



**City of Toronto  
Hot Weather Response Plan  
2009**

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 **TORONTO** Public Health

# ***HOT WEATHER RESPONSE PLAN, 2009***

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## **1 INTRODUCTION**

### **1.1 General**

The City of Toronto Hot Weather Response (HWR) Plan is a protocol for hot weather response and is comprised of both proactive and reactive components. The reactive components are activated when a Heat Alert or Extreme Heat Alert is declared by Toronto's Medical Officer of Health (MOH). The HWR plan is coordinated by Toronto Public Health (TPH) and includes both City and community partners.

Since 2000, the Hot Weather Response Committee, chaired by TPH, has developed, monitored and improved Toronto's HWR plan. Committee members consist mainly of key partners who provide direct services under the HWR plan. Each year, the HWR committee has a pre-season meeting to confirm the coordination and implementation of the HWR plan and a post-season de-briefing to review the effectiveness of the response during Heat/Extreme Heat Alerts.

The HWR plan is a living document and is reviewed and up-dated on an annual basis. An electronic version of the plan is provided to HWR committee members, in addition to being posted on the Toronto Public Health website. It is the responsibility of each committee member to ensure all those involved in the response are familiar with the plan.

### **1.2 Purpose**

The purpose of the HWR plan is to provide a framework for the implementation and coordination of hot weather response activities which focus on reducing the negative health impacts of extreme heat. The plan's main objective is to alert those most at risk of heat-related illness that hot weather conditions are either imminent or currently exist, and to take appropriate precautions. Socially isolated seniors are at highest risk of heat-related illness and death. Other at-risk groups include people with chronic and pre-existing illnesses including mental illness, children, and people who are marginally housed or homeless.

In the event of a severe and prolonged heat event, the HWR plan also identifies actions that may be taken by the MOH to activate the City's Emergency Operations Centre under the provisions of the City's Emergency Plan.

### **1.3 Background**

Toronto has had a heat warning system since 1999. The first heat warning system used a threshold of a one-day forecast of Humidex over 40 degrees Celsius. However, Humidex levels change rapidly and are very difficult to predict. Therefore in 2000 and 2001, Toronto Public Health collaborated with the Toronto Atmospheric Fund and the University of Delaware to develop a Heat Health Alert System expressly for Toronto, based on a complex synoptic system. A synoptic system involves historical analysis of regional air masses that are associated with elevated mortality, while taking into account regional differences in population vulnerability to heat.

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The synoptic method has provided an evidence-based tool with acceptable predictive value in forecasting periods of heat-related mortality. A Heat Alert is called when a hot air mass is forecast and the likelihood of deaths is more than 65 percent. An Extreme Heat Alert is issued when the heat has become more severe or is expected to last longer and the likelihood of deaths is more than 90 percent.

In 2001, when Toronto Public Health launched its new Heat Health Alert System to help forecast heat alert days, the expected average number of Heat Alert and Extreme Heat Alert days was 4.5 per year (heat alert: 3.1 days; extreme heat alert: 1.4 days). This estimate was based on the 46 years of meteorological data used to create the Heat Health Alert System. In the eight years since the implementation of the Heat Health Alert System, the average annual number of Heat Alert days has been 7.0 days and Extreme Heat Alert 5.6 days, for a total average of 12.6 days.

### **1.4 Authority**

The current authority for implementing the HWR Plan is provided through the noted City of Toronto Council directive. It states that “the Hot Weather Response Plan piloted in 2001 be implemented on an annual basis and the appropriate City officials be authorized and directed to take the necessary steps to give effect thereto” (*Clause No.1 Report No.3 of the Board of Health adopted by Council on April 16, 17 and 18, 2002 in accordance with the provisions of Chapter 27 of the City of Toronto Municipal Code*).

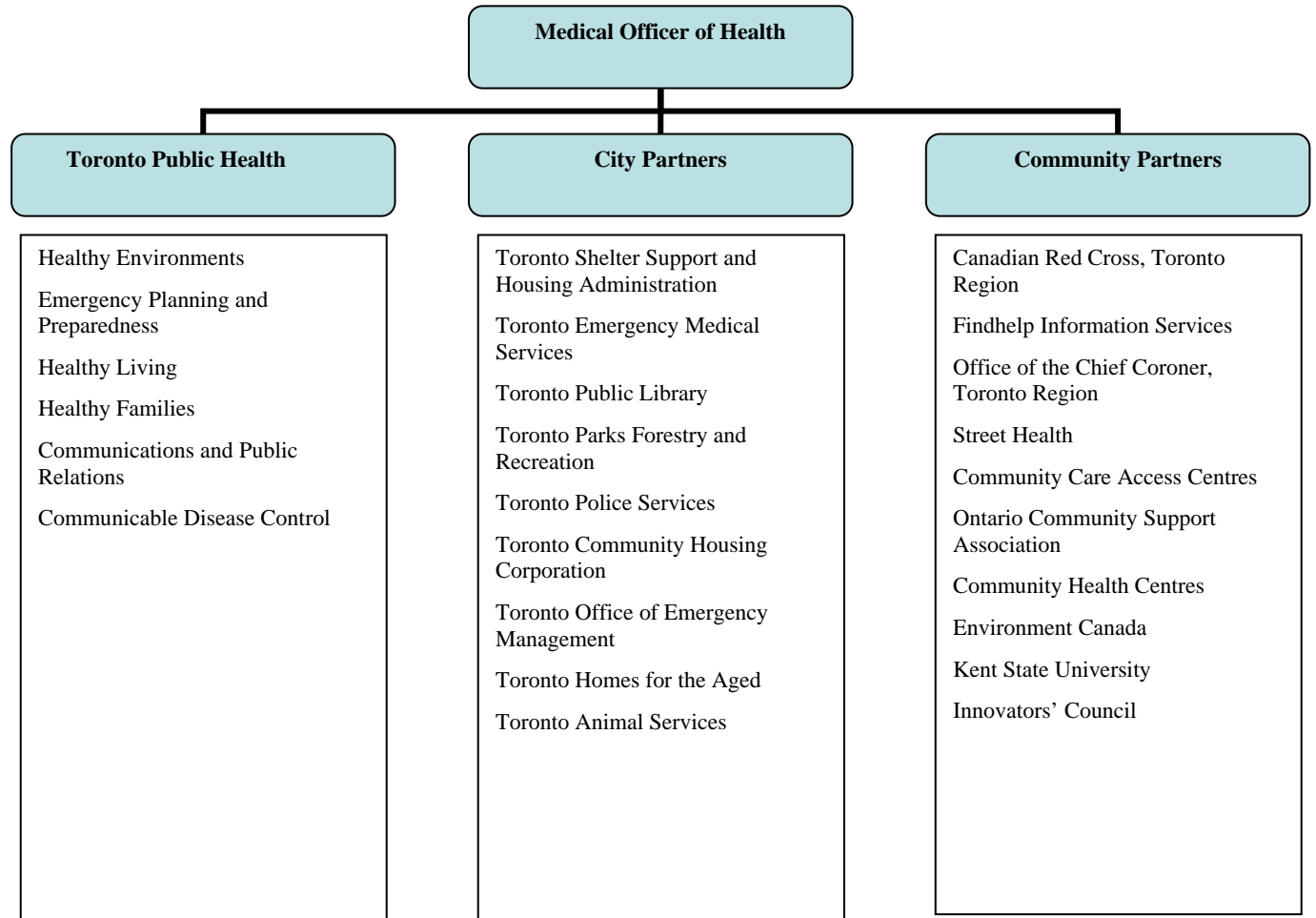
An emergency resulting from severe and prolonged hot weather may be declared by the Mayor under the provisions of the City of Toronto Municipal Code, Chapter 59. The heat event may initially be forecasted as a Heat Alert or Extreme Heat Alert however, the intensity and magnitude may be such that other measures in addition to those identified in the HWR plan would become necessary.

Chapter 59 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. Executive staff of other agencies, boards and associations, both public and private (i.e. utilities, hospital associations, school boards), may be requested to be members of the Committee for the proactive purpose of ensuring emergency preparedness.

During an emergency, most of the TEMPC members form a reactive group called the Municipal Control Group (MCG). The MCG has the authority and responsibility to initiate, co-ordinate, direct and otherwise bring about the implementation of Toronto’s Emergency Plan, expend funds required to obtain and distribute emergency materials, equipment and supplies and obtain volunteer support from public agencies.

## **1.5 Members of the Hot Weather Response Plan**

The HWR plan is coordinated by Toronto Public Health and includes both City and community partners. HWR members that provide direct services under the plan are listed below. Section 3 of the HWR plan (Roles and Responsibilities) outlines all the pre-agreed activities each member provides.



**1.6 Service Contracts**

Toronto Public Health on behalf of the City of Toronto has established service contracts with the Canadian Red Cross and Findhelp Information Services to provide specific services during Heat /Extreme Heat Alerts.

**2 OPERATIONS**

**2.1 Notification, Activation and Termination of the Hot Weather Response Plan**

TPH is responsible for the notification, activation and termination of the HWR plan. Following the MOH declaration of an Alert, immediate notification of the public and all those participating in the response is critical to ensure the plan is activated. All Notification lists are continuously updated and each participating member is responsible for notifying Toronto Public Health of any changes to contact names and telephone numbers and to make sure that their own internal fan-out lists are maintained and current.

There are three distinct groups that TPH notifies when an Alert is declared. They include the following:

- Key Response Notification Group
- Core Heat Alert Notification Group
- Findhelp Community Partners Notification Group

**Key Response Notification Group**

The Key Response Group consists of key partners who have major responsibilities under the HWR plan and are immediately notified by telephone once an Alert has been called and terminated by the MOH.

<b>Key Response Notification Group</b>
Canadian Red Cross
Findhelp information Services
Emergency Medical Services
Shelter, Support and Housing Administration
Toronto Public Health Communications

**Core Heat Alert Notification Group**

The Core Heat Alert Notification Group consists of HWR Committee members who provide direct services under the HWR plan, TPH directorates/programs and specific city divisions. This group is notified during regular business hours via broadcast voice mail and/or e-mail.

### **Findhelp Community Partner Notification Group**

A broader list consisting of over 900 community agencies and individuals servicing vulnerable populations also receive Alert notifications via fax and/or e-mail through Findhelp Information Services. This broader group is reviewed by TPH on a regular basis and is maintained by Findhelp Information Services.

Heat/Extreme Heat Alerts are terminated by the MOH. Notification regarding termination is completed as with declarations via telephone, email and/or facsimile.

## **2.2 Severe and Prolonged Heat Event**

In the event of a severe and prolonged heat event, a request will be made by the MOH to activate the City of Toronto's Emergency Operations Centre to coordinate further municipal and partnering agency activities. The Emergency Medical Services (H-DOC) and/or Toronto Public Health Emergency Operations Centre may also be activated, if appropriate, to help coordinate the City response. If an emergency is declared, the City of Toronto Emergency Plan will be implemented and municipal and agency efforts will be directed by the Municipal Control Group.

Toronto Public Health would co-ordinate its response activities from the Toronto Public Health Emergency Operations Centre (TPHEOC). The TPHEOC is designed to facilitate emergency response activities and may be activated by the MOH or designate.

## **2.3 Communications**

Timely and effective communication of information to the public and between participating agencies is critical during a Heat/Extreme Heat Alert. TPH Communications issues media releases to outlets through the Canada Newswire Service 7 days a week when an Alert is called or terminated. News releases are also e-mailed to Strategic Communications. As well, the TPH Heat Alert website is updated when necessary to reflect current Alert status.

Key spokespersons from Toronto Public Health, Toronto EMS, Toronto Shelter Support and Housing Administration, Canadian Red Cross and Findhelp Information Services have been selected to respond to media requests during Heat/Extreme Heat Alerts.

## **2.4 Occupational Health and Safety**

The City is committed to providing and maintaining safe and healthy working conditions for all employees. Staff safety during hot weather and in particular during Heat/Extreme Heat Alerts is a priority. City employees (both management and staff) have access to further information on how to avoid heat-related illness, which is posted on the City's internal web site by Human Resources Occupational Health and Safety.

## **3 Roles and Responsibilities**

### **3.1 Toronto Public Health**

#### **Medical Officer of Health**

The MOH or designate calls the Heat Alert or Extreme Heat Alert, conducts media interviews as appropriate and will request the activation of the City's Emergency Operations Centre in the event of a severe and prolonged heat emergency.

#### **Healthy Environments**

Healthy Environments is responsible for the overall administration and coordination of the HWR plan. Healthy Environments responsibilities include the following:

- Monitor, evaluate and maintain the Heat Health Alert System
- Notify and consult with the MOH on forecasted Heat/Extreme Heat Alerts
- Conduct media interviews, as appropriate
- Chair the HWR Committee and provide overall leadership and direction regarding hot weather response
- Establish contracts with the Canadian Red Cross and Findhelp Information Services and oversee the implementation of agreed services
- Develop, print and coordinate distribution of HWR educational resources
- Procure and provide TTC tokens to Shelter, Support and Housing Administration for distribution, as appropriate
- Provide Hot Weather Protection Plan Packages to all known rooming houses, lodging homes, group homes and other residential premises of concern, to educate landlords on how and when to activate the plan
- Conduct site visits during extreme heat alerts to confirm the implementation of the Hot Weather Protection Plan and to evaluate its effectiveness
- Investigate reports of critical incidents (possible heat related illness or death) reported to Toronto Public Health from Toronto Emergency Medical Services or the Office of the Chief Coroner, Toronto Region

#### **Healthy Families/Healthy Living Services**

Healthy Living (HL) provides public education on hot weather and health through seminars, presentations and displays at the beginning of the hot weather season. Groups targeted include seniors, home support agencies, meals on wheels and congregate dining programs and property managers of Toronto Community Housing. HL was also involved in a pilot project to support the development of an agency specific registry of at-risk clients.

Healthy Families (HF) provides public education at parenting groups and Canadian Prenatal Nutrition Programs. Both HF and HL contact known clients who may be at high risk of severe health impacts due to hot weather during Heat and Extreme Heat Alerts.

#### **Emergency Planning and Preparedness**

The Emergency Planning and Preparedness Unit (EPP) will activate the TPHEOC to help coordinate the services of partnering agencies during a prolonged heat emergency.

### **Communication and Public Relations**

Timely and effective communication to the public and partner agencies is critical when an Alert is called. TPH Communications and Public Relations forwards media releases to Canada News Wire and provides Strategic Communications with an electronic copy of the news release. Communications also updates the TPH website when a Heat/Extreme Heat Alert is called and arranges media interviews for key spokespersons. Communications will make the necessary logistical arrangements for news conferences, as needed.

### **Communicable Disease Control**

The Communicable Disease Liaison Unit distributes hot weather resource packages to Toronto hospitals and discusses with emergency room managers the contents of the package for display in the emergency room area and for distribution to patients seen for heat-related illness.

## **3.2 City of Toronto**

### **Toronto Shelter, Support & Housing Administration**

Shelter, Support and Housing Administration (SS&HA) issues a request that all hostels make adjustments to permit clients to occupy air-conditioned space in common areas. SS&HA provide street outreach to the homeless through the Streets to Home Team and ensure ongoing coordination of street outreach services to people who are homeless, provided by community agencies through SS&HA's various funding streams. In addition, SS&HA, extends hours at selected drop-in centres, subject to funding approvals, and manages the City Cooling Centres opened during Extreme Heat Alerts.

### **Toronto Emergency Medical Services**

Emergency Medical Services Community Medicine Program works with TPH to utilize various forms of media in delivering messages on the potential health risk of hot weather conditions. Toronto Emergency Medical Services (EMS) maintains the ability to act as key spokespersons for media request, either through the Community Paramedicine Program or the After Hours On-Call Media Group.

As well, EMS has agreed to report critical incidents (death or transfer of an individual to hospital believed to be heat-related where the environmental conditions observed by the paramedic indicate possible excessive heat exposure) to TPH for investigation.

Toronto EMS maintains the ability to activate the H-DOC and in the event of a severe prolonged heat event would have the EMS H-DOC fully operational within a couple of hours to help coordinated City's Hot Weather Response.

### **Toronto Community Housing Corporation**

Toronto Community Housing Corporation circulates education materials and communicates with tenants to ensure they are informed about precautions to take during hot weather, including 24-hour access to air conditioned common rooms where they exist, during Heat/Extreme Heat Alerts.

### **Toronto Parks, Forestry and Recreation**

Parks, Forestry and Recreation encourage people to go to city pools to cool off or stay in the shade in parks, and allow people to remain in public parks during Alerts. “Parks Ambassadors” visit City parks to provide information with telephone numbers and locations of services where people who are homeless can go to cool down. A number of swimming pools extend their hours during Extreme Heat Alerts. Air-conditioned recreation/community centres are used as cooling places and during Extreme Heat Alerts, selected locations operate as Cooling Centres.

### **Toronto Police Service**

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

### **Homes for the Aged**

Homes for the Aged provides six relief short-term stay beds for use by frail isolated seniors during an Extreme Heat Alert, as required.

### **Toronto Public Library**

Libraries display key health messages about hot weather and heat-related illness throughout the summer. During alerts, libraries post notices about the Heat/Extreme Heat Alert and are available as places for people to cool off during regular business hours. During visits to schools to talk to children and teachers about summer library programs, library staff include summer safety and hot weather messages in their information sessions.

### **Toronto Office of Emergency Management**

The Office of Emergency Management (OEM) conducts routine monitoring of alert status and notifies the Director of Technical Services as required, and provides an “Enhanced Monitoring” status level at the EOC during a prolonged Extreme Heat Alert if necessary. OEM also maintains contact with the TPH Emergency Planning and Preparedness Unit, as required.

### **Toronto Animal Services**

Animal services develops and disseminates hot 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.

## **3.3 Community Partners**

### **Canadian Red Cross Society**

The Canadian Red Cross society provides training on recognition of heat-related illness and first aid for staff and volunteers of community agencies who serve vulnerable clients, co-ordinates the delivery of bottled water to partnering community agencies that dispense water to where vulnerable people are likely to gather, conducts street and park outreach to homeless people and provides them with water and transportation to a cool place, if needed. As well, Red Cross operates the Heat Information Line to answer questions regarding heat related issues and refer calls, as appropriate and respond to requests to check on seniors and other vulnerable populations who are at risk for heat-related illnesses.

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### **Findhelp Information Services**

Findhelp Information Services e-mails or faxes area hostels, seniors' agencies and other community groups working with vulnerable populations to advise them of Heat/ Extreme Heat Alerts and provides information to residents including what services are available. Findhelp, on behalf of TPH, maintains the Community Partner Heat Alert Notification Group and updates the list as required.

### **Office of the Chief Coroner, Toronto Region**

The Office of the Chief Coroner contacts TPH to report deaths where heat may be a contributing factor (possible heat-related deaths) identified during routine investigations within one business day. The coroner's office also meets with TPH on an annual basis prior to the upcoming hot weather season to review existing protocols and key contact information regarding notifications of possible heat-related deaths.

### **Community Care Access Centres**

Community Care Access Centres identify vulnerable clients and develop response plans for them on Heat/Extreme Heat Alert days and share timely information and Alert notices with their respective contracted service provider organizations.

### **Ontario Community Support Association**

Members of the Ontario Community Support Association, an organization of home support agencies serving frail and isolated seniors, distributes to their clients information and education on heat-related illness. They also participate in training on recognizing the symptoms and providing first aid for heat-related illness, and contact vulnerable clients on Heat/Extreme Heat Alert days.

### **Community Health Centres**

Receive Heat/Extreme Heat Alert notifications. Individual centres may post alert notifications and contact high risk clients, provide "Beat the Heat" education and display hot weather resource materials.

### **Innovators' Council**

The City of Toronto opens Cooling Centres during Extreme Heat Alerts. Cooling Centres are designated air-conditioned locations designed to allow people and their pets to escape the heat, rest, have a drink, have a light snack and get information on how to "Beat the Heat". The Cooling Centres are opened, staffed and operated under the direction of the City of Toronto's Shelter, Support and Housing Administration. The Innovators' Council operates the cooling centres.

### **Environment Canada**

Environment Canada forwards weather data electronically to Kent State University and Toronto Public Health and provides consultation services as needed.

### **Kent State University**

Kent State University provides TPH with the forecast data according to the Heat Health System format.

## **4 ATTACHMENTS**

### **Attachment 1 - Key Terms/Abbreviations**

#### **Key Terms**

##### Heat Alert

Means that an oppressive air mass is forecast and the likelihood of excess weather-related mortality exceeds 65 percent.

##### Extreme Heat Alert

Means that an oppressive air mass is forecast and the likelihood of excess weather-related mortality exceeds 90 percent.

##### Routine Monitoring

Means that weather conditions are not forecasted to be oppressive **or** that an oppressive air mass is forecast but conditions do not predict excess mortality.

#### **Abbreviations**

EOC	Toronto Emergency Operations Centre
H-DOC	Health Division Operations Centre (EMS)
HWRP	Hot Weather Response Plan
HL	Healthy Living
HF	Healthy Families
MCG	Municipal Control Group
MOH	Medical Officer of Health
OEM	Toronto Office of Emergency Management
SS&HA	Shelter, Support and Housing Administration
TEMPC	Toronto Emergency Management Program Committee
TPH	Toronto Public Health
TPHEOC	Toronto Public Health Emergency Operations Centre
TPHIM	Toronto Public Health Incident Manager
THPEPP	Toronto Public Health Emergency Planning and Preparedness

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## **Attachment 2 – Hot Weather Response Committee Terms of Reference Revised October 9, 2008**

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### **Background**

Since 2000 Toronto Public Health has coordinated the response to heat events through a Hot Weather Response Plan. The Hot Weather Response Committee which is chaired by Toronto Public Health includes member organizations that may have specific roles and responsibilities outlined within the plan. The purpose of the Hot Weather Response Committee is to provide updates on services, identify issues and make recommendations regarding improvements to the plan.

### **Mandate**

The Hot Weather Response Committee ensures that the Hot Weather Response Plan is reviewed and updated on an annual basis. The HWR Committee will:

- Review, evaluate and make recommendations to changes to the Hot Weather Response Plan
- Facilitate hot weather response communication, coordination and collaboration across divisions and member agencies.
- Identify new or emerging extreme heat event issues

### **Accountability**

The Hot Weather Response Committee is accountable to the Board of Health, through the Medical Officer of Health.

### **Membership**

The committee includes representation from:

- Toronto Public Health
- Canadian Red Cross
- Findhelp Information Services
- Toronto Community Care Access Centres
- Toronto Emergency Medical Services
- Toronto Community Housing Corporation
- Toronto Parks, Forestry and Recreation
- Toronto Animal Services (Municipal Licensing & Standards)
- Toronto Public Library
- Toronto Office of Emergency Management
- Toronto Police Service
- Toronto Shelter, Support and Housing Administration
- Street Health
- Toronto Disaster Relief Committee
- Parkdale Community Health Centre
- Woodgreen Community Services

### **Meeting Times**

The committee will meet in the spring prior to May 15<sup>th</sup> the start of the hot weather season, mid summer and in the fall following September 30<sup>th</sup> the end of the hot weather season.