

ENVIRONMENTAL HEALTH RESEARCH SCAN

WITH COVID-19 SECTIONS

VOL 5 (9) SEPTEMBER 2022



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 This research scan is not peer reviewed; it does not cover all research, news, and information, and NCCEH is not responsible for the accuracy of the content from media or databases.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

Public health and public libraries in partnership to promote healthy indoor air quality [blog]

Angela Eykelbosh, Knowledge Translation Scientist, NCCEH

“This blog details a recent collaboration between Peterborough Public Library, Peterborough Public Health, and various partners to offer public health guidance and free access to CO2 sensors through a lending library.”



Red tides and health risks for recreational water users [blog]

Juliette O’Keeffe, Knowledge Translation Scientist, NCCEH, and Lorraine McIntyre, Food Safety Specialist, BCCDC

This blog sets out some additional information on marine HABs, the predominant species that cause them in Canada, and the possible health risks to recreational users.”



One Health: a primer for environmental public health practice [guidance document]

Craig Stephen, Clinical Professor, UBC School of Population and Public Health

“This paper is the first in a series that focuses on One Health and its role in environmental public health practice.”



Protecting cardiovascular health from wildfire smoke [journal article]

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

“We provide a roadmap of evidence-based interventions to reduce risk and protect cardiovascular health. Key interventions include....” ...more



Surveying mosquito distribution in BC and Yukon Territory in a changing climate [webinar]

Dan Peach, College of Veterinary Medicine and Savannah River Ecology Lab, University of Georgia and Danica Shannon, UBC

“Here we summarize existing knowledge about the mosquitoes of British Columbia and the Yukon, review recent work and efforts to expand on this knowledge, and discuss its significance to public and environmental health as well as highlight several aspects of what the future may hold.”



ENVIRONMENTAL HEALTH RESEARCH SCAN

SELECTED PUBLICATIONS

1. Eykelbosh A. **Public health and public libraries in partnership to promote healthy indoor air quality [blog]**. Vancouver, BC: National Collaborating Centre for Environmental Health; 2022 Sep 14. Available from: <https://ncceh.ca/content/blog/public-health-and-public-libraries-partnership-promote-healthy-indoor-air-quality>.
2. Hadley MB, Henderson SB, Brauer M, Vedanthan R. **Protecting cardiovascular health from wildfire smoke**. *Circulation*. 2022 09 11;146(10):788-801. Available from: <https://www.ahajournals.org/doi/abs/10.1161/CIRCULATIONAHA.121.058058>.
3. National Collaborating Centre for Environmental Health. **Aug research scan with COVID-19 sections [blog]**. Vancouver, BC: NCCEH; 2022 Aug 24. Available from: <https://ncceh.ca/content/blog/august-research-scan-covid-19-sections-1>.
4. O'Keefe J, McIntyre L. **Red tides and health risks for recreational water users [blog]**. Vancouver, BC: National Collaborating Centre for Environmental Health; 2022 Sep 15. Available from: <https://ncceh.ca/content/blog/red-tides-and-health-risks-recreational-water-users>.
5. Peach D, Shannon D. **Surveying mosquito distribution in BC and Yukon Territory in a changing climate [webinar]**. Vancouver, BC: National Collaborating Centre for Environmental Health; 2022 Aug 30. Available from: <https://ncceh.ca/content/webinar-recording-surveying-mosquito-distribution-bc-and-yukon-territory-changing-climate>.
6. Stephen C. **One Health: a primer for environmental public health practice [guidance document]**. Vancouver, BC: National Collaborating Centre for Environmental Health; 2022 Sep 14. Available from: <https://ncceh.ca/documents/guide/one-health-primer-environmental-public-health-practice>.

INDIGENOUS ENVIRONMENTAL HEALTH

1. Beausoleil D, Munkittrick K, Dubé MG, Wyatt F. **Essential components and pathways for developing Indigenous community-based monitoring: Examples from the Canadian oil sands region**. *Integr Environ Assess Manag*. 2022;18(2):407-27. Available from: <https://doi.org/10.1002/ieam.4485>.
2. Begum TF, Carpenter DO. **Review of Environmental Contamination at Akwesasne and Associated Health Outcomes**. *Journal of Indigenous Research*. 2022;10(2022):1. Available from: <https://digitalcommons.usu.edu/cgi/viewcontent.cgi?article=1172&context=kicjir>.
3. Byrne S, Seguinot-Medina S, Waghiyi V, Apatiki E, Immingan T, Miller P, et al. **PFAS and PBDEs in traditional subsistence foods from Sivuqaq, Alaska**. *Environ Sci Poll Res*. 2022. Available from: <https://doi.org/10.1007/s11356-022-20757-2>.
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5. Cote C. **Chapter 18. Indigenous food sovereignty: realizing its potential for Indigenous decolonization, self-determination, and community health**. In: Greenwood M, Leeuw Sd, Stout R, Larstone R, Sutherland J, editors. *Introduction to determinants of First Nations, Inuit, and*

- Metis Peoples in Canada. Toronto, ON: Canadian Scholars; 2022. Available from: <https://canadianscholars.ca/book/introduction-to-determinants-of-first-nations-inuit-and-metis-peoples-health-in-canada/>.
6. Robin T. **Chapter 3. Food as relationship: Indigenous food systems and well-being.** In: Greenwood M, Leeuw Sd, Stout R, Larstone R, Sutherland J, editors. Introduction to determinants of First Nations, Inuit, and Metis Peoples in Canada. Toronto, ON: Canadian Scholars; 2022. Available from: <https://canadianscholars.ca/book/introduction-to-determinants-of-first-nations-inuit-and-metis-peoples-health-in-canada/>.
 7. Shafiee M, Keshavarz P, Lane G, Pahwa P, Szafron M, Jennings D, et al. **Food Security Status of Indigenous Peoples in Canada According to the Four Pillars of Food Security: A Scoping Review.** Advances in Nutrition. 2022. Available from: <https://doi.org/10.1093/advances/nmac081>.
 8. Smith DB, Waters S. **Chapter 10. Legislation, reconciliation, and water: moving upstream to implement the UNDRIP in BC and promote Indigenous Peoples' health.** In: Greenwood M, Leeuw Sd, Stout R, Larstone R, Sutherland J, editors. Introduction to determinants of First Nations, Inuit, and Metis Peoples in Canada. Toronto, ON: Canadian Scholars; 2022. Available from: <https://canadianscholars.ca/book/introduction-to-determinants-of-first-nations-inuit-and-metis-peoples-health-in-canada/>.
 9. Staff. **Yukon University takes on federal First Nations water operator training.** ESE Magazine. 2022 Aug 3. Available from: <https://esemag.com/water/yukon-university-federal-first-nations-water-operator-training/>.
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AGRICULTURAL OPERATIONS

1. Slater T, Birchall SJ. **Growing resilient: The potential of urban agriculture for increasing food security and improving earthquake recovery.** Cities. 2022;131:103930. Available from: <https://www.sciencedirect.com/science/article/pii/S0264275122003699>.

BIOLOGICAL AGENTS

BUILT ENVIRONMENT

1. Browning MH, Rigolon A, McAnirlin O. **Where greenspace matters most: A systematic review of urbanicity, greenspace, and physical health.** *Landscape Urb Plan.* 2022;217:104233. Available from: <https://doi.org/10.1016/j.landurbplan.2021.104233>.
2. Caselli B, Carra M, Rossetti S, Zazzi M. **Exploring the 15-minute neighbourhoods. An evaluation based on the walkability performance to public facilities.** *Transportation Research Procedia.* 2022;60:346-53. Available from: <https://www.sciencedirect.com/science/article/pii/S2352146521009455>.
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4. Kotera Y, Richardson M, Sheffield D. **Effects of shinrin-yoku (forest bathing) and nature therapy on mental health: A systematic review and meta-analysis.** *International Journal of Mental Health and Addiction.* 2022;20(1):337-61. Available from: <https://link.springer.com/article/10.1007/s11469-020-00363-4>.
5. Lafrenz AJ. **Designing Multifunctional Urban Green Spaces: An Inclusive Public Health Framework.** *Int J Environ Res Public Health.* 2022;19(17):10867. Available from: <https://www.mdpi.com/1660-4601/19/17/10867>.
6. Luecke K, Cabral L, Goodman D, Hillman T. **Measuring Investments in Active Transportation When Accomplished as Part of Other Projects.** Washington, DC: The National Academies Press; 2022. Available from: <https://nap.nationalacademies.org/catalog/26726/measuring-investments-in-active-transportation-when-accomplished-as-part-of-other-projects>.
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CHEMICAL AGENTS – METALS, GENERAL

General

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- 2022:2022.08.02.22277906. Available from:
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<https://doi.org/10.1007/s11356-022-20757-2>.
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 5. Eiser AR. **Preserving Brain Health in a Toxic Age: New Insights from Neuroscience, Integrative Medicine, and Public Health:** Rowman & Littlefield; 2021. Available from:
<https://rowman.com/ISBN/9781538158074/Preserving-Brain-Health-in-a-Toxic-Age-New-Insights-from-Neuroscience-Integrative-Medicine-and-Public-Health>.
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<https://link.springer.com/article/10.1007/s40201-021-00783-x>.
 7. Nicole W. **Skin Protection Dilemma: Testing Detects Benzene in Some Sun Care Products.** Environ Health Perspect. 2022;130(5):054002. Available from: <https://doi.org/10.1289/EHP11423>.
 8. Ozga-Stachurska AM, Wójcik-Grudzień J, Pawłowska P, Rozenbajgier M. **Do sunscreens have more positive or negative effects? Study review.** Journal of Education, Health and Sport. 2022;12(9):685-91. Available from: <https://apcz.umk.pl/JEHS/article/view/39753>.

CHEMICAL AGENTS – PESTICIDES

CHEMICAL AGENTS – SHALE GAS

CHILDREN’S ENVIRONMENTAL HEALTH

1. Fadaei A. **An investigation into the present levels of contamination in children’s toys and jewelry in different countries: a systematic review.** Rev Environ Health. 2022. Available from:
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<https://doi.org/10.1016/j.beem.2021.101516>.
3. Miller AL. **Environmental contaminants and child development: Developmentally-informed opportunities and recommendations for integrating and informing child environmental health**

- science.** New Dir Child Adolesc Dev. 2022. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/36040401>.
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 5. Trentacosta CJ, Austin C. **Introduction to the special issue: Environmental contaminants and child and adolescent development.** New Dir Child Adolesc Dev. 2022. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/36053939>.
 6. Wolfe M, McDonald N, Ussery E, George S, Watson K. **Systematic Review of Active Travel to School Surveillance in the United States And Canada.** Journal of Healthy Eating and Active Living. 2021;1(3):127-41. Available from: <https://profpubs.com/index.php/jheal/article/view/24>.

CLIMATE CHANGE

1. Clemens KK, Ouédraogo AM, Le B, Voogt J, MacDonald M, Stranberg R, et al. **Impact of Ontario's Harmonized Heat Warning and Information System on emergency department visits for heat-related illness in Ontario, Canada: a population-based time series analysis.** Can J Public Health. 2022. Available from: <https://doi.org/10.17269/s41997-022-00665-1>.
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4. Haas M. **How America's First 'Heat Officers' Are Cooling Miami and Los Angeles.** 2022 [Aug 15]; Available from: <https://reasonstobecheerful.world/heat-officers-miami-los-angeles-cool-project/>.
5. Health Canada. **Climate change and health vulnerability and adaptation assessments: A knowledge to action resource guide.** Ottawa, ON: Health Canada; 2022. Available from: <https://www.canada.ca/en/health-canada/services/publications/healthy-living/climate-health-adapt-vulnerability-adaptation-assessments-resource-guide.html>.
6. Koch M, Matzke I, Huhn S, Gunga H-C, Maggioni MA, Munga S, et al. **Wearables for Measuring Health Effects of Climate Change–Induced Weather Extremes: Scoping Review.** JMIR Mhealth Uhealth. 2022;10(9):e39532. Available from: <https://doi.org/10.2196/39532>
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8. Tilstra MH. **Global Problems with Local Impacts: Exploring the Health Impacts of Climate Change and Air Pollution in Older Adults and Immigrants Living in Canada.** Edmonton, AB: University of Alberta; 2022. Available from: <https://era.library.ualberta.ca/items/9cdb812f-6de2-4be0-9c23-0bfc4ded08ef>.

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, Transit, Transmission)

1. Erath BD, Ferro AR. **Infectious disease transmission from bioaerosols**. J Expo Sci Environ Epidemiol. 2022. Available from: <https://doi.org/10.1038/s41370-022-00476-z>.

DRINKING WATER

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3. Kumawat M, Sharma P, Pal N, James MM, Verma V, Tiwari RR, et al. **Occurrence and seasonal disparity of emerging endocrine disrupting chemicals in a drinking water supply system and associated health risk**. Sci Rep. 2022;12(1):1-11. Available from: <https://doi.org/10.1038/s41598-022-13489-3>.
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EMERGENCY PREPAREDNESS

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ENVIRONMENTAL HEALTH SURVEILLANCE

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ENVIRONMENTAL PLANNING

FOOD

Food Safety

1. Dunphy M. **B.C. health officials warn about deadly Harry Potter poison in Burnaby ginger powder.** *Georgia Straight.* 2022 Mar 10. Available from: <https://www.straight.com/living/bc-health-officials-warn-about-deadly-harry-potter-poison-in-burnaby-ginger-powder>.
2. Retail Food Safety Regulatory Association Collaborative. **Foodborne Illness Outbreak Resource Library.** Washington, DC: U.S. Department of Health and Human Services; 2022; Available from: <https://www.retailfoodsafetycollaborative.org/tools/foodborne-illness-outbreak-resource-library/>.
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Nanoplastics, Nanoparticles

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Food Security

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2. Shafiee M, Keshavarz P, Lane G, Pahwa P, Szafron M, Jennings D, et al. **Food Security Status of Indigenous Peoples in Canada According to the Four Pillars of Food Security: A Scoping Review.** Advances in Nutrition. 2022. Available from: <https://doi.org/10.1093/advances/nmac081>.
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GENERAL

Health Policy

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COVID-19 ADDITIONAL TOPICS & GUIDANCE



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GUIDANCE (for ‘Occupational Guidance’ – see separate topic heading)

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OCCUPATIONAL GUIDANCE

Occupational

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Transportation (see separate category, 'Transit, Transportation')

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