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 This research scan is not peer reviewed; it does not cover all research, news, and information, and NCCEH is not responsible for the accuracy of the content from media or databases.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

National Collaborating Centre for Environmental Health
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EDITOR PICKS

A review of ticks in Canada and health risks from exposure [evidence review]. Negar Elmieh

"…Personal protection measures, such as tick checks and application of insect repellents, can help to reduce tick encounters and subsequent infection. Continued surveillance and additional research are warranted to better understand "… more

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Mosquitoes in a changing climate [topic page]

Leah Rosenkrantz, Knowledge Translation Scientist, NCCEH

"Of Canada's approximately 80 known mosquito species, only a small proportion carry disease, the most common of which is West Nile Virus."… more

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Leveraging geographic information systems (GIS) for environmental public health practice [journal article]

Leah Rosenkrantz, Knowledge Translation Scientist, NCCEH

"The aim of this commentary is to highlight how GIS can improve EPH practice and provide information for Public Health Inspectors (PHIs), Environmental Health Officers (EHOs), and managers about incorporating GIS into their work."… more

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Improving attribution of extreme heat deaths through interagency cooperation [journal article]

Sarah B Henderson (right), Scientific Director of Environmental Health Services at the BCCDC, and co-authors

"These results highlight the need for a more systematic and cooperative approach to EHE mortality in Canada, which will continue to increase as the climate changes."

Wildfire, smoke exposure, human health, and environmental justice need to be integrated into forest restoration and management [journal article]

Sarah B Henderson (right), Scientific Director, Environmental Health Services, BCCDC, and co-authors. *"Climate change and more than a century of fire exclusion and wildfire suppression have led to contemporary wildfires with more severe environmental impacts and.."*more

Daily and hourly exposure to PM2.5 and wildfire smoke and cognitive performance in a brain-training game: A longitudinal study of US adults [webinar]. Stephanie Cleland, PhD Candidate, UNC-Chapel Hill; Research Fellow, US EPA

ENVIRONMENTAL HEALTH RESEARCH SCAN

SELECTED PUBLICATIONS

1. D'Evelyn SM, Jung J, Alvarado E, Baumgartner J, Caligiuri P, Hagmann RK, et al. **Wildfire, smoke exposure, human health, and environmental justice need to be integrated into forest restoration and management**. Curr Environ Health Rep. 2022;9(3):366-85. Available from: https://doi.org/10.1007/s40572-022-00355-7.
2. Elmieh N. **A review of ticks in Canada and health risks from exposure [evidence review]**. Vancouver, BC: National Collaborating Centre for Environmental Health; 2022 Aug 17. Available from: https://ncceh.ca/documents/evidence-review/review-ticks-canada-and-health-risks-exposure.
3. Henderson SB, Lamothe F, Yao J, Plante C, Donaldson S, Stranberg R, et al. **Improving attribution of extreme heat deaths through interagency cooperation**. Can J Public Health. 2022. Available from: https://doi.org/10.17269/s41997-022-00672-2.
4. National Collaborating Centre for Environmental Health. **Recreation water [topic page]**. Vancouver, BC: NCCEH; 2022 Jul 20. Available from: https://ncceh.ca/environmental-health-in-canada/health-agency-projects/recreational-coastal-freshwater-and-other.
5. National Collaborating Centre for Environmental Health. **July research scan with COVID-19 sections [blog]**. Vancouver, BC: NCCEH; 2022 Jul 20. Available from: https://ncceh.ca/content/blog/july-research-scan-covid-19-sections-0.
6. National Collaborating Centre for Environmental Health. **NCCEH eNews (July 2021) : Climate change, coastal communities, and food from the sea; more...** Vancouver, BC: NCCEH; 2022 Jul 21. Available from: https://tinyurl.com/nx529jka.
7. National Collaborating Centre for Environmental Health. **Mosquitoes in a changing climate [topic page]**. Vancouver, BC: NCCEH; 2022 Aug 17. Available from: https://ncceh.ca/environmental-health-in-canada/health-agency-projects/mosquitoes-changing-climate.
8. Rosenkrantz L. **Leveraging geographic information systems (GIS) for environmental public health practice**. Environmental Health Review (CIPHI). 2022;65(2):31-6. Available from: https://pubs.ciphi.ca/doi/full/10.5864/d2022-013.

Webinars

1. National Collaborating Centre for Environmental Health. **Daily and hourly exposure to PM2.5 and wildfire smoke and cognitive performance in a brain-training game: A longitudinal study of US adults** [webinar]. Vancouver, BC: NCCEH; 2022 Jul 28. Available from: https://ncceh.ca/content/webinar-recording-daily-and-hourly-exposure-pm25-and-wildfire-smoke-and-cognitive.
2. National Collaborating Centre for Environmental Health. **Surveying mosquito distribution in BC and Yukon Territory in a changing climate [webinar]**. Vancouver, BC: NCCEH; 2022 Aug 30. Available from: https://ncceh.ca/content/ncceh-environmental-health-seminar-series.

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;25(7):892-910. Available from: https://doi.org/10.1080/13669877.2022.2061035.
2. Flemons K, Baylis B, Khan AZ, Kirkpatrick AW, Whitehead K, Moeini S, et al**. The use of drones for the delivery of diagnostic test kits and medical supplies to remote First Nations communities during Covid-19.** Am J Infect Control. 2022;50(8):849-56. Available from: https://doi.org/10.1016/j.ajic.2022.03.004.
3. Houde M, Krümmel EM, Mustonen T, Brammer J, Brown TM, Chételat J, et al. **Contributions and perspectives of Indigenous Peoples to the study of mercury in the Arctic**. Sci Total Environ. 2022;841:156566. Available from: https://doi.org/10.1016/j.scitotenv.2022.156566.
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AGRICULTURAL OPERATIONS

1. Ilieva RT, Cohen N, Israel M, Specht K, Fox-Kämper R, Fargue-Lelièvre A, et al. **The socio-cultural benefits of urban agriculture: a review of the literature**. Land. 2022;11(5):622. Available from: https://www.mdpi.com/2073-445X/11/5/622.
2. Martin W, Wagner L, Marshall K. **Urban hen legislation: Exposing an unexpected public health problem**. Human Geography. 2022;0(0):19427786221087617. Available from: https://journals.sagepub.com/doi/abs/10.1177/19427786221087617.
3. Music J, Large C, Charlebois S, Mayhew K. **Gardening from the ground up: a review of grassroots governance and management of domestic gardening in Canada**. Local Environment. 2022;27(8):1046-58. Available from: https://doi.org/10.1080/13549839.2022.2100880.
4. Yazdanparast T, Strezov V, Wieland P, Lai Y-J, Jacob DE, Taylor MP. **Lead poisoning of backyard chickens: Implications for urban gardening and food production**. Environ Pollut. 2022;310:119798. Available from: https://www.sciencedirect.com/science/article/pii/S0269749122010120.

BIOLOGICAL AGENTS

BUILT ENVIRONMENT

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Period. Int J Environ Res Public Health. 2022;19(14):8749. Available from: https://www.mdpi.com/1660-4601/19/14/8749.

2. Gu J, Liu H, Lu H. **Can Even a Small Amount of Greenery Be Helpful in Reducing Stress? A Systematic Review**. Int J Environ Res Public Health. 2022;19(16):9778. Available from: https://www.mdpi.com/1660-4601/19/16/9778.
3. Hume C, Grieger JA, Kalamkarian A, D'Onise K, Smithers LG. **Community gardens and their effects on diet, health, psychosocial and community outcomes: a systematic review**. BMC Public Health. 2022;22(1):1247. Available from: https://doi.org/10.1186/s12889-022-13591-1.
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CHEMICAL AGENTS – METALS, GENERAL

General

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CHEMICAL AGENTS – PESTICIDES

CHEMICAL AGENTS – SHALE GAS

1. Clark CJ, Johnson NP, Soriano M, Warren JL, Sorrentino KM, Kadan-Lottick NS, et al. **Unconventional Oil and Gas Development Exposure and Risk of Childhood Acute Lymphoblastic Leukemia: A Case-Control Study in Pennsylvania, 2009-2013**;2017. Environ Health Perspect. 2022;130(8):087001. Available from: https://ehp.niehs.nih.gov/doi/abs/10.1289/EHP11092.

CHILDREN'S ENVIRONMENTAL HEALTH

1. Etzel TM, Braun JM, Kuiper JR, Calafat AM, Cecil KM, Chen A, et al. **Gestational and childhood phthalate exposures and adolescent body composition: The HOME study**. Environ Res. 2022;212:N.PAG-N.PAG. Available from: https://doi.org/10.1016/j.envres.2022.113320.
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3. Vella-Brodrick DA, Gilowska K. **Effects of Nature (Greenspace) on Cognitive Functioning in School Children and Adolescents: a Systematic Review**. Educational Psychology Review. 2022;34(3):1217-54. Available from: https://doi.org/10.1007/s10648-022-09658-5.
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CLIMATE CHANGE

1. Birchall SJ, MacDonald S, Baran NN. **An assessment of systems, agents, and institutions in building community resilience to climate change: A case study of Charlottetown, Canada**. Urban Climate. 2022;41:101062. Available from: https://www.sciencedirect.com/science/article/pii/S2212095521002923.
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3. Camilo-Mora Lab. **Traceable evidence of the impacts of climate change on pathogenic human diseases**. Camilo-Mora Lab; 2022. Available from: https://camilo-mora.github.io/Diseases/.
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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, Transit, Transmission)

1. Alimi Y, Bernstein A, Marcos Espinal, Kakkar M, Kochevar D, Werneck G. **Report of the Scientific Task Force on Preventing Pandemics**. Boston, MA: Convened by the Harvard Global Health Institute and the Center for Climate, Health, and the Global Environment at Harvard T.H. Chan School of Public Health; 2021 Aug. Available from: https://cdn1.sph.harvard.edu/wp-content/uploads/sites/2343/2021/08/PreventingPandemicsAug2021.pdf.

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3. Teyton A, Tremblay M, Tardif I, Lemieux M-A, Nour K, Benmarhnia T. **A Longitudinal Study on the Impact of Indoor Temperature on Heat-Related Symptoms in Older Adults Living in Non-Air-Conditioned Households.** Environ Health Perspect. 2022;130(7):077003. Available from: https://ehp.niehs.nih.gov/doi/abs/10.1289/EHP10291.
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ENVIRONMENTAL HEALTH SURVEILLANCE

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ENVIRONMENTAL PLANNING

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FOOD

Safety

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Security

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Microplastics

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GENERAL

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Health Policy

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HEALTH EQUITY

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HEALTH IMPACT ASSESSMENT

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COVID-19 ADDITIONAL TOPICS & GUIDANCE

CONTENTS

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

PPE, e.g., Face Masks, Distancing, etc

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