2021
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 (1O) OCTOBER 2021

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. "*We focus on health risks associated with the physical environment and identify evidence-based interventions to mitigate those risks*." This review is not official or 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. How to access the items? Click on the link related to each entry and it should take you to the item. 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 at the end of this issue.

National Collaborating Centre for Environmental Health

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EDITOR PICKS

Understanding transmission of SARS-CoV-2 in the ongoing COVID-19 pandemic [evidence review - updated]

Juliette O'Keeffe (right), Angela Eykelbosh (Knowledge Translation Scientists, NCCEH)

"This document has been updated from previous versions to reflect new findings and provide additional information about the virus that may be relevant to the public health response."

Staying ahead of the epidemiologic curve: evaluation of the British Columbia Asthma Prediction System (BCAPS) during the unprecedented 2018 wildfire season [journal article]

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

"Daily reports from the British Columbia Asthma Prediction System (BCAPS) framework provided timely and reasonable insight into the population health impacts of predicted smoke exposures, though more work is necessary to improve the $PM_{2.5}$ and health indicator forecasts."

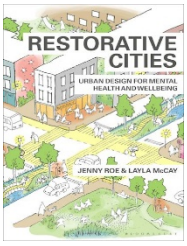
Changing trends in paralytic shellfish poisonings reflect increasing sea surface temperatures and practices of Indigenous and recreational harvesters in British Columbia, Canada [journal article)

Lorraine McIntyre, Environmental Health Services, BCCDC, and co-authors

"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…"

Restorative cities: urban design for mental health and social interaction in the COVID-era. Can urban design positively affect mental health?

Jenny Roe and Layla McKay



"This article is part of a series in which OECD experts and thought leaders address the COVID-19 crisis, discussing and developing solutions now and for the future."
Book link: Restorative cities: urban design for mental health and wellbeing

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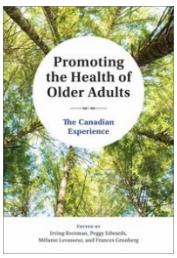
Promoting the health of older adults. The Canadian experience [book]

Irving Rootman, Peggy Edwards, Mélanie Levasseur, and Frances Grunberg



"This book explores the factors and issues related to the health of older adults and is organized around the five action areas for health promotion: building healthy public policy, creating supportive environments, strengthening community action, developing personal skills, and reorienting health and social services."

NCCEH eNews (Aug 2021): Long-term Evacuation and Public Health Response; more… [eNews]
National Collaborating Centre for Environmental Health

NCCEH eNews (Sep 2021): Mobilizing environmental data to build healthier cities for all; more… [eNews]
National Collaborating Centre for Environmental Health

ENVIRONMENTAL HEALTH RESEARCH SCAN

SELECTED STAFF PUBLICATIONS

NCCEH

1. O'Keeffe J, Eykelbosh A. **Understanding transmission of SARS-CoV-2 in the ongoing COVID-19 pandemic [evidence review - updated]**. Vancouver, BC: National Collaborating Centre for Environmental Health; 2021 10 15 Oct 15. Available from: https://ncceh.ca/documents/evidence-review/basics-sars-cov-2-transmission.
2. National Collaborating Centre for Environmental Health. **NCCEH eNews (Aug 2021) : Long-term Evacuation and Public Health Response; more...** Vancouver, BC: NCCEH; 2021 08 15 Aug15. Available from: https://tinyurl.com/4jt5bsbp.
3. National Collaborating Centre for Environmental Health. **NCCEH eNews (Sep 2021) : Mobilizing environmental data to build healthier cities for all; more...** Vancouver, BC: NCCEH; 2021 09 23 Sep 23. Available from: https://tinyurl.com/xanh75m4.

BCCDC

1. Hagler GSW, Henderson SB, McCaffrey S, Johnston FH, Stone S, Rappold A, et al. **Editorial: Understanding and Communicating Wildland Fire Smoke Risk**. Front Public Health. 2021;9:721823. Available from: https://www.frontiersin.org/research-topics/9209/understanding-and-communicating-wildland-fire-smoke-risk.
2. Henderson SB, Morrison KT, McLean KE, Ding Y, Yao J, Shaddick G, et al. **Staying Ahead of the Epidemiologic Curve: Evaluation of the British Columbia Asthma Prediction System (BCAPS) During the Unprecedented 2018 Wildfire Season**. Frontiers in public health. 2021;9:499309-. Available from: https://pubmed.ncbi.nlm.nih.gov/33777871.
3. McIntyre L, Miller A, Kosatsky T. **Changing Trends in Paralytic Shellfish Poisonings Reflect Increasing Sea Surface Temperatures and Practices of Indigenous and Recreational Harvesters in British Columbia, Canada.** Marine Drugs. 2021;19(10):568. Available from: https://www.mdpi.com/1660-3397/19/10/568.

INDIGENOUS ENVIRONMENTAL HEALTH

1. Bowers R, Turner G, Graham ID, Furgal C, Dubois L. **Piecing together the Labrador Inuit food security policy puzzle in Nunatsiavut, Labrador (Canada): a scoping review**. Int J Circumpolar Health. 2020;79(1):1799676. Available from: https://doi.org/10.1080/22423982.2020.1799676.
2. Christianson AC, McGee TK, Whitefish Lake First N. **Wildfire evacuation experiences of band members of Whitefish Lake First Nation 459, Alberta, Canada**. Natural Hazards. 2019;98(1):9-29. Available from: https://doi.org/10.1007/s11069-018-3556-9.
3. Institut national de santé publique. **Indigenous Health Research Monitoring, September 2021**. Montreal, QC: INSPQ; 2021 Sep. Available from: https://www.inspq.qc.ca/en/indigenous-health-research-monitoring/september-2021.
4. Lee C, Wozniak L, Soprovich A, Sharma V, Healy B, Samanani S, et al. **Mental Health Experiences With COVID-19 Public Health Measures in an Alberta First Nations Community**. 2021. Available from: https://doi.org/10.21203/rs.3.rs-915640/v1.
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6. Poole MN. "Like Residential Schools All Over Again": Experiences of Emergency Evacuation from the Assin'skowitiniwak (Rocky Cree) Community of Pelican Narrows. Regina, SK: University of Saskatchewan; 2019. Available from: https://harvest.usask.ca/handle/10388/12267.
7. St-Pierre L. **Impact Assessments in Indigenous Contexts: Promising Avenues for Reflection and Improvement for Health Impact Assessment**. Montreal, QC: National Collaborating Centre for Healthy Public Policy; 2021 Sep. Available from: http://www.ncchpp.ca/133/publications.ccnpps?id_article=4141.

AGRICULTURAL OPERATIONS

1. Gómez-Villarino MT, urquijo J, Gómez Villarino M, García AI. **Key insights of urban agriculture for sustainable urban development**. Agroecology & Sustainable Food Systems. 2021;45(10):1441-69. Available from: https://doi.org/10.1080/21683565.2021.1917471.
2. Seguin R, Lefsrud MG, Delormier T, Adamowski J. **Assessing constraints to agricultural development in circumpolar Canada through an innovation systems lens**. Agricultural Systems. 2021;194. Available from: https://doi.org/10.1016/j.agsy.2021.103268.

BIOLOGICAL AGENTS

1. Beale SL, Zolnikov TR, Firebaugh CM. **A Scoping Review on Category A Agents as Bioweapons**. Prehospital Disaster Med. 2021:1-7. Available from: https://www.cambridge.org/core/article/scoping-review-on-category-a-agents-as-bioweapons/84DD7C6305607B66FB4040FB397F0459.
2. EPRS | European Parliamentary Research Service, Martins H. **EU health data centre and a common data strategy for public health**. Brussels, Belgium: European Parliament, Scientific Foresight Unit (STOA); 2021 Sep. Available from: https://www.europarl.europa.eu/RegData/etudes/STUD/2021/690009/EPRS_STU(2021)690009_EN.pdf.
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1. City of Baltimore. **Design for distancing - ideas guidebook**. Baltimore, MD: City of Baltimore; 2021. Available from: https://www.designfordistancing.org/.
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7. Nieuwenhuijsen MJ. **New urban models for more sustainable, liveable and healthier cities post covid19; reducing air pollution, noise and heat island effects and increasing green space and physical activity**. Environ Int. 2021;157. Available from: https://doi.org/10.1016/j.envint.2021.106850.
8. Ortegon-Sanchez A, McEachan RRC, Albert A, Cartwright C, Christie N, Dhanani A, et al. **Measuring the Built Environment in Studies of Child Health—A Meta-Narrative Review of Associations**. Int J Environ Res Public Health. 2021;18(20):10741. Available from: https://www.mdpi.com/1660-4601/18/20/10741.
9. Roe J, McCay L. **Restorative cities: urban design for mental health and social interaction in the COVID-era. Can urban design positively affect mental health**? 2021 [Oct 8]; Available from: https://www.oecd-forum.org/posts/restorative-cities-urban-design-for-mental-health-and-social-interaction-in-the-covid-era.
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CHEMICAL AGENTS – METALS, GENERAL

General

1. Adlard B, Lemire M, Bonefeld-Jørgensen EC, Long M, Ólafsdóttir K, Odland JO, et al. **MercuNorth – monitoring mercury in pregnant women from the Arctic as a baseline to assess the effectiveness of the Minamata Convention.** Int J Circumpolar Health. 2021;80(1):1881345. Available from: https://doi.org/10.1080/22423982.2021.1881345.
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4. Dingle JH, Kohl L, Khan N, Meng M, Shi YA, Pedroza-Brambila M, et al. **Sources and composition of metals in indoor house dust in a mid-size Canadian city**. Environ Pollut. 2021;289. Available from: https://doi.org/10.1016/j.envpol.2021.117867.
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6. Xiaoke Z, MacLeod J, Berriault C, DeBono NL, Arrandale VH, Harris AM, et al. **Aluminum dust exposure and risk of neurodegenerative diseases in a cohort of male miners in Ontario, Canada**. Scand J Work Environ Health. 2021;47(7):531-9. Available from: https://doi.org/10.5271/sjweh.3974.

BPA, Pthalates, PFAS, SVOCs, etc

1. Al-Harbi M, Al-Enzi E, Al-Mutairi H, Whalen JK. **Human health risks from brominated flame retardants and polycyclic aromatic hydrocarbons in indoor dust**. Chemosphere. 2021;282:131005. Available from: https://doi.org/10.1016/j.chemosphere.2021.131005.
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3. Trasande L, Liu B, Bao W. **Phthalates and attributable mortality: A population-based longitudinal cohort study and cost analysis**. Environ Pollut. 2021:118021. Available from: https://www.sciencedirect.com/science/article/pii/S0269749121016031.
4. Zhong Q, Liu H-L, Fu H, Niu Q-S, Wu H-B, Huang F. **Prenatal exposure to phthalates with preterm birth and gestational age: A systematic review and meta-analysis**. Chemosphere. 2021;282:130991. Available from: https://doi.org/10.1016/j.chemosphere.2021.130991.

CHEMICAL AGENTS – PESTICIDES

1. Pereira PCG, Parente CET, Carvalho GO, Torres JPM, Meire RO, Dorneles PR, et al. **A review on pesticides in flower production: A push to reduce human exposure and environmental contamination**. Environ Pollut. 2021;289. Available from: https://doi.org/10.1016/j.envpol.2021.117817.

CHEMICAL AGENTS – SHALE GAS

1. Caron-Beaudoin É, Whyte KP, Bouchard MF, Chevrier J, Haddad S, Copes R, et al. **Volatile organic compounds (VOCs) in indoor air and tap water samples in residences of pregnant women living in an area of unconventional natural gas operations: Findings from the EXPERIVA study**. Sci Total Environ. 2022;805:150242. Available from: https://www.sciencedirect.com/science/article/pii/S0048969721053195.

CHILDREN'S ENVIRONMENTAL HEALTH

1. Baxter N, Crabb B, Cole K, et al. **Protecting children from COVID-19 and making schools and childcare safer**. OZ Sage; 2021 Oct. Available from: https://ozsage.org/wp-content/uploads/2021/10/Children-and-schools1.pdf.
2. Buttaro A, Gambaro L, Joshi H, Lennon MC. **Neighborhood and Child Development at Age Five: A UK–US Comparison**. Int J Environ Res Public Health. 2021;18(19):10435. Available from: https://www.mdpi.com/1660-4601/18/19/10435.
3. Mastorci F, Linzalone N, Ait-Ali L, Pingitore A. **Environment in Children's Health: A New Challenge for Risk Assessment**. Int J Environ Res Public Health. 2021;18(19):10445. Available from: https://www.mdpi.com/1660-4601/18/19/10445.
4. Munoz FM. **If Young Children's Risk of SARS-CoV-2 Infection Is Similar to That of Adults, Can Children Also Contribute to Household Transmission**? JAMA Pediatrics. 2021. Available from: https://doi.org/10.1001/jamapediatrics.2021.4225.
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CLIMATE CHANGE

1. Galway LP, Beery T, Buse C, Gislason MK. **What Drives Climate Action in Canada's Provincial North? Exploring the Role of Connectedness to Nature, Climate Worry, and Talking with Friends and Family.** Climate. 2021;9(10):146. Available from: https://www.mdpi.com/2225-1154/9/10/146.
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3. Tuholske C, Caylor K, Funk C, Verdin A, Sweeney S, Grace K, et al. **Global urban population exposure to extreme heat**. Proceedings of the National Academy of Sciences. 2021;118(41):e2024792118. Available from: https://www.pnas.org/content/pnas/118/41/e2024792118.full.pdf.
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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)

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DRINKING WATER

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EMERGENCY PREPAREDNESS

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3. Hagler GSW, Henderson SB, McCaffrey S, Johnston FH, Stone S, Rappold A, et al. **Editorial: Understanding and Communicating Wildland Fire Smoke Risk**. Front Public Health. 2021;9:721823. Available from: https://www.frontiersin.org/research-topics/9209/understanding-and-communicating-wildland-fire-smoke-risk.
4. Henderson SB, Morrison KT, McLean KE, Ding Y, Yao J, Shaddick G, et al. Staying Ahead of the Epidemiologic Curve: Evaluation of the British Columbia Asthma Prediction System (BCAPS) During the Unprecedented 2018 Wildfire Season. Frontiers in public health. 2021;9:499309-. Available from: https://pubmed.ncbi.nlm.nih.gov/33777871.
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ENVIRONMENTAL HEALTH SURVEILLANCE

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ENVIRONMENTAL PLANNING

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2. Stearns JA, Ren H, Spence JC, Avedzi H, Lee KK. **Protocol for an evaluation of the Designing Communities to Support Healthy Living in Aging Residents Study**. Archives of Public Health. 2021;79(1):172. Available from: https://doi.org/10.1186/s13690-021-00691-4.

FOOD

Safety

1. Love DC, Allison EH, Asche F, Belton B, Cottrell RS, Froehlich HE, et al. **Emerging COVID-19 impacts, responses, and lessons for building resilience in the seafood system**. Global Food Security. 2021;28:100494. Available from: https://www.sciencedirect.com/science/article/pii/S2211912421000043.
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National Collaborating Centre for Environmental Health

Centre de collaboration nationale en santé environnementale

COVID-19 ADDITIONAL TOPICS & GUIDANCE

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

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MULTI-UNIT BUILDINGS

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Occupational

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