COVID-19 e-bulletin
June 16, 2020

The Newfoundland & Labrador Centre for Applied Health Research (NLCAHR) will be sending this COVID-19 e-bulletin to our health system stakeholders once a week. This e-bulletin includes the results from recent searches of published 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.

Please look for NLCAHR e-bulletins and COVID-19 *Quick Response Reports* online here.

REOPENING AFTER LOCKDOWN

The Centre for Evidence-Based Medicine (CEBM): What impacts are emerging from COVID-19 for urban futures? (Published June 8, 2020)
This article examines the impact of the COVID-19 pandemic on major cities and how lessons learned from the pandemic might be used to shape the way cities are designed and developed in the future. LINK

The Centre for Evidence-Based Medicine (CEBM): Leadership in COVID-19: The dangers of groupthink in crisis leadership (Published May 26, 2020)
This article looks at the kinds of leadership that have characterized the global COVID-19 response and highlights the dangers of *group-think,* defined as "a type of thinking engaged in by a group of people deliberating an issue, typically characterized by making injudicious decisions through an unwillingness to challenge group consensus."
LINK

ANTICIPATING A "SECOND WAVE"

Nature Reviews- Immunology: Dissecting antibody-mediated protection against SARS-CoV-2
(Published June 8, 2020)
This article examines the role of neutralizing antibodies concluding that "most individuals who recover [from COVID-19] develop only low levels of neutralizing antibodies, indicating that neutralizing antibodies are likely to have a relatively limited impact on resolving disease." LINK

Financial Times: How to avoid the virus as the world reopens (Published June 10, 2020)
This article outlines the three key factors that determine risk of exposure to COVID-19: proximity to people; duration of exposure; and a confined environment, concluding that the highest risk for infection happens when these three factors overlap. LINK

TREATMENT

BBC News Health- Coronavirus: [Blood clots targeted in treatment trial](#) (Published June 15, 2020)
Scientists in the UK will test whether an experimental drug, TRV027, which rebalances hormones involved in blood pressure, water and salt, may prevent potentially deadly blood clots associated with COVID-19. The trial, funded by the British Heart Foundation, will test the theory that the blood clots are caused by a hormonal imbalance triggered by coronavirus infection. [LINK](#)

STAT News: ['Flying blind': Doctors race to understand what COVID-19 means for people with HIV](#) (Published June 10, 2020)
In the United States, physicians who treat people with HIV have launched a study with an existing national network of AIDS research centers to better understand the implications of COVID-19 infection for people with HIV. [LINK](#)

CLINICAL MANAGEMENT

MedRxiv (preprint): [Heart Disease Deaths during the COVID-19 Pandemic](#) (Published June 4, 2020)
An analysis of health data for the state of Massachusetts revealed that heart disease deaths were unchanged during the COVID-19 pandemic period as compared to the corresponding period in 2019, despite reports that admissions for acute myocardial infarction had fallen. [LINK](#)

Canadian Agency for Drugs and Technology in Health (CADTH): [Serological Tests for COVID-19](#) (Published May 29, 2020).
This report notes that, if they are accurate, antibody-based serology tests should provide information on who has COVID-19 or who has been infected. Although Health Canada is actively assessing these tests, to date, the performance and role of serological tests in clinical settings has not been completely demonstrated. Overall, evidence is lacking to confirm that individuals have immunity to COVID-19 or are protected from reinfection. [LINK](#)

MedRxiv (preprint): [Laboratory findings in coronavirus disease 2019 (COVID-19) patients: a comprehensive systematic review and meta-analysis](#) (Published June 8, 2020)
Recent studies suggest that laboratory tests, in addition to clinical symptoms, may play a significant role in the diagnosis of COVID-19. An evaluation of laboratory findings in COVID-19 –positive patients indicates the following common laboratory findings at time of admission: lymphopenia, elevated CRP, elevated ESR, elevated ferritin, elevated serum amyloid A, elevated BNP, reduced albumin, reduced pre-albumin, reduced CD3, reduced CD4, reduced CD8, elevated D-dimer, reduced PT, elevated interleukin-2, elevated interleukin-6, elevated LDH and hyperglycemia. [LINK](#)

MedRxiv (pre-print): [Relationship between Blood Group and Risk of Infection and Death in COVID-19: a live meta-analysis](#) (Published June 8, 2020).
This ongoing study is assessing the relationship between different blood groups and onset/mortality of COVID-19 infection using meta-analysis of cases in Spain and Italy. Findings indicate that individuals within blood group A are at higher risk for COVID-19 infection while those with blood group O are at lower risk. The researchers on this study are currently seeking to recruit new participants. [LINK](#)

INFECTION CONTROL

The Centre for Evidence-Based Medicine (CEBM): **What explains the high rate of SARS-CoV-2 transmission in meat and poultry facilities?** (Published June 4, 2020)
This study uses a narrative synthesis approach to build an understanding of the multiple interacting factors at human, material, organizational, and system levels to explain the high rate of COVID-19 transmission in meat and poultry processing facilities, how the working environment in these facilities may contribute to COVID-19 transmission, and if/how these facilities may be conducive to airborne virus transmission, more generally. LINK

Journal of Evaluation in Clinical Practice: **Face coverings for the public—laying straw men to rest** (Published May 26, 2020)
In this comprehensive review, the author directly addresses previous critics who contended that cotton face masks are not an effective preventative measure against COVID-19 transmission and outlines the case for both the efficacy and the protective benefits of wearing face masks for the general public. LINK

The Centre for Evidence-Based Medicine (CEBM): **The role of nicotine in COVID-19 infection** (Published May 26, 2020)
This review examines current evidence on the potential connection between nicotine and susceptibility to COVID-19 and concludes that there are biologically-plausible pathways through which nicotine may impact SARS-CoV-2, but that the clinical significance of these is entirely unclear. LINK

The Lancet- Respiratory Medicine: **COVID-19 and the impact of social determinants of health** (Published May 18, 2020)
The authors contend that while COVID-19 has often been termed a 'great equalizer', it is increasingly demonstrable that social inequalities in health are profoundly, and unevenly, impacting COVID-19 morbidity and mortality. LINK

The Conversation: **The politics behind how governments control coronavirus data** (Published June 4, 2020)
This article by a Memorial University professor reviews how governments in the United States, Russia, and Canada control and disseminate COVID-19-related data, and how this may affect the spectrum of community reactions to public health and infection-control measures. LINK

Annals of Internal Medicine: **Prevalence of Asymptomatic SARS-CoV-2 Infection** (Published June 3, 2020)
While researchers suspect that infected persons who remain asymptomatic play a significant role in the ongoing COVID-19 pandemic, their relative number and effect have been uncertain. This narrative review attempts to offer insights into SARS-CoV-2 incidence and the highly variable effects of infection. LINK

Proceedings of the Royal Society Mathematical, Physical and Engineering Sciences: **A modelling framework to assess the likely effectiveness of facemasks in combination with 'lock-down' in managing the COVID-19 pandemic** (Published June 10, 2020)
This modelling framework was developed to assess the likely effectiveness of facemasks in combination with 'lock-down' in managing the COVID-19 pandemic, concluding that "facemask use by the public… in combination with physical distancing or periods of lock-down may provide an acceptable way of managing the COVID-19 pandemic and re-opening economic activity." A key public health approach for the adoption of facemasks would be: 'my mask protects you, your mask protects me.' LINK

COVID-19 & HEALTHCARE WORKERS

The Conversation: Should we be testing all frontline healthcare workers regularly for coronavirus?
(Published June 8 2020)
The author contends that although regular testing of healthcare workers is considered justified, unless we understand the limitations of testing, we may be in danger of creating a false sense of security. LINK

SENIORS & OTHER VULNERABLE POPULATIONS

Journal of Aging & Social Policy: Who are the most at-risk older adults in the COVID-19 era? It's not just those in nursing homes (Published May 17, 2020)
The authors analyze data for a group of roughly seven million community-dwelling seniors and conclude that: "Seniors living in the community with respiratory illnesses are particularly vulnerable to COVID-19. This population suffers from multiple health/social risks and, if exposed to the virus, are likely to face very high mortality rates. Current approaches for protecting this population are inadequate and may exacerbate the risks faced. What is needed is a focus on improved testing, better assessment, increased social supports, assurance that basic needs are being met, and protection for home care workers." LINK

Journal of Gerontological Social Work: The impact of the COVID-19 pandemic on vulnerable older adults in the United States (Published June 5, 2020)
This article raises the issues of heightened inequality of older adults and recommends better support for vulnerable older adults. LINK

The Journal of Obstetrics and Gynecology Research: Clinical update on COVID-19 in pregnancy: a review article (Published June 4, 2020)
This review presents a comprehensive analysis of the current data in relation to the effect of COVID-19 on pregnant women, including symptoms, disease severity, and risk of vertical transmission. LINK

Pediatric Pulmonology: What we know so far about coronavirus disease 2019 in children: a meta-analysis of 551 laboratory-confirmed cases (Published June 10, 2020)
This meta-analysis summarizes the evidence surrounding COVID-19 infection among children. LINK

MENTAL HEALTH & WELLNESS

Annals of Internal Medicine: When the dust settles: preventing a mental health crisis in COVID-19 clinicians (Published June 9, 2020)
This editorial on how to prevent a mental health crises in clinicians cites recent clinical experiences and steps for prevention. LINK

Canadian Journal of Nursing Research: Nurses' mental health and well-being: COVID-19 impacts (Published June 9, 2020)
This editorial on nurses' mental health and well-being showcases results from a groundbreaking pan-Canadian study of nurses' occupational stress. LINK

Journal of the American Academy of Child & Adolescent Psychiatry: [Rapid systematic review: the impact of social isolation and loneliness on the mental health of children and adolescents in the context of COVID-19](#) (Published June 3, 2020)
This study establishes what is known about the impacts of loneliness and disease-containment measures on the mental health of children and adolescents. [LINK](#)

International Journal of Environmental Research and Public Health: [Depression, anxiety and stress during COVID-19: associations with changes in physical activity, sleep, tobacco and alcohol use in Australian adults](#) (Published June 7, 2020)
This article examined the association between psychological distress and changes in selected health behaviors since the onset of COVID-19 in Australia. [LINK](#)

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

www.nlcahr.mun.ca

Newfoundland & Labrador Centre for
APPLIED HEALTH RESEARCH
www.nlcahr.mun.ca