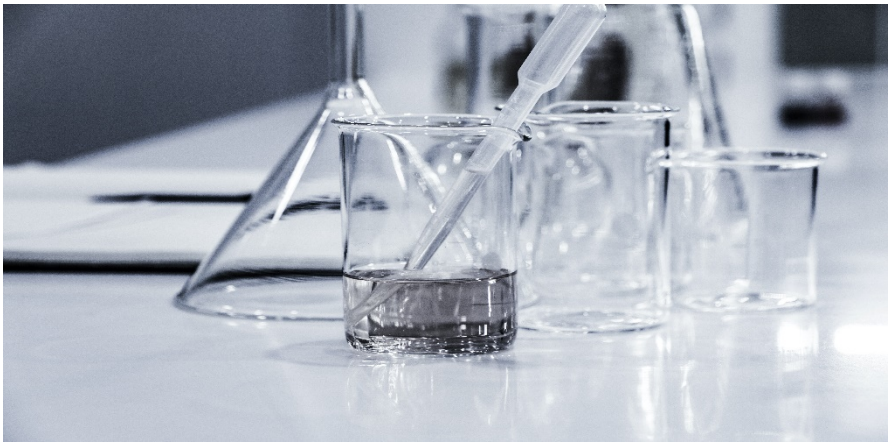
2022
EH Scan

National Collaborating Centre for Environmental Health
Centre de collaboration nationale en santé environnementale

ENVIRONMENTAL HEALTH RESEARCH SCAN

WITH COVID-19 SECTIONS

VOL 5 (4) APRIL 2022



CONTENTS

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 This research scan is not peer reviewed; it does not cover all research, news, and information, and NCCEH is not responsible for the accuracy of the content from media or databases.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.

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EDITOR PICKS

Marine shellfish poisoning [topic page]

Juliette O'Keeffe, Knowledge Translation Scientist, NCCEH

"The resources listed here are intended to:

- *highlight the main types of shellfish poisoning that may occur*
- *assist in identifying safe shellfish harvesting sites*
- *highlight emerging areas of study, such as the impact of climate change on marine HABs"*

Development and implementation of a Heat Alert and Response system in rural British Columbia [journal article]

Sarah B Henderson, Scientific Director, Environmental Health Services, BCCDC, and co-authors

"The objective of this project was to support the development and implementation of a Heat Alert and Response System (HARS) in a small, rural community… The result is a sustainable public health intervention that has the potential to mitigate the negative health effects of extreme heat."…more

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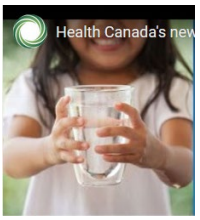
Irreversible extreme heat: Protecting Canadians and communities from a lethal future [upcoming webinar: April 27, 2022 @ 12 - 1pm Pacific Time (PT)]

Joanna Eyquem, *Managing Director, Climate-Resilient Infrastructure, Intact Centre on Climate Adaptation, University of Waterloo*

"This presentation will provide an overview of new national guidance, representing input from over 60 subject matter experts, outlining practical actions that Canadians can undertake to reduce risks from extreme heat."

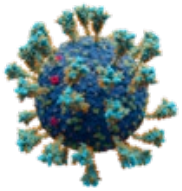
Health Canada's new lead guideline and results of an Indigenous Services Canada, FNIHB drinking water sampling survey in children's facilities [webinar recording]



France Lemieux, *Head, Materials and Treatment Section Water and Air Quality Bureau, Health Canada* and Tony Thepsouvanh, *Sr Environmental Public Health Officer, ISC FNIHB, AB Region*

"Health Canada published the revised lead drinking water guideline in 2019. The document included recommendations for sampling protocols to assess lead exposure."

Health Resources for the COVID-19 Pandemic – updated [topic page]



National Collaborating Centre for Environmental Health,

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

ENVIRONMENTAL HEALTH RESEARCH SCAN

SELECTED PUBLICATIONS and WEBINARS

1. Bush K, Anne-Marie N. **Radon and lung health: what health care providers need to know [webinar]**. Treaty 6 territory: Lung Sask; 2022 Apr. Available from: https://www.lungsask.ca/events/166.
2. Greg E. **Measuring success in food systems planning [webinar]**. Vancuuver, BC: National Collaborating Centre for Environmental Health; 2022 Apr. Available from: https://www.youtube.com/watch?v=Sc3lgVdKjAs.
3. Henderson SB, McLean KE, Lee MJ, Kosatsky T. **Analysis of community deaths during the catastrophic 2021 heat dome: Early evidence to inform the public health response during subsequent events in greater Vancouver, Canada**. Environ Epidemiol. 2022;6(1):e189. Available from: https://doi.org/10.1097/ee9.0000000000000189.
4. Hill AC. **The fight for climate after COVID-19**. London, UK: Oxford University Press; 2022. Available from: https://oxford.universitypressscholarship.com/view/10.1093/oso/9780197549704.001.0001/oso-9780197549704.
5. Lemieux F, Thepsouvanh T. **Health Canada's new lead guideline and results of an Indigenous Services Canada, FNIHB drinking water sampling survey in children's facilities** [webinar]. Vancouver, BC: National Collaborating Centre for Environmental Health; 2022 Mar 24. Available from: https://www.ncceh.ca/content/webinar-recording-health-canadas-new-lead-guideline-and-results-indigenous-services-canada.
6. National Collaborating Centre for Environmental Health. **March research scan with COVID-19 sections [blog]**. Vancouver, BC: NCCEH; 2022 Mar 17. Available from: https://ncceh.ca/content/blog/march-research-scan-covid-19-sections-0.
7. National Collaborating Centre for Environmental Health. **NCCEH eNews (Mar 2021): Canadian green spaces during COVID-19: public health benefits and planning for resilience; more...** Vancouver, BC: NCCEH; 2022 Mar 17. Available from: https://tinyurl.com/5c5vxd94.
8. National Collaborating Centre for Environmental Health. **Environmental health resources for the COVID-19 pandemic - updated [topic page]**. Vancouver, BC: National Collaborating Center for Environmental Health; 2022 Mar 25. Available from: https://ncceh.ca/environmental-health-in-canada/health-agency-projects/environmental-health-resources-covid-19.
9. National Collaborating Centre for Environmental Health. **Marine shellfish poisoning [topic page]**. Vancouver, BC: NCCEH; 2022 Apr. Available from: https://ncceh.ca/environmental-health-in-canada/health-agency-projects/marine-shellfish-poisoning#:~:text=Marine%20shellfish%20poisoning%20refers%20to,feed%20on%20toxin%2Dproducing%20phytoplankton.

INDIGENOUS ENVIRONMENTAL HEALTH

1. Boyd AD, Furgal CM. **Towards a participatory approach to risk communication: the case of contaminants and Inuit health**. J Risk Res. 2022:1-19. Available from: https://doi.org/10.1080/13669877.2022.2061035.
2. CBC News Staff. **Frst federal Indigenous research garden opens in Okanagan**. CBC News. 2022 Apr 16. Available from: https://www.cbc.ca/news/canada/british-columbia/indigenous-research-garden-bc-1.6417420.
3. Duignan S, Moffat T, Martin-Hill D. **Be like the running water: Assessing gendered and age-based water insecurity experiences with Six Nations First Nation**. Soc Sci Med. 2022;298:114864. Available from: https://www.ncbi.nlm.nih.gov/pubmed/35240540.
4. Falardeau M, Bennett EM, Else B, Fisk A, Mundy CJ, Choy ES, et al**. Biophysical indicators and Indigenous and Local Knowledge reveal climatic and ecological shifts with implications for Arctic Char fisheries.** Global Environ Change. 2022;74:102469. Available from: https://www.sciencedirect.com/science/article/pii/S0959378022000073.
5. Lane K, Fuller M, Dyment T, Gagnon G. **Co-development of a risk assessment tool for use in First Nations water supply systems: A key step to water safety plan implementation**. Int J Hyg Environ Health. 2022;240:113916. Available from: https://www.sciencedirect.com/science/article/pii/S1438463921002315.
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10. Owais S, Tsai Z, Hill T, Ospina MB, Wright AL, Van Lieshout RJ. **Systematic Review and Meta-analysis: First Nations, Inuit, and Métis Youth Mental Health**. J Am Acad Child Adolesc Psychiatry. 2022. Available from: https://www.sciencedirect.com/science/article/pii/S0890856722001897.
11. Philibert A, Fillion M, Da Silva J, Lena TS, Mergler D. **Past mercury exposure and current symptoms of nervous system dysfunction in adults of a First Nation community (Canada)**. Environ Health. 2022;21(1):34. Available from: https://doi.org/10.1186/s12940-022-00838-y.
12. Sauvé A, Cappelletti A, Murji L. **Stand Up for Indigenous Health: A Simulation to Educate Residents About the Social Determinants of Health Faced by Indigenous Peoples in Canada**. Acad Med. 2022;97(4):518-23. Available from:

https://journals.lww.com/academicmedicine/Fulltext/2022/04000/Stand_Up_for_Indigenous_Health__A_Simulation_to.20.aspx.
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15. Vecchio EA, Dickson APM, Zhang APY. **Indigenous mental health and climate change: A systematic literature review**. The Journal of Climate Change and Health. 2022:100121. Available from: https://www.sciencedirect.com/science/article/pii/S2667278222000104.

AGRICULTURAL OPERATIONS

1. Martin W, Wagner L, Marshall K. **Urban hen legislation: Exposing an unexpected public health problem**. Human Geography. 2022:19427786221087617. Available from: https://journals.sagepub.com/doi/abs/10.1177/19427786221087617.
2. Van Horne YO, Farzan SF, Razafy M, Johnston JE. **Respiratory and allergic health effects in children living near agriculture: A review**. Sci Total Environ. 2022:155009. Available from: https://www.sciencedirect.com/science/article/pii/S0048969722021027.

BIOLOGICAL AGENTS

BUILT ENVIRONMENT

General

1. Bain A, Peake L, editors. **Urbanization in a Global Context**. London, UK: Oxford University Press; 2022. Available from: https://global.oup.com/academic/product/urbanization-in-a-global-context-9780199021536?lang=en&cc=es.
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Columbia; 2022 Apr 11. Available from: https://news.gov.bc.ca/stories/canada-and-british-columbia-invest-in-57-infrastructure-projects-across-the-province-to-create-inclu.
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7. Morgan M, Ries PD. **Planting Free Trees on Private Property: Understanding Urban Residents' Motivations and Hesitations**. Urban For Urban Green. 2022:127557. Available from: https://www.sciencedirect.com/science/article/pii/S1618866722001005.
8. Nanayakkara PK, Langenheim N, Moser I, White M. **Do Safe Bike Lanes Really Slow Down Cars? A Simulation-Based Approach to Investigate the Effect of Retrofitting Safe Cycling Lanes on Vehicular Traffic**. Int J Environ Res Public Health. 2022;19(7):3818. Available from: https://www.mdpi.com/1660-4601/19/7/3818.
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10. Penbrooke TL, Edwards MB, Bocarro JN, Henderson KA, Hipp JA. **Applying Systems Thinking Approaches to Address Preventive Health Factors through Public Parks and Recreation Agencies**. Journal of Park & Recreation Administration. 2022;40(1):98-114. Available from: https://js.sagamorepub.com/jpra/article/view/11007.
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Wellbeing

1. Abraham Cottagiri S, Villeneuve PJ, Raina P, Griffith LE, Rainham D, Dales R, et al. **Increased urban greenness associated with improved mental health among middle-aged and older adults of the Canadian Longitudinal Study on Aging (CLSA).** Environ Res. 2022;206:112587. Available from: https://doi.org/10.1016/j.envres.2021.112587.
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CHEMICAL AGENTS – METALS, GENERAL

General

1. Abellan A, Mensink-Bout SM, Garcia-Esteban R, Beneito A, Chatzi L, Duarte-Salles T, et al. **In utero exposure to bisphenols and asthma, wheeze, and lung function in school-age children: a prospective meta-analysis of 8 European birth cohorts**. Environ Int. 2022:107178. Available from: https://www.sciencedirect.com/science/article/pii/S0160412022001040.
2. Aker A, Caron-Beaudoin É, Ayotte P, Ricard S, Gilbert V, Avard E, et al. **Non-persistent exposures from plasticizers or plastic constituents in remote Arctic communities: a case for further research**. J Expo Sci Environ Epidemiol. 2022. Available from: https://doi.org/10.1038/s41370-022-00425-w.
3. Armada D, Llompart M, Celeiro M, Garcia-Castro P, Ratola N, Dagnac T, et al. **Global evaluation of the chemical hazard of recycled tire crumb rubber employed on worldwide synthetic turf football pitches**. Sci Total Environ. 2022;812:152542. Available from: https://www.sciencedirect.com/science/article/pii/S0048969721076208.
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5. Ciric J. **Cars with studded tires pollute 40 times more**. Iceland Review. 2022 Mar 16. Available from: https://www.icelandreview.com/nature-travel/cars-with-studded-tires-pollute-40-times-more/.
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9. Kezic S, Nunez R, Babić Ž, Hallmann S, Havmose MS, Johansen JD, et al. **Occupational Exposure of Hairdressers to Airborne Hazardous Chemicals: A Scoping Review**. Int J Environ Res Public Health. 2022;19(7):4176. Available from: https://www.mdpi.com/1660-4601/19/7/4176.
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PFAS, EDCs, BPA, etc

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CHEMICAL AGENTS – PESTICIDES

CHEMICAL AGENTS – SHALE GAS

1. Aker AM, Whitworth KW, Bosson-Rieutort D, Wendling G, Ibrahim A, Verner M-A, et al. **Proximity and density of unconventional natural gas wells and mental illness and substance use among pregnant individuals: An exploratory study in Canada.** Int J Hyg Environ Health. 2022;242:113962. Available from: https://www.sciencedirect.com/science/article/pii/S1438463922000451.
2. Michaud M. **Study Links Fracking, Drinking Water Pollution, and Infant Health**. University of Rochester Medical Centre. 2022 Apr 11. Available from: https://www.urmc.rochester.edu/news/story/study-links-fracking-drinking-water-pollution-and-infant-heath.

CHILDREN'S ENVIRONMENTAL HEALTH

1. Kojima R, Shinohara R, Kushima M, Horiuchi S, Otawa S, Yokomichi H, et al. **Prenatal occupational disinfectant exposure and childhood allergies: the Japan Environment and Children's study**. Occup Environ Med. 2022:oemed-2021-108034. Available from: https://oem.bmj.com/content/oemed/early/2022/03/03/oemed-2021-108034.full.pdf.
2. Luque-García L, Corrales A, Lertxundi A, Díaz S, Ibarluzea J. **Does exposure to greenness improve children's neuropsychological development and mental health? A Navigation Guide**

systematic review of observational evidence for associations. Environ Res. 2022;206:112599. Available from: https://www.sciencedirect.com/science/article/pii/S0013935121019009.

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CLIMATE CHANGE

Climate Change - Adaptation, Co-Benefits

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10. McKinsey & Company and C40, Boland B, Charchenko E, Knupfer S, Sahdev S, Farhad N, et al. **Focused Adaptation: A Strategic Approach to Climate Adaptation in Cities**. Climate Adaptation

Knowledge Exchange; 2022 Apr 12. Available from: https://www.cakex.org/documents/focused-adaptation-strategic-approach-climate-adaptation-cities.
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12. US Green Building Council. **From risk to resilience: Building a healthier, more resilient future**. Washington, DC: USGBC; 2022 Feb. Available from: https://www.usgbc.org/sites/default/files/2022-02/From%20Risk%20to%20Resilience%20-%20Building%20a%20healthier%2C%20more%20resilient%20future.pdf.

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COVID-19 ADDITIONAL TOPICS & GUIDANCE

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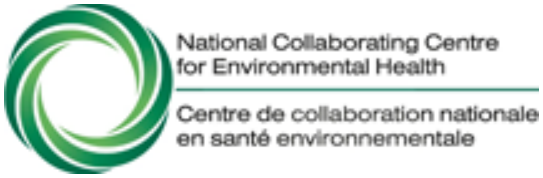

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