

MIDDLESEX-LONDON BOARD OF HEALTH REPORT NO. 59-24

TO: Chair and Members of the Board of Health

FROM: Dr. Joanne Kearon, Acting Medical Officer of Health

Emily Williams, Chief Executive Officer

DATE: 2024 September 19

POLICY POSITION ON MAXIMUM INDOOR AIR TEMPERATURE

Recommendation

It is recommended that the Board of Health receive Report No. 59-24 re: "Policy Position on Maximum Indoor Air Temperature" for information.

Report Highlights

- Exposure to extreme heat impacts the most vulnerable residents in our community.
- Proposed changes to the National Building Code of Canada aim to establish a maximum indoor temperature in new housing units.
- Appendix A provides the MLHU response to National Building Code of Canada's "Proposed Change 2061: Overheating in New Dwelling Units".
- MLHU staff will continue to explore actions to be taken internally and at the municipal level to protect those not impacted by the proposed policy action in the National Building Code.

Background

Individuals can experience extreme heat both outdoors and indoors. Exposure to extreme heat can have negative health impacts. While everyone is at risk of heat-related illness, those most at risk include:

- Infants and children¹⁻⁴
- Pregnant women^{1,2,4}
- Older adults¹⁻³
- Those living alone¹
- Those with pre-existing medical conditions¹⁻³
- Those with pre-existing mental health conditions¹⁻³
- Underhoused individuals^{1,2}
- Those with mobility issues^{1,3}
- Those experiencing material and social deprivation²

The risk of negative health impacts from extreme heat can be reduced. For example, "thermal insulation, housing location, building materials and house orientation, window shades, green spaces and ventilation (including use of cooler nighttime air) and air conditioning can help to

mitigate high indoor temperatures". 5, p. 52

Under the current National Building Code⁶, residential buildings must have heating equipment installed to maintain minimum temperatures in winter, but there is currently no maximum indoor temperature during the summer⁷. In early 2024, British Columbia updated their building code to mandate new dwelling units, in both large and small residential buildings, to maintain temperatures at no more than 26°C in a single living space⁸. This change was a result of a heat wave in 2021 which resulted in 619 deaths related to heat, and where 98% of deaths had occurred indoors⁹.

As a result, changes were proposed to the National Building Code of Canada to address this gap. "Proposed Change 2061: Overheating in New Dwelling Units" included establishing a maximum indoor temperature of not more than 26°C in new dwelling units.

MLHU Response to Proposed Change 2061

On July 29, 2024, the Middlesex-London Health Unit (MLHU) submitted feedback on the National Building Code of Canada's "Proposed Change 2061: Overheating in New Dwelling Units" 10. As outlined in Appendix A: Proposed changes 2061-feedback-Middlesex-London Health Unit, overall, the MLHU was in support of establishing a maximum indoor air temperature of not more than 26°C. However, it is important that evidence regarding maximum indoor air temperature be monitored as research evolves. Additional feedback included:

- Supporting the language "maintaining an indoor air temperature of not more than 26°C".
- Using "in at least one living space" to allow for greater flexibility in the application, potentially allowing application to all living spaces.
- The "living space" should exclude unfinished basements, service rooms, crawl spaces, and other spaces that typically are not used for living purposes.
- Within the amended code, a definition of "cooling facilities" that contains a variety of sustainable, low-carbon, energy efficient systems should be provided.
- Applying the proposed change to both small and large buildings.

Next Steps

The proposed policy action had limitations with respect to protecting the most vulnerable residents in existing housing units. To address the limitations, there is a continued need for interventions at the local level. The MLHU staff will explore opportunities to reduce risk locally, including enhancing media communication strategies related to extreme heat and encouraging climate resilient neighbourhood design features, such as greenspace and green infrastructure. In particular, the MLHU staff will continue to collaborate with municipal partners in exploring relevant municipal bylaws related to indoor heat and maximum temperatures.

References to this report are found in Appendix B.

This report was written by the Municipal and Community Health Promotion Team of the Family and Community Health Division and the Food Safety and Health Hazards Team of the Environmental Health, Infectious Disease, and Clinical Services Division.

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This report refers to the following principle(s) set out in Policy G-490, Appendix A:

- The Foundational standard (Health Equity) and the Program standard (Healthy Environments) as outlined in the <u>Ontario Public Health Standards:</u>
 Requirements for Programs, Services and Accountability.
- The National Building Code of Canada: 2020
- The following goal or direction from the Middlesex-London Health Unit's Strategic Plan:
 - o Client and Community Confidence
 - o Program Excellence
 - Organizational Excellence

This topic has been reviewed to be in alignment with goals under the Middlesex-London Health Unit's Anti-Black Racism Plan and Taking Action for Reconciliation, specifically recommendation Engage in Healthy Public Policy (Anti-Black Racism Plan) and Supportive Environments, Equitable Access and Service Delivery (Taking Action for Reconciliation).