

ENVIRONMENTAL HEALTH RESEARCH SCAN

VOL 8 (10) OCTOBER 2024



<p><u>AIR QUALITY</u></p> <ul style="list-style-type: none"> • Indoor air • Outdoor air • Radon, Other 	<p><u>CLIMATE CHANGE</u></p> <ul style="list-style-type: none"> • Extreme weather • Flooding • Sea level rise • Wildfires, Other 	<p><u>DISEASES, VECTORS, PESTS</u></p> <ul style="list-style-type: none"> • COVID-19 • Animal vectors • Insect vectors • Pests, Other
<p><u>FOOD</u></p> <ul style="list-style-type: none"> • Food safety • Food security • Growing food, Other 	<p><u>BUILT ENVIRONMENT</u></p> <ul style="list-style-type: none"> • Green & blue spaces • Housing • Noise • Planning & design • Transportation, Other 	<p><u>PUBLIC HEALTH FUNDAMENTALS</u></p> <ul style="list-style-type: none"> • Communication • Health promotion • Health impact assessment • Health equity • One Health, Other
<p><u>WATER</u></p> <ul style="list-style-type: none"> • Drinking water • Recreational water • Small water systems • Wastewater, Other 	<p><u>NON-CLIMATE RELATED DISASTERS</u></p> <ul style="list-style-type: none"> • Earthquakes • Marine • Terrestrial, Other 	<p><u>OTHER TOPICS</u></p> <ul style="list-style-type: none"> • Cannabis products • Tobacco, nicotine products • Ionizing, non-ionizing radiation • Personal services establishments, Other
<p><u>SPECIFIC POPULATIONS</u> (children, Indigenous Peoples, older adults, other)</p>		

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 This research scan is not peer reviewed; it does not cover all research, news, and information, and NCCEH is not responsible for the accuracy of the content from media or databases.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

EDITOR PICKS

Environmental predictors of recreational water quality in Canada [blog].

Binyam D, Sanchez J, Jardine R, Tustin J, Young I

“This blog highlights key findings at each site and the complex interplay between environmental factors and E. coli levels in water bodies. Incorporating insights from these findings can enhance predictive models and improve beach management practices.”



Uses and limitations of low-cost sensors in a changing climate [blog].

Eric Coker

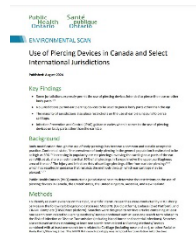
“This blog post delves deeper into how low-cost sensors can be used effectively in various contexts, the challenges they present, and some real-world examples of their utility.”



Use of piercing devices in Canada and select international jurisdictions [report].

Public Health Ontario

“Public Health Ontario (PHO) conducted a jurisdictional scan to determine the restrictions on the use of piercing devices in Canada, the United States, the United Kingdom, Australia, and New Zealand.”



From risk to resilience: Indigenous alternatives to climate risk assessment in Canada [report].

Yellowhead Institute – Janna Wale and Brett Huson

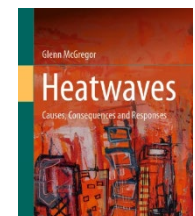
“The inclusion of Indigenous knowledges and a different way of looking at risk assessments is not just a suggestion but an urgent necessity to ensure a comprehensive understanding of climate risks that builds holistic resilience to climate risks and to climate change.”



Heatwave responses: mitigation [book chapter].

Glenn McGregor

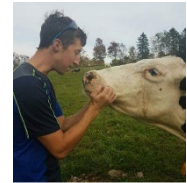
“This chapter categorizes urban heat mitigation into three broad approaches: modifications to urban surfaces, nature-based solutions (NBS), and changes to urban morphology and built form. This chapter also discusses ho ..”



Highly pathogenic Avian influenza: adapting to a new One Health challenge from an old foe [webinar]. Oct 31, 2024 12:00-1:00 PT

Murray Gillies

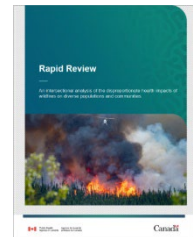
“This talk will begin by briefly discussing animal health surveillance in Canada and the role of the Canadian Animal Health Surveillance System (CAHSS).”



Rapid Review: An intersectional analysis of the disproportionate health impacts of wildfires on diverse populations and communities.

Public Health Agency of Canada

“Systemic inequities drive exposure, sensitivity, and adaptive capacity to climate hazards as different individual factors and SDOH influence people’s climate vulnerability. Therefore...”



Statement from Dr. Theresa Tam, Chief Public Health Officer of Canada, and Dr. Mary Jane Ireland, Chief Veterinary Officer for Canada, on the release of the Pan-Canadian Action Plan on Antimicrobial Resistance Year 1 Progress Report.

Public Health Agency of Canada

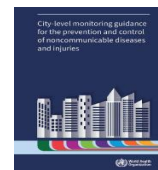
“Key highlights in the report include increasing the ability to monitor antimicrobial resistance and use in Canada through expanding a national AMR...”



City-level monitoring guidance for the prevention and control of noncommunicable diseases and injuries.

World Health Organization

The guidance document provides a set of indicators for assessing the status of development, implementation and monitoring of key policy interventions for prevention and control of NCDs and injuries.



NCCEH eNews (September 2024): Wildfires and drinking water safety: Understanding the risks and building resilience; more...

National Collaborating Centre for Environmental Health

This monthly eNews highlights recent environmental health publications, research scans, webinars and other events and resources.



September research scan [research scan].

National Collaborating Centre for Environmental Health

This monthly Research Scan highlights recent environmental health publications by topic and provides easy access to article abstracts and report....



ENVIRONMENTAL HEALTH RESEARCH SCAN

SELECTED PUBLICATIONS

1. Binyam D, Sanchez J, Jardine R, Tustin J, Young I. **Environmental predictors of recreational water quality in Canada [blog]**. Vancouver, BC: National Collaborating Centre for Environmental Health; 2024 10 17 Oct. Available from: <https://ncceh.ca/resources/blog/environmental-predictors-recreational-water-quality-canada>.
2. Coker E. **Uses and limitations of low-cost sensors in a changing climate [blog]**. Vancouver, BC: National Collaborating Centre for Environmental Health; 2024 10 03 Oct 3. Available from: <https://ncceh.ca/resources/blog/uses-and-limitations-low-cost-sensors-changing-climate>.
3. Gillies M. **Highly pathogenic Avian influenza: adapting to a new One Health challenge from an old foe [webinar]**. Vancouver, BC: National Collaborating Centre for Environmental Health; 2024 10 31 Oct 31. Available from: <https://ncceh.ca/events/upcoming-webinars/highly-pathogenic-avian-influenza-adapting-new-one-health-challenge-old>.
4. National Collaborating Centre for Environmental Health. **Sep research scan**. Vancouver, BC: NCCEH; 2024 09 20 Sep. Available from: <https://ncceh.ca/sites/default/files/2024-09/NCCEH%20Research%20Scan%20-202409.pdf>.
5. National Collaborating Centre for Environmental Health. **NCCEH eNews (Sep 2024): Wildfires and drinking water safety: Understanding the risks and building resilience; more...** Vancouver, BC: NCCEH; 2024 09 20 Sep. Available from: https://app.cyberimpact.com/newsletter-view-online?ct=6oJ9KehOpS78uENiDIKy_MgxaXJMqWjVQbwSQ_FM0_RPmS_gn5dYbJkmesOij7B25XMDhts9_99K5L_eSS9zJrQPOy2u2llu3OUCSAugqZIVuUo-5cDWgy3rG5I7zY.

1. AIR QUALITY

INDOOR AIR

1. Huang C-H, Liu N, Shirai J, Cohen M, Austin E, Seto E. **Effects of Dust Loading on the Long-term Performance of Portable HEPA Air Cleaner to Woodsmoke – A Laboratory Investigation**. Indoor Environments. 2024:100057. Available from: <https://www.sciencedirect.com/science/article/pii/S2950362024000547>.

OUTDOOR AIR

1. Coker E. **Uses and limitations of low-cost sensors in a changing climate [blog]**. Vancouver, BC: National Collaborating Centre for Environmental Health; 2024 10 03 Oct 3. Available from: <https://ncceh.ca/resources/blog/uses-and-limitations-low-cost-sensors-changing-climate>.
2. Parenteau AM, Hang S, Swartz JR, Wexler AS, Hostinar CE. **Clearing the air: A systematic review of studies on air pollution and childhood brain outcomes to mobilize policy change**. *Developmental Cognitive Neuroscience*. 2024;69:101436. Available from: <https://www.sciencedirect.com/science/article/pii/S1878929324000975>.
3. Robinson JM, Liddicoat C, Sun X, Ramesh S, Hawken S, Lee K, et al. **The climate change–pollution–aerobiome nexus: A ‘systems thinking’ mini-review**. *Microbial Biotechnology*. 2024;17(10):e70018. Available from: <https://enviromicro-journals.onlinelibrary.wiley.com/doi/abs/10.1111/1751-7915.70018>.

RADON, OTHER

2. FOOD

FOOD SAFETY

1. Bhawra J, Elsahli N, Patel J. **Applying Digital Technology to Understand Human Experiences of Climate Change Impacts on Food Security and Mental Health: Scoping Review**. *JMIR Public Health Surveill*. 2024;10:e54064. Available from: <https://doi.org/10.2196/54064>.
2. Food and Agriculture Association of the United Nations, World Health Organization. **Plant-based food products, precision fermentation and 3D food printing. Food Safety Foresight Technical Meeting Report 13–17 November 2023**. Rome, Italy: FAO, WHO; 2023. Available from: <https://openknowledge.fao.org/server/api/core/bitstreams/065787fa-6c78-471d-bfc7-5d2b3eee4cd6/content>.
3. Food and Agriculture Association of the United Nations, World Health Organization. **FAO/WHO background document on the risks and benefits of fish consumption. Food Safety and Quality Series, No. 27**. Rome, Italy: FAO, WHO; 2024. Available from: <https://iris.who.int/bitstream/handle/10665/379045/9789240096882-eng.pdf?sequence=1>.
4. Manchal N, Young MK, Castellanos ME, Leggat P, Adegboye O. **A systematic review and meta-analysis of ambient temperature and precipitation with infections from five food-borne bacterial pathogens**. *Epidemiol Infect*. 2024;152:e98. Available from: <https://www.cambridge.org/core/product/799DAC75997747218943F45111772F19>.
5. Zai B, McReavy S, Hogan G, Ng V, Papadopoulos A, Young I, et al. **Identifying the impact of climate variables on biological and chemical contaminants of preharvest foods and their associated food safety risks: a scoping review protocol**. *BMJ Open*. 2024;14(8):e083749. Available from: <https://bmjopen.bmj.com/content/bmjopen/14/8/e083749.full.pdf>.

FOOD SECURITY

1. Bezerra MS, Lima SCVC, de Souza CVS, Seabra LMJ, Lyra CdO. **Food environments and association with household food insecurity: a systematic review.** Public Health. 2024;235:42-8. Available from: <https://www.sciencedirect.com/science/article/pii/S0033350624002634>.
2. Cope AL, Chestnutt IG. **A systematic review of the association between food insecurity and behaviours related to caries development in adults and children in high-income countries.** Community Dent Oral Epidemiol. 2024;52(5):625-47. Available from: <https://onlinelibrary.wiley.com/doi/abs/10.1111/cdoe.12959>.
3. Li B, Soma T, Payment R, Kumar S, Anderson N, Xu F, et al. **A review of food asset maps in Canada.** Canadian Food Studies / La Revue canadienne des études sur l'alimentation. 2024;11(2):149-70. Available from: <https://canadianfoodstudies.uwaterloo.ca/index.php/cfs/article/view/655>.

GROWING FOOD, OTHER

1. Hoang V-H, Nguyen M-K, Hoang T-D, Ha MC, Huyen NTT, Bui VKH, et al. **Sources, environmental fate, and impacts of microplastic contamination in agricultural soils: A comprehensive review.** Sci Total Environ. 2024;950:175276. Available from: <https://www.sciencedirect.com/science/article/pii/S0048969724054263>.

3. WATER

DRINKING WATER

1. Chappells H, Dummer T. **Situating People and Place in Cancer Prevention: Arsenic in Drinking Water in Global to Local Context.** In: Dummer T, editor. Understanding Cancer Prevention through Geospatial Science: Putting Cancer in its Place. Cham: Springer International Publishing; 2024. p. 243-67. Available from: https://doi.org/10.1007/978-3-031-66413-7_10.

RECREATIONAL WATER

1. Binyam D, Sanchez J, Jardine R, Tustin J, Young I. **Environmental predictors of recreational water quality in Canada [blog].** Vancouver, BC: National Collaborating Centre for Environmental Health; 2024 10 17 Oct. Available from: <https://nceh.ca/resources/blog/environmental-predictors-recreational-water-quality-canada>.

SMALL WATER SYSTEMS

1. Stober JT, Zhang H, Clark D, Stein JA. **Navigating One Water Planning through Municipal Water Programs.** Proceedings of the Water Environment Federation. 2024. Available from: <https://www.accesswater.org/publications/proceedings/-10116377/navigating-one-water-planning-through-municipal-water-programs>.

WASTEWATER, OTHER

4. CLIMATE CHANGE

EXTREME WEATHER

1. Baker L, Sturm R. **Mortality in extreme heat events: an analysis of Los Angeles County Medical Examiner data.** Public Health. 2024;236:290-6. Available from: <https://www.sciencedirect.com/science/article/pii/S0033350624003548>.
2. Burton C, Lampe S, Kelley DI, Thiery W, Hantson S, Christidis N, et al. **Global burned area increasingly explained by climate change.** Nature Climate Change. 2024. Available from: <https://doi.org/10.1038/s41558-024-02140-w>.
3. Caswell C, Jang N. **Inclusive Nature-Based Solutions for Climate Adaptation.** Winnipeg, MB: International Institute for Sustainable Development 2024 Oct. Available from: <https://www.iisd.org/publications/guide/inclusive-nbs-climate-adaptation>.
4. Early Childhood Scientific Council on Equity and the Environment. **Extreme Heat Affects Early Childhood Development and Health.** Cambridge, MA: Center on the Developing Brain, Harvard University; 2024. Available from: <https://harvardcenter.wpenginpowered.com/wp-content/uploads/2023/03/ECSCCE-Heat-Paper.pdf>.
5. Environment and Climate Change Canada. **Climate change fuels August heat waves across Canada – Results from Canada’s Rapid Extreme Weather Event Attribution system demonstrate that human-caused climate change made heat waves at least 10 times more likely in August in some instances.** Ottawa, ON: Government of Canada; 2024 Sep. Available from: <https://www.canada.ca/en/environment-climate-change/news/2024/09/climate-change-fuels-august-heat-waves-across-canada--results-from-canadas-rapid-extreme-weather-event-attribution-system-demonstrate-that-human-ca.html>.
6. Guardaro M, Gastelum A, Winkle R, Munoz Encinas M, Vanos J, Bassett S, et al. **HeatReady Neighborhoods: A Planning Rubric for Extreme Heat.** J Am Plann Assoc.1-15. Available from: <https://doi.org/10.1080/01944363.2024.2396923>.
7. Huang H, Lu Z, Fan X, Zhai W, Zhang L, Xu D, et al. **Urban heatwave, green spaces, and mental health: A review based on environmental health risk assessment framework.** Sci Total Environ.

- 2024;948:174816. Available from:
<https://www.sciencedirect.com/science/article/pii/S0048969724049659>.
8. Ji JS. **Rainfall events and adverse health outcomes**. *BMJ*. 2024;387:q2053. Available from:
<https://www.bmj.com/content/bmj/387/bmj.q2053.full.pdf>.
 9. Kassem H, Lavigne E, Weinberger K, Brauer M. **Extreme heat and pediatric health in a warming world: a space-time stratified case-crossover investigation in Ontario, Canada**. *BMC Environmental Health*. 2024;preprint. Available from:
<https://www.researchsquare.com/article/rs-4904542/v1>.
 10. Keroack JL, Kennedy-Hendricks A, Winch PJ. **Medicaid Adapts to Extreme Heat: Evolving State-Based Coverage of Home Air Conditioning**. *Environmental Health Insights*. 2024;18:11786302241274959. Available from:
<https://journals.sagepub.com/doi/abs/10.1177/11786302241274959>.
 11. McGregor G. **Heatwave Responses: Mitigation**. In: McGregor G, editor. *Heatwaves: Causes, Consequences and Responses*. Cham: Springer International Publishing; 2024. p. 601-55. Available from: https://doi.org/10.1007/978-3-031-69906-1_14.
 12. O'Connell S, Davies N. **Climate and health: protecting people in the UK from extreme heat**. Millbank, London: Green Alliance; 2024 Oct. Available from: https://green-alliance.org.uk/publication/climate-and-health-protecting-people-in-the-uk-from-extreme-heat/?utm_source=substack&utm_medium=email.
 13. Ouarda TBMJ, Masselot P, Campagna C, Gosselin P, Lavigne É, St-Hilaire A, et al. **Prediction of heatwave related mortality magnitude, duration and frequency with climate variability and climate change information**. *Stochastic Environmental Research and Risk Assessment*. 2024. Available from: <https://doi.org/10.1007/s00477-024-02813-0>.
 14. Perreault-Carranza T, Ni V, Savoie J, Saucier J, Frenette J, Jbilou J. **Core Competencies of the Public Health Workforce in Climate Change and Extreme Weather Events Preparedness, Response, and Recovery: A Scoping Review**. *Int J Environ Res Public Health*. 2024;21(9):1233. Available from: <https://www.mdpi.com/1660-4601/21/9/1233>.

FLOODING

1. Nicolakakis N, Adam-Poupart A, Diabasana RM, Jauvin N, Perron S, Canuel M, et al. **Prévention en santé psychologique chez le personnel mobilisé lors d'inondation [Psychological health prevention for staff mobilized during flooding]**. Montreal, QC: Institut national de santé publique du Québec; 2024 Oct. Available from: <https://www.inspq.qc.ca/publications/3566>.

SEA LEVEL RISE

WILDFIRES, OTHER

1. Public Health Agency of Canada. Rapid Review: **An intersectional analysis of the disproportionate health impacts of wildfires on diverse populations and communities**. Ottawa, ON; 2024 Jul. Available from: <https://www.canada.ca/en/public-health/services/publications/healthy-living/rapid-review-intersectional-analysis-disproportionate-impacts-wildfires-diverse-populations-communities.html>.

5. BUILT ENVIRONMENT

GREEN & BLUE SPACES

1. Astell-Burt T, Navakatikyan MA, Feng X. **Contact with nature may be a remedy for loneliness: A nationally representative longitudinal cohort study**. Environ Res. 2024;263:120016. Available from: <https://www.sciencedirect.com/science/article/pii/S0013935124019236>.
2. Rahai R, Wells NM, Evans GW. **Neighborhood Greenspace, Extreme Heat Exposure, and Sleep Quality over Time among a Nationally Representative Sample of American Children**. Int J Environ Res Public Health. 2024;21(10):1270. Available from: <https://www.mdpi.com/1660-4601/21/10/1270>.
3. Smock CR, Schultz CL, Gustat J, Layton R, Slater SJ. **Perceptions of Knowledge and Experience in Nature-Based Health Interventions**. Int J Environ Res Public Health. 2024;21(9):1182. Available from: <https://www.mdpi.com/1660-4601/21/9/1182>.
4. Zhao Y, Li J, Collins RM, Deng K, Wu H, Yang L, et al. **Bridging the gap: Public engagement in blue-green space development for healthier urban futures**. J Environ Manage. 2024;360:121173. Available from: <https://www.sciencedirect.com/science/article/pii/S0301479724011599>.

HOUSING

NOISE

1. Audate PP, Romaric Da SMA, Diallo T. **Understanding the barriers and facilitators of urban greenway use among older and disadvantaged adults: A mixed-methods study in Québec city**. Health Place. 2024;89:103340. Available from: <https://www.sciencedirect.com/science/article/pii/S1353829224001680>.

PLANNING & DESIGN

1. World Health Organization Regional Office for Europe. **City-level monitoring guidance for the prevention and control of noncommunicable diseases and injuries**. Geneva, Switzerland: World

Health Organization; 2023. Available from:
<https://www.who.int/publications/i/item/9789240084155>.

TRANSPORTATION, OTHER

1. Harvard T.H. Chan School of Public Health. **Electric school buses may yield significant health and climate benefits, cost savings.** Boston, MA: Harvard University; 2024 May 20. Available from: <https://www.hsph.harvard.edu/news/press-releases/electric-school-buses-may-yield-significant-health-and-climate-benefits-cost-savings/>.
2. Healthy Environment for Kids. **It's time to shift to electric school buses across Canada for the health of our children and planet.** Canadian Partnership for Children's Health and Environment; 2024. Available from: <https://healthyenvironmentforkids.ca/wp-content/uploads/2024/04/ITS-TIME-TO-SHIFT%CE%93Ca-from-diesel-powered-to-electric-Graphic-11x8.5-EN-1.pdf>.
3. Lamb AK. **The Unequal Health Impacts of Diesel Pollution on Children and Communities.** Public Health Institute; 2024 Jan 11. Available from: <https://www.phi.org/press/the-unequal-health-impacts-of-diesel-pollution-on-children-and-communities/>.
4. Lee M, Cama T. **The Future Looks Bright for Electric School Buses.** Sci Am. 2024. Available from: <https://www.scientificamerican.com/article/electric-school-buses-are-a-climate-and-health-win-with-staying-power/>.
5. Matthaios VN, Holland I, Kang CM, Hart JE, Hauptman M, Wolfson JM, et al. **The effects of urban green space and road proximity to indoor traffic-related PM2.5, NO2, and BC exposure in inner-city schools.** J Expo Sci Environ Epidemiol. 2024;34(5):745-52. Available from: <https://doi.org/10.1038/s41370-024-00669-8>.
6. McGregor J. **Why doesn't Canada have more electric school buses?** CBC News. 2024 Sep 6. Available from: <https://www.cbc.ca/news/politics/green-school-bus-funding-delays-1.7314006>.
7. Prakash P. **V2G from Electric School Buses: The Impact on Children, Communities and Supply Chain Management.** International Journal of Supply Chain Management. 2024;12(6). Available from: <https://ojs.excelingtech.co.uk/index.php/IJSCM/article/view/6210>.
8. Roche IV, Ubalde-Lopez M, Daher C, Nieuwenhuijsen M, Gascon M. **The Health-Related and Learning Performance Effects of Air Pollution and Other Urban-Related Environmental Factors on School-Age Children and Adolescents—A Scoping Review of Systematic Reviews.** Curr Environ Health Rep. 2024;11(2):300-16. Available from: <https://doi.org/10.1007/s40572-024-00431-0>.
9. Transportation Research Board, National Academies of Sciences Engineering Medicine. **Flood Forecasting for Transportation Resilience: A Guide.** Mampara M, Lawler S, Gronsky K, Gordon A, Mills E, Kipp M, et al., editors. Washington, DC: The National Academies Press; 2024. Available from: <https://nap.nationalacademies.org/catalog/28022/flood-forecasting-for-transportation-resilience-a-guide>.
10. US Environmental Protection Agency (US EPA). **Reducing Diesel Emissions from School Buses.** Washington, DC: US EPA; 2024 [updated Sep 16]; Available from:

<https://www.epa.gov/dera/reducing-diesel-emissions-school-buses#:~:text=One%20of%20the%20easiest%20ways,school%20buses%20in%20the%20fleet.>

6. NON-CLIMATE RELATED DISASTERS

EARTHQUAKES

MARINE

TERRESTRIAL, OTHER

1. Karan E. **Mobile Emergency Power During and After Natural Disasters and Shortages**. Huntsville, TX: Institute for Homeland Security, Sam Houston State University; 2023. Available from: <https://shsu-ir.tdl.org/server/api/core/bitstreams/b6308bd0-dede-4ec8-8eab-ef69363527cb/content>.
2. Tsakonas K, Badyal S, Takaro TK, Buse C. **Occupational Health Impacts of Climate-Related Emergency Events on Health System Workers in British Columbia**. SSRN. 2024. Available from: <https://ssrn.com/abstract=4954528> or <http://dx.doi.org/10.2139/ssrn.4954528>.

7. DISEASES, VECTORS, PESTS

COVID-19

1. Anand SP, Tam CC, Calvin S, Ayache D, Slywchuk L, Lambraki I, et al. **Estimating public health risks of infectious disease events: A Canadian approach to rapid risk assessment**. *Can Commun Dis Rep*. 2024;50(9):282-93. Available from: <https://doi.org/10.14745/ccdr.v50i09a01>.
2. Global Preparedness Monitoring Board. **The Changing Face of Pandemic Risk: 2024 Report. Adapt - Protect - Connect**. NY: World Health Organization and the World Bank; 2024 Oct. Available from: <https://www.gpmb.org/reports/m/item/the-changing-face-of-pandemic-risk-2024-report>.
3. Health Canada. **Report of the Expert Panel for the Review of the Federal Approach to Pandemic Science Advice and Research Coordination: The Time to Act is Now**. Ottawa, ON: Government of Canada; 2024 10 10 Oct. Available from: <https://www.canada.ca/en/health-canada/corporate/about-health-canada/public-engagement/external-advisory-bodies/review-federal-approach-pandemic-science-advice-research-coordination/time-to-act.html>.

4. McNeil DG. **The Wisdom of Plagues: Lessons from 25 Years of Covering Pandemics**. Toronto, ON: Simon & Schuster; 2024. Available from: <https://www.simonandschuster.com/books/The-Wisdom-of-Plagues/Donald-G-McNeil/9781668001394>.
5. Ontario Agency for Health Protection and Promotion (Public Health Ontario). **Outbreak Preparedness, Prevention and Management in Congregate Living Settings**. Toronto, ON: PHO; 2024 Jan. Available from: <https://www.publichealthontario.ca/-/media/Documents/O/2023/outbreak-preparedness-prevention-management-congregate-living.pdf>.
6. Ontario Agency for Health Protection and Promotion (Public Health Ontario). **Best Practices for the Prevention of Acute Respiratory Infection Transmission in All Health Care Settings**. Toronto, ON: PHO; 2024 Oct. Available from: https://www.publichealthontario.ca/-/media/Documents/A/24/acute-respiratory-infection-transmission.pdf?rev=3fe3153793374e7896f8e583af6ead0c&sc_lang=en&hash=6919C84807BE B1E5A41BD23C83D00956.
7. Peyravi A, Quecke E, Kosareva E, Dolez P, Doroshenko A, Smith S, et al. **Evaluation of masks and mask material suitability for bioaerosol capture**. J Occup Environ Hyg.1-12. Available from: <https://doi.org/10.1080/15459624.2024.2394613>.

ANIMAL VECTORS

1. Caceres CJ, Gay LC, Faccin FC, Regmi D, Palomares R, Perez D. **Influenza A(H5N1) Virus Resilience in Milk after Thermal Inactivation**. Emerging Infectious Disease journal. 2024;30(11). Available from: https://wwwnc.cdc.gov/eid/article/30/11/24-0772_article.
2. Keesing F, Ostfeld RS. **Emerging patterns in rodent-borne zoonotic diseases**. Science. 2024;385(6715):1305-10. Available from: <https://www.science.org/doi/abs/10.1126/science.adq7993>.

INSECT VECTORS

PESTS, OTHER

1. Kundu R, Bansal Y, Singla N. **The Zoonotic Potential of Fungal Pathogens: Another Dimension of the One Health Approach**. Diagnostics. 2024;14(18):2050. Available from: <https://www.mdpi.com/2075-4418/14/18/2050>.

8. PUBLIC HEALTH FUNDAMENTALS

COMMUNICATION

1. Negreira-Rey M-C, Vázquez-Herrero J, Forja-Pena T. **Radon Risk Communication through News Stories: A Multi-Perspective Approach.** Int J Environ Res Public Health. 2024;21(10):1302. Available from: <https://www.mdpi.com/1660-4601/21/10/1302>.

HEALTH PROMOTION

1. Francesch JL-D, Botero NC. **Canadian Network for Health in All Policies Inaugural Meeting.** Montreal, QC: National Collaborating Centre for Healthy Public Policy; 2024 Sep 11. Available from: <https://ccnpps-ncchpp.ca/report-of-the-canadian-network-for-health-in-all-policies-inaugural-meeting/>.
2. Pleyer JA, Pesliak LD, McCall T. **Salutogenic Environmental Health Model -Proposing an Integrative and Interdisciplinary Lens on the Genesis of Health.** Frontiers. 2024;12. Available from: <https://www.frontiersin.org/journals/public-health/articles/10.3389/fpubh.2024.1445181/abstract>.

HEALTH IMPACT ASSESSMENT

1. Cave B. **Mellow Village: A Health Impact Assessment (HIA) Case Study. Practical guidance on how to undertake a HIA.** Dublin, Ireland: BCA Insight for the Institute of Public Health; 2024. Available from: https://www.publichealth.ie/sites/default/files/resources/HIACasestudy_0.pdf.

HEALTH EQUITY

1. Ballesteros-Arjona V, Oliveras L, Bolívar Muñoz J, Olry de Labry Lima A, Carrere J, Martín Ruiz E, et al. **What are the effects of energy poverty and interventions to ameliorate it on people's health and well-being?: A scoping review with an equity lens.** Energy Research & Social Science. 2022;87:102456. Available from: <https://www.sciencedirect.com/science/article/pii/S2214629621005430>.
2. Hunter C, Dazé A, Kitololo L, Chabvuta C, Ogola C, Benoudji C, et al. **A Story of Gender, Equity, and Justice in Climate Change Adaptation. Key gender and equity findings from the 6th Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) – Working Group II on Impacts, Adaptation, and Vulnerability.** Winnipeg, MB: International Institute for Sustainable Development 2024 Sep. Available from: <https://www.iisd.org/publications/report/gender-equity-climate-change-adaptation-ipcc-comic>.
3. Jessel S, Sawyer S, Hernández D. **Energy, Poverty, and Health in Climate Change: A Comprehensive Review of an Emerging Literature.** Front Public Health. 2019;7. Available from: <https://www.frontiersin.org/journals/public-health/articles/10.3389/fpubh.2019.00357>.

4. Philpot J. **Health for All. A Doctor's Prescription for a Healthier Canada.** Toronto, ON: Penguin Canada; 2024. Available from: <https://www.penguinrandomhouse.ca/books/741770/health-for-all-by-jane-philpott/9780771011726>.
5. Riva M, Kingunza Makasi S, O'Sullivan KC, Das RR, Dufresne P, Kaiser D, et al. **Energy poverty: an overlooked determinant of health and climate resilience in Canada.** Can J Public Health. 2023;114(3):422-31. Available from: <https://doi.org/10.17269%2Fs41997-023-00741-0>.

ONE HEALTH, OTHER

1. Bosman AL, Uhland F, Agunos A, Carson CA. **One Health surveillance of antimicrobial resistance and use by the Canadian Integrated Program for Antimicrobial Resistance Surveillance (CIPARS).** Can Vet J. 2024;65(10):1081-5. Available from: <https://pubmed.ncbi.nlm.nih.gov/39355704/>.
2. Food and Agriculture Association of the United Nations. **One health - Global Early Warning System: Safeguarding against future pandemics.** Rome, Italy: FAO; 2024. Available from: <https://www.fao.org/one-health/highlights/the-global-early-warning-system/en>.
3. Gatlin M. **A One Health Approach to Public Safety: A Review of Police Canines in the United States.** Int J Environ Res Public Health. 2024;21(9):1235. Available from: <https://www.mdpi.com/1660-4601/21/9/1235>.
4. Public Health Agency of Canada. **Statement from Dr. Theresa Tam, Chief Public Health Officer of Canada, and Dr. Mary Jane Ireland, Chief Veterinary Officer for Canada, on the release of the Pan-Canadian Action Plan on Antimicrobial Resistance Year 1 Progress Report.** Ottawa, ON: PHAC; 2024 Sep. Available from: <https://www.canada.ca/en/public-health/news/2024/09/statement-from-dr-theresa-tam-chief-public-health-officer-of-canada-and-dr-mary-jane-ireland-chief-veterinary-officer-for-canada-on-the-release-of-.html>.
5. Raphael R, As D, Karnaver P, Devy RA, M DP, Jose J. **Mapping Research Trends in One Health: A Comprehensive Review.** Cureus. 2024;16(9):e70047. Available from: <http://dx.doi.org/10.7759/cureus.70047>.

9. OTHER TOPICS

CANNABIS PRODUCTS

1. National Academies of Sciences Engineering Medicine. **Cannabis Policy Impacts Public Health and Health Equity.** Teutsch S, Hurd Y, Boyle E, editors. Washington, DC: The National Academies Press; 2024. Available from: <https://nap.nationalacademies.org/catalog/27766/cannabis-policy-impacts-public-health-and-health-equity>.

TOBACCO, NICOTINE PRODUCTS

IONIZING, NON-IONIZING RADIATION

1. Moon J, Kwon J, Mun Y. **Relationship between radiofrequency-electromagnetic radiation from cellular phones and brain tumor: meta-analyses using various proxies for RF-EMR exposure-outcome assessment.** *Environ Health.* 2024;23(1):82. Available from: <https://doi.org/10.1186/s12940-024-01117-8>.
2. Sieniawska D, Proszowska P, Madoń M, Kotowicz Z, Orzeł A, Pich-Czekierda A, et al. **Ultraviolet-Protective Clothing and Sunscreen: Sun-Protection for Healthy Skin.** *Journal of Education, Health and Sport.* 2024;71:51237. Available from: <https://apcz.umk.pl/JEHS/article/view/51237>.
3. Voigt RM, Ouyang B, Keshavarzian A. **Outdoor nighttime light exposure (light pollution) is associated with Alzheimer's disease.** *Front Neurosci.* 2024;18. Available from: <https://www.frontiersin.org/journals/neuroscience/articles/10.3389/fnins.2024.1378498>.

PERSONAL SERVICES ESTABLISHMENTS, OTHER

1. Ontario Agency for Health Protection and Promotion (Public Health Ontario). **Infection prevention and control risks posed by piercing guns and devices.** Toronto, ON: PHO; 2024 Aug. Available from: <https://www.publichealthontario.ca/-/media/Documents/I/24/ipac-risks-piercing-guns-devices-faq.pdf?rev=0c3c236e0a07439483b6473c8a2dd5df&la=fr>.
2. Ontario Agency for Health Protection and Promotion (Public Health Ontario). **Use of Piercing Devices in Canada and Select International Jurisdictions.** Toronto, ON: PHO; 2024 Aug. Available from: <https://www.publichealthontario.ca/-/media/Documents/I/24/ipac-risks-piercing-guns-devices.pdf?rev=c828f0b77f904e969cc582b56e7e03fb&la=fr>.

10. SPECIFIC POPULATIONS

CHILDREN

1. Luque-García L, García-Baquero G, Lertxundi A, Al-Delaimy WK, Julvez J, Estarlich M, et al. **Exploring the pathways linking prenatal and early childhood greenness exposure to attention-deficit/hyperactivity disorder symptoms during childhood: An approach based on robust causal inference.** *Int J Hyg Environ Health.* 2025;263:114475. Available from: <https://www.sciencedirect.com/science/article/pii/S1438463924001561>.

INDIGENOUS PEOPLES

1. Barros N, Tulve NS, Heggem DT, Bailey K. **Review of built and natural environment stressors impacting American-Indian/Alaska-Native children.** *Rev Environ Health.* 2018;33(4):349-81. Available from: <https://doi.org/10.1515/reveh-2018-0034>.
2. Bergeron O. **Frameworks for Determinants of Health: Characteristics and Features in Indigenous contexts.** Montreal, QC: Institut national de santé publique du Québec; 2024 Aug. Available from: <https://www.inspq.qc.ca/en/publications/2888>.
3. Environment and Climate Change Canada. **At a glance – Evaluation of Environment and Climate Change Canada’s Indigenous Guardians Initiative.** Ottawa, ON: Government of Canada; 2024 Aug. Available from: <https://www.canada.ca/en/environment-climate-change/corporate/transparency/priorities-management/evaluations/evaluation-eccc-indigenous-guardians-initiative-2024/at-a-glance.html>.
4. Fournier C, Lafrenaye-Dugas A-J. **Social inequalities in health: The perspective of Indigenous girls and women.** Montreal, QC: Institut national de santé publique du Québec; 2024 Aug. Available from: <https://www.inspq.qc.ca/en/publications/3523>.
5. Wale J, Huson B. **From Risk to Resilience: Indigenous Alternatives to Climate Risk Assessment in Canada.** Toronto, ON: Yellowhead Institute, Toronto Metropolitan University; 2024 Sep. Available from: <https://yellowheadinstitute.org/wp-content/uploads/2024/09/From-Risk-to-Resilience.pdf>.

OLDER ADULTS

1. Hosford K, Pitman B, Brauer M, Lavergne R, Winters M. **Characterizing Older Adults’ Travel Behaviour and Unmet Needs: Findings from the Canadian Longitudinal Study on Aging (CLSA).** *Canadian Journal on Aging / La Revue canadienne du vieillissement.* 2024:1-15. Available from: <https://www.cambridge.org/core/product/69FC7DF5202062CFF450A7A18999BF69>.

For more on environmental health information and evidence, visit [NCCEH.ca](https://www.ncceh.ca)

To provide feedback on this document, please visit www.ncceh.ca/en/document_feedback

This document can be cited as: National Collaborating Centre for Environmental Health. Environmental health research scan. Vancouver, BC: NCCEH. 2024 October.

Permission is granted to reproduce this document in whole, but not in part. Production of this document has been made possible through a financial contribution from the Public Health Agency of Canada through the National Collaborating Centre for Environmental Health.