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Title of Resolution: Protecting Ontario's Vulnerable in Cold Weather Conditions
RESOLVED, That CFUW Ontario Council strongly urge the Provincial and Municipal governments to adopt a policy that:

1. Mandates a safe and reasonable temperature at which Warming Centres will open to ensure the health and safety of our vulnerable citizens.
2. Mandates this temperature to be -5°C to 0°C.
3. Mandates these Warming Centres to be open 24/7 when such temperatures occur.

“April 17, 2023 London, Ont., woman badly burned in street fire earlier this month has died.

Olivia had been sleeping under a tarp earlier this month when a fire broke out and burned nearly half her body. They had an open butane flame and they were burning hand sanitizer. At some point during the night it had got tipped over and that ignited the fire.” (Zandbergen 2023)

BACKGROUND

Winter in Canada, notably Ontario, brings cold weather that is often windy and wet. While extreme cold is widely recognized as a danger to health, **moderately cold weather** (-5°C to 0°C) **can also be fatal** (Zhang *et al.* 2019). These conditions are particularly dangerous for vulnerable populations.

Vulnerable Populations

Vulnerable populations are defined as those who are homeless and do not have access to shelter. The United Nations Declaration of Human Rights (1948) and Ottawa Charter for Health Promotion (CMHA n.d.) identify shelter as a human right and a basic prerequisite for health. Unsheltered individuals are at risk. **Warming Centres** provide immediate, reliable and temporary respite for vulnerable individuals who would otherwise be exposed to cold winter weather.

Effects of Cold Exposure on the Body

When the body temperature drops below the normal temperature of 37°C for a **prolonged period**, permanent damage can occur including Chilblains, Trench Foot, Raynaud's Syndrome, Frostbite and Hypothermia. Cold exposure exacerbates a long list of other medical conditions, including heart disease, COPD, diabetes and hypothermia (Chen *et al.* 2016; Kwan and Young 2022). Hypothermia is the most serious consequence for the vulnerable population during cold temperatures.

What is Hypothermia?

Hypothermia is “characterized by abnormally low body temperatures (<35°C), cardiovascular and central nervous system dysfunction, and potentially fatal outcomes.”(Zhang *et al.* 2019, p.2). Hypothermia affects brain function causing confusion and the inability to think clearly (NIOSH 2019). Symptoms develop gradually, but **prolonged exposure** to any environment colder than your body can lead to hypothermia (Mayo Clinic 2022).

“Hypothermia... disproportionally affects individuals who experience homelessness” (Zhang *et al.* 2019, p.1). Researchers investigated the relationship between minimum temperature and precipitation and the risk of hypothermia among the homeless in Toronto. Coroners’ records were consulted to identify hypothermic deaths. The analysis of the Toronto data showed that **72% of the hypothermic events occurred when the minimum daily temperature was warmer than -15°C**. In addition, with the accumulation of moderate cold weather days over the course of winter, the impacts of cold-related health issues increased (Zhang *et al.* 2019).

The body loses heat in three ways (Mayo Clinic 2022):

- **Radiated** heat from unprotected surfaces of the body.
- **Direct contact** with the cold ground, cold water, cold air, rain, snow or wet clothing.
- **Windchill** is relevant because it represents what the temperature “feels like” (Wenz 2019). The actual temperature might be -5°C but, if you are wet, lightly clothed or in an open field, it could feel like -15°C and have the same physiological effect as -15°C.

An Analysis of Warming Centre Availability

Municipalities are responsible for the availability of Warming Centres. The availability, the opening hours, and the criteria for opening Warming Centres is highly variable across Ontario.

Information was collected for 2021- 2023 for **9 municipalities** varying in size from Bancroft (population 4,065) to Toronto (3.6 million) to Barrie, Bracebridge, Kingston, Peterborough, Orillia, Ottawa, and Thunder Bay.

Data were assembled over **8 indicators** for each municipality:

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|--|---|----------------------------------|
| • Population | • Temperature at which Warming Centres open | • Capacity of Warming Centres |
| • Number of days per year the minimum temperature was below 0° C | • Hours and months Warming Centres open | • Number of homeless individuals |
| • Number of Warming Centres | | • Deaths from hypothermia |

Key Observations

- All municipalities had **temperatures below 0°C**, ranging from 101 days in Toronto, to 150 days in Bracebridge and Ottawa, to 203 in Thunder Bay.
- The **municipalities had varying numbers of Warming Centres**: 0 in Bracebridge; 1 in Kingston and Bancroft; 2 in Peterborough and Ottawa; 4 in Orillia, Thunder Bay and Toronto. It is interesting to note that, with a population of 4,065, Bancroft has 1 Warming Centre compared to Bracebridge with a population of 16,883 which has no Warming Centres.
- **The temperatures at which Warming Centres opened** varied considerably: in Peterborough -20°C; Barrie, Orillia and Toronto -15°C. Bancroft, Ottawa and Thunder Bay, on the other hand, opened “whenever necessary”.
- **Hours of operation** varied: Bancroft, Kingston, Peterborough, Thunder Bay, Orillia and Toronto had some Warming Centres **open all night**; Barrie, Orillia, Ottawa,

Peterborough, Thunder Bay and Toronto had Warming Centres **open in the daytime**.

- **Capacity overnight** varied. Toronto has more facilities and is “repeatedly adding capacity” (City of Toronto, 2023); Peterborough 25, Kingston 10 men only.
- **Numbers of homeless individuals:** difficult to track as some individuals preferred to hide; estimates ranged from a minimum of 60 in tent cities in Peterborough, 161 in Bracebridge, 1,340 in Ottawa to 10,000 in Toronto.
- **Deaths:** data for deaths from hypothermia were underreported, unavailable and/or unreliable.
- Most daytime **centres closed at 5pm**, just as the temperatures are getting colder.
- Peterborough’s overnight Warming Centre converts to a Cooling Centre at +30°C.
- It is our observation that, while some municipalities are small, they are capable of providing Warming Centres, not only in the daytime but overnight. We also concluded that **overnight Warming Centres are of primary importance**, as the night temperature, invariably, is much colder than in the daytime. In addition, some municipalities operated throughout the whole winter, such as Bancroft and Kingston.

Note: All municipal data may be accessed on request (via a separate bibliography). There are approximately 30 citations.

CONCLUSION

In summary, Zhang *et al.* (2019, p. 2), described hypothermia as a “**potentially lethal but highly preventable condition**” and recommended a multi-faceted cold weather response because “**hypothermic events occur during periods of low (>0°C) and moderate (-15°C to 0°C) cold stress in addition to high cold stress**”. They emphasized (p. 6) “the critical importance of a seasonal cold weather response strategy comprised of **low barrier** access to seasonal shelters and Warming Centres in addition to extreme cold weather alerts”.

Danger from cold exposure would be mitigated if Warming Centres are provided at temperatures of 0°C. Based on the research by Zhang *et al.* (2019), even -5°C is too cold to fully protect the vulnerable. In addition, this recommendation does not take windchill into account. Temperature and windchill work in tandem to create hazard from cold exposure (Wenz 2019).

Adopting a standard temperature across Ontario of 0°C, at which point Warming Centres will open, definitely overnight, is a necessary step in ensuring the health and safety of our vulnerable citizens. Temperatures lower than 0°C are neither safe nor reasonable.

How many more like Olivia will die taking extreme risks to stay warm?

IMPLEMENTATION

CFUW members and CFUW Ontario Council are encouraged to adopt a policy to open Warming Centres at 0°C for the health and safety of our vulnerable citizens through the following actions:

1. Writing to and meeting with local MPs, MPPs, mayors and municipal councils to:
 - Stress the need for the province to adopt a policy which mandates communities to **establish Warming Centres at 0°C**.
 - Stress the need to develop “targeted approaches to cold weather planning and response” over the **whole course of winter** (Zhang *et al.* 2019 p.2).
 - Stress that **Warming Centres be open overnight, be at a designated location, be reliable, be accessible and provide safety and washrooms**.
 - Stress the need to **budget annually** for the operation of Warming Centres. Note that Peterborough’s daytime centre which serves 300 will close due to lack of funding.
2. Educating and informing our communities by publicizing relevant articles through social and news media and via speaking engagements regarding:
 - the effects of cold temperatures on the body,
 - the experts’ advice on how to prevent hypothermia,
 - the relevance of the **impact of mental health issues** on our vulnerable population (Ireland 2023) and
 - the impact of “cold weather related injury and death” (Zhang *et al.* 2019 p.2) on the **costs to our health care system** (such as hospitalizations and Emergency Room visits).
3. Writing the ECCC (Environment and Climate Change Canada) regarding the need to establish that 0°C, including the windchill, is the threshold temperature at which the ECCC would alert provincial municipalities, specifically Ontario, to open Warming Centres.
4. Reaching out to community foundations, philanthropists, businesses and NGOs to provide additional support and services of Warming Centres.
5. Encouraging the Ministry of Health to develop guidelines for the local health units to report deaths associated with homelessness and hypothermia.
6. Recognizing and **following the proactive lead by Toronto**: May 12, 2023 “Warming Centres will open when temperatures dip to -5 degrees Celsius” – a significant change from -15°C (City of Toronto 2023).
7. Referring to such municipalities as Bancroft, Kingston, Orillia and Toronto for strategies of implementation.

Note: All bolding is our own.

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