



The Canadian Poverty,
Health Equity, and
Climate Change Initiative

Heat-Related Health Risks for People Experiencing Homelessness: A Rapid Review

Jolly Noor, MPH
Research Analyst
Centre for Addiction and Mental Health



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BACKGROUND

- Climate change is increasing extreme heat events (EHEs).
- People experiencing homelessness (PEH) face disproportionate risk due to prolonged exposure and limited shelter.
- Prior research focused broadly on climate hazards, with limited specificity on EHEs.

Aim of the Review:

- To examine recent evidence (2019–2024) on the health impacts of EHEs on PEH in high-income countries.

RESEARCH QUESTION



What are the research findings within the last five years (January 2019 to May 2024) regarding the health and wellbeing implications of extreme heat for PEH in high-income countries?

METHODS

Given the urgency of increasing extreme heat events, a **rapid review** design was employed to quickly synthesize evidence for timely health policy and practice guidance.

Methodological Steps (PRISMA Guidelines)

1. Protocol Development:

Defined objectives, methods, and criteria.



2. Literature Search and Screening:

Systematically searched databases and screened studies.



3. Data Extraction and Critical Appraisal:

Extracted relevant information and assessed study quality.



4. Data Synthesis:

Analyzed, interpreted, and reported findings.

RESULTS

Total studies included: 11



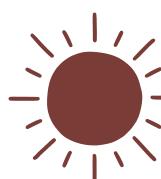
Countries: US (6), Australia (3), Canada (1), UK (1)



Study Designs: Cross-sectional (3), Mixed-methods (2), Retrospective cohort (2), Time-series regression (1), Case-series (1), Case-crossover (1), Quasi-experimental (1)



Population focus: 7 primarily focused on PEH; 4 included PEH as a secondary population



Exposure: 10 studies examined EHEs; 1 study included heat within broader extreme weather



Quality appraisal: 6 high-quality studies; 5 moderate-quality studies

RESULTS

Key Themes

1

Vulnerability Factors

2

Physical Health Impacts

3

Mental Health and Substance Use Disorders

4

Heatwave-Related Emergency Department Visits

5

Barriers to Accessing Resources and Services

DISCUSSION

Public Health Implications

Immediate action-oriented strategies and long-term systems-level approaches are essential to mitigate the health risks of extreme heat for PEH.

For example:

- Systems-level approach with housing access and stability
- Retrofitting substandard housing and regulating indoor temperatures
- Inclusive cooling centers and reliable water access
- Mobile clinics and tailored outreach
- Provider training and cross-sector coordination

DISCUSSION

Research Gaps

Despite the depth of information covered in the current research, significant gaps remain in understanding and addressing the health impacts of extreme heat on PEH.

For example:

- Intersectional research on heat impacts across subgroups
- Longitudinal studies on health effects of repeated heat exposure
- Evaluation of heat response plans across jurisdictions
- Evidence on intervention effectiveness remains limited
- Lack of risk projections under climate and housing trends



Thank you!

Jolly Noor (she/her)

Research Analyst

Centre for Addictions and Mental Health

E-mail: Jolly.noor@camh.ca

Phone: +1(647-607-1849)

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