

EH Scan



National Collaborating Centre for Environmental Health

Centre de collaboration nationale en santé environnementale

# ENVIRONMENTAL HEALTH RESEARCH SCAN WITH COVID-19 SECTIONS VOL 5 (3) MARCH 2021



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#### Environmental Health (EH) Research Scan: Aims and Scope

NCCEH's EH Research Scan aims to expand awareness of topics in environmental health, in line with NCCEH's vision to be the indispensable online resource for environmental health practitioners and policy-makers across Canada. "*We focus on health risks associated with the physical environment and identify evidence-based interventions to mitigate those risks*." This review is not official or peer reviewed. It does not cover all research, news, and information, and NCCEH is not responsible for the accuracy of the content from media or databases. How to access the items? Click on the link related to each entry and it should take you to the item. Not all links are open access; some are abstract links where paid journal subscription is required. **COVID-19 Publications** are listed in the sections above and there are also **COVID-19 Additional Topics** at the end of this issue.

# **EDITOR PICKS**

#### COVID-19 risks from handling the deceased [field inquiry] Juliette O'Keeffe, Knowledge Translation Scientist, NCCEH

"The following questions guided the inquiry:

- How long does SARS-CoV-2 persist on the surface of a body, or in bodily tissues or *fluids, that may be encountered post-mortem?*
- Is there evidence for transmission of SARS-CoV-2 from a deceased person to others?
- *Is there evidence that persons involved in the handling, transport, and examination* of decedents are at higher risk of COVID-19 infection or mortality?"

#### Carpooling precautions during COVID-19 [blog] Shirra Freeman, Knowledge Translation Scientist, NCCEH

"Shared rides have been linked to transmission events.[...] The transmission risks associated with carpooling are thought to be associated with time spent in the confined space of cars with people not from the same household."

#### Webinar Recording - Psychosocial impacts of the COVID-19 pandemic: A frame of reference from lessons learned through disasters in Canada Melissa Genereux, Medical Advisor, CIUSSS de l'Estrie - CHUS

*"There are links between observed psychosocial impacts and recovery during these"* recent disasters, with learnings that could be applied to the COVID-19 pandemic that could promote individual and community resilience following disasters....'

Reducing wood smoke and protecting indoor air quality is more important than ever during the COVID-19 pandemic [blog] Melanie Langille, Vice President, New Brunswick Lung Association

"Amidst the second waves of COVID-19, we are reminded of the effects the environment has on our health .... '

Scoping Population Health in Impact Assessment (ScopHIA): Canada's new Impact Assessment Act [blog] Jennifer Brown, Candace Nykiforuk

"This blog examines opportunities for advancing population health equity issues during the planning phase of the IA process, with particular emphasis on the role of public health stakeholders."

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#### Health Impact Assessments [topic page] National Collaborating Centre for Environmental Health

The resources listed here are intended to assist public health practitioners to:

- Understand what HIAs are and the contexts in which they may be used;
- Outline the steps, methods, and tools used to conduct an HIA;
- Provide examples of how HIAs influence projects, plans, and policies; and
- Provide case studies and guides relevant for the Canadian context.

#### Legionella [topic page]

#### National Collaborating Centre for Environmental Health

*The resources listed here are intended to assist environmental and public health professionals and those responsible for managing water systems in buildings to:* 

- Understand the health risks associated with exposure to Legionella bacteria;
- Understand the factors that can lead to Legionella survival and growth in building water systems;
- Identify the key approaches to managing Legionella risks in buildings;
- Understand the steps needed to respond to Legionella outbreaks and the corrective actions required.

# Building shutdown and re-opening during the COVID-19 pandemic [topic page]

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The resources provided on this topic page are intended to inform EH professionals and assist property managers with enacting a temporary closure, as well as cleaning, reinitializing, and safely operating public or commercial facilities under pandemic conditions. The resources are examples only and additional considerations may be required for specific facility types and site conditions.

#### Health Resources for the COVID-19 Pandemic – updated [topic page] National Collaborating Centre for Environmental Health

NCCEH has prepared a specially curated topic page on Covid-19. Visit http://www.ncceh.ca/environmental-health-canada/ncceh-health-agency-project/desc







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# ENVIRONMENTAL HEALTH RESEARCH SCAN

# SELECTED STAFF PUBLICATIONS

#### NCCEH

- Brown JA, Nykiforuk C. Webinar recording: Scoping population health in impact assessment (ScopHIA). Vancouver, BC: National Collaborating Centre for Environmental Health Webinar Series; 2021 Feb 24. Available from: <u>https://ncceh.ca/content/webinar-recording-scoping-populationhealth-impact-assessment-scophia</u>.
- Brown JA, Nykiforuk CIJ. Scoping Population Health in Impact Assessment (ScopHIA): Canada's new Impact Assessment Act [blog]. Vancouver, BC: National Collaborating Centre for Environmental Health; 2021 02 23 Feb 23. Available from: <u>https://ncceh.ca/content/blog/scoping-population-healthimpact-assessment-scophia-canadas-new-impact-assessment-act</u>.
- Freeman S. Carpooling precautions during COVID-19 [blog]. Vancouver, BC: National Collaborating Centre for Environmental Health; 2021 Feb 24. Available from: <u>https://ncceh.ca/content/blog/carpooling-precautions-during-covid-19</u>.
- Genereux M. Webinar Recording Psychosocial Impacts of the COVID-19 pandemic: A frame of reference from lessons learned through disasters in Canada. Vancouver, BC: National Collaborating Centre for Environmental Health Webinar Series; 2021 Feb 17. Available from: <u>https://ncceh.ca/content/webinar-recording-psychosocial-impacts-covid-19-pandemic-frame-referencelessons-learned</u>.
- Langille M. Reducing wood smoke and protecting indoor air quality is more important than ever during the COVID-19 pandemic [blog]. Vancouver, BC: National Collaborating Centre for Environmental Health; 2021 Feb 23. Available from: <u>https://ncceh.ca/content/blog/reducing-woodsmoke-and-protecting-indoor-air-quality-more-important-ever-during-covid</u>.
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- National Collaborating Centre for Environmental Health. Health impact assessments [topic page]. Vancouver, BC: National Collaborating Centre for Environmental Health; 2021 Feb 24. Available from: <u>https://ncceh.ca/environmental-health-in-canada/health-agency-projects/health-impact-assessments</u>.
- 8. National Collaborating Centre for Environmental Health. Legionella [topic page]. Vancouver, BC: National Collaborating Centre for Environmental Health; 2021 02 24 Feb 24. Available from: <u>https://ncceh.ca/environmental-health-in-canada/health-agency-projects/legionella</u>.
- National Collaborating Centre for Environmental Health. February research scan with COVID-19 sections [blog]. Vancouver, BC: NCCEH; 2021 Feb 24. Available from: <u>https://ncceh.ca/content/blog/february-research-scan-covid-19-sections</u>.
- National Collaborating Centre for Environmental Health. NCCEH eNews (February 2021) : COVID-19 risks from handling the deceased; Health in impact assessments for natural resource and large infrastructure developments – opportunities for public health; Scoping Population Health in Impact Assessment (ScopHIA); more. Vancouver, BC: NCCEH; 2021 Feb 25. Available from: https://tinyurl.com/ydvm6f45.



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11. O'Keeffe J. **COVID-19 risks from handling the deceased [field inquiry]**. Vancouver, BC: National Collaborating Centre for Environmental Health; 2021 Feb 23. Available from: <u>https://ncceh.ca/documents/field-inquiry/covid-19-risks-handling-deceased</u>.

# INDIGENOUS ENVIRONMENTAL HEALTH

- Abernethy P, Waters S, Kulchyski T, Rolston D, Swinkels H, Luttrell G, et al. Climate Change and Vibrio cholerae in Herring Eggs: The Role of Indigenous Communities in Public Health Outbreak Responses. International Journal of Indigenous Health. 2021;16(2):13-35. Available from: <u>https://jps.library.utoronto.ca/index.php/ijih/article/view/33236</u>.
- Canada House of Commons, Bratina B. COVID-19 and Indigenous peoples: From crisis toward meaningful changes. Report of the Standing Committee on Indigenous and Northern Affairs. Ottawa, ON: Government of Canada; 2021 Mar. Available from: <a href="http://publications.gc.ca/collections/collection\_2021/parl/xc35-1/XC35-1-1-432-6-eng.pdf">http://publications.gc.ca/collections/collection\_2021/parl/xc35-1/XC35-1-432-6-eng.pdf</a>.
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- Richmond CAM, Ambtman-Smith V, Bourassa C, Cassidy-Mathews C, Duhamel KR, Keewatin M, et al. Overview of COVID-19 and Indigenous Health and Wellness: Our Strength is in our Stories Ottawa, ON: Royal Society of Canada; 2020 Dec. Available from: <u>https://rsc-src.ca/en/research-and-reports/covid-19-policy-briefing/covid-19-and-indigenous-health-and-wellness-our</u>.
- Willox AC. Climate change and Inuit mental health. Cape Breton, NS: Cape Breton University; 2021. Available from: <u>https://edition.pagesuite-</u> professional.co.uk/html5/reader/production/default.aspx?pubname=&edid=1c4051ec-525a-4ff8-b68d-776d666c5b61.

# AGRICULTURAL OPERATIONS

# **BIOLOGICAL AGENTS**



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# **BUILT ENVIRONMENT**

- Bhatia A. How a community-led design initiative in Toronto is redefining neighborhood revitalization from the bottom-up. Washington, DC: Brookings Institution; 2020. Available from: <u>https://www.brookings.edu/contact-brookings/</u>.
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- Canadian Urban Environmental Health Research Consortium (CANUE). GoodScore.City; Is your neighbourhood good for your health? Toronto, ON: CANUE; 2021. Available from: <u>https://canuedev.herokuapp.com/</u>.
- 4. Cheshmehzangi A. **Revisiting the built environment: 10 potential development changes and** paradigm shifts due to COVID-19. Journal of Urban Management. 2021. Available from: <u>https://www.sciencedirect.com/science/article/pii/S2226585621000054</u>.
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- Hambleton R. Cities and Communities Beyond COVID-19. How Local Leadership Can Change Our Future for the Better. Bristol, UK: Bristol University Press; 2020. Available from: <u>https://bristoluniversitypress.co.uk/cities-and-communities-beyond-covid-19</u>.
- Hu M. Indoor Environmental Impact on Human Health. Smart Technologies and Design For Healthy Built Environments. Cham: Springer; 2021. Available from: <u>https://doi.org/10.1007/978-3-030-51292-</u> <u>7 4</u>.
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- Huang L, Schmid KL, Zhang J, Yang G-Y, Wu J, Yin X-N, et al. Association between greater residential greenness and decreased risk of preschool myopia and astigmatism. Environ Res. 2021:110976. Available from: <u>https://www.sciencedirect.com/science/article/pii/S001393512100270X</u>.
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- 13. Rojas-Rueda D, Morales-Zamora E. **Built Environment, Transport, and COVID-19: a Review**. Curr Environ Health Rep. 2021. Available from: <u>https://doi.org/10.1007/s40572-021-00307-7</u>.
- 14. Valverde M, Flynn A, editors. Smart Cities in Canada: Digital Dreams, Corporate Designs. Independent experts analyze often-controversial schemes from Nunavut to Montreal to Toronto's failed Sidewalk Labs waterfront scheme. Toronto, ON: Lorimer; 2020. Available from: <u>http://www.lorimer.ca/adults/Book/3155/Smart-Cities-in-Canada-Digital-Dreams-Corporate-Designs.html</u>.
- von Seidlein L, Alabaster G, Deen J, Knudsen J. Crowding has consequences: Prevention and management of COVID-19 in informal urban settlements. Build Environ. 2021;188:107472. Available from: <u>https://www.sciencedirect.com/science/article/pii/S0360132320308398</u>.



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16. Wang X, Whittaker J, Kellom K, Garcia S, Marshall D, Dechert T, et al. Integrating the Built and Social Environment into Health Assessments for Maternal and Child Health: Creating a Planning-Friendly Index. Int J Environ Res Public Health. 2020;17(24):9224. Available from: <u>https://www.mdpi.com/1660-4601/17/24/9224</u>.

# CHEMICAL AGENTS - METALS, GENERAL

#### General

- Cruickshank A. Lead pollution hung over Trail, B.C., for nearly a century. 30 years later, the city's still cleaning up. Canada's National Observer. 2021 Mar 1. Available from: <u>https://www.nationalobserver.com/2021/03/01/one-bc-communitys-fight-tackle-industrial-pollution?ct=t(RSS EMAIL CAMPAIGN)</u>.
- Navaranjan G, Diamond ML, Harris SA, Jantunen L, Bernstein S, Scott JA, et al. Early life exposure to phthalates and the development of childhood asthma among Canadian children. Environ Res. 2021:110981. Available from: <u>https://www.sciencedirect.com/science/article/pii/S0013935121002759</u>.

# CHEMICAL AGENTS – PESTICIDES

- Iqbal S, Ali S, Ali I. Maternal pesticide exposure and its relation to childhood cancer: an umbrella review of meta-analyses. Int J Environ Health Res. 2021:1-19. Available from: <u>https://doi.org/10.1080/09603123.2021.1900550</u>.
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# CHEMICAL AGENTS - SHALE GAS

 Environmental Health News Staff. Fractured: The body burden of living near fracking. EHN; 2021 Mar 1. Available from: <u>https://www.ehn.org/fractured-series-on-fracking-pollution-2650624600/far-reaching-impacts</u>.

# CHILDREN'S ENVIRONMENTAL HEALTH

- British Columbia Representative for Children and Youth. Left Out: Children and youth with special needs in the pandemic. Victoria, BC: Office of the Representative for Children and Youth British Columbia; 2020 Dec. Available from: <u>https://rcybc.ca/reports-and-publications/cysn-report/</u>.
- Houtrow A, Harris D, Molinero A, Levin-Decanini T, Robichaud C. Children with disabilities in the United States and the COVID-19 pandemic. Journal of pediatric rehabilitation medicine. 2020;13(3):415-24. Available from: <u>https://content.iospress.com/articles/journal-of-pediatric-rehabilitation-medicine/prm200769</u>.
- Lachassinne E, de Pontual L, Caseris M, Lorrot M, Guilluy C, Naud A, et al. SARS-CoV-2 transmission among children and staff in daycare centres during a nationwide lockdown in France: a crosssectional, multicentre, seroprevalence study. The Lancet Child & Adolescent Health. 2021. Available from: <u>https://doi.org/10.1016/S2352-4642(21)00024-9</u>.
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- Mensah AA, Sinnathamby M, Zaidi A, Coughlan L, Simmons R, Ismail SA, et al. SARS-CoV-2 infections in children following the full re-opening of schools and the impact of national lockdown: prospective, national observational cohort surveillance, July-December 2020, England. J Infect. 2021. Available from: <u>https://doi.org/10.1016/i.jinf.2021.02.022</u>.
- 6. Mitra R, Moore SA, Gillespie M, Faulkner G, Vanderloo LM, Chulak-Bozzer T, et al. Healthy movement behaviours in children and youth during the COVID-19 pandemic: Exploring the role of the neighbourhood environment. Health Place. 2020;65:102418. Available from: <u>http://www.sciencedirect.com/science/article/pii/S1353829220309655</u>.

# CLIMATE CHANGE

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# COMMUNICABLE AND INFECTIOUS DISEASES

- See Covid 19 subsections in this issue and in the <u>COVID-19 Additional Topics and Guidance</u> section at the end of this issue (e.g., Occupational Guidance, Transit, Transmission)
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- Jones E, MacDougall H, Monnais L, Hanley J, Carstairs C. Beyond the COVID-19 Crisis: Building on Lost Opportunities in the History of Public Health. Ottawa, ON: Royal Society of Canada; 2021 Mar 11. Available from: <u>https://rsc-src.ca/en/research-and-reports/covid-19-policy-briefing-recent/beyond-covid-19-crisis-building-lost</u>.
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# **DRINKING WATER**

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- 5. US Centers for Disease Control and Prevention. **Controlling Legionella in Decorative Fountains**. Atlanta, GA: US CDC; 2021 Feb. Available from: <u>https://www.cdc.gov/legionella/downloads/Control-Toolkit-Decorative.pdf</u>.
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- US Centers for Disease Control and Prevention. Controlling Legionella in Potable Water Systems. Atlanta, GA: US CDC; 2021 Feb. Available from: <u>https://www.cdc.gov/legionella/downloads/Control-Toolkit-Potable-Water.pdf</u>.

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- Wang Z, Wang D. The influence and enlightenment of five public health emergencies on public psychology since new century: A systematic review. Int J Soc Psychiatry. 2021:00207640211002222. Available from: <u>https://doi.org/10.1177/00207640211002222</u>.
- Yamori K, Goltz JD. Disasters without Borders: The Coronavirus Pandemic, Global Climate Change and the Ascendancy of Gradual Onset Disasters. Int J Environ Res Public Health. 2021;18(6):3299. Available from: <u>https://www.mdpi.com/1660-4601/18/6/3299</u>.

# ENVIRONMENTAL HEALTH SURVEILLANCE

 Krausz M, Westenberg JN, Vigo D, Spence RT, Ramsey D. Emergency Response to COVID-19 in Canada: Platform Development and Implementation for eHealth in Crisis Management. JMIR Public Health Surveill. 2020;6(2):e18995. Available from: <u>https://www.ncbi.nlm.nih.gov/pubmed/32401218</u>.

# ENVIRONMENTAL PLANNING

# FOOD

### Safety

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# **COVID-19 ADDITIONAL TOPICS & GUIDANCE**



#### CONTENTS

- <u>GUIDANCE</u> (cleaning, face masks, hand hygiene, more)
- HOMELESS, VULNERABLE POPULATIONS, HOUSING
- MENTAL HEALTH
- MULTI-UNIT BUILDINGS
- OCCUPATIONAL GUIDANCE, MISC
- PUBLIC FACILITIES
- <u>SURVIVAL TIME</u>
- TRANSIT, TRANSPORTATION
- TRANSMISSION



# GUIDANCE (for 'Occupational Guidance' – see separate topic heading)

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