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 This research scan is not peer reviewed; it does not cover all research, news, and information, and NCCEH is not responsible for the accuracy of the content from media or databases.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

EDITOR PICKS

Extreme heat [topic page].

National Collaborating Centre for Environmental Health

"This topic pages aims to provide a list of curated resources on preparing for and responding to extreme heat events. The first section lists resources directed at individuals, households and communities, while the second section lists resources directed at public health professionals and policy-makers. Lastly, resources on risk communication for extreme heat events are also shared."

As wildfire season approaches, new studies show air pollution linked to severe health outcomes [CBC News]. Peggy Lam

"Sarah Henderson [pictured on right], scientific director of environmental health services at the British Columbia Centre for Disease Control (BCCDC), says when it comes to health risks, heart disease is the primary condition associated with long term exposure to polluted air, followed by respiratory disease, cancer and diabetes.
"It doesn't typically put us at immediate risk, but over the course of days and months and years, air pollution is damaging to human health, all forms of it….." more

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Preventing injuries and deaths during extreme heat events [webinar-June 29, 2022, 12-1pm Pacific Time – register now; cost: free].

Glen Kenny, Robert Meade, University of Ottawa
Sarah Henderson, National Collaborating Centre for Environmental Health, BC Centre for Disease Control

"In this webinar we will review how science is helping to generate the evidence-based heat protection solutions (e.g., use of cooling centers, fan use) and advice to safeguard the health and well-being of susceptible people during extreme hot weather."

Fires, floods & hurricanes: protecting Canadians by identifying and managing threats to safe drinking water [webinar].

Monica Emelko, Professor and Canada Research Chair in Water Science, Technology & Policy, University of Waterloo; Associate Director of Climate Risk, Resilience, and Adaptation at the Interdisciplinary Centre on Climate Change
Her research is focused on drinking water treatment and risk analysis for public health protection. Dr. Emelko and her research group have investigated the effects of climate-exacerbated land disturbances on hydrology, water quality, ecology, and treatability and they were the first globally to be cited by the IPCC for identifying climate change-associated threats to drinking security through water quality and treatability.

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ENVIRONMENTAL HEALTH RESEARCH SCAN

SELECTED PUBLICATIONS

1. National Collaborating Centre for Environmental Health. **NCCEH eNews (May 2021): Avian influenza A(H5N1) 2022 outbreak in Canada; more...** Vancouver, BC: NCCEH; 2022 May 19. Available from: https://tinyurl.com/yc63wr7r.
2. National Collaborating Centre for Environmental Health. **May research scan with COVID-19 sections [blog]**. Vancouver, BC: NCCEH; 2022 May 19. Available from: https://ncceh.ca/content/blog/may-research-scan-covid-19-sections-0.
3. National Collaborating Centre for Environmental Health. **Extreme heat [topic page]**. Vancouver, BC: NCCEH; 2022 Jun 2. Available from: https://ncceh.ca/environmental-health-in-canada/health-agency-projects/extreme-heat.

Webinars

1. Emelko M. **Fires, floods & hurricanes: protecting Canadians by identifying and managing threats to safe drinking water [webinar]**. Vancouver, BC: National Collaborating Centre for Environmental Health; 2022 May 26. Available from: https://ncceh.ca/content/webinar-recording-fires-floods-hurricanes-protecting-canadians-identifying-and-managing.
2. Kenny G, Meade R, Henderson, SB. **Preventing injuries and deaths during extreme heat events [webinar]**. Vancouver, BC: National Collaborating Centre for Environmental Health; 2022 Jun 29. Available from: https://ncceh.ca/content/ncceh-environmental-health-seminar-series.
3. Eyquem J. **Irreversible extreme heat: protecting Canadians and communities from a lethal future [webinar]**. Vancouver, BC: National Collaborating Centre for Environmental Health; 2022 Apr 27. Available from: https://ncceh.ca/content/webinar-recording-irreversible-extreme-heat-protecting-canadians-and-communities-lethal.
4. Atkinson D, Quinlan L. **Climate change and Indigenous Peoples' health in Canada [webinar]**. Vancouver, BC: National Collaborating Centre for Environmental Health; 2022 Jun 8. Available from: https://ncceh.ca/content/webinar-recording-climate-change-and-indigenous-peoples-health-canada.

INDIGENOUS ENVIRONMENTAL HEALTH

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3. Moore-Nall AL. **Issues Related to Water Affecting Indigenous Peoples of North America**. In: Siegel M, Selinus O, Finkelman R, editors. Practical Applications of Medical Geology. Cham: Springer International Publishing; 2021. p. 769-832. Available from: https://doi.org/10.1007/978-3-030-53893-4_24.

4. Perreault K, Lapalme J, Potvin L, Riva M. **"We're Home Now": How a Rehousing Intervention Shapes the Mental Well-Being of Inuit Adults in Nunavut, Canada**. Int J Environ Res Public Health. 2022;19(11):6432. Available from: https://www.mdpi.com/1660-4601/19/11/6432.

AGRICULTURAL OPERATIONS

1. Alzahrani OM, Fayez M, Alswat AS, Alkafafy M, Mahmoud SF, Al-Marri T, et al. **Antimicrobial Resistance, Biofilm Formation, and Virulence Genes in Enterococcus Species from Small Backyard Chicken Flocks**. Antibiotics. 2022;11(3):380. Available from: https://www.mdpi.com/2079-6382/11/3/380.
2. British Columbia Ministry of Agriculture. **Guidance for meat processors handling bird mortalities**. Victoria, BC: Government of British Columbia; 2022 May 22. Available from: https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/agriculture-and-seafood/food-safety/meat-inspection/ai_-_guidance_for_meat_processors_handling_bird_motalities_-_2022-05-24.pdf.
3. MacPherson A. **Uptick in avian flu cases poses little threat to humans** Edmonton, AB: University of Alberta; 2022 May 19. Available from: https://medicalxpress.com/news/2022-05-uptick-avian-flu-cases-poses.html.

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BUILT ENVIRONMENT

1. Balis LE, Vincent J. **Implementation Strategies to Support Built Environment Approaches in Community Settings**. Health Promot Pract. 2022:15248399221081835. Available from: https://journals.sagepub.com/doi/abs/10.1177/15248399221081835.
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CHEMICAL AGENTS – METALS, GENERAL

1. Barber OW, Hartmann EM. **Benzalkonium chloride: A systematic review of its environmental entry through wastewater treatment, potential impact, and mitigation strategies**. Crit Rev Environ Sci Technol. 2022;52(15):2691-719. Available from: https://doi.org/10.1080/10643389.2021.1889284.
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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.

CHILDREN'S ENVIRONMENTAL HEALTH

1. Sprague NL, Bancalari P, Karim W, Siddiq S. **Growing up green: a systematic review of the influence of greenspace on youth development and health outcomes**. J Expo Sci Environ Epidemiol. 2022. Available from: https://doi.org/10.1038/s41370-022-00445-6.
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3. Villanueva K, Woolcock G, Goldfeld S, Tanton R, Brinkman S, Katz I, et al. **The built environment and early childhood development: qualitative evidence from disadvantaged Australian**

communities. Children's Geographies. 2022:1-17. Available from: https://doi.org/10.1080/14733285.2022.2059651.
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CLIMATE CHANGE

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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)

DRINKING WATER

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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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National Collaborating Centre for Environmental Health

Centre de collaboration nationale en santé environnementale

COVID-19 ADDITIONAL TOPICS & GUIDANCE

CONTENTS

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

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OCCUPATIONAL GUIDANCE

Occupational

PUBLIC FACILITIES

Transportation (see separate category, 'Transit, Transportation'

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