion of individuals on day 6-10 of illness in community or work settings may increase the risk of COVID-19 spread to others which, in turn, may undermine the intended benefits to staffing by resulting in more sick workers." [LINK](#)

Journal of the American Medical Association: [Assessing How Consumers Interpret and Act on Results From At-Home COVID-19 Self-test Kits. A Randomized Clinical Trial](#) (January 31, 2022)

"The findings of this randomized clinical trial indicate that people who use at-home COVID-19 self-test kits may fail to self-quarantine or may quarantine unnecessarily because they misinterpret the implications of test results. Redesigned instructions may increase the benefits and reduce the harms from at-home self-test kits." [LINK](#)

TREATMENT

COVID-END: [COVID-19 Living Evidence. Synthesis #8](#) (January 18, 2022)

"The authors summarize the evidence of the effectiveness of available COVID-19 vaccines for children and adolescents, including variants of concern. [LINK](#)

Nature Microbiology: [Effectiveness of COVID-19 vaccines against symptomatic SARS-CoV-2 infection and severe outcomes with variants of concern in Ontario](#) (February 7, 2022)

"Effectiveness estimates against hospitalization or death were similar to or higher than against symptomatic infection. Effectiveness against symptomatic infection was generally lower for older adults (≥ 60 years) than for younger adults (< 60 years) for most of the VOC–vaccine combinations. Our findings suggest that jurisdictions facing vaccine supply constraints may benefit from delaying the second dose in younger individuals to more rapidly achieve greater overall population protection; however, older adults would likely benefit most from minimizing the delay in receiving the second dose to achieve adequate protection against VOC." [LINK](#)

Centres for Disease Control: [Effectiveness of a Third Dose of Pfizer-BioNTech and Moderna Vaccines in Preventing COVID-19 Hospitalization among Immunocompetent and Immunocompromised Adults — United States, August–December 2021](#) (January 28, 2022)

"In a study of hospitalized adults, compared with receipt of 2 mRNA COVID-19 vaccine doses, receipt of a third dose increased vaccine effectiveness against hospitalization among adults without and with immunocompromising conditions, from 82% to 97% and from 69% to 88%, respectively." [LINK](#)

MedRxiv: [Association between vaccination status and reported incidence of post-acute COVID-19 symptoms in Israel: a cross-sectional study of patients tested between March 2020 and November 2021](#) (January 17, 2022)

"Vaccination with at least two doses of COVID-19 vaccine was associated with a substantial decrease in reporting the most common post-acute COVID-19 symptoms, bringing it back to baseline. These results suggest that, in addition to reducing the risk of acute illness, COVID-19 vaccination may have a protective effect against long COVID." [LINK](#)

New England Journal of Medicine: [Effectiveness of Homologous or Heterologous COVID-19 Boosters in Veterans](#) (February 9, 2022)

"These findings support the results of these clinical trials since we observed the largest number of documented breakthrough infections in participants who had received a homologous Ad26.COV2.S booster. This analysis provides further evidence that the infection rate is lower in persons who are boosted with a heterologous mRNA vaccine." [LINK](#)

MENTAL HEALTH & WELLNESS

Journal of American Medical Association Pediatrics: [Sounding the Alarm for Children's Mental Health during the COVID-19 Pandemic](#) (February 7, 2022)

"Increasingly, research confirms the negative effects of COVID-19 safety measures on the mental health of children and adolescents.¹⁻⁵ Saunders and colleagues⁶ call for an urgent response to the increasing sustained demand for mental health services inclusive of substance use and developmental disorders. The authors' population-based cross-sectional study used linked administrative and health data to examine changes in utilization of physician-provided mental health services for 2.5 million children and adolescents aged 3 to 17 years in Ontario, Canada." [LINK](#)

Journal of American Medical Association Pediatrics: [Utilization of Physician-Based Mental Health Care Services Among Children and Adolescents Before and During the COVID-19 Pandemic in Ontario, Canada](#) (February 7, 2022)

"To what extent has physician-based mental health care utilization among children and adolescents changed through the COVID-19 pandemic? In this population-based repeated cross-sectional study, following an initial large and rapid decline in mental health care utilization at the pandemic onset, utilization increased and was sustained at approximately 10% to 15% above expected levels through the first year of the pandemic, with 70% of care delivered virtually. System-level planning to monitor quality and ensure capacity for this modest but important rise in mental health care needs is warranted." [LINK](#)

Italian Journal of Pediatrics: [The impact of the COVID-19 pandemic on lifestyle behaviors in children and adolescents: an international overview](#) (February 4, 2022)

"The adverse effects of Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) are not limited to the related infectious disease. In children and adolescents, serious risks due to the coronavirus disease 2019 (COVID-19) pandemic are also related to its indirect effects. These include an unbalanced diet with an increased risk of weight excess or nutritional deficiencies, increased sedentary lifestyle, lack of schooling, social isolation, and impaired mental health. Pediatricians should be aware of the side effects of the COVID-19 pandemic on children's diet, physical mental health and advise the families according to their nutritional needs and financial resources." [LINK](#)

Journal of Cancer Survivorship: [Experiences of adolescent and young adult cancer survivors during the COVID-19 pandemic](#) (January 31, 2022)

"This study aimed to evaluate the impact of the COVID-19 pandemic on adolescent and young adult (AYA) cancer survivors. The COVID-19 pandemic has had a significant impact on AYA cancer survivors, and these individuals report high levels of psychological distress, insomnia and loneliness. Cancer survivors are at risk for worsening mental and physical health outcomes during the COVID-19 pandemic. Targeted interventions and support programs are urgently needed to support the mental health of AYA cancer survivors and optimize their health outcomes." [LINK](#)

Current Psychiatry Reports: [Emotional and Behavioral Impact of the COVID-19 Epidemic in Adolescents](#) (February 1, 2022)

“This review of the literature aims to explore the impact of the COVID-19 pandemic and the lockdown on teenagers’ mental health. We distinguish two groups: adolescents who had already been diagnosed with a mental disorder and the general population of adolescents. The effect of the COVID-19 crisis on the mental health of adolescents has been heterogeneous. The first pandemic wave was essentially associated with an increase of internalizing symptoms in adolescents, particularly anxiety, depression and eating disorders. The impact on externalizing symptoms was less clear, and seem to concern mostly adolescents with pre-existing behavioral disorders. During the second and later waves of the pandemic, an upsurge of suicidal ideation and attempts among adolescents have been reported in many countries.” [LINK](#)

Australasian Journal on Ageing: [COVID-19 and mental health: Impact on symptom burden in older people living with mental illness in residential aged care](#) (February 7, 2022)

“COVID-19–related restrictions for residential aged care (RAC) have been significant. However, the mental health impacts for residents already living with mental illness remain poorly understood. In this study, we examined change in mental health symptom burden for this group and potential associations with clinical and contextual factors.” [LINK](#)

Psychological Trauma: [Understanding the Experiences of People With Posttraumatic Stress Disorder \(PTSD\) During the COVID-19 Pandemic: A Qualitative Study](#) (February 7, 2022)

“The present study aimed to explore the experiences of people with PTSD during the COVID-19 pandemic, specifically their perspectives of the impact of the pandemic on their difficulties, their resulting needs and their experience of services and resources. This understanding is important for developing services and informing clinical practice that meet the particular needs of those with PTSD as the COVID-19 pandemic progresses, and in the event of future pandemics.” [LINK](#)

Health Policy: [“My problems aren't severe enough to seek help”: Stress levels and use of mental health supports by Canadian hospital employees during the COVID-19 pandemic](#) (January 10, 2022)

“The purpose of this study was to assess levels of depression, anxiety, and stress in a sample of healthcare employees working in hospitals and their use of formal and informal mental health supports. Implications are considered for healthcare policy decisions as hospital systems attempt to address the mental health needs of their employees.” [LINK](#)

Canadian Journal of Emergency Medicine: [Canadian emergency medicine physician burnout: a survey of Canadian emergency physicians during the second wave of the COVID-19 pandemic](#) (January 27, 2022)

“A previous survey of Canadian emergency medicine (EM) physicians during the first wave of the COVID-19 pandemic documented less than 20% experienced high levels of burnout. This study examined the experience of a similar group of physicians during the second pandemic wave. We reported the associations between burnout and physician age, gender, having children at home and training route. Most Canadian emergency physicians participating in our study during the COVID-19 pandemic reported high burnout levels. Younger physicians and female physicians were more likely than their coworkers to report high burnout levels. Hospitals should address emergency physician burnout during the pandemic because it is a threat to quality of patient care and retention of the workforce for the future.” [LINK](#)

International Journal of Nursing Studies Advances: [Women healthcare workers' experiences during COVID-19 and other crises: A scoping review](#) (January 30, 2022)

"The objective of this review was to identify the gendered effects of crises on women healthcare workers' health and wellbeing, as well as to provide guidance for decision-makers on health systems policies and programs that could better support women healthcare workers. The findings point to several important recommendations to better support women healthcare workers, including: workplace mental health support, economic assistance to counteract widening pay gaps, strategies to support their personal caregiving duties, and interventions that support and advance women's careers and increase their representation in leadership roles." [LINK](#)

Journal of Affective Disorders: [Generalized anxiety disorder during COVID-19 in Canada: Gender-specific association of COVID-19 misinformation exposure, precarious employment, and health behavior change](#) (January 29, 2022)

"The present study examines the population-weighted prevalence of clinically significant anxiety by the standardized Generalized Anxiety Disorder-7 (GAD-7) scale based on a population-based sampling strategy in Canada and extends exiting literature by investigating its association with a wide range of socioecological factors. Given the context of COVID-19 "infodemic" as declared by the WHO, we are particularly interested in how COVID-19-related stressors (i.e., exposure to COVID-19 misinformation online, precarious employment) and resilience factors (i.e., changes in health behaviours) are related to anxiety as well as the gender differences across these parameters." [LINK](#)

Journal of the Royal Society of Medicine: [Experiences of staff providing specialist palliative care during COVID-19: a multiple qualitative case study](#) (February 8, 2022)

"The aim of this study, therefore, was to explore the experiences of, and impact on, palliative care staff working during the COVID-19 pandemic to illuminate both their experiences and how this may help an understanding of supporting healthcare staff and organizations more generally. This study provides a unique insight into why and how healthcare staff have experienced moral distress during the pandemic, and how organizations have responded. Despite their experience of dealing with death and dying, the mental health and well-being of palliative care staff was affected by the pandemic. Organizational, structural and policy changes are urgently required to mitigate and manage these impacts." [LINK](#)

Nursing: [A little goes a long way: Strategies to support nursing staff amid COVID-19](#) (February 1, 2022)

"This article discusses the impact of staffing shortage on nurses' mental health, and outlines ways, including a successful rounder initiative, for nurse leaders and facilities to address nurses' stress and burnout." [LINK](#)

BioMed Central Public Health: [The association between physical activity and mental health during the first year of the COVID-19 pandemic: a systematic review](#) (February 1, 2022)

"The Coronavirus disease-19 (COVID-19) pandemic affected countries worldwide and has changed peoples' lives. A reduction in physical activity and increased mental health problems were observed, mainly in the first year of the COVID-19 pandemic. Thus, this systematic review aims to examine the association between physical activity and mental health during the first year of the COVID-19 pandemic. Physical activity has been a good and effective choice to mitigate the negative effects of the COVID-19 pandemic on mental health during the first year of the COVID-19 pandemic. Public health policies should alert for possibilities to increase physical activity during the stay-at-home order in many countries worldwide." [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 and February of 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.

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