

2018/2019 Cold Weather Response Plan

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Goal of the Cold Weather Response Plan

The goal of the Cold Weather Response Plan is to prevent harmful health impacts of cold weather on residents of Toronto.

The Cold Weather Response Plan provides a framework for implementing and co-ordinating cold weather preparedness and response activities which focus on reducing the negative health impacts of cold weather conditions. The Plan's main objectives are to:

- Alert those most vulnerable that cold weather conditions are either expected or currently exist;
- Enable those most vulnerable to take appropriate precautions;
- Trigger response actions by agencies who are in a position to provide services or alter operations in such a way as to protect vulnerable people from cold weather. The Plan includes a particular focus on preventing direct impacts of cold exposure on people experiencing homelessness.

Background

Each year, winter weather brings cold temperatures and cold and wet conditions to Toronto. Cold weather can adversely affect the health and wellbeing of many of Toronto's residents.

It is well-known that people experiencing homelessness are particularly vulnerable to direct health impacts of cold weather. Such impacts include hypothermia, frostbite, frostnip, and trench foot. Hypothermia occurs when the body's core temperature drops below 35 °C and can progress to a life-threatening condition when shivering stops, the person loses consciousness, or cardiac arrest occurs. Untreated severe frostbite can lead to permanent nerve damage, blisters, and even to infection and loss of limbs. Trench foot results from prolonged exposure to a damp or wet environment and can lead to numbness, leg cramps, swelling, tingling pain, blisters or ulcers, bleeding under the skin, and even gangrene.

People experiencing homelessness are at high risk for cold weather injuries because they are likely to spend long periods of time outside, resulting in increased exposure. Many chronic problems faced by people experiencing homelessness, including inadequate clothing, malnutrition, and underlying infection increase the risk of developing and dying from hypothermia or suffering from frostbite. Some factors that contribute to the risk of homelessness, such as alcohol use, psychiatric disorders, and use of certain medications can also increase the risk of cold weather injuries.

However, emerging research suggests that the health impacts of cold weather are not limited to direct impacts of cold on homeless populations. Studies in countries around

the world including many northern countries find that the risk of premature death or hospitalization increases in the general population as temperatures get colder. Periods of especially cold weather that are unusual relative to normal conditions are also linked with higher rates of premature death and hospitalization. While the highest risks are associated with extremely cold days, recent research shows that exposure to moderate cold can also result in important impacts on health of both the general population and people experiencing homelessness. The research consistently shows that these effects occur several days and up to several weeks after exposure to cold weather. The temperature-related impacts persist even when the contribution of wintertime influenza to mortality and illness is considered.

Most of these outcomes arise from heart problems, especially heart attacks, that cannot be explained by snow shovelling. In 2016, Public Health Ontario also published findings that up to 10% of hospitalizations in Ontario for hypertension may be cold-related. These impacts may occur because the body protects core temperature from cold weather by restricting blood flow to extremities, which increases overall blood pressure. There is also some evidence that cold increases the risk of respiratory conditions including asthma and chronic obstructive pulmonary disease, as well as risk of stroke.

The elderly and those with pre-existing health conditions, especially heart conditions, may be at particular risk from exposure to the cold. A World Health Organization report estimated that those over 75 years of age may have a winter excess mortality of about 30%. Some evidence suggests that socioeconomic factors such as deprivation also increase the risk of hospitalization or death due to cold. Other groups specifically at risk of developing cold related injuries include individuals who are outdoors for long periods of time, including outdoor workers and enthusiasts; people who have consumed alcohol and other drugs or medication; people wearing inadequate or wet clothing; and both the very young and very old.

A 2005 analysis for Toronto concluded that cold contributes to an average of 105 premature deaths each year in the city. Separate analyses also suggest that for Toronto's elderly population, the risk of cold-related death could be up to six times the risk that exists for the general population. These findings may underestimate the impact of cold weather as they did not account for more recent evidence that the effects of cold weather on mortality and morbidity can occur days and even weeks after exposure.

Additional details about the health impacts of exposure to cold weather are available in a technical report called *Health Impacts of Cold Weather* at www.toronto.ca/health/reports.

Authority

Extreme Cold Weather Alerts were first implemented in Toronto during the winter of 1996/97, and arose from a June 1996 report of the Homeless Emergency Action Task Force to respond to the increased number of homeless people who needed services.

Between 2004 and the winter of 2013 - 2014, Toronto's Shelter, Support and Housing Administration Division was responsible for issuing Extreme Cold Weather Alerts and co-ordinating the response to protect people experiencing homelessness from the adverse impacts of exposure to cold weather.

In July 2014 Toronto City Council approved the transfer of responsibility for co-ordinating Toronto's Extreme Cold Weather Alerts from Shelter, Support and Housing Administration to the Medical Officer of Health.

This transfer of responsibility aligns well with the requirements under the Ontario Public Health Standards that Boards of Health are required to increase awareness of the risks associated with extreme weather, and also assist community partners to develop healthy policies related to reducing exposure to extreme weather.

Components of the Plan

The Cold Weather Response Plan is a living document, maintained and updated by Toronto Public Health (TPH). While the key components described below reflect the current understanding and expectations regarding the Plan, this document will be updated to reflect developments and enhancements over time.

Emerging evidence will continue to be used to assess whether future enhancements should be made to the City's Cold Weather Response Plan.

The Cold Weather Response Plan is a public document and is available from www.toronto.ca/health.

Extreme Cold Weather Alerts

Extreme Cold Weather Alerts will be declared by the Medical Officer of Health when conditions are expected to be associated with elevated health risks for vulnerable individuals. The intent of calling an alert is to:

- Warn people who are vulnerable to cold weather and their service providers and caregivers that such conditions are expected or already exist in the City;
- Urge vulnerable people to take measures to protect their health;
- Trigger response activities by City and community partners to protect vulnerable people within the city (e.g., enhance services).

The Cold Weather Response Plan is in effect each year between November 15 and April 15. During this time period, the Medical Officer of Health issues an Extreme Cold Weather Alert when Environment Canada forecasts temperatures of -15°C or colder or wind chill of -20 or colder in the next 24 hours. This approach enables TPH to take a precautionary approach to calling alerts, recognizing that forecasts may not always be correct and that weather conditions may change quickly.

When issuing an Extreme Cold Weather Alert, the Medical Officer of Health also considers other factors that increase the impact of cold weather on health such as precipitation, low daytime temperatures, days/nights of cold weather in a row, and sudden cold weather.

Every morning during the cold season, TPH, in collaboration with the Medical Officer of Health, carefully reviews Environment Canada's 24 hour weather forecast. A decision is made to call an alert, leave an alert in place, or terminate an alert based on temperature, wind chill and other weather factors that are forecast for the next 24 hour period.

At all times, the Medical Officer of Health will apply the guidelines with some discretion after consideration of current and expected weather conditions. This discretion is intended to enable response services to be maintained when conditions warm up briefly between cold spells or prevent them from being mobilized when temperatures dip for brief periods during otherwise moderate weather conditions.

Shelter, Support and Housing Administration retains the ability to extend additional services to clients at any time that it perceives weather conditions to create a risk for the populations served, regardless of whether an Extreme Cold Weather Alert is declared.

Notification of Cold Weather Response Plan Partners and Stakeholders

TPH is responsible for the notification, activation, and termination of Extreme Cold Weather Alerts. Once the Medical Officer of Health issues an alert, prompt notification to the public and those groups participating in cold weather response is critical to ensure that individuals and organizations can respond to protect themselves and their clients in a timely manner.

Public notification of Extreme Cold Weather Alerts occurs through media releases issued to news outlets 7 days a week, news releases issued through the City's Strategic Communications Division, live updates to TPH and City of Toronto web pages, through Toronto Public Health social media pages, and via direct email to interested individuals.

Organizations that carry out cold weather response activities in response to Extreme Cold Weather Alerts may receive direct notification from TPH by email. TPH notifies three separate groups when an Extreme Cold Weather Alert is declared:

- Key response partners. This group includes Shelter, Support and Housing Administration, Toronto Paramedic Services, and TPH Strategic Support.
- Cold Weather Response Plan partners that provide direct services or response actions as detailed in the Cold Weather Response Plan. Notification to this group is done via email. This group includes specific TPH directorates or programs and select City divisions.
- Community partners, agencies, and individuals, including those that service vulnerable populations, and various City staff. Notification to this group occurs by email. TPH has assembled a list of organizations and individuals who wish to be notified of Extreme Cold Weather Alerts. If you or your organization wish to be added to TPH's Extreme Cold Weather Alert notification list, please contact Toronto Health Connections at 416-338-7600.

All notification lists are regularly updated and each participating member is responsible for notifying TPH of any changes to contact names, email addresses, and telephone numbers, and to make sure that their own internal fan-out lists are maintained and current.

Health Promotion

A key role for Toronto Public Health is to provide information about the health impacts of extreme cold weather and about what people can do to protect themselves and others from these impacts. The advice may include steps to be taken on extremely cold days as well as advance planning and preparation that helps to reduce health risks from cold weather. This information is available from www.toronto.ca/health and includes:

- People who are most at risk from cold weather;
- The types of health impacts that may arise from exposure to cold weather, both among homeless populations and in the general population;
- Ideas on how to stay warm and dry to prevent health impacts of cold weather;
- Advice about how to help others;
- Web links to helpful sites that provide information about how to be prepared for winter, including regular maintenance at home as well as emergency planning for the possibility of a power outage;
- Advice for groups and organizations that provide services or care for vulnerable groups;
- Contact information for staff at Toronto's Shelter, Support, and Housing Administration who deliver a suite of cold weather-related services for people experiencing homelessness;
- Direction to contact 311 if there is a need to report people at risk.

Toronto Public Health also provides enhanced outreach and communications to health care professionals in Toronto. This includes providing physicians with information that can be used to advise vulnerable groups, such as elderly patients and those with pre-

existing cardiovascular illnesses, of the health-effects of cold weather. These groups are at increased risk of developing cold-related injuries at moderate winter temperatures, which may be warmer than the temperatures that trigger Extreme Cold Weather Alerts. More information is available from <http://www1.toronto.ca/wps/portal/contentonly?vgnextoid=06f8579beabcb410VgnVCM10000071d60f89RCRD&vgnextchannel=f7aa2f763c322410VgnVCM10000071d60f89RCRD>.

Cold Weather Response Committee

Members of the committee consist mainly of key partners who provide direct services under the Cold Weather Response Plan. The committee meets twice a year: ahead of the cold weather season, to confirm the co-ordination and implementation of the Cold Weather Response Plan, and after the cold weather season in order to review the effectiveness of response efforts under the Cold Weather Response Plan.

Committee members are responsible for ensuring that all those involved in the response are familiar with the Plan. In addition, all plan members are encouraged to provide information to their own staff about how to avoid cold-related health impacts while on the job.

As the functions of the Hot Weather Response Committee and the Cold Weather Response Committee are similar, TPH co-ordinates meeting times for the two groups.

Plan Partners and Roles

Toronto Public Health

In addition to issuing and terminating Extreme Cold Weather Alerts, TPH is responsible for the overall administration and coordination of the Cold Weather Response Plan.

This involves:

- Monitoring weather conditions and forecasts. TPH staff will monitor weather conditions daily and consult with the Medical Officer of Health as necessary when current or forecast weather conditions indicate that an Extreme Cold Weather Alert should be called;
- Maintaining and chairing a Cold Weather Response Committee. This committee is described above;
- Developing and co-ordinating distribution of cold weather educational resources. TPH will develop and maintain resources that provide information about health impacts of cold weather, vulnerable populations, and how to prevent adverse impacts from cold weather. This information will be available online and will be communicated through the media, including social media;
- Developing and communicating information targeted to vulnerable adults and seniors about how to stay safe in cold weather, and how to prepare for wintertime emergencies, including:

- Collaborate with community providers to deliver presentations to groups of vulnerable adults and seniors
- Disseminate cold weather and emergency preparedness tip sheet cards to vulnerable adults and seniors
- Conducting media interviews as necessary. TPH issues media releases and provides the City's Strategic Communications with electronic copies of these releases. TPH also arranges media interviews for key spokespersons and makes the logistical arrangements for news conferences, as needed.

Shelter, Support & Housing Administration (SSHA)

SSHA services play a significant role in supporting people experiencing homelessness during winter months and cold weather conditions by providing safe spaces for people who are otherwise vulnerable to extreme cold and winter related events.

Extreme Cold Weather Alerts activate local services that focus on getting and keeping vulnerable residents inside. A warming centre is open at Metro Hall by 7 p.m. the day an alert is called, and remains open continuously until noon on the day an alert is terminated. Other services include notification to community agencies to relax any service restrictions, availability of transit tokens in some drop-ins, and additional overnight street outreach.

Community organizations and agencies that work with vulnerable population (more than 100) are notified by SSHA to prepare for Extreme Cold Weather Alerts and made aware of available enhanced services offered by SSHA. Throughout the year, 24-hour respite sites provide meals, places to rest, and service referrals at welcoming locations across the city. Residents can call 311 for locations and to connect to Central Intake for a referral. Homeless Help lists site information at toronto.ca/homelesshelp.

Municipal Licensing and Standards (MLS)

For rental units where landlords pay for heating costs, Toronto has a bylaw (Municipal Code Chapter 497 Article 1) that requires landlords to provide heating up to at least 21 °C between September 15 and June 1 of each year. MLS is responsible for investigating complaints from tenants of no heat or low-heat. In the event of an Extreme Cold Weather Alert, front line officers are prepared to respond to an increase in such calls.

Municipal Licensing and Standards - Toronto Animal Services (TAS)

Animal Services develops and disseminates cold weather safety messages for pet owners and attends to sick or injured stray dogs or cats if confined or immobile, and critically sick, injured or distressed wildlife if confined or immobile and attended by someone.

The Toronto Municipal Code, Chapter 349 requires that: No person shall allow an animal to remain outdoors during extreme weather unless the animal has access to an enclosure that will adequately protect the animal from the elements. Animal Services responds to complaints about animals exposed to extreme weather on a priority basis.

Toronto Paramedic Services

Toronto Paramedic Services maintains the ability to activate a Division Operations Centre (DOC) and in the event of a severe and prolonged cold event would have the Toronto Paramedic Services DOC fully operational within a couple of hours to help coordinate the City's Cold Weather Response.

Toronto Office of Emergency Management

The Office of Emergency Management maintains the City's Emergency Operations Centre (EOC) in a state of operational readiness in order to support any required action to address an emergency situation.. Additional details about the potential role of the EOC in a cold weather emergency are described under the "Extreme Cold Weather Emergencies" section of this Plan.

Toronto Parks, Forestry and Recreation

During Extreme Cold Weather Alerts, community centres are available as places for people to warm up during regular business hours. As well, Park Ambassador staff connect with potentially vulnerable individuals in City parks and public green spaces and may notify Streets to Homes staff, who provide and coordinate mobile street outreach services.

Toronto Police Service

The Toronto Police Service, when notified of an Extreme Cold Weather Alert, ensures that its members pay special attention to areas where vulnerable citizens at risk of cold-related illness are found and encourages them to go to a safe place.

311 Toronto

311 Toronto offers a 24/7 telephone service to provide information about City Services and programs, including cold weather response.

Toronto Health Connection

Toronto Health Connection (THC) offers the opportunity to speak to a health professional for free, confidential information and advice, including how to prevent cold

weather-related health impacts. THC can be reached at 416-338-7600. People who are deaf, deafened or hard of hearing can call 416-392-0658 for TTY.

Community Care Access Centres

Toronto Central Community Care Access Centre (CCAC) delivers home and community health care and connects people to other services in our community. The CCACs integrate consideration of indoor temperatures into regular in-home assessments conducted for vulnerable clients. Should a home environment be identified as too cold, follow-up will occur with the client's family to address concerns. The CCAC further encourages Cold Weather Response Plan partners who encounter individuals in the community and may require additional support, to refer that person to CCAC for a home risk assessment and case management and/or referral to other community services that may better meet their needs.

Collaboration and Partner Engagement

Maintaining a robust Cold Weather Response Plan will depend on co-ordination and collaboration with organizations and individuals who play a role in education, planning, and response related to cold weather. Over the coming years, Toronto Public Health will continue to develop a network of partners who are able to collaborate and contribute to cold weather response in the City. A process to engage organizations who may have a role in cold weather response (including conducting health promotion) will be vital to determine those that are best positioned to deliver cold weather responses, the types of response actions that are feasible and effective, and identify where efficiencies and improvements can be made in delivering identified responses.

To carry out this engagement, TPH will continue to build on established partnerships related to climate change and extreme weather, and engage City agencies, boards, commissions, and divisions. As well, TPH will reach out to potential new partners that are identified as having an interest in health impacts of cold weather and vulnerable populations in Toronto.

Related Plans, Protocols, and Programs

Extreme Cold Weather Emergencies

It is possible that extreme cold weather conditions could be sufficiently severe and/or prolonged that their effects would require action beyond what is outlined by this Cold Weather Response Plan. For example, extreme cold in combination with power or water

shortages, or of extended duration could strain the capacity of the health and social services sectors to respond. As the magnitude of the response may escalate more rapidly than response organizations can manage, so may the requirement for additional support from within the City. In such an event, the MOH could request the Toronto Office of Emergency Management (OEM) to activate the City of Toronto's Emergency Operations Centre (EOC). There is no pre-determined set of criteria that automatically triggers a cold weather emergency.

The EOC will be activated and staffed to manage the strategic response to the emergency and to support emergency operations. In the event of an emergency, whether declared or not, the Toronto Emergency Planning Committee Control Group is authorized to undertake activities they consider necessary for the purposes of responding to and recovering from an emergency. The EOC provides an established and recognized point of authority to coordinate response resources, personnel and incident information. The seven functions of the EOC are:

- Effective policy and strategic direction to the emergency;
- Support of emergency operations at the site(s)
- Consequence management;
- Resource management;
- Coordination of management linkages to the emergency site, Divisional Operations Centre, external agencies and the Provincial Emergency Operations Centre;
- Information to the public and news media; and
- Business continuity for the rest of the City.

More details about the City's Emergency Plan are available from

http://www1.toronto.ca/City%20Of%20Toronto/Office%20of%20Emergency%20Management/Files/pdf/E/emergency_plan.pdf

Winter Preparedness and Power Outages

Toronto Fire Services offers information about how to prepare for winter and the possibility of winter storms in combination with power outages. For more information, please visit:

<http://www1.toronto.ca/wps/portal/contentonly?vgnextoid=aa41a069d81f1410VgnVCM10000071d60f89RCRD&vgnnextchannel=dddf3840456e1410VgnVCM10000071d60f89RCRD>

Occupational Health and Safety

The City is committed to providing and maintaining safe and healthy working conditions for all employees. Staff safety during cold weather and in particular during Extreme Cold Weather Alerts is a priority. City employees (both management and staff) have access to further information on how to avoid harmful impacts of cold weather, which is posted on the City's web site by Human Resources Occupational Health and Safety. The City's

Cold Stress Policy and Guidelines are available from <https://www1.toronto.ca/wps/portal/contentonly?vgnextoid=620e90bb4106d510VgnVCM10000071d60f89RCRD>

Climate Change and Severe Weather

Toronto is expected to experience more severe and unpredictable weather in the coming years as a result of our changing climate. Additional information about the health impacts of climate change are available www.toronto.ca/health. Information about the City's plans and progress on reducing greenhouse gas emissions and on preparing for a changed climate can be found at <http://www1.toronto.ca/wps/portal/contentonly?vgnextoid=a201fbfa98491410VgnVCM10000071d60f89RCRD> .

Future Work

TPH will conduct additional consultation, promote relevant partnerships, and review and update the Plan to reflect longer-term goals that include:

- Improving co-ordination of response across City divisions and with external agencies;
- Developing additional partnerships and response actions that may be appropriate;
- Providing a forum for discussing how to best communicate health risks for cold weather;
- Providing a mechanism for regular review of the thresholds for calling alerts as more information becomes available.

In the long-term the Cold Weather Response Committee will provide a mechanism for regular review, evaluation, and improvement of the City's cold weather response.