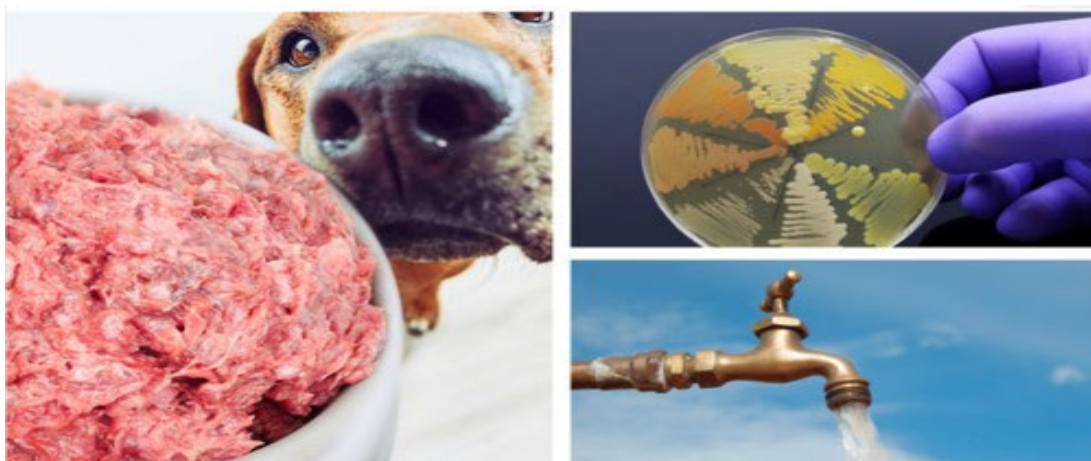


ENVIRONMENTAL HEALTH RESEARCH SCAN

VOL 10 (2) FEBRUARY 2026



<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

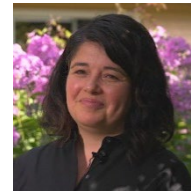
NCCEH's EH Research Scan aims to expand awareness of topics in environmental health, in line with [NCCEH's vision](#) to be the indispensable online resource for environmental health practitioners and policy-makers across Canada. This research scan is not peer reviewed; it does not cover all research, news, and information, and NCCEH is not responsible for the accuracy of the content from media or databases.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 pathways of antimicrobial resistance: A One Health case study.

Negar Elmieh, Environmental Health and Knowledge Translation Scientist, NCCEH

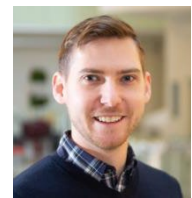
“This One Health case study highlights how Environmental Public Health Professionals can apply a One Health approach in practice to strengthen surveillance, inform risk assessment, and support coordinated and cross-sector responses to AMR.”



Wildfire smoke: What is the relationship between outdoor and indoor air pollutants? [evidence review]

Ryan D Huff, Environmental Health and Knowledge Translation Scientist, NCCEH

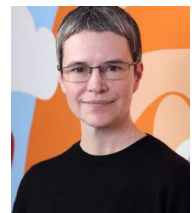
“This review summarizes evidence on the infiltration of wildfire smoke from outdoor to indoor environments and how building characteristics and mitigation strategies influence exposure, finding that buildings offer meaningful but incomplete protection from air pollutants during smoke episodes.”



Cumulative and relativistic temperature metrics for public heat alerts: A new approach proposed for greater Vancouver, Canada [journal article].

Sarah B Henderson, Scientific Director of Environmental Health Services at BCCDC and of the National Collaborating Centre for Environmental Health

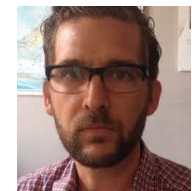
“The relativistic H+L+H [high+low+high] temperature metric integrates cumulative multi-day exposure and addresses the challenge of intra-urban variability in absolute temperatures. This approach provides a more flexible alternative to heat alerts based on absolute temperatures, and highlights differences in risk among susceptible populations”



A fire-driven shift in Canadian air quality concerns mirrors trends in the US [journal article].

Robert Field, Associate Research Scientist, Columbia University, and colleagues

“...In contrast to air pollution from smokestacks and tailpipes that can be addressed at the source through government regulation, a future with more wildfire smoke will require downwind mitigation and will be the responsibility of public health officials.”



January research scan [research scan].

National Collaborating Centre for Environmental Health



NCCEH eNews (Jan 2025)



ENVIRONMENTAL HEALTH RESEARCH SCAN

SELECTED RESOURCES

1. Elmieh N. **Environmental pathways of antimicrobial resistance: A One Health case study.** Vancouver, BC: National Collaborating Centre for Environmental Health; 2026 Feb 18. Available from: <https://ncceh.ca/resources/evidence-briefs/environmental-pathways-antimicrobial-resistance-one-health-case-study>.
2. Field RD, Jethva H, Wales PA, McCabe T, Henderson SB, Clifton OE, et al. **A fire-driven shift in Canadian air quality concerns mirrors trends in the US.** *Earth's Future*. 2025 12;13(12):e2025EF007041. Available from: <https://agupubs.onlinelibrary.wiley.com/doi/abs/10.1029/2025EF007041>.
3. Hu AT, Brauer M, Lavigne E, Henderson S. **Cumulative and relativistic temperature metrics for public heat alerts: A new approach proposed for greater Vancouver, Canada.** medRxiv. 2025:2025.09.05.25333794. Available from: <https://www.medrxiv.org/content/medrxiv/early/2025/09/22/2025.09.05.25333794.full.pdf>.
4. Huff RD. **Wildfire smoke: What is the relationship between outdoor and indoor air pollutants?** Vancouver, BC: National Collaborating Centre for Environmental Health; 2026 Feb 11. Available from: <https://ncceh.ca/resources/evidence-reviews/wildfire-smoke-what-relationship-between-outdoor-and-indoor-air>.

Webinars, Scans, e-News

1. Claude J, Goulding R. **California's OEHHA Synthetic Turf Study: Assessment of health risks from exposure to crumb rubber infill [webinar].** Vancouver, BC: National Collaborating Centre for Environmental Health; 2026 Feb 26. Available from: <https://ncceh.ca/events/upcoming-webinars/californias-oehha-synthetic-turf-study-assessment-health-risks-exposure>.
2. Henderson S. **Indoor environmental quality (IEQ) in shelter settings: What it means and why it matters [webinar].** Vancouver, BC: National Collaborating Centre for Environmental Health; 2026 Feb 11. Available from: <https://ncceh.ca/events/upcoming-webinars/indoor-environmental-quality-ieq-shelter-settings-what-it-means-and-why-it>.
3. National Collaborating Centre for Environmental Health. **Jan research scan.** Vancouver, BC: NCCEH; 2026 Jan. Available from: <https://ncceh.ca/resources/evidence-briefs/latest-environmental-health-research-scans>.
4. National Collaborating Centre for Environmental Health. **NCCEH eNews (Jan 2026): NCCEH Rapid review: Environmental health risks and safety considerations in saunas.** Vancouver, BC: NCCEH; 2026. Available from: <https://app.cyberimpact.com/newsletter-view-online?ct=ehdxkHVIAUM6tCQqKV85GseWJPM-kRNPZq2ymA4lHW4AZmjoKzPhqcgeFs0CpuzhTxbEhnF5BDm2nSv0aKEbNw~~>.

1. AIR QUALITY

INDOOR AIR

1. Alliance for Healthier Communities. **Indoor environmental quality (IEQ) in shelter settings: What it means and why it matters.** Toronto, ON: Alliance for Healthier Communities; 2026. Available from: <https://www.allianceon.org/event/Indoor-environmental-quality-IEQ-shelter-settings-What-it-means-and-why-it-matters>.
2. Bracht MK, Melo AP, Lamberts R. **Heat waves in buildings: A review of detection methods and performance assessment.** Build Environ. 2026;290:114205. Available from: <https://www.sciencedirect.com/science/article/pii/S0360132326000119>.
3. Dennison JE. **Risk based tiered residential methamphetamine remediation limits.** medRxiv. 2026. Available from: <https://pmc.ncbi.nlm.nih.gov/articles/PMC12870601/>.
4. Henderson S. **Indoor environmental quality (IEQ) in shelter settings: What it means and why it matters [webinar].** Vancouver, BC: National Collaborating Centre for Environmental Health; 2026 Feb 11. Available from: <https://ncceh.ca/events/upcoming-webinars/indoor-environmental-quality-ieq-shelter-settings-what-it-means-and-why-it>.
5. Huff RD. **Wildfire smoke: What is the relationship between outdoor and indoor air pollutants?** Vancouver, BC: National Collaborating Centre for Environmental Health; 2026 Feb 11. Available from: <https://ncceh.ca/resources/evidence-reviews/wildfire-smoke-what-relationship-between-outdoor-and-indoor-air>.
6. Katz GM, Brown KA, Giannakeas V, Stall NM. **Air Conditioning in Nursing Homes and Mortality During Extreme Heat.** JAMA internal medicine. 2026;186(2):243-51. Available from: <https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/2842680>.
7. Lee SH, Bianchi C, Carvallo JP. **Enhancing building resilience: Maintaining energy efficiency and thermal comfort during power outages in cold climates.** Building Simulation. 2026. Available from: <https://doi.org/10.1007/s12273-025-1371-2>.
8. Moorchildot VS, Aradhana KS, Aravindakumar CT, Aravind UK. **Unravelling airborne complexities: the role of spider webs and indoor dust in assessing human exposure to indoor organic micropollutants.** J Expo Sci Environ Epidemiol. 2026. Available from: <https://www.nature.com/articles/s41370-026-00839-w>.
9. Silva G, Duarte J, Baptista JS, Rufo JC. **Low-cost sensors for indoor air quality monitoring: A systematic Review of accuracy, applications, and limitations.** Journal of the Air & Waste Management Association (1995). 2026. Available from: <https://doi.org/10.1080/10962247.2026.2624795>.
10. Xu X, Zhong X, Wang Y, Yang X, Jiang Y, Gao M, et al. **Methane emissions from household gas stoves: significance and mitigation potential.** Environ Sci Tech. 2026. Available from: <https://pubs.acs.org/doi/10.1021/acs.est.5c14951>.

OUTDOOR AIR

1. Gonzalez-Villalva A, Rojas-Lemus M, López-Valdez N, Cervantes-Valencia ME, Guerrero-Palomo G, Casarrubias-Tabarez B, et al. **Metal Pollution in the Air and Its Effects on Vulnerable Populations: A Narrative Review**. *Int J Mol Sci*. 2026;27(2). Available from: <https://doi.org/10.3390/ijms27020720>.
2. McCauley S, Smith C, Carlson R, Saleh M, Laroche C. **Electrifying Ontario school buses: a resource guide**. Toronto, ON: Pollution Probe; 2025 [updated 2025-12-10]; Available from: https://www.pollutionprobe.org/wp-content/uploads/2025/12/Pollution-Probe_Resource-Guide_Dec-10.pdf.
3. Oh J, Shah S, Min J, Wang S, Lee JH, Kim YJ, et al. **Prenatal and postnatal exposure to traffic-related air pollution (TRAP) and childhood cancer: Systematic review and meta-analysis**. *Environ Res*. 2026;292:123646. Available from: <https://doi.org/10.1016/j.envres.2025.123646>.
4. Sherris AR, Dearborn LC, Goin DE, Loftus CT, Szpiro AA, Casey JA, et al. **Wildfire-specific fine particulate matter and preterm birth: a US ECHO Cohort analysis**. *The Lancet Planetary health*. 2026:101324. Available from: [https://www.thelancet.com/journals/lanplh/article/PIIS2542-5196\(25\)00202-5/fulltext](https://www.thelancet.com/journals/lanplh/article/PIIS2542-5196(25)00202-5/fulltext).
5. Sørensen MK, Deen L, Khoury G, Petersen JA, Thomsen JF, Ervik TK, et al. **A systematic review of outdoor airborne asbestos concentrations in urban and rural areas**. *Journal of Hazardous Materials Advances*. 2025;20:100926. Available from: <https://www.sciencedirect.com/science/article/pii/S2772416625003377>.

RADON, OTHER

1. Iuliano K, Papas S, Greco KJ, Adachi-Mejia AM, Knutzen K, Sykes C, et al. **A qualitative study exploring barriers and motivators influencing home radon testing decisions and behaviors**. *Sci Rep*. 2026. Available from: <https://doi.org/10.1038/s41598-026-39513-4>.
2. Slavik CE, Chapman DA, Trieu J, McVea DA, Fish CS, Peters E. **Do radon risk maps encourage residential testing behaviour? Evidence from an experimental study in Canada**. *Public Health*. 2026;251:106103. Available from: <https://doi.org/10.1016/j.puhe.2025.106103>.

2. FOOD

FOOD SAFETY

1. Azad K, Firestone M, Young I. **Food and Water Safety Practices and Preparedness of Ontarians at Home During Power Outages and Other Emergencies: A Cross-Sectional Study**. *J Food Prot*. 2026:100711. Available from: <https://doi.org/10.1016/j.jfp.2026.100711>.
2. Collado-López S, Rodríguez Hernández MF, Mariscal-Moreno RM, Téllez-Rojo MM, Betanzos-Robledo L, Reyes Luna M, et al. **Concentrations of Heavy Metals in Processed Baby Foods and**

- Infant Formulas Worldwide: A Scoping Review.** Nutr Rev. 2026;84(2):448-61. Available from: <https://doi.org/10.1093/nutrit/nuaf138>.
3. Food and Agricultural Organization of the United Nations, World Health Organization. **Microbiological risk assessment of viruses in foods. Part 2: Prevention and intervention measures. Meeting report.** Food and Agricultural Organization of the United Nations and the World Health Organization; 2026. Available from: <https://iris.who.int/server/api/core/bitstreams/6f81070e-7c85-4cd0-a929-f4a734698166/content>.
 4. Grome HN, Brandenburg JM, Kent AG, Curtis L, Raymond RE, Ansari U, et al. **Extraintestinal Invasive Escherichia coli Infections in the US.** JAMA Network Open. 2026;9(2):e2557201-e. Available from: <https://doi.org/10.1001/jamanetworkopen.2025.57201>.
 5. Klein K, Malla S, Forestell D. **Is it Time for Canada to Institute Mandatory Labelling for Genetically Engineered foods? Assessing the Evidence.** Athens Journal of Social Sciences. 2026;12. Available from: <https://www.athensjournals.gr/social/2025-6943-AJSS-Klein-02.pdf>.
 6. Otwey RY, Chapagain S, Ghimire U, Dhakal J. **Salmonella in Backyard Poultry: Prevalence, Outbreaks, Trends, Antimicrobial Resistance, and Emerging Risks.** J Food Prot. 2026;89(3):100703. Available from: <https://doi.org/10.1016/j.jfp.2026.100703>.

FOOD SECURITY

1. Sadovska V, Voytenko Palgan Y, Mont O. **Challenges, risks and costs of food sharing. Insights from a systematic literature review.** Journal of Cleaner Production. 2026;538:147292. Available from: <https://www.sciencedirect.com/science/article/pii/S0959652625026496>.

GROWING FOOD, OTHER

1. Wu L, Zhao Q, Natcher D. **Assessing the agricultural production potential of northern high-latitude arable land under climate change: The case of the Northwest Territories, Canada.** Reg Environ Change. 2026;26(1):28. Available from: <https://doi.org/10.1007/s10113-026-02530-0>.

3. WATER

DRINKING WATER

1. Fakhri Y, Dehghani S, Sahlabadi F, Torabbeigi M. **Concentration of perchlorate in drinking water: a global systematic review-meta-analysis and probabilistic human risk assessment.** Int J Environ Health Res. 2026:1-14. Available from: <https://doi.org/10.1080/09603123.2026.2614977>.

2. Health Canada. **Guidelines for Canadian drinking water quality: Radiological parameters.** Ottawa, ON: Health Canada; 2025 Dec. Available from: <https://www.canada.ca/en/health-canada/services/publications/healthy-living/guidelines-drinking-water-quality-radiological-parameters.html>.
3. Health Canada. **Draft Guidance on asbestos in drinking water.** Ottawa, ON: Health Canada; 2026 Mar. Available from: <https://www.canada.ca/en/health-canada/programs/consultation-guidance-asbestos-drinking-water/document.html>.

RECREATIONAL WATER

1. Ahluwalia V, Iyer VN. **Respiratory health issues in indoor water parks: a review of noninfectious and infectious complications.** *Curr Opin Pulm Med.* 2026;32(2):77-82. Available from: <https://doi.org/10.1097/mcp.0000000000001237>.
2. March H, Meehan K, Domene E, Satorras M, Saurí D. **Why water security matters to cities under extreme heat in the Global North.** *npj Urban Sustainability.* 2026;6(1):15. Available from: <https://doi.org/10.1038/s42949-025-00317-6>.

SMALL WATER SYSTEMS

1. Marques P, Akbari A, Illyés E, Dean E, Mandrak NE. **Ecosystem services in urban stormwater ponds: Players, perceptions and priorities for advancing planning and management.** *Ecological Solutions and Evidence.* 2026;7(1):e70181. Available from: <https://besjournals.onlinelibrary.wiley.com/doi/abs/10.1002/2688-8319.70181>.

WASTEWATER, OTHER

4. CLIMATE CHANGE

EXTREME WEATHER

1. Abrams JF, Hu S, Bampton BD. **Recalibrating Climate Risk: Aligning damage functions with scientific understanding.** Exeter, UK: University of Exeter and Carbon Tracker Initiative; 2026 2026-02-05. Available from: <https://greenfuturessolutions.com/wp-content/uploads/2026/01/Recalibrating-Climate-Risk-Report-Final.pdf>.
2. Ahmed I, van Esch M, Petrović A, van der Hoeven F. **Navigating heatwaves in a temperate climate: barriers to behavioural adaptation in Dutch urban areas.** *Climate Risk Management.*

- 2026;51:100794. Available from:
<https://www.sciencedirect.com/science/article/pii/S2212096326000070>.
3. Boudreault J, Lamothe F, Campagna C, Chebana F. **Machine learning for modelling the health impacts of extreme heat: A comprehensive literature review**. Environ Int. 2025;206:109965. Available from: <https://www.sciencedirect.com/science/article/pii/S0160412025007160>.
 4. British Columbia Emergency Preparedness. **Be prepared for extreme heat and drought**. Victoria, BC: Government of BC; 2026 [Feb 10]; Available from: <https://www2.gov.bc.ca/gov/content/safety/emergency-management/preparedbc/know-your-hazards/severe-weather/extreme-heat>.
 5. City of Saskatoon. **Stay safe during extreme heat**. Saskatoon, SK: City of Saskatoon; 2026; Available from: <https://www.saskatoon.ca/heat>.
 6. Climatedata.ca. **Climate data for a resilient Canada**. Climatedata.ca; Available from: https://climatedata.ca/?trk=public_post_reshare-text&q=.
 7. Eisenstein M. How cities can keep their cool. **Cutting-edge materials and thoughtful urban planning can help cities beat the negative heating effects of climate change**. Nature. 2026. Available from: <https://www.nature.com/articles/d41586-025-03926-4>.
 8. Fu X, Huang S. **Heatwaves, ageing, and dementia: assessing mortality risks and adaptation strategies in a warming China**. eBioMedicine. 2026;124:106123. Available from: <https://www.sciencedirect.com/science/article/pii/S2352396426000046>.
 9. Graffy PM, Barrett BW, Horton DE, Kho AN, Allen NB. **Critical temperature thresholds for identifying vulnerability to heat - related excess cardiovascular morbidity and mortality**. J Am Heart Assoc. 2026;15(2):e046117. Available from: <https://doi.org/10.1161/JAHA.125.046117>.
 10. Guo X, Nkwopara C, Peters CE, Villeneuve PJ, McLeod CB. **Impact of heat exposure on workers' health and safety: a scoping review**. Occup Environ Med. 2025;82(11):563-70. Available from: <https://oem.bmj.com/content/oemed/82/11/563.full.pdf>.
 11. Ham D, Lim Y-H, Bae H-J, Choi J, Song M, Bae S. **Mortality Risks of Seasonal Temperature Anomalies and the Unrecognized Risk of Winter Warmth: A Nationwide Case-Time Series**. SSRN. 2026. Available from: <http://dx.doi.org/10.2139/ssrn.6100911>.
 12. Homelessness Services Association of BC. **Extreme weather response program of BC**. Vancouver, BC: HSABC. Available from: <https://hsa-bc.ca/ewr-program-outline.html>.
 13. Kannankeril Joseph VJ, Conte Keivabu R, Muttarak R, Zagheni E, Mazzucco S. **Harvesting Effect and Extreme Temperature-Related Mortality in Italy**. European Journal of Population. 2026;42(1):3. Available from: <https://doi.org/10.1007/s10680-025-09764-4>.
 14. Li W-J, Deng J-J, Cheng X-E, Li X-X, Chang Y-W, Tao S-S, et al. **Global, Regional, and National Burden of Environmental Heat and Cold Exposure in Adults Aged 55 Years and Older From 1990 to 2021: A Trend Analysis**. J Occup Environ Med. 2026;68(1). Available from: https://journals.lww.com/joem/fulltext/2026/01000/global,_regional,_and_national_burden_of_3.aspx.
 15. Mock L, Nethery RC, Gandhi P, Parthasarathi A, Rua M, Robinson D, et al. **Excess risk of heat-related hospitalization associated with temperature and PM2.5 among older adults**. Environmental Epidemiology. 2026;10(1). Available from:

- https://journals.lww.com/environepidem/fulltext/2026/02000/excess_risk_of_heat_related_hospitalization.4.aspx.
16. Morita A, Nishimura H, Anzai T, Nawa N, Tani Y, Kondo K, et al. **Effects of extreme heat on the onset of dementia and all-cause mortality: A 3-year follow-up study in a large population-based cohort in Japan.** *Alzheimer's & Dementia.* 2026;22(1):e71057. Available from: <https://alz-journals.onlinelibrary.wiley.com/doi/abs/10.1002/alz.71057>.
 17. National Academy of Medicine. **Leveraging data to drive effective heat protection policies.** Washington, DC: National Academy of Medicine; 2026. Available from: https://nam.edu/product/leveraging-data-to-drive-effective-heat-protection-policies/?utm_source=National+Academy+of+Medicine&utm_campaign=e1b83af88b-EMAIL_CAMPAIGN_2025_12_15_08_18_COPY_01&utm_medium=email&utm_term=0_c2161485e1-151540925.
 18. Ness R, Carriere Z, Gauer V. **Prepare or repair. How climate-proofing public infrastructure pays off.** Toronto, ON: Canadian Climate Institute; 2026 Feb. Available from: <https://climateinstitute.ca/wp-content/uploads/2026/02/Prepare-or-Repair-climate-proofing-public-infrastructure-Canadian-Climate-Institute.pdf>.
 19. Ploesser M, Lomeli Diaz JD, Zincke MT, Silverman S, Taylor MB. **Impact of Stress and Eco-anxiety on Rheumatic Disease: A Growing Concern in the Climate Crisis.** *Rheum Dis Clin North Am.* 2026;52(1):147-61. Available from: <https://doi.org/10.1016/j.rdc.2025.09.003>.
 20. Sirenko M, Comes T, Verbraeck A. **Urban heatwaves reverse vulnerability-resilience relationships throughout the day.** *npj Urban Sustainability.* 2026. Available from: <https://doi.org/10.1038/s42949-025-00327-4>.
 21. Tamarack Institute. **Lessons from the First Adaptive and Resilient Communities Cohort 2025.** Waterloo, ON: Tamarack Institute; 2026. Available from: <https://www.tamarackcommunity.ca/case-studies/lessons-from-the-first-adaptive-and-resilient-communities-cohort-2025>.
 22. Torales J, Barrios I, Ventriglio A, Castaldelli-Maia JM, Lashley M, Campbell M, et al. **Climate change and mental health: A multinational study of climate-anxiety, coping, and psychosocial responses.** *Asian journal of psychiatry.* 2026;117:104859. Available from: <https://doi.org/10.1016/j.ajp.2026.104859>.
 23. Torales J, Ventriglio A, Castaldelli-Maia JM, Liebrezn M, Barrios I, O Higgins M. **Climate change as a threat multiplier: conflict pathways, inequities, and mental health impacts.** *International review of psychiatry (Abingdon, England).* 2026:1-13. Available from: <https://doi.org/10.1080/09540261.2026.2620547>.
 24. Vieira de Oliveira Salerno PR, Estrada-Mendizabal RJ, Chen Z, Dazard J-E, Nasir K, Requia W, et al. **Social vulnerability and mortality attributable to non-optimal temperature in the United States: A county-level ecological analysis.** *Curr Probl Cardiol.* 2026;51(4):103260. Available from: <https://www.sciencedirect.com/science/article/pii/S0146280626000034>.
 25. Wang W, Yang C, Liang Z, Wang F, Wang J, Zhang F, et al. **Street view-derived city built environment and vulnerability to temperature extremes: a nationally representative population-based**

cohort study. BMC Med. 2025;24. Available from: <http://dx.doi.org/10.1186/s12916-025-04585-y>.

26. Wright CY, Bulani M, Kapwata T, Dikoko V, Naidoo N. **Temperature-Related Health Impacts: A Scoping Review and Benchmarking Exercise to Inform a Heat Action Plan.** Amer Biol Teacher. 2026;92(1):8. Available from: <https://doi.org/10.5334/aogh.5016>.

FLOODING

1. Didier D, Zouaghi F, Coulombe S, Noah T, Bertrand EM, Stolle J, et al. **Community-based nearshore wave and water level monitoring in Nunavut, Arctic Canada 2021–2023.** Scientific Data. 2026;13(1):239. Available from: <https://doi.org/10.1038/s41597-026-06559-y>.

SEA LEVEL RISE

1. Mundle K. **Canadian cities are unprepared for climate-driven migration — here’s what they can do.** 2025 [Aug 14]; Available from: <https://building.ca/feature/canadian-cities-are-unprepared-for-climate-driven-migration-heres-what-they-can-do/>.
2. Szoller D. **Canada: Sea Level Rise.** 2026 [Jan 27]; Available from: <https://www.climatescorecard.org/2026/01/canada-sea-level-rise/>.

WILDFIRES, OTHER

1. Adhikari A, Kraistudomsook N, Bonfantine KL, Lampman P, Fox S, Smith JA, et al. **Pathogens on fire: a scoping review of smoke-borne pathogen ecology in the One Health framework.** PeerJ. 2026;14:e20605. Available from: <https://doi.org/10.7717/peerj.20605>.
2. Alqattan ZA, Chukwuonye GsN, Tinerella C, Jones M, Ramírez-Andreotta MD. **Compounding hazards posed by wildfires, flooding, and resource extraction: Assessing multimedia metal(loid) exposures and risk in rural, southwestern U.S. Populations.** Environ Int. 2026;207:110034. Available from: <https://www.sciencedirect.com/science/article/pii/S0160412025007858>.
3. Babaei MH, Wong SD. **Assessment of intended electric vehicle charging behaviours during wildfire evacuations.** Transportation Research Part D: Transport and Environment. 2026;151:105145. Available from: <https://www.sciencedirect.com/science/article/pii/S1361920925005553>.
4. Canosa IV, Ford J, Pearce T, Whitehead J, Torgerson O, Paavola J, et al. **Exploring Wildfire Preparedness, Perceptions, and Responses in Western Canada: Insights from Valemount, British Columbia.** Weather, Climate, and Society. 2025;17(4):699-714. Available from: <https://journals.ametsoc.org/view/journals/wcas/17/4/WCAS-D-24-0130.1.xml>.
5. Chan WR, Lee A, Destailats H. **Restoring homes after wildfires. Interviews with practitioners about current approaches and knowledge gaps.** Berkeley, CA: Berkeley Lab, Energy Analysis Division; 2026 Jan. Available from: <https://escholarship.org/uc/item/3rv6c663>.

6. Field RD, Jethva H, Wales PA, McCabe T, Henderson SB, Clifton OE, et al. **A fire-driven shift in Canadian air quality concerns mirrors trends in the US.** *Earth's Future*. 2025 12 12;13(12):e2025EF007041. Available from: <https://agupubs.onlinelibrary.wiley.com/doi/abs/10.1029/2025EF007041>.
7. Gómez González JL, Marcoulaki E, Cantizano González A, Konstantinidou M, Caro Carretero R, Castro Ponce M. **Wildfire Mitigation in Small-to-Medium-Scale Industrial Hubs Using Cost-Effective Optimized Wireless Sensor Networks.** *Repositorio de la Universidad Pontificia Comillas* 2026. Available from: <https://repositorio.comillas.edu/xmlui/handle/11531/108279>.
8. Hao H, Xu K, Zhang D, Deng Y, Benmarhnia T, Pu Q, et al. **Long-term exposure to wildfire smoke particulate matter and incident stroke: a US nationwide study.** *Eur Heart J*. 2026. Available from: <https://doi.org/10.1093/eurheartj/ehaf875>.
9. Luglio DG, Yu X, Lin JC, Chow T, Martinez MP, Chen Z, et al. **Prenatal Exposure to Wildfire and Autism in Children.** *Environ Sci Tech*. 2026;60(4):2907-16. Available from: <https://doi.org/10.1021/acs.est.5c08256>.
10. Matz CJ, Egyed M, Wang X, Duhamel A, Xi G, Rittmaster R, et al. **Health Impact Analysis of Wildfire Smoke-PM_{2.5} in Canada (2019–2023).** *GeoHealth*. 2026;10(2):e2025GH001565. Available from: <https://agupubs.onlinelibrary.wiley.com/doi/abs/10.1029/2025GH001565>.
11. Michaud-Tétrault J, Bouchard-Bastien E, Peel M-A, Perron S. **Emergency evacuations during wildfires: a public health perspective in Québec (Canada).** *Disaster Prevention and Management*. 2025:1-14. Available from: <https://doi.org/10.1108/DPM-03-2025-0067>.
12. O'Sharkey K, Mitra S, Chow T, Goodrich AJ, Conlon KC, Nuño M, et al. **Prenatal exposure to wildfire-related PM_{2.5} and autism spectrum disorder in children born in California between 2001–2019.** *Environ Int*. 2026;208:110131. Available from: <https://www.sciencedirect.com/science/article/pii/S0160412026000899>.
13. Sandoval-Díaz J, Navarrete-Valladares C, Vega-Ortega J, Suazo-Muñoz C, Gallegos Riquelme JP, Sandoval-Obando E, et al. **Community resilience to wildfires: A systematic review of impacts, coping strategies, indicators, and governance challenges.** *Progress in Disaster Science*. 2025;27:100447. Available from: <https://www.sciencedirect.com/science/article/pii/S2590061725000444>.
14. Savich A, Zeng E, Tsai L, Li J. **Effects of Wildfire Smoke Inhalation on Respiratory Health.** *Respir Care*. 2026;71(2):211-25. Available from: <https://doi.org/10.1177/19433654251377005>.
15. Su Y, Wang Z, Fu H, Yang A, Chen X, An C. **Spatiotemporal evolution and anomaly assessment of wildfire-induced air pollution across Canada using satellite AOD analysis.** *Environmental pollution (Barking, Essex : 1987)*. 2026;392:127667. Available from: <https://doi.org/10.1016/j.envpol.2026.127667>.
16. University of British Columbia Communications Staff. **Push forward with UBC: Revolutionizing wildfire preparedness.** Vancouver, BC: UBC; 2026; Available from: <https://beyond.ubc.ca/push-forward-with-ubc-revolutionizing-wildfire-preparedness/>.
17. Wu Q, Huang Y, Sinclair LL, Kang H, Eshelman T, Picchi MA, et al. **Associations between wildfire smoke exposure and health-related quality of life: findings from the Lovelace Smokers Cohort.** *Respir Res*. 2026. Available from: <https://doi.org/10.1186/s12931-026-03505-9>.

18. Yearwood D, McGee T, Wong S. **Host community logistics and advanced preparation: Insights from wildfire evacuations in Alberta.** International Journal of Disaster Risk Reduction. 2025;129:105783. Available from: <https://www.sciencedirect.com/science/article/pii/S2212420925006077>.
19. Young K, Roher SIG. **Exploring the impacts of the 2023 wildfire evacuations in the Northwest Territories: a grey literature review.** Int J Circumpolar Health. 2025;84(1):2557701. Available from: <https://doi.org/10.1080/22423982.2025.2557701>.
20. Zhang M, Castro E, Shtein A, Peralta AA, Danesh Yazdi M, Wu X, et al. **Wildfire smoke PM2.5 and mortality rate in the contiguous United States: A causal modeling study.** Sci Adv. 2026;12(6):eadw5890. Available from: <https://www.science.org/doi/abs/10.1126/sciadv.adw5890>.
21. Zhang S, Chen K. **Wildfire smoke and stroke: emerging evidence on long-term cardiovascular risk.** Eur Heart J. 2026. Available from: <https://doi.org/10.1093/eurheartj/ehaf1003>.
22. Zhang Y, Zhou S, Xu R, Yang Z, Huang W, Saldiva PHN, et al. **Wildfire-sourced fine particulate matter and mental disorders in children and adolescents.** Nature Mental Health. 2026. Available from: <https://doi.org/10.1038/s44220-025-00571-8>.

5. BUILT ENVIRONMENT

GREEN & BLUE SPACES

1. Guo Z, Esperon-Rodriguez M, Davin E, Huang H, Chen B, Hejazi M, et al. **Global urban vegetation exhibits divergent thermal effects: From cooling to warming as aridity increases.** Sci Adv. 2026;12(1):eaea9165. Available from: <https://www.science.org/doi/abs/10.1126/sciadv.aea9165>.
2. Nithianantha A, Firempong J, Micho S, Sampath S, Sané S. **Belonging in Nature: Exploring Barriers, Impacts and Pathways to Nature for All across Canada.** Canada: Greenpeace; 2026. Available from: <https://www.greenpeace.org/static/planet4-canada-stateless/2026/01/b1f55f52-en-belonging-in-nature-report.pdf>.

HOUSING

NOISE

1. Prince SA, Shan Y, Butler GP, Lang JJ, McCormack GR, Colley RC. **Comparing perceived and objective measures of neighbourhood built environments among youth and adults in Canada.** Public Health. 2026;251:106110. Available from: <https://doi.org/10.1016/j.puhe.2025.106110>.

PLANNING & DESIGN

1. Qiao R, Wu T, Chen Z, Zhao Z, Liu Z, Zhou S, et al. **Influence of urban ecotypes and built-up morphology on extreme heat events**. Urban For Urban Green. 2026;117:129254. Available from: <https://www.sciencedirect.com/science/article/pii/S1618866725005886>.
2. Ren B, Bergmann L. **Context-dependent relationships between street-level surface heat intensity, the sky view factor, and landscape patterns: Examples from the coastal city of Vancouver, Canada**. Ecological Informatics. 2026;94:103637. Available from: <https://www.sciencedirect.com/science/article/pii/S1574954126000439>.

TRANSPORTATION, OTHER

1. Batomen B, Wen R, Lyeo J, Ranganathan C, Sadrmanesh O, Howard A, et al. **Pedaling towards safer streets: evaluating the impact of cycling infrastructure on road safety**. Accid Anal Prev. 2026;225:108308. Available from: <https://doi.org/10.1016/j.aap.2025.108308>.
2. Transportation Research Board, Engineering NAOs, Medicine. **Strategies for Deterring Bats from Transportation Infrastructure**. Sparks DW, Doty A, Janes J, editors. Washington, DC: The National Academies Press; 2026. Available from: <https://nap.nationalacademies.org/catalog/29330/strategies-for-deterring-bats-from-transportation-infrastructure>.
3. Transportation Research Board, Engineering NAOs, Medicine. **Developing a Guide for Estimating Benefits of Closing Gaps in Active Transportation Networks**. Sellinger M, Wasserman D, Voros K, Yarnall E, Broach J, Dill J, et al., editors. Washington, DC: The National Academies Press; 2026. Available from: <https://nap.nationalacademies.org/catalog/29333/developing-a-guide-for-estimating-benefits-of-closing-gaps-in-active-transportation-networks>.

6. NON-CLIMATE RELATED DISASTERS

EARTHQUAKES

1. Nassar M, Mouri F, Abo El Ezz A. **Assessment of Community Risk from Seismic-Induced Damage to Hazardous Materials Storage Tanks in Marine Ports**. Infrastructures. 2026;11(2):49. Available from: <https://www.mdpi.com/2412-3811/11/2/49>.

MARINE

TERRESTRIAL, OTHER

1. Evans J. **Rockfall: An Increasing Hazard due to Climate Change**. Risk Frontiers; 2026 [Jan]; Available from: <https://riskfrontiers.com/insights/rockfall-hazard-climate-change/>.
2. Global CCCM Cluster. **Guide for planning mass evacuations in disasters**. Geneva, Switzerland: International Organization for Migration (IOM); 2025. Available from: https://www.cccmcluster.org/sites/default/files/2025-03/CCCM_Guideforplanningmassevacauctions_ENG.pdf.
3. Holland A, Wickerson G. **Long-term effects of disasters: an ongoing threat to public health**. Washington, DC: Federation of American Scientists; 2026 Jan. Available from: <https://fas.org/publication/long-term-public-health-effects-of-disasters/>.
4. Kannangara C, Kuligowski E, Siriwardana C, Zhang G, Adikariwattage V, Jayawardane P. **Exploring the science of evacuation behavior and decision-making during large scale community evacuations: A scientometrics analysis and scoping review**. Saf Sci. 2026;195:107065. Available from: <https://www.sciencedirect.com/science/article/pii/S0925753525002905>.
5. Laksmi OD, Chung M-H, Banda JK, Shieh Y-Y, Waluya SD, Warsini S, et al. **Review: School-based interventions for child and adolescent survivors of natural disasters - a systematic review and meta-analysis of randomized controlled trials**. Child and adolescent mental health. 2026;31(1):41-56. Available from: <https://doi.org/10.1111/camh.70029>.
6. Woods CF, McIntosh VVW, Beaglehole B, Bell C. **Mental Health Service Utilization After Natural Disasters: A Systematic Review**. Psychiatric services (Washington, DC). 2026;77(2):147-57. Available from: <https://doi.org/10.1176/appi.ps.20250063>.
7. World Health Organization. How does human behaviour support health emergency preparedness and resilience? A new WHO Collaborating Centre will dig deeper into this area of work. 2026 Feb 13. Available from: <https://www.who.int/europe/news/item/13-02-2026-how-does-human-behaviour-support-health-emergency-preparedness-and-resilience>.

7. DISEASES, VECTORS, PESTS

COVID-19

1. Ontario Agency for Health Protection and Promotion (Public Health Ontario). **Coronavirus Disease 2019 (COVID-19), Influenza, & Respiratory Syncytial Virus (RSV)**. Toronto, ON: King's Printer for Ontario; 2026 Feb. Available from: <https://www.publichealthontario.ca/-/media/documents/ncov/ncov-daily-lit.pdf?la=en>.
2. Ospina MB, Bartel R, Serrano-Lomelin J, Amjad S, Anderson A, Colman I. **Misi Yehewin (big breath): a cross-sectional survey series of Métis health and wellbeing during the early COVID-19 pandemic in Alberta, Canada**. Front Public Health. 2026;Volume 13 - 2025. Available from: <https://www.frontiersin.org/journals/public-health/articles/10.3389/fpubh.2025.1741161>.

ANIMAL VECTORS

1. Cohen J. **Bird flu antibodies found in cow in the Netherlands, a first outside of U.S.** Science. 2026. Available from: <https://www.science.org/content/article/bird-flu-antibodies-found-cow-netherlands-first-outside-u-s>.

INSECT VECTORS

1. National Academy of Medicine. **Meeting the Moment: Practical Solutions for Arboviral Disease Prevention and Response - A Webinar Series.** Washington, DC: National Academy of Medicine; 2026. Available from: <https://www.nationalacademies.org/projects/CHPP-BHS-25-P-724>.

PESTS, OTHER

1. Cooper-Beknazarova M, van den Akker B, Drigo B, Ross K, Whiley H, Williams CR. **Systematic review of wild birds as reservoirs of antimicrobial resistance: Implications for roof-harvested rainwater safety.** Int J Hyg Environ Health. 2026;273:114743. Available from: <https://doi.org/10.1016/j.ijheh.2026.114743>.
2. Elmieh N. **Environmental pathways of antimicrobial resistance: A One Health case study.** Vancouver, BC: National Collaborating Centre for Environmental Health; 2026 Feb 18. Available from: <https://ncceh.ca/resources/evidence-briefs/environmental-pathways-antimicrobial-resistance-one-health-case-study>.

8. PUBLIC HEALTH FUNDAMENTALS

COMMUNICATION

1. Hu AT, Brauer M, Lavigne E, Henderson S. **Cumulative and relativistic temperature metrics for public heat alerts: A new approach proposed for greater Vancouver, Canada.** medRxiv. 2025:2025.09.05.25333794. Available from: <https://www.medrxiv.org/content/medrxiv/early/2025/09/22/2025.09.05.25333794.full.pdf>.
2. Kohm S. **Racialised and Colonial Constructions of Climate Disaster: News Media Framing of Indigenous Wildfire Evacuations in Western Canada.** International Journal for Crime, Justice and Social Democracy. 2025. Available from: <https://www.crimejusticejournal.com/article/view/3773>.

HEALTH PROMOTION

1. Summers A, Kearon J, Maaten S, Gabriel C, Harvey A, Sangster Bouck M, et al. **Development of a classification of common interventions to describe the work of local public health agencies.** Can J Public Health. 2025;116(6):943-50. Available from: <https://doi.org/10.17269/s41997-025-01016-6>.

HEALTH IMPACT ASSESSMENT

1. Liang Y, Wang X, Ma L, He G, Lu H. **A standardized indicator reveals sharper increases in heat related mortality in temperate zone cities worldwide.** Sci Rep. 2026;16(1):216. Available from: <https://doi.org/10.1038/s41598-025-21897-4>.

HEALTH EQUITY

1. Calloo GV, Odei Boateng M, Agbe EA, Boateng GO. **Shelter to Survival: Unpacking the Health Impacts of Housing Insecurity Across the Life Course.** Int J Environ Res Public Health. 2026;23(1):91. Available from: <https://www.mdpi.com/1660-4601/23/1/91>.
2. Hayre J, Canning E, Pearce H, Khera R, Ford J. **Public health policies and interventions to address health inequities in high-income countries: an umbrella review.** BMC Public Health. 2026;26(1):473. Available from: <https://doi.org/10.1186/s12889-025-25876-2>.

ONE HEALTH, OTHER

1. Chen X, Hoek G, Frijters P, Dyer GMC, Gössling S, Khomenko S, et al. **Toward integrating subjective well-being in environmental health impact assessments for healthy urban living: a conceptual and methodological exploration.** Environ Int. 2026;208:110067. Available from: <https://doi.org/10.1016/j.envint.2026.110067>.
2. Domingo JL. **Polychlorinated naphthalenes through the one health Lens: Unmasking a global threat to humans, wildlife, and ecosystems.** Environmental pollution (Barking, Essex : 1987). 2026;392:127678. Available from: <https://doi.org/10.1016/j.envpol.2026.127678>.
3. Ram M, Zurba M, Nizamani B. **From waste to sustainable development: Evaluating Canada's waste management policies and Sustainable Development Goals progress.** Waste management & research : the journal of the International Solid Wastes and Public Cleansing Association, ISWA. 2026;44(2):103-15. Available from: <https://doi.org/10.1177/0734242X251364676>.

9. OTHER TOPICS

CANNABIS PRODUCTS

1. Hall W, Fischer B. **Public health impacts of legalizing recreational cannabis use in Canada and the US.** *World Psychiatry.* 2026;25(1):53-4. Available from: <https://pmc.ncbi.nlm.nih.gov/articles/PMC12805063/>.
2. Rundle S, Iraniparast M, Hammond D. **The prevalence of cannabis use pre-versus post-cannabis legalization in Canada by mental health status: findings from national repeat cross-sectional surveys.** *The Lancet Regional Health – Americas.* 2026;55. Available from: <https://doi.org/10.1016/j.lana.2026.101373>.

TOBACCO, NICOTINE PRODUCTS

1. Kouzoukas E, Navas C, Zawertailo L, Fougere C, Bacon SL, Chadi N, et al. **The health effects of vaping and e-cigarettes: consensus recommendations.** *The International journal on drug policy.* 2026;148:105117. Available from: <https://doi.org/10.1016/j.drugpo.2025.105117>.

IONIZING, NON-IONIZING RADIATION

1. Kim hS, Han K-H, Kim Y-B, Jeon SB, Lee A-K, Moon J-I, et al. **The International Collaborative Animal Study of The Carcinogenicity and Genotoxicity of Mobile Phone Radiofrequency Radiation: The Korean Study.** *Toxicol Sci.* 2026. Available from: <https://doi.org/10.1093/toxsci/kfag001>.

PERSONAL SERVICES ESTABLISHMENTS, OTHER (AI, microplastics, etc)

1. Rosella LC. **Will AI Improve Public Health? Setting the Standards for Meaningful Impact.** *Can J Public Health.* 2025;116(6):815-8. Available from: <https://doi.org/10.17269/s41997-025-01146-x>.
2. Siebert E, Moynihan V, Ali N, Hall A, Heydon P, Dunlop A, et al. **Tattoo-Associated Uveitis: An Emerging Eye Health Challenge.** *Clin Exp Ophthalmol.* 2026;54(1):33-43. Available from: <https://doi.org/10.1111/ceo.70012>.
3. Suthar M, Kaliberdenko V. **Tattoo Ink Exposure and Its Potential Link with Lymphoma and Skin Cancer: A Narrative Review of New Evidence.** *Cardiovasc Hematol Disord Drug Targets.* 2026. Available from: <https://doi.org/10.2174/011871529x409881251124100953>.

10. SPECIFIC POPULATIONS

CHILDREN

1. Brizard F, Auger N, Smargiassi A, Gagnon F, Robitaille E, Coltin H, et al. **Gasoline stations and risk of childhood cancer: a population-based cohort study in Quebec, Canada.** *Environmental*

- pollution (Barking, Essex : 1987). 2026:127737. Available from: <https://doi.org/10.1016/j.envpol.2026.127737>.
2. Herwanger L, Sternecker K, Kühnisch J, Reichl F-X, Högg C. **Migration of bisphenol A from commercially available pacifiers: HPLC-FLD analysis and exposure assessment in infants and toddlers.** Environ Sci Poll Res. 2026. Available from: <https://doi.org/10.1007/s11356-026-37444-1>.
 3. Lai KY, Bauermeister S, Sarkar C. **Associations of heat exposure with mental health and suicide in children and adolescents: a systematic review and meta-analysis.** Npj mental health research. 2026;5(1):7. Available from: <https://www.nature.com/articles/s44184-026-00190-w>.
 4. Stokes R, Bare G, Del Rio M, McCurdy L, Tallon L, Dyjack DT. **From Exposure to Action: Climate Change, Children’s Health, and the Role of Environmental Health Professionals.** J Environ Health. 2026;88:20+. Available from: <http://dx.doi.org/10.70387/001c.155915>.
 5. Yu G, Meng X, Tan YQ, Li S, Yin X, Pang WW, et al. **Gestational exposure to metals and small vulnerable newborns: a systematic review and meta-analysis.** Environ Int. 2026;208:110052. Available from: <https://doi.org/10.1016/j.envint.2026.110052>.

INDIGENOUS PEOPLES

1. Madouh TA, Davidson MK. **Revitalizing Indigenous and Native Plants for Food Security of Arid Lands Countries in Changing Climate Conditions.** In: Suleiman MK, Shahid SA, editors. Fostering Arid Lands Agriculture in the Face of Climate Change: Mitigation and Adaptation Synergy. Cham: Springer Nature Switzerland; 2026. p. 195-227. Available from: https://doi.org/10.1007/978-3-031-98490-7_10.
2. Waapihk Research. **Indigenous-Led Climate Adaptation: Lessons in Resilience Across Canada.** Winnipeg, MB: Waapihk Research; 2026. Available from: <https://waapihk.com/2026/01/16/indigenous-led-climate-adaptation/>.
3. Zalaski R, Webb D. **Indigenous-led climate action: assessing land changes and the links to health.** Prince George, BC: National Collaborating Centre for Indigenous Health; 2025. Available from: <https://www.nccih.ca/docs/land/FS-climate-change-WFL-land-EN-Web.pdf>.

OLDER ADULTS

1. Employment and Social Development Canada. **Social Isolation of Seniors - Volume I: Understanding the issue and finding solutions.** Ottawa, ON: Government of Canada; 2025. Available from: <https://www.canada.ca/en/employment-social-development/corporate/seniors-forum-federal-provincial-territorial/social-isolation-toolkit-vol1.html>.
2. Günsche S, Borg MA, Anikeeva O, Varghese BM, Li Y, Bhandari D, et al. **Mortality, morbidity and healthcare costs of short-term high temperatures and heatwaves exposure in older**

populations: a global systematic review and meta-analysis. Environ Int. 2026;208:110129.
Available from: <https://www.sciencedirect.com/science/article/pii/S0160412026000875>.

For more on environmental health information and evidence, visit 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. 2026 February.

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.