

BRIEFING NOTE ON IMPROVING HEAT-RELATED DEATH TRACKING IN ONTARIO

The Advocacy Centre for the Elderly, the Advocacy Centre for Tenants Ontario, the Canadian Environmental Law Association, and the Low-Income Energy Network strongly encourage the province of Ontario to update its approach to tracking heat-related death during extreme heat events.

Recommendation 1: During an extreme heat event, a death certificate should not be issued for a death suspected to be heat-related unless it is investigated by the Ontario Coroner’s Office.

Recommendation 2: The definition of heat-related death should be updated to include:

- (1) the localized environment or body temperature is in keeping with hyperthermia; or**
- (2) there is no direct temperature at the time of death but there is evidence (circumstantial, scene environment, medical history) to support a finding that heat played a significant causal effect on the death**

Recommendation 3: During an extreme heat event, the Ontario Coroner’s Office should track heat-related deaths by: (1) age, (2) where in the province the person died, (3) what type of residence the person lived in, and (4) whether the residence had access to air-conditioning or another type of cooling device.

REASONS FOR ACTION

Heat Waves Will be Getting Worse in Ontario

As climate change continues to accelerate, heat waves in Canada are projected to increase in intensity, length, and frequency. Average mean temperature in Canada has risen by 1.7°C from 1948 to 2016 and is expected to increase between 1.8°C and 6.3°C by the end of this century.¹ Canadians will experience a stark increase in both daytime and nighttime temperatures. For example, by 2051-2080, overnight temperatures in Toronto during heatwaves will remain at or above 21°C, representing an increase of 1.7°C.² We can expect that extreme heat events similar to last year’s devastating heat wave in British Columbia will become increasingly common across Canada.

¹ Government of Canada, “Changes in Temperature” (April 9, 2019), online: <https://www.canada.ca/en/environment-climate-change/services/climate-change/canadian-centre-climate-services/basics/trends-projections/changes-temperature.html>.

² Climate Atlas, “Heat Waves and Health, A Special Report on Climate Change in Canada” (August, 2019), online: <https://climateatlas.ca/sites/default/files/PCC%20-%20Heat%20Waves%20and%20Health%20-%20Nov%202019.pdf> at page 3.

Currently, landlords across Ontario are not required to provide air-conditioning to their tenants. Most affordable housing units such as apartment buildings or purpose-built rentals are not equipped with air-conditioning or other active cooling mechanisms. More expensive buildings, such as condominiums, may have air-conditioning but these are unlikely to serve low-income or other vulnerable individuals.

As of June 22, 2022, all long-term care homes were required by regulation to have air conditioning in resident bedrooms; however, exemptions were made for homes where the building structure, materials or electrical system could not support air conditioning, or where the licensee had been unable to secure the air conditioning.³ As of July 22, 2022, approximately 90 long-term care homes still had no air conditioning in resident rooms.⁴

Therefore, in tracking heat-related deaths, CELA urges the province of Ontario to consider whether the individual died without access to air-conditioning

Ontario's Most Vulnerable People will be Affected by Heat Waves

Various life-threatening conditions can occur when the body cannot maintain its core temperature of approximately 36.6°C due to excessive external heat.⁵ These include dehydration, cramps, heat exhaustion, and heat stroke.⁶ Factors such as age, cardiovascular fitness, chronic conditions, and certain medications all influence whether people can cope with extreme heat.⁷

Ontario's Current Approach to Tracking Heat-Related Death is Inadequate

Ontario must reevaluate its definition of what qualifies as a heat-related death. Currently, the Ontario Coroner's Office only investigates "accidental" deaths, which are those that are directly caused by heat, such as heat strokes. The Coroner's Office does not investigate what it classifies as "natural deaths", when heat may have had a significant causal effect on the death.⁸ This includes natural deaths where there could have been hyperthermic involvement.⁹ Ontario's approach misses most of the deaths where extreme heat is a contributing factor to the death or where extreme heat exacerbates a conditions which leads to death.

The Coroner's Office in both Quebec and British Columbia investigate more deaths that occur during an extreme heat event, including deaths classified as "natural", and are models for Ontario to follow in updating its approach to tracking heat-related death.

³ O. Reg. 246/22 s. 23.

⁴ CBC.ca news staff, "90 long-term care homes in Ontario still without air conditioning amid heatwave, ministry says" July 20, 2022), online: <https://www.cbc.ca/news/canada/toronto/long-term-care-homes-ontario-air-conditioning-heatwave-1.6526943>

⁵ Government of British Columbia, "Extreme Heat and Human Mortality: A Review of Heat-Related Deaths in B.C. in Summer 2021" (June 7, 2022), online: https://www2.gov.bc.ca/extreme_heat_death_review_panel_report.pdf at page 11. ("Report by the Government of British Columbia, "Extreme Heat and Human Mortality")

⁶ Report by the Government of British Columbia, "Extreme Heat and Human Mortality at page 11.

⁷ Report by the Government of British Columbia, "Extreme Heat and Human Mortality at page 11.

⁸ Marc-André Cossette, "Ontario coroner investigating 3 possible heat-related deaths" (July 10, 2018), online: <https://www.cbc.ca/news/canada/ottawa/ontario-investigating-heat-deaths-1.4740786>.

⁹ Communication on June 17, 2022 with Andrew Stephen, Information Management Lead, Office of the Chief Coroner

British Columbia

A report published by the Government of British Columbia, entitled “Extreme Heat and Human Mortality: A Review of Heat-Related Deaths in B.C. in Summer 2021” confirmed that heat waves have a disproportionate impact on vulnerable populations including seniors, infants and young children, individuals with chronic illnesses and mobility challenges, and individuals that are socially disadvantaged.

- 90% of the 619 people who died in British Columbia during last year’s heat wave were over 60 years old.¹⁰
- 91% were registered with at least one chronic disease registry.¹¹
- Deaths were higher among those living in socially or materially deprived neighbourhoods. Poor quality housing, homelessness and overall deprivation were identified as risk factors for increased mortality rates.¹²
- 98% of heat-related deaths occurred indoors. Most of the 619 people who died were in homes without adequate cooling systems.¹³

Quebec

An analysis of the deaths in Quebec during the heat wave in 2018 made very similar findings. People who were older, socially isolated, low-income, or those with a chronic disease or a psychotic disorder were most vulnerable.¹⁴ 8 of the 53 people who died in Montreal during the 2018 heat wave lived in a senior’s home.¹⁵ An evaluation of heat-related deaths in Quebec further found that the majority of total decedents did not have access to air conditioning and lived in an urban heat island, such as Montreal.¹⁶

CONCLUSION

Without these changes to heat-related death tracking in Ontario, the scope and details of this worsening public health crisis will continue to be underreported and poorly understood. It is crucial to have accurate data to better inform policy and to protect vulnerable Ontarians from severe health impacts and death during extreme heat events.

RESOURCES

¹⁰ Report by the Government of British Columbia, “Extreme Heat and Human Mortality at page 13.

¹¹ Report by the Government of British Columbia, “Extreme Heat and Human Mortality at page 14.

¹² Report by the Government of British Columbia, “Extreme Heat and Human Mortality at page 17.

¹³ Report by the Government of British Columbia, “Extreme Heat and Human Mortality at page 5.

¹⁴ Santé Montreal, “Heat Wave Summer 2018 in Montreal”, online:

https://santemontreal.qc.ca/fileadmin/fichiers/professionnels/DRSP/Directeur/Rapports/Resume_EnqueteChaleurMtl_2018_Anglais.pdf at page 1.

¹⁵ Center-Sud-de-l’Île-de-Montréal Integrated University Health and Social Services Center, “Heat Wave: July 2018 – Montreal Preliminary Assessment”, online:

https://santemontreal.qc.ca/fileadmin/fichiers/actualites/2018/07_juillet/BilanCanicule2018VF.pdf at page 2.

¹⁶ Heat Wave: July 2018 – Montreal Preliminary Assessment at page 2.

Climate Atlas, “Heat Waves and Health, A Special Report on Climate Change in Canada” (August, 2019), online: <https://climateatlas.ca/sites/default/files/PCC%20-%20Heat%20Waves%20and%20Health%20-%20Nov%202019.pdf>

CTVNews.ca Staff, “Three deaths in Ontario investigated as heat-related” (July 10, 2018), online: <https://www.ctvnews.ca/canada/three-deaths-in-ontario-investigated-as-heat-related-1.4007790?cache=yesclipId104062%3FclipId%3D89563%3FautoPlay%3Dtrue>

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Marco Chown Oved, “Life and Death Under the Dome” (May 23, 2019), online: <https://projects.thestar.com/climate-change-canada/quebec/>

Santé Montreal, “Heat Wave Summer 2018 in Montreal”, online: https://santemontreal.qc.ca/fileadmin/fichiers/professionnels/DRSP/Directeur/Rapports/Resume_EnqueteChaleurMtl_2018_Anglais.pdf

Center-Sud-de-l'Île-de-Montréal Integrated University Health and Social Services Center, “Heat Wave: July 2018 – Montreal Preliminary Assessment”, online: https://santemontreal.qc.ca/fileadmin/fichiers/actualites/2018/07_juillet/BilanCanicule2018VF.pdf