2021 EH Scan



ENVIRONMENTAL HEALTH RESEARCH SCAN

WITH COVID-19 SECTIONS VOL 5 (12) DECEMBER 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. This research scan is not peer reviewed; it does not cover all research, news, and information, and NCCEH is not responsible for the accuracy of the content from media or databases. 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.



EDITOR PICKS

Floods: prevention, preparedness, response and recovery [topic page] Angela Eykelbosh, Knowledge Translation Scientist, National Collaborating Centre for Environmental Health

This topic page provides a collection of key resources on preventing extreme flooding and mitigating is risks, as well as resources to assist during the response and recovery phases.



Flood zones are danger zones [BCCDC web page] [poster]

British Columbia Centre for Disease Control and the National Collaborating Centre for Environmental Health

Numerous hazards may be present in a flood zone, and they may be difficult to spot due to the surrounding damage and the emotion of returning home. These resources identify some of the key hazards to be aware of before entering a flood zone.



Changing trends in paralytic shellfish poisonings reflect increasing sea surface temperatures and practices of indigenous and recreational harvesters in British Columbia, Canada

Lorraine McIntyre (right), Food Safety Specialist, BC Centre for Disease Control; Aroha Miller; Tom Kosatsky

"To guide understanding of self-harvesting consumption risks, we recommend collecting data to determine when PST-producing algae are present in high concentrations, improving the quality of data in online shellfish harvest maps to include dates of last testing; biotoxin testing results; and a description of bivalve species tested."



The British Columbia Radon Data Repository – What is it and how can we use it? [webinar]

David McVea, Public Health Physician, Environmental Health Services, BC Centre for Disease Control; Jeffrey Trieu, Epidemiologist, BC Centre for Disease Control

"The British Columbia Radon Data Repository (BCRDR) houses de-identified indoor radon readings from across the province. The BCRDR includes radon readings from a variety of building types."more



Accessibility in the face of a pandemic: how inclusive features are undermined in health crises, and what we can do to improve [webinar]

Darby Lee Young, Principal Accessibility Strategist

"By introducing the concept of disability-led design and incorporating lived-experience examples, this webinar further elucidates the power that is traditionally embedded and distributed within the creative process and intends to advocate for people with disabilities to be seen not just as end-users of design, but as drivers of design."....more





ENVIRONMENTAL HEALTH RESEARCH SCAN

SELECTED NCCEH/BCCDC (EHS)¹ PUBLICATIONS

- British Columbia Centre for Disease Control. Flood zones are danger zones. Vancouver, BC: BCCDC;
 2021 11 19 Nov. Available from: http://www.bccdc.ca/news-stories-site/Pages/Flood-zones-are-danger-zones.aspx.
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- McVea D, Trieu J. The British Columbia Radon Data Repository What is it and how can we use
 it? [webinar]. Vancouver, BC: National Collaborating Centre for Environmental Health; 2021 11
 25 Nov 25. Available from: https://ncceh.ca/content/webinar-recording-british-columbia-radon-data-repository-what-it-and-how-can-we-use-it.
- 4. Moore P. Creating healthy community places and spaces with individuals with diverse abilities [blog]. Vancouver, BC: National Collaborating Centre for Environmental Health; 2021 12 08

 Dec 8. Available from: https://ncceh.ca/content/blog/creating-healthy-community-places-and-spaces-individuals-diverse-abilities.
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- 6. National Collaborating Centre for Environmental Health. **Floods: prevention, preparedness, response and recovery [topic page]**. Vancouver, BC: National Collaborating Centre for Environmental Health; 2021 11 24 Nov 24. Available from: https://ncceh.ca/environmental-health-in-canada/health-agency-projects/floods-prevention-preparedness-response-and.
- 7. National Collaborating Centre for Environmental Health. **Flood zones are danger zones [poster]**. Vancouver, BC: National Collaborating Centre for Environmental Health and the British Columbia Centre for Disease Control; 2021 11 25 Nov 25. Available from: https://ncceh.ca/documents/quide/flood-zones-are-danger-zones-be-aware-risks.
- 8. Young DL. Accessibility in the face of a pandemic: How inclusive features are undermined in health crises, and what we can do to improve [webinar]. Vancouver, BC: National Collaborating Centre for Environmental Health; 2021 12 08 Dec 8. Available from: https://app.cyberimpact.com/newsletter-view-online?ct=AGP0ZFW0tGjDYoqhbwcs71wL_lx7Eb9WNk0yuxOEdcL6go8afBL9LYD5KOcsvCWBbduVIRpVYhma9YJNuP8Wyw~~.

INDIGENOUS ENVIRONMENTAL HEALTH

 Amarawansha GEA, Zvomuya F, Farenhorst A. Water delivery system effects on coliform bacteria in tap water in First Nations reserves in Manitoba, Canada. Environ Monit Assess. 2021;193(6):339. Available from: https://doi.org/10.1007/s10661-021-09114-x.

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¹ BCCDC (EHS): British Columbia Centre for Disease Control (Environmental Health Services)



- Bowers R, Turner G, Graham ID, Furgal C, Dubois L. Improving food security for Labrador Inuit in Nunatsiavut, Labrador: A matter of health equity. ResearchSquar. 2021. Available from: https://doi.org/10.21203/rs.3.rs-1056651/v1.
- Chan HM, Singh K, Batal M, Marushka L, Tikhonov C, Sadik T, et al. Levels of metals and persistent organic pollutants in traditional foods consumed by First Nations living on-reserve in Canada.
 Can J Public Health. 2021;112(1):81-96. Available from: https://doi.org/10.17269/s41997-021-00495-7.
- Moriarity RJ, Zuk AM, Liberda EN, Tsuji LJS. The self-reported behaviour of liyiyiu Aschii Cree and the worry about pollution from industrial and hydroelectric development in northern Quebec, Canada. Environ Res. 2021;195:110788. Available from: https://www.sciencedirect.com/science/article/pii/S0013935121000827.
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AGRICULTURAL OPERATIONS

- Cao B, Xu J, Wang F, Zhang Y, O'Connor D. Vertical Barriers for Land Contamination Containment:
 A Review. Int J Environ Res Public Health. 2021;18(23):12643. Available from:
 https://www.mdpi.com/1660-4601/18/23/12643.
- Food and Agriculture Association of the United Nations. Assessment of agricultural plastics and their sustainability: A call for action. Rome, Italy: FAO; 2021. Available from: https://doi.org/10.4060/cb7856en.
- 3. Saikawa E, Filippelli GM. Invited Perspective: Assessing the Contaminant Exposure Risks of Urban Gardening: Call for Updated Health Guidelines. Environ Health Perspect. 2021;129(11):111302. Available from: https://ehp.niehs.nih.gov/doi/abs/10.1289/EHP10376.

BIOLOGICAL AGENTS

BUILT ENVIRONMENT

- Anderson V, Gough WA, Agic B. Nature-Based Equity: An Assessment of the Public Health Impacts
 of Green Infrastructure in Ontario Canada. Int J Environ Res Public Health. 2021;18(11):5763.
 Available from: https://www.mdpi.com/1660-4601/18/11/5763.
- Baillie R. How social distancing has renewed our love for nature, and what it means for a sustainable future. Granite Journal. 2020. Available from: https://www.abdn.ac.uk/pgrs/documents/Granite Vol4 Baillie, pp. 27-36.pdf.
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- ISGlobal Barcelona Institute for Global Health. Ranking of cities. Urban health study in 1,000
 European cities. Barcelona, Spain: ISGlobal; 2021 Nov. Available from: https://isglobalranking.org/.
- ISGlobal Barcelona Institute for Global Health. ISGlobal Publishes Ranking of European Cities With Highest Mortality Due to Lack of Green Space. Barcelona, Spain: ISGlobal; 2021 Aug. Available from: https://www.isglobal.org/en/-/isglobal-presenta-el-ranking-de-las-ciudades-europeas-con-mayor-mortalidad-atribuible-a-la-falta-de-espacios-verdes.
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CHEMICAL AGENTS – METALS, GENERAL

General

- Albores-Garcia D, McGlothan JL, Guilarte TR. Early-life lead exposure and neurodevelopmental disorders. Current Opinion in Toxicology. 2021;26:22-7. Available from: https://www.sciencedirect.com/science/article/pii/S2468202021000115.
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- Dobrescu A-I, Ebenberger A, Harlfinger J, Griebler U, Klerings I, Nußbaumer-Streit B, et al.
 Effectiveness of interventions for the remediation of lead-contaminated soil to prevent or reduce lead exposure A systematic review. Sci Total Environ. 2022;806:150480. Available from: https://www.sciencedirect.com/science/article/pii/S0048969721055571.
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BPA

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CHEMICAL AGENTS – PESTICIDES

 El-Nahhal I, El-Nahhal Y. Pesticide residues in drinking water, their potential risk to human health and removal options. J Environ Manage. 2021;299:113611. Available from: https://www.ncbi.nlm.nih.gov/pubmed/34526283.

CHEMICAL AGENTS – SHALE GAS

 Aker A, Ayotte P, Gaudreau E, Caron-Beaudoin E, Silva A, Dumas P, et al. Exposure to per and polyfluoroalkyl acids (PFAAs) from diet and lifestyle factors among Inuit adults of Nunavik, Canada. ISEE Conference Abstracts. 2021;2021. Available from: https://ehp.niehs.nih.gov/doi/10.1289/isee.2021.O-LT-065.



- Caron-Beaudoin É, Whitworth KW, Bosson-Rieutort D, Wendling G, Liu S, Verner M-A. Density and proximity to hydraulic fracturing wells and birth outcomes in Northeastern British Columbia, Canada. J Expo Sci Environ Epidemiol. 2021;31(1):53-61. Available from: https://doi.org/10.1038/s41370-020-0245-z.
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CHILDREN'S ENVIRONMENTAL HEALTH

- Li X, Vanderloo L, Maguire J, Keown-Stoneman C, Aglipay M, Anderson L, et al. 39 Physical and social distancing measures and child health behaviours during COVID-19: A cohort study. Paediatrics & Child Health. 2021;26(Supplement_1):e28-e9. Available from: https://doi.org/10.1093/pch/pxab061.030.
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CLIMATE CHANGE

- Clayton S, Manning CM, Speiser M, Hill AN. Mental Health and Our Changing Climate: Impacts, Inequities, Responses. Washington, DC: American Psychological Association, and ecoAmerica; 2021 Nov. Available from: https://ecoamerica.org/mental-health-and-our-changing-climate-2021-edition/.
- 2. de Nazelle A, Roscoe CJ, Roca-Barceló A, Sebag G, Weinmayr G, Dora C, et al. **Urban Climate Policy and Action through a Health Lens—An Untapped Opportunity**. Int J Environ Res Public Health. 2021;18(23):12516. Available from: https://www.mdpi.com/1660-4601/18/23/12516.
- 3. Ebi KL. Environmental health research needed to inform strategies, policies, and measures to manage the risks of anthropogenic climate change. Environ Health. 2021;20(1):109. Available from: https://doi.org/10.1186/s12940-021-00792-1.
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COMMUNICABLE AND INFECTIOUS DISEASES

See Covid 19 subsections in this issue and in the COVID-19 Additional Topics and Guidance section at the end of this issue (e.g., Occupational Guidance, Transmission)

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DRINKING WATER

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- Hart KA, Kennedy GW, Sterling SM. Distribution, Drivers, and Threats of Aluminum in Groundwater in Nova Scotia, Canada. Water. 2021;13(11):1578. Available from: https://www.mdpi.com/2073-4441/13/11/1578.
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EMERGENCY PREPAREDNESS

- British Columbia Centre for Disease Control. Flood zones are danger zones. Vancouver, BC: BCCDC;
 2021 11 19 Nov. Available from: http://www.bccdc.ca/news-stories-site/Pages/Flood-zones-are-danger-zones.aspx.
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ENVIRONMENTAL HEALTH SURVEILLANCE

- Lebel G, Fortin É, Lo E, Boivin M-C, Tandonnet M, Gravel N. Detection of COVID-19 case clusters in Québec, May-October 2020. Can J Public Health. 2021;112(5):807-17. Available from: https://doi.org/10.17269/s41997-021-00560-1.
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 Available from: https://link.springer.com/chapter/10.1007/978-3-030-70179-6 58.
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 Health Place. 2021;67:102389. Available from:
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ENVIRONMENTAL PLANNING



FOOD

Safety

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COVID-19 ADDITIONAL TOPICS & GUIDANCE



CONTENTS

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



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HOMELESS, VULNERABLE POPULATIONS, HOUSING

MENTAL HEALTH

MULTI-UNIT BUILDINGS

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