

City of Toronto Cold Weather Response Plan

October 2015



Call 311

toronto.ca/health



Public Health

Cold Weather Response Plan

Goal of the Cold Weather Response Plan	1
Background	1
Authority.....	2
Components of the Plan	3
Extreme Cold Weather Alerts	4
Notification of Cold Weather Response Plan Partners and Stakeholders.....	4
Health Promotion	5
Cold Weather Response Committee	6
Plan Partners and Roles	6
Toronto Public Health	6
Shelter, Support & Housing Administration.....	7
Municipal Licensing and Standards.....	7
Toronto Paramedic Services.....	8
Toronto Office of Emergency Management	8
Toronto Parks, Forestry and Recreation	8
Toronto Police Service.....	8
311 Toronto.....	8
Toronto Health Connection.....	8
Community Care Access Centres.....	8
Collaboration and Partner Engagement	9
Related Plans, Protocols, and Programs	9
Extreme Cold Weather Emergencies	9
Winter Preparedness and Power Outages.....	10
Occupational Health and Safety	10
Climate Change and Severe Weather.....	10
Future Work	10

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 37 °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. 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. Researchers believe that it may occur because the body protects core temperature from cold weather by restricting blood flow to extremities, which increases overall blood pressure. The effect is not thought to be related to snow shovelling. 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.

For healthy individuals there is a significantly heightened risk of developing cold related injuries such as frostbite at temperatures of -27 °C or below. Those most at risk of developing cold related injuries include individuals that are outdoors for long periods of time including outdoor workers and enthusiasts; people that have consumed alcohol and other drugs or medication; people wearing inadequate or wet clothing and both the very young and 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. The strategy was developed in consultation with social service agencies, volunteers, homeless people and government representatives.

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 was completed in time for the 2014 – 2015 cold weather season and continues to be in effect.

Council's decision further activated a June 2014 Board of Health request that *should Council approve [this transfer of responsibility,] ... the Medical Officer of Health develop a comprehensive Cold Weather Plan in collaboration with the General Manager of Shelter, Support and Housing Administration and other City officials as appropriate to reduce health risks for City of Toronto populations"*

(<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2014.HL32.3>).

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.

In March 2015, TPH hosted a workshop to consult with key stakeholders to provide information about the Cold Weather Response Plan, as well as to identify opportunities to enhance the Plan through better coordination, communication, and response by stakeholders/organizations in relation to Extreme Cold Weather Alerts. In response to the feedback provided during the meeting, TPH has reviewed emerging information about the health impacts of cold weather, to determine whether the current threshold used to issue an Extreme Cold Weather Alert is sufficiently health-protective. This included conducting novel research, in collaboration with St. Michael's Hospital, into the impacts of cold weather on Toronto's homeless population. At present, there is insufficient evidence to support making changes to the threshold used to issue an Extreme Cold Weather Alert. However, there is ongoing research at TPH, St. Michael's Hospital and Public Health Ontario to investigate the health effects of cold on Toronto's homeless and general population. 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 review 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 needlessly 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 their clients at any time that they perceive weather conditions to create a risk for the populations that they specifically serve, 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, immediate notification of the public and those 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 to the City's Strategic Communications Division, live updates to TPH and City of Toronto web pages, and through social media.

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

- Key response partners who are contacted directly by telephone. This group includes Shelter, Support and Housing Administration, the Office of Emergency Management, Toronto Paramedic Services, and TPH Strategic Support.
- Cold Weather Response Plan partners who provide direct services or response actions as detailed in the Cold Weather Response Plan. Notification of this group is by voicemail and email. This 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 of 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 who provide services or care for vulnerable groups;
- Contact information for 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.

Cold Weather Response Committee

The Cold Weather Response Committee assembled by Toronto Public Health will hold face-to-face meetings during 2015/16 in order to develop, monitor, and improve Toronto's Cold Weather Response Plan. Members of the committee consist mainly of key partners who provide direct services under the Cold Weather Response Plan. The committee will meet at least 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 will also be 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 intends to co-ordinate 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, in this document;
- 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
 - Disseminating cold weather and emergency preparedness tip sheet cards to vulnerable adults group
- 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 new conferences, as needed.

Shelter, Support & Housing Administration

As part of a Cold Weather Response Plan, the Shelter, Support & Housing Administration (SSHA) division has leadership over Extreme Cold Weather Alert response activities intended to prevent cold-related injury among people experiencing homelessness.

Shelter, Support, and Housing Administration co-ordinates a suite of services that support people experiencing homelessness living outside and provides assistance during winter months and extreme cold weather conditions. These services build on existing year-round homeless support services and include:

- The following additional services are triggered by SSHA when an Extreme Cold Weather Alert is called:
 - Two 24-hour extreme cold weather alert drop-ins are opened by 3 p.m. on the day an alert is called. Services at the drop-ins include warm food and drinks, referrals to shelter and other services. Mats are provided for sleeping.
 - Shelters are directed to relax any service restrictions they may have.
 - Increased street outreach and transportation services. Focus is on informing clients about the danger of weather conditions and transporting them to indoor locations.
 - More than 100 organizations and agencies that work with homeless people are advised to prepare for increased service demands.
 - Transit tokens are made available in many drop-ins so people can reach shelters.
 - Additional shelter spaces are opened for men and women.
- From November to April, the Out of the Cold (OTC) program also operates and supplements shelter capacity. It offers both a meal program and an overnight bedded program that are delivered by volunteers in a network of interdenominational, faith-based organizations that are coordinated by Dixon Hall through a purchase of service agreement with SSHA. Currently, there are 16 OOTC sites dispersed throughout the city. The number of beds available at each location currently varies from 15 up to 75. On any given night there could be up to four sites operating.
- During the 2015-16 winter season two low-barrier 24-hour drop-ins for women will also be providing service to women 16 years of age or older. These are new permanent year-round services approved as part SSHA's 2015 Operating Budget. The first drop-in operated by Fred Victor Centre, at the Adelaide Resource Centre for Women (67 Adelaide Street East at Church), opened on June 15, 2015 and Sistering (962 Bloor Street West at Dovercourt), opened on September 15, 2015.

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.

Toronto Paramedic Services

Toronto Paramedic Services has agreed to report critical incidents (death or transfer of an individual to hospital believed to be cold-related where the environmental conditions observed by the paramedic indicate possible excessive cold exposure) to TPH.

Toronto Paramedic Services also 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 Emergency Operations Centre in a state of operational readiness. During a severe or prolonged cold weather event, the Medical Officer of Health may request that the Emergency Operations Centre be activated. 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, "Parks Ambassadors" 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 (e.g., through outreach programs, or at a warming shelter, etc.) 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 and magnitude could strain the capacity of the health and social services sectors to respond. In such an event, the MOH will request the Toronto Office of Emergency Management (OEM) to activate the City of Toronto's Emergency Operations Centre (EOC). The EOC may be activated with or without the declaration of an emergency. The EOC provides an established and recognized point of authority to coordinate response resources, personnel and incident information. The Toronto Office of Emergency Management will be able to complement the ongoing cold weather response through activities such as: arranging for services and equipment from local agencies or third party providers (i.e., private contractors, industry, volunteers, service clubs); ensuring that timely and consistent messages are provided to all staff and media; requesting assistance from and / or liaising with neighbouring municipalities and other levels of government if required, etc.

At some point, a decision may be made to declare a cold weather-related emergency. The Mayor under the provisions of the City of Toronto Municipal Code, Chapter 59 and provincial legislation, Emergency Management and Civil Protection Act has the legal authority to declare an emergency and to take necessary protective measures. Chapter 59 also establishes the Toronto Emergency Management Program Committee (TEMPC) comprised of a number of key executives, including the MOH who has the lead role in providing advice and direction on health-related matters. Other members of TEMPC include the Mayor, the Deputy Mayor, City Manager, the three Deputy City Managers and other senior officials.

However, there is no pre-determined set of criteria that automatically triggers a cold weather emergency. The decision to escalate the municipal response from an Extreme Cold Weather Alert will be taken in consultation with the MOH and other impacted City Divisions, coordinated by the Toronto Office of Emergency Management.

If the decision is made to declare an emergency, the City of Toronto Emergency Plan will be implemented.

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?vgnnextoid=aa41a069d81f1410VgnVCM10000071d60f89RCRD&vgnextchannel=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

<http://www1.toronto.ca/wps/portal/contentonly?vgnnextoid=c93ce03bb8d1e310VgnVCM10000071d60f89RCRD>.

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?vgnnextoid=a201fbfa98491410VgnVCM10000071d60f89RCRD>.

Future Work

This version of the Cold Weather Response Plan is an updated version of the 2014 City of Toronto Cold Weather Plan, with changes to the Plan introduced following a review of the 2014 – 2015 winter season and discussions between Toronto Public Health and Cold Weather

Response Plan partners. Transferring the responsibility to call Extreme Cold Weather Alerts to the Medical Officer of Health has provided an opportunity to build on past cold weather response activities and develop a Cold Weather Response Plan that addresses the range of health impacts associated with extreme cold weather. Moving into the future, 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.