

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

## CLINICAL PRESENTATION AND BIOLOGY

**The Atlantic:** [The Mysterious Link between COVID-19 and Sleep](#) (December 21, 2020)

“The coronavirus can cause insomnia and long-term changes in our nervous systems...but sleep could also be a key to ending the pandemic.” [LINK](#)

**Medical Journal of Australia:** [High rate of persistent symptoms up to 4 months after community and hospital-managed SARS-CoV-2 infection](#) (December 22, 2020)

“Recovery after severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection remains uncertain. A considerable proportion of patients experience persistent symptoms after SARS-CoV-2 infection which impact health-related quality of life and physical function. Multi-disciplinary follow-up is recommended for patients with post-COVID illness and to assess health-related quality of life and physical function.” [LINK](#)

**Clinical Infectious Disease:** [Impact of Sex and Metabolic Comorbidities on COVID-19 Mortality Risk Across Age Groups: 66,646 Inpatients across 613 U.S. Hospitals](#) (December 18, 2020)

“This retrospective cohort study aimed to determine the association between common patient characteristics and mortality across age-groups among COVID-19 inpatients. The authors concluded that hospitalized men with COVID-19 are at increased risk of death across all ages. Hypertension, diabetes with chronic complications, and obesity demonstrated age-dependent effects, with the highest relative risks among adults aged 20-39.” [LINK](#)

**MSN News:** [Doctors discovered a new way to tell which coronavirus patients will get worse](#) (December 29, 2020)

- “Researchers at the University of Michigan analyzed data from nearly 400 coronavirus patients and developed an algorithm that can predict which patients are likely to get worse over time.

- The algorithm utilizes machine learning and takes into account a number of vital signs, including heart rate, respiratory rate, and blood glucose levels. The algorithm was found to be particularly accurate after accumulating 48-hours' worth of patient data.
- If an at-risk coronavirus patient is identified early, it affords physicians more time to consider and implement aggressive treatment options.
- Researchers note that the algorithm can be integrated into existing clinical support software." [LINK](#)

## HEALTH SYSTEM ADMINISTRATION

### **Cochrane EPOC Summary: [Health care workers and infection prevention and control \(IPC\) for respiratory infectious diseases: Implementation considerations](#)** (December 21, 2020)

"When respiratory infectious diseases become widespread, such as during the COVID-19 pandemic, healthcare workers' use of infection prevention and control (IPC) strategies becomes critical... These strategies can be difficult and time-consuming to implement. Authorities and healthcare facilities therefore need to consider how best to implement them." [LINK](#)

- Original research: [Full Cochrane Review](#)

### **Annales Médico-Psychologiques/ Revue Psychiatrique: [Mental Health outcome and Professional quality of Life among Healthcare Worker during COVID-19 pandemic: A \(FRONTLINE-COVID\) survey](#)** (January 6, 2021)

This paper reports the findings of a survey that was conducted to "evaluate mental health outcomes and professional quality of life among healthcare workers during COVID-19 pandemic." [LINK](#)

### **The Conversation: [Stopping the spread of COVID-19 misinformation is the best 2021 New Year's resolution](#)** (January 6, 2021)

This article highlights the important roles of individuals, healthcare organizations, and policy makers in stopping the spread of COVID-19 misinformation and its attendant consequences. [LINK](#)

### **WIRED: [Vaccines Are Here. We Have to Talk About Side Effects](#)** (December 17, 2020)

"There has not, to this point, been a coordinated national campaign that reassures people the vaccine not only works, but is safe to take and will not cause long-term illness. Planners and health researchers are getting concerned that it is already getting too late to start." [LINK](#)

## INFECTION PREVENTION AND CONTROL

### **STAT News: [A side-by-side comparison of the Pfizer/BioNTech and Moderna vaccines](#)** (December 19, 2020)

This article provides a detailed head-to-head comparison of the two currently- available COVID-19 vaccines. [LINK](#)

### **Nature: [Long-distance airborne dispersal of SARS-CoV-2 in COVID-19 wards](#)** (November 11, 2020)

"Detection of SARS-CoV-2 in central ventilation systems, distant from patient areas, indicate that virus can be transported long distances and that droplet transmission alone cannot reasonably explain this, especially considering the relatively low air change rates in these wards. Airborne transmission of SARS-CoV-2 must be taken into consideration for preventive measures." [LINK](#)

**STAT News:** [Beware the danger of 'vaccine euphoria'](#) (December 22, 2020)

"The advent of COVID-19 vaccines is a medical miracle, yet also a tantalizing and dangerous psychological milestone: It's not the beginning of the end of the pandemic but, more likely, "the end of the beginning," to borrow a phrase from Winston Churchill." [LINK](#)

**Scientific American:** [The UK Coronavirus Mutation Is Worrying but Not Terrifying](#) (December 24, 2020)

This article argues that though the new 'UK variant' of the COVID-19 virus makes it more "important for people to use public health measures such as physical distancing and mask wearing," there are no signs that currently-available vaccines are less effective against the new variant. [LINK](#)

**Journal of the American Medical Association:** [Mandating COVID-19 Vaccines](#) (December 29, 2020)

This commentary evaluates whether "vaccine mandates would be lawful and ethical and whether they could boost vaccine uptake." [LINK](#)

**American Chemical Society:** [Airborne Transmission of COVID-19: Aerosol Dispersion, Lung Deposition, and Virus-Receptor Interactions](#) (November 25, 2020)

"This review provides urgent and multidisciplinary knowledge toward understanding the airborne transmission of SARS-CoV-2 and its health impact on the respiratory system." [LINK](#)

## TREATMENT

**New England Journal of Medicine:** [Ongoing Trials for Drugs in the Prevention and Treatment of COVID-19](#) (December 22, 2020)

"In this platform trial of therapeutic agents, the authors randomly assigned hospitalized patients who had COVID-19 without end-organ failure in a 1:1 ratio to receive either LY-CoV555 or a matching placebo. Monoclonal antibody LY-CoV555, when co-administered with remdesivir, did not demonstrate efficacy among hospitalized patients who had COVID-19 without end-organ failure." [LINK](#)

**Entertainment Times:** [Home remedies for dry hands caused by frequent hand washing](#) (May 12, 2020)

"The sanitizer and frequent hand washing is making our hands super dry during COVID times. The chemical in soap and sanitizer is even leading to skin peeling for some. Here are some home remedies that can soothe your dry skin." [LINK](#)

## SENIORS AND OTHER VULNERABLE GROUPS

**The National Collaborating Centre for Methods and Tools:** [Rapid Review Update 1: What risk factors are associated with COVID-19 outbreaks and mortality in long-term care facilities and what strategies mitigate risk?](#) (December 11, 2020)

This rapid review is based on the most recent research evidence available at the time of release. A previous version was completed on October 16, 2020. This updated version includes evidence available up to November 30, 2020 to answer the question: What risk factors are associated with COVID-19 outbreaks and mortality in LTC facilities and what strategies mitigate risk? [LINK](#)

**Epidemiology & Infection:** [Obesity is associated with severe COVID-19 but not death: a dose-response meta-analysis](#) (January 5, 2021)

This meta-analysis identified the prevalence and impact of obesity on COVID-19. [LINK](#)

**Gerontology:** [The Clinical Characteristics and Risk Factors of Severe COVID-19](#) (January 6, 2021)

This meta-analysis investigated the clinical characteristics and risk factors for patients with severe cases of coronavirus disease 2019 (COVID-19) in comparison with the characteristics and risk factors of non-severe COVID-19 patients. [LINK](#)

**The Journal of the American Medical Association Internal Medicine: [Risk Factors Associated with All-Cause 30-Day Mortality in Nursing Home Residents with COVID-19](#)** (January 4, 2021)

This original investigation identifies risk factors for 30-day all-cause mortality among nursing home residents with COVID-19 in the U.S.A. [LINK](#)

**The Canadian Journal of Public Health: [Older adults living in social housing in Canada: the next COVID-19 hotspot?](#)** (January 4, 2021)

This paper discusses how social housing will be the next COVID-19 hotspot due to the lack of a targeted public health strategy to support older adults in social housing who live in clustered housing environments and who also have high rates of chronic disease. [LINK](#)

## MENTAL HEALTH & WELLNESS

**Depression and Anxiety: [The psychiatric sequelae of the COVID-19 pandemic in adolescents, adults, and health care workers](#)** (December 28, 2020)

This study assessed the mental health impact of the COVID-19 pandemic across the lifespan adolescents, adults, and healthcare workers living in the United States. [LINK](#)

**Public Library of Science One: [Factors associated with psychological distress during the coronavirus disease 2019 \(COVID-19\) pandemic on the predominantly general population: A systematic review and meta-analysis](#)** (December 28, 2020)

This study evaluated factors associated with psychological distress among the general population during the COVID-19 pandemic and concluded: "One in three adults in the predominantly general population have COVID-19 related psychological distress. Concerted efforts are urgently needed for interventions in high-risk populations to reduce urban-rural, socioeconomic and gender disparities in COVID-19 related psychological distress." [LINK](#)

**Journal of Homosexuality: [Disproportionate Impact of the COVID-19 Pandemic on Perceived Social Support, Mental Health and Somatic Symptoms in Sexual and Gender Minority Populations](#)** (January 5, 2021)

In this paper, researchers characterize and describe similarities and differences between sexual and gender minority and cisgender/heterosexual-identifying adults' experiences of emotional and physical symptoms, perceived social support, and ruminative responses during the first three months of the COVID-19 pandemic in the U.S.A. [LINK](#)

**Annals of Medicine: [COVID-19: anxiety among hospital staff and associated factors](#)** (December 22, 2020)

This study describes the anxiety levels of hospital workers in Finland during the COVID-19 pandemic to determine the associations of background variables (demographic data, changes in work, availability of personal protective equipment, interaction between workers, psychological distress, fears) with hospital workers' anxiety levels. [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, 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:**

**The Newfoundland & Labrador Centre for Applied Health Research**

95 Bonaventure Avenue, Suite 300

St. John's, NL A1B 2X5

[nlcahr@mun.ca](mailto:nlcahr@mun.ca)

[www.nlcahr.mun.ca](http://www.nlcahr.mun.ca)

