

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

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

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

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

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

CLINICAL PRESENTATION AND BIOLOGY

The Insight - Zeynep Tufekçi: [Always Read the Methods Section: How a preprint paper with seemingly good news and interesting findings fueled panic worldwide instead](#) (April 15, 2021)

"There is nothing in the paper [\[see here for original research\]](#) to suggest the "South African variant may evade protection from the Pfizer vaccine," as Reuters or many other news organizations claim, beyond what we already know: there will be a few breakthroughs even with the mRNA vaccines, because that's just reality with almost all vaccines, and it's possible more of those breakthroughs will be the South African variant because of its effect on neutralizing antibodies." [LINK](#)

Lancet Psychiatry: [Six-month neurological and psychiatric outcomes in 236,379 survivors of COVID-19: a retrospective cohort study using electronic health records](#) (April 6, 2021)

"Our study provides evidence for substantial neurological and psychiatric morbidity in the 6 months after COVID-19 infection. Risks were greatest in, but not limited to, patients who had severe COVID-19. This information could help in service planning and identification of research priorities." [LINK](#)

Lancet Regional Health Europe: [Attack rates amongst household members of outpatients with confirmed COVID-19 in Bergen, Norway: A case-ascertained study](#) (April 2021)

"Serological assays provide more sensitive and robust estimates of household attack rates than RT-PCR. Children are equally susceptible to infection as young adults. Negative RT-PCR or lack of symptoms are not sufficient to rule out infection in household members." [LINK](#)

HEALTH EQUITY AND ETHICS

BioMed Central Public Health: [When lockdown policies amplify social inequalities in COVID-19 infections: evidence from a cross-sectional population-based survey in France](#) (April 12, 2021)

This is a cross-sectional study that assess social inequalities in the trends in COVID-19 infections following lockdown. [LINK](#)

Nature Scientific Reports: [A comprehensive evaluation of early potential risk factors for disease aggravation in patients with COVID-19](#) (April 13, 2021)

This study investigates the clinical characteristics and relevant factors that are associated with various outcomes of patients with COVID-19 infections. The research may provide considerable value in terms of the early identification of individuals who are at risk of disease aggravation and identifying those who are most likely to benefit from intensive care treatment. [LINK](#)

Public Health Nutrition: [The risk to child nutrition during and after COVID-19 pandemic: what to expect and how to respond](#) (April 13, 2021)

This descriptive review addresses key areas of concern for child nutrition, both during and after the COVID-19 pandemic, and proposes strategic responses to reduce child undernutrition in both the short and long term. [LINK](#)

British Medical Journal- Journal of Medical Ethics: [COVID-19 pandemic, the scarcity of medical resources, community-centred medicine, and discrimination against persons with disabilities](#) (April 7, 2021)

This study examines access to medical treatment during the COVID-19 pandemic for people living with disabilities. [LINK](#)

Canadian Medical Association Journal: [Implementing digital passports for SARS-CoV-2 immunization in Canada](#) (April 6, 2021)

This paper discusses how SARS-CoV-2 immunization passports could work, the infrastructure required to operationalize them, and potential barriers and limitations to their use. [LINK](#)

The British Medical Journal: [COVID-19 vaccine passports: access, equity, and ethics](#) (April 1, 2021)

This paper discusses COVID-19 vaccine passports, practical and ethical challenges to their implementation. [LINK](#)

HEALTH SYSTEM ADMINISTRATION

The Guardian: [Global rollout of vaccines is no longer a guarantee of victory over COVID-19](#) (April 6, 2021)

"As members of the Lancet COVID-19 Commission Taskforce on Public Health, we call for urgent action in response to the new variants. These new variants mean we cannot rely on the vaccines alone to provide protection but must maintain strong public health measures to reduce the risk from these variants. At the same time, we need to accelerate the vaccine program in all countries in an equitable way." [LINK](#)

Nature - News: [Five reasons why COVID-19 herd immunity is probably impossible](#) (March 18, 2021)

"Long-term prospects for the pandemic probably include COVID-19 becoming an endemic disease, much like influenza. But in the near term, scientists are contemplating a new normal that does not include herd immunity. Here are some of the reasons behind this mindset, and what they mean for the next year of the pandemic." [LINK](#)

The New England Journal of Medicine: [Escaping Catch-22 — Overcoming COVID Vaccine Hesitancy](#) (April 8, 2021)

"Though the reasons for skepticism may vary among communities, Larson's approach to vaccine hesitancy is universally relevant: before you attempt to persuade, try to understand." [LINK](#)

MedRxiv: [Use of portable air cleaners to reduce aerosol transmission on a hospital COVID-19 ward](#) (March 31, 2021)

"Air cleaners were effective in increasing the clearance of aerosols from the air in clinical spaces and reducing their spread to other areas. With two small domestic air cleaners in a single patient room of a hospital ward, 99% of aerosols could be cleared within 5.5 minutes." [LINK](#)

INFECTION PREVENTION AND CONTROL

The Insight - Zeynep Tufekçi: [The Gaslighting of Science](#) (April 10, 2021)

This article looks at lessons learned and lessons that we refused to learn from the COVID-19 outbreak on board the Diamond Princess cruise ship in February of 2020. "Put all three together: airborne transmission, clusters driving the epidemic, and pre-symptomatic transmission. Not only do we get a clear and consistent picture of many things that have happened since, we also get the mitigation strategy. Further, all three dimensions support each other: transmission from people not (yet) coughing or sneezing very much argues in favor of aerosol transmission, which explains how large clusters can be driving the epidemic and how transmission in a situation like that ship can occur. And the mitigation and other strategies become clear: pay attention to clusters and ventilation, universal masks, different policies for indoors and outdoors, etc." [LINK](#)

O'Brien Institute for Public Health: [Is airborne transmission an important and mitigatable aspect of the COVID-19 pandemic? – A panel discussion \(Audio\)](#) (April 9, 2021)

"To date, the transmission of COVID-19 has been classified by major institutions as 'Contact/Droplet,' which has resulted in mitigation protocols such as handwashing, masking guidelines, physical distancing rules and disinfecting surfaces. Others have challenged this definition, and assert that, in addition to contact/droplet, airborne/aerosol plays an important role in transmission. They are calling for additional mitigation protocols, such as respiratory PPE and ventilation strategies. This seminar welcomes an international panel composed of global leaders who will break down the science behind the two paradigms, and explore whether we should double down on current efforts or re-think our approach." [LINK](#)

Centres for Disease Control and Prevention - Emerging Infectious Diseases: [Rapid Detection of SARS-CoV-2 Variants of Concern, Including B.1.1.28/P.1, in British Columbia, Canada](#) (March 30, 2021)

"Given the potential for VOCs to enhance transmission, increase deaths, and possibly evade natural or vaccine-induced immune responses, identifying cases of coronavirus disease (COVID-19) caused by VOCs and monitoring their prevalence is critical. We propose a rapid VOC surveillance strategy that uses multiple rRT-PCRs to screen all samples positive for SARS-CoV-2." [LINK](#)

Alberta Health Services - Scientific Advisory Group: [Likelihood of Transmission of COVID-19 infection after COVID-19 Vaccination](#) (March 23, 2021)

"Although, so far, studies look promising that vaccination will reduce transmission, until more studies are finished it is most safe to maintain current precautions during vaccine rollout and to reassess the evidence frequently." [LINK](#)

STAT News: [In the COVID-19 vaccine push, no one is speaking Gen Z's language](#) (April 8, 2021)

"Numerous public health officials told STAT that the issue of growing vaccine reluctance among young people can be solved with a coordinated campaign of reliable, useful information that makes it both easy and enticing for young people to get vaccinated, even if they may not personally benefit much. Those same officials acknowledged, however, that much of the groundwork for messaging to young people is yet to be done." [LINK](#)

TREATMENT

Vice News: [The J&J Vaccine Is Safer Than the Birth Control Millions of Women Take Every Day](#) (April 13, 2021)

"Hormonal birth control, a medication that millions of people in the U.S. use, can also raise your risk of a blood clot." [LINK](#)

The Guardian: [Single Pfizer or AstraZeneca dose produces strong antibody response](#) (April 14, 2021)

"The first study to look at the comparative performance of the two vaccines that have been in use in the UK in recent months shows that 93% of people develop antibodies against the coronavirus spike protein by five to six weeks after a single Pfizer jab, and 87% after a single AstraZeneca one. But the researchers... found a difference when it came to the cellular response elicited by the vaccines... The AstraZeneca vaccine had a greater effect – with 31% of people developing T-cells against the spike protein compared with 12% of those who had the Pfizer jab." [LINK](#)

International Journal of Antimicrobial Agents: [A COVID-19 prophylaxis? Lower incidence associated with prophylactic administration of ivermectin](#) (January, 2021)

"Here, we show that countries with routine mass drug administration of prophylactic chemotherapy including ivermectin have a significantly lower incidence of COVID-19. Prophylactic use of ivermectin against parasitic infections is most common in Africa and we hence show that the reported correlation is highly significant both when compared among African nations as well as in a worldwide context. We surmise that this may be connected to ivermectin's ability to inhibit SARS-CoV-2 replication, which likely leads to lower infection rates. However, other pathways must exist to explain the persistence of such an inhibitory effect after serum levels of ivermectin have declined. It is suggested that ivermectin be evaluated for potential off-label prophylactic use in certain cases to help bridge the time until a safe and effective vaccine becomes available." [LINK](#)

CBC: [Study suggests vaccines may improve symptoms for some COVID-19 long-haulers](#) (April 7, 2021)

"A [small U.K. study](#) says 23% of vaccinated 'long COVID' patients saw symptoms reduce post-vaccination." [LINK](#)

MENTAL HEALTH & WELLNESS

Evidence-Based Mental Health: [COVID-19 vaccines, hesitancy and mental health](#) (April 13, 2021)

This paper assesses the impact of mental health conditions on COVID-19 vaccine hesitancy and searches for current guidance in this area. "Attitudes to vaccination have rapidly become a priority. Vaccine hesitancy ('behavioural delay in acceptance or refusal of vaccines despite availability of vaccine services') is not a single entity. Reasons vary and there is a continuum from complete acceptance to refusal of all vaccines, with vaccine hesitancy lying between the two poles. Factors involved include confidence (trusting or not the vaccine or provider), complacency (seeing the need or value of a vaccine) and convenience (easy, convenient access to the vaccine). Importantly, attitudes to vaccination can change and people who are initially hesitant can still come to see a vaccine's safety, efficacy and necessity. Developing strategies to address hesitancy is key." [LINK](#)

European Psychiatry: [Prevalence of post-traumatic stress symptoms among people influenced by COVID-19 outbreak: a meta-analysis](#) (April 12, 2021)

This review examines the pooled prevalence of post-traumatic stress symptoms among people exposed to the trauma resulting from COVID-19 outbreak and summarizes possible vulnerability factors of post-traumatic stress symptoms. [LINK](#)

Family Process: [Impact of the COVID-19 Pandemic on Parent, Child, and Family Functioning](#) (April 8, 2021)

This study assesses the impact of the COVID-19 pandemic and public health interventions on parent and child mental health and family relationships. [LINK](#)

Globalization and Health: [Study problems and depressive symptoms in adolescents during the COVID-19 outbreak: poor parent-child relationship as a vulnerability](#) (April 6, 2021)

This study investigates the prevalence of depressive symptoms, their association with study-relevant problems, and the moderating effect of parent-child relationship among Chinese adolescents during the school closures. [LINK](#)

The Lancet- EClinicalMedicine: [An evaluation of the mental health impact of SARS-CoV-2 on patients, general public and healthcare professionals: A systematic review and meta-analysis](#) (April 6, 2021)

This systematic review and meta-analysis evaluates cognitive and psychological impact of the virus, as well as the 'real-world' psychological impact of the pandemic on healthcare professionals, patients and the general public. [LINK](#)

Social Science and Medicine: [The disparate impact of COVID-19 on the mental health of female and male caregivers](#) (February 24, 2021)

This study examined the relation between stress/disruption from the COVID-19 pandemic and the mental health of female and male caregivers. [LINK](#)

The Conversation: [A year into the pandemic, COVID-19 exercise slump has hit women harder](#) (April 6, 2021)

"Those who exercise more frequently during the pandemic are found to report more favourable mental health. Research finds that regular exercise can help reduce the risk of depression and help maintain calmness." [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 April 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.

QUESTIONS/ SUGGESTIONS? CONTACT:

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