

WINNIPEG

The importance of region-specific
triggers

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THE SCIENCE

During extreme heat events, those most vulnerable to health impacts (e.g. seniors, young children, and people with cardiovascular diseases or chronic illnesses) often require assistance to stay safe and healthy. Community response plans contained within Heat Alert and Response Systems include protective measures that can reduce health risks for various groups within the population, including the most vulnerable.

Heat Alert and Response Systems are a collaborative effort that relies on the participation and outreach capability of stakeholders for both creating and carrying out response measures. Shared knowledge from all partners (e.g. public health officials, emergency management officials, social services providers, community groups) helps to inform response plans so that financial, staffing and volunteer resources are most effectively employed to reach vulnerable groups and reduce negative health impacts.

Heat Alert and Response Systems have contributed to the reduction of illnesses and fatalities from heat events in Canadian and American communities since they were first implemented in the 1980s. Effective response plans employ measures tailored to stakeholder interests and capabilities. For example, publicly accessible, air-conditioned and climate-controlled cool rooms can be helpful in situations where individuals require cooling options, but do not have access to private air conditioning.

THE TRIGGER

Public health officials with Manitoba Health, Seniors and Active Living (MHSAL) and City of Winnipeg officials have recognized the growing risks to health associated with extreme heat events. The health consequences of severe heat waves in Europe and the United States, in which hundreds or thousands of people died, prompted health officials with the MHSAL Office of Disaster Management to increase preparedness of individuals in the City of Winnipeg and the province more broadly.

MHSAL and the City of Winnipeg collaborated with Health Canada to conduct a Winnipeg-based heat-health vulnerability assessment, which evaluated the public's baseline exposure and sensitivity to heat, and the ability to adapt to extreme heat events. The assessment found that the general population in Winnipeg is vulnerable to extreme heat, with some groups at higher risk due to age, illness, socio-economic status and occupation. This assessment also identified opportunities to take actions to protect health while adapting to the changing climate.

THE APPROACH

In 2009, MHSAL's Office of Disaster Management (ODM) established a Heat Alert and Response System Advisory Committee (HARSAC) to engage with stakeholders and government departments, and guide the development of the new Heat Alert and Response System. The HARSAC identified the need for a Heat Science Group (HSG) to review heat science and generate a protocol for classifying and responding

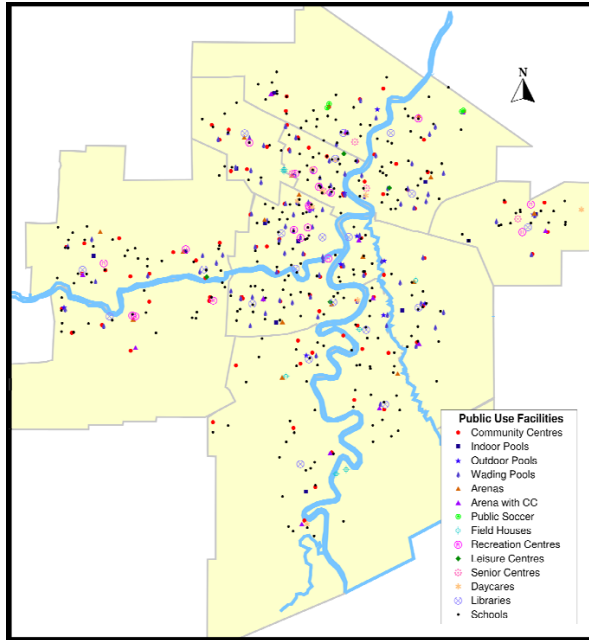


Figure 7: Location of Public Use Facilities in Winnipeg, 2004
(Source: City of Winnipeg)

to heat events. The HSG developed a four-level heat alert protocol and has been working with stakeholders to develop appropriate response actions for each level.

By engaging stakeholders from various backgrounds, the HARSAC gained access to a broad range of expertise. In Winnipeg, existing resources were identified that could be employed in response to extreme heat events (e.g. volunteer organizations and response activities already in place for other issues).

Winnipeg used results from the heat-health vulnerability assessment to identify vulnerable groups that should be the focus of response measures. These measures were developed based on four factors: the nature of both the risk and vulnerability, capacity to engage the community, availability of resources, and the efficacy of the measures available.

ODM and Public Health officials in MHSAL employ a continuous quality improvement approach to the Heat Alert and Response System, using HARSAC meetings and ongoing input from stakeholders, public health and disaster management officials. This helps to identify any needed changes to the system in order to improve preparedness for, and response to, extreme heat events.

THE OUTCOME

During a response to an extreme heat event in Winnipeg, specific messaging to individuals and stakeholders occurs, depending upon the level of alert. In some

circumstances, the level of extreme heat forecast may also result in the Chief Provincial Public Health Officer issuing a bulletin in the form of a Heat Advisory, which is sent to media outlets through a news release. The Chief Provincial Public Health Officer may also share information using other communications services, such as websites and tweets. These bulletins notify people in Winnipeg of heat event, actions they should take to protect themselves, signs and symptoms of heat illness and where they can get more information.

Targeted messaging may also be sent out to stakeholders, such as health care professionals, public sector workers, and social services providers. Heat-related communication materials may also be supplied to organizers of outdoor community events while heat alerts are in effect. Community partners such as the Red Cross and Salvation Army are active in heat response efforts, engaging their own networks and reaching out to at-risk populations as the situation warrants.

The City of Winnipeg's Emergency Preparedness and Coordination Committee works to identify and meet the emerging needs of citizens during extreme heat. The city may, for example, extend pool hours or extend the hours of air-conditioned City of Winnipeg facilities for people to access. City of Winnipeg departments, such as Community Services, Water and Waste, Public Works, the Police Service, Transit and Corporate Communications have a list of activities and tasks that may be implemented during heat events. Public Works, for example, may arrange for additional seating and water supply for people entering cooling areas to escape the heat. Figure 7 shows the location of public use facilities in Winnipeg, a number of which may help provide respite from extreme heat.

MHSAL and stakeholders work together where possible to identify and collect data on heat-related health impacts (e.g., Emergency Medical Services calls during heat events, calls to telehealth phone lines). Service providers also review usage of resources, such as cooling locations and bottled water, to help inform and improve response plans for future events. Collected data and a post-season review of heat events is discussed with members of the HARSAC at the end of each heat season and continues to aid in refinement of adaptation strategies to meet the diverse needs of Winnipeg residents during extreme heat.

A WORD FROM WINNIPEG

When asked what advice he would give to other municipalities that would like to implement a similar program, Randy Hull, Emergency Preparedness Coordinator for the City of Winnipeg, indicated that the biggest internal challenge is to determine what services can be alerted or extended to provide comfort and relief to citizens.

"Although a heat alert is primarily a health event, the City of Winnipeg's role in mitigating heat-related events is vital to public well-being. While the City of Winnipeg Heat Plan is limited to actions at the local level, support is provided from the MHSAL's Office of Disaster Management and other sources. This helps to transmit reliable information that guides the City of Winnipeg's response," said Mr. Hull.