

The Newfoundland & Labrador Centre for Applied Health Research (NLCAHR) will send 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 hope you will find this information to be helpful. We welcome your [feedback and suggestions](#).

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

REOPENING AFTER LOCKDOWN

National Institutes of Health Preprint Pilot: [COVID-19 screening strategies that permit the safe re-opening of college campuses](#) (Published July 7, 2020)

This study presents a cost-effectiveness analysis and outlines performance standards for COVID-19 screening that could allow for the safe re-opening of college and university campuses. [LINK](#)

The National Collaborating Centre for Methods and Tools: Rapid Review: [What is the specific role of daycares and schools in COVID-19 transmission?](#) (Published July 9, 2020)

This rapid review identifies, appraises, and summarizes current evidence on the specific role of daycares and schools in COVID-19 transmission to support evidence-informed decisions on school re-opening. [LINK](#)

ANTICIPATING A “SECOND WAVE”

Journal of Medical Virology: [An open call for influenza vaccination pending the new wave of COVID-19](#) (Published July 8, 2020)

The authors make an open call for influenza vaccinations especially for the elderly, pending new waves of COVID-19. [LINK](#)

Proceedings of the National Academy of Sciences of the United States of America: [The implications of silent transmission for the control of COVID-19 outbreaks](#) (Published July 6, 2020)

The authors evaluated the contribution of pre-symptomatic and asymptomatic transmission to disease burden and found that the majority of incidences may be attributable to “silent transmission” from a combination of pre-symptomatic stage and asymptomatic infections. Consequently, even if all symptomatic cases are isolated, a vast outbreak may still unfold. When the authors quantified the effect of isolating silent infections in addition to symptomatic cases, they found that over one-third of silent infections must be isolated to suppress a future outbreak below 1% of the population. Their results indicate that symptom-based isolation must be supplemented

by rapid contact tracing and testing that identifies asymptomatic and pre-symptomatic cases in order to safely lift restrictions and minimize the risk of resurgence. [LINK](#)

TREATMENT

StatNews: [Studies provide glimpse at efficacy of COVID-19 vaccines from Oxford-AstraZeneca and CanSino](#) (Published July 20, 2020)

Research indicates that a COVID-19 vaccine being developed by Oxford University and the drug giant AstraZeneca generated an immune response in a study of roughly 1,000 patients. The Phase 2 results of another vaccine, from the Chinese biotech company CanSino, showed that the vaccine induced neutralizing antibody responses in most subjects, but that this vaccine did not appear to work as well in people aged 55 and older, a key target for COVID-19 vaccination. [LINK](#)

MedRxiv: [Genetic validation of the use of tocilizumab, statins and dexamethasone in COVID-19](#) (Published July 9, 2020)

“This study assessed whether common drugs, suggested as possible treatments for COVID-19 (tocilizumab, anakinra and statins) with established genetic proxies, are effective in COVID-19.” [LINK](#)

Statnews: [Data show panic and disorganization dominate the study of COVID-19 drugs](#) (Published July 6, 2020)

“In a gigantic feat of scientific ambition, researchers have designed a staggering 1,200 clinical trials aimed at testing treatment and prevention strategies against COVID-19 since the start of January. But a new STAT analysis shows the effort has been marked by disorder and disorganization, with huge financial resources wasted.” [LINK](#)

CLINICAL MANAGEMENT

The New England Journal of Medicine: [Rapid Decay of Anti-SARS-CoV-2 Antibodies in Persons with Mild Covid-19](#) (Published July 21, 2020)

The authors of this study evaluated people who had recovered from COVID-19. The findings “raise concern that humoral immunity against SARS-CoV-2 may not be long lasting in persons with mild illness, who compose the majority of persons with COVID-19. It is difficult to extrapolate beyond the observation period of approximately 90 days because it is likely that the decay will decelerate. Still, the results call for caution regarding antibody-based “immunity passports,” herd immunity, and perhaps vaccine durability, especially in light of short-lived immunity against common human coronaviruses.” [LINK](#)

MedRxiv: [The Infectious Nature of Patient-Generated SARS-CoV-2 Aerosol](#) (Published July 13, 2020)

“The infectious nature of aerosol collected in this study further suggests that airborne transmission of COVID-19 is possible, and that aerosol prevention measures are necessary to effectively stem the spread of SARS-CoV-2.” [LINK](#)

Wired: [How to Read COVID-19 Research \(and Actually Understand It\)](#) (Published July 8, 2020)

“Evaluating the quality of COVID-19 research is challenging, even for the scientists who study it. Studies are rapidly pouring out of labs and hospitals, but not all of that information is rigorously vetted before it makes its way into the world.” [LINK](#)

The New England Journal of Medicine: [Communicating Science in the Time of a Pandemic](#) (Published July 13, 2020)

“Because of the urgency to implement the findings of research to stem the pandemic and its effects, clear and complete communication of study results is even more important than usual.” [LINK](#)

The Lancet Psychiatry: [Neurological and neuropsychiatric complications of COVID-19 in 153 patients: a UK-wide surveillance study](#) (Published June 25, 2020)

“The aim of this study was to investigate the breadth of complications of COVID-19 across the UK that affected the brain.” [LINK](#)

INFECTION CONTROL

Centers for Disease Control and Prevention: [Considerations for Wearing Cloth Face Coverings](#) (Published July 16, 2020)

This updated guidance document from the CDC highlights the various considerations for and effectiveness of, cloth face masks as part of COVID-19 infection control measures. [LINK](#)

The Johns Hopkins Center for Health Security: [The Public’s Role in COVID-19 Vaccination: Planning Recommendations Informed by Design Thinking and the Social, Behavioral, and Communication Sciences](#) (Published July 09, 2020)

Drawing on insights from design thinking and social and behavioural sciences, this report considers human factors that could shape COVID-19 vaccines and provides recommendations to inform policy and practice on how to advance public understanding of, access to, and acceptance of COVID-19 vaccines. [LINK](#)

Materials Today Physics: [Catching and killing of airborne SARS-CoV-2 to control spread of COVID-19 by a heated air disinfection system](#) (Published July 7, 2020)

This study highlights the potential to mitigate COVID-19 transmission using a heated air disinfection system. The study designed and fabricated a heated air disinfection system and tested the capacity of the system to catch and kills the COVID-19 virus. [LINK](#)

MedRxiv: [A national cross-sectional survey of public perceptions, knowledge, and behaviors during the COVID-19 pandemic](#) (Published July 8, 2020)

This article investigates the association between public perception, knowledge and behaviours in relation to COVID-19 transmission. [LINK](#)

COVID-19 & HEALTHCARE WORKERS

Cambridge Coronavirus Collection: [Are We Forgetting the “Universal” in Universal Masking? Current Challenges and Future Solutions](#) (Published July 16, 2020)

This paper examines the underlying cause of poor compliance with universal masking policies in healthcare settings, and proposes solutions. [LINK](#)

MedRxiv: [Stress, burnout and depression in women in health care during COVID-19 Pandemic: Rapid Scoping Review](#) (Published July 14, 2020)

This review examines common triggers of burnout, and depression faced by women in health care during the COVID-19 pandemic, as well as, effective interventions that support and promote well-being of health care workers. [LINK](#)

The Journal of Hospital Infection: [Dry heat and microwave generated steam protocols for the rapid decontamination of respiratory personal protective equipment in response to COVID-19-related shortages](#) (Published July 08, 2020)

This study examined the efficacy of dry heat and microwave-generated steam (MGS) for rapid decontamination of PPE in healthcare settings to mitigate against potential PPE shortages in COVID-19 management. [LINK](#)

The British Medical Journal: [Complete protection from COVID-19 is possible for health workers](#) (Published July 7, 2020)

This editorial reviews evidence on the use of PPE to protect health care workers from COVID-19 transmission, and provides recommendations for optimizing safety and protection for health care workers. [LINK](#)

SENIORS AND OTHER VULNERABLE GROUPS

Obesity Reviews: [Obesity is a risk factor for developing critical condition in COVID-19 patients: a systematic review and meta-analysis](#) (Published July 19, 2020)

This systematic review and meta-analysis examined whether obesity is a risk factor for developing critical condition in COVID-19 patients. The authors calculated pooled odds ratios with 95% confidence intervals in meta-analysis. Obesity was a significant risk factor for intensive care unit (ICU) admission as well as for invasive mechanical ventilation in COVID-19. Findings indicated that a higher BMI always carried a higher risk. Obesity may serve as a clinical predictor for adverse outcomes; therefore, the inclusion of BMI in prognostic scores and improvement of guidelines for the intensive care of patients with elevated BMI are highly recommended. [LINK](#)

Aging: [Epidemiological, comorbidity factors with severity and prognosis of COVID-19: a systematic review and meta-analysis](#) (Published July 13, 2020)

A systematic review and meta-analysis were conducted in an attempt to collect and evaluate the associations of epidemiological comorbidity factors with the severity and prognosis of COVID-19. [LINK](#)

Nature Public Health Emergency Collection Aging Clinical and Experimental Research: [Improving the care of older patients during the COVID-19 pandemic](#) (Published July 11, 2020)

This paper outlines recommendations for the diagnosis and management of COVID-19 in the elderly and suggests some key principles that could inspire the provision of improved healthcare services to older people and their families. [LINK](#)

Diabetes & Metabolic Syndrome: [Coronavirus disease \(COVID-19\): a systematic review and meta-analysis to evaluate the impact of various comorbidities in serious events](#) (Published July 2, 2020)

This systematic review and meta-analysis evaluates the impact of various comorbidities in serious events in COVID-19. [LINK](#)

MENTAL HEALTH & WELLNESS

Journal of Interprofessional Care: [Exploring the challenges faced by frontline workers in health and social care amid the COVID-19 pandemic: experiences of frontline workers in the English Midlands Region, UK](#) (Published July 17, 2020)

This paper set out to explore the experiences of different frontline workers in health and social care during the COVID-19 pandemic to identify some of the key challenges. [LINK](#)

Psychology and Psychotherapy: [Factors contributing to the distress, concerns, and needs of UK neuroscience health care workers during the COVID-19 pandemic](#) (Published July 16, 2020)

The authors administered an online survey at a leading neuroscience hospital in the UK to examine how individual staff characteristics contribute to distress, concerns, and interventions most valued during the COVID-19 pandemic. [LINK](#)

Nature Reviews Nephrology: [Mental health of healthcare workers in the COVID-19 era](#) (Published June 19, 2020)

This commentary sets out a practical approach to protecting the mental health of health-care workers based on contemporary evidence. [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 July 2020.

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?

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