



Increasing Access to Cooling in the Community

Date: February 14, 2018

To: Board of Health

From: Medical Officer of Health

Wards: All

SUMMARY

Extreme heat is associated with health impacts ranging from heat stress to heat stroke and death. Toronto Public Health (TPH) was requested to assess the access to cooling for people at risk for heat-related illness and death and to conduct a review of the City's Cooling Centre program.

While Cooling Centres are one of the most prominent components of Toronto's Hot Weather Response Plan, their manner of operation is different than in other major North American jurisdictions where public air conditioned spaces, in general, are promoted to provide relief from hot weather through a Heat Relief Network.

Based on a review of literature on the implementation of Cooling Centres in other jurisdictions, access to cooling for those most vulnerable in Toronto could be best achieved by phasing in a trial Heat Relief Network similar to networks that are effectively employed in large American cities. Collaboration with Shelter, Support, and Housing Administration and other divisions whose facilities would be considered viable for this use will also help ensure that the Heat Relief Network includes heat relief facilities that meet the needs of people who are experiencing homelessness or are underhoused.

An effort to review the use of Toronto's official Cooling Centres was limited in the summer of 2017 because the cooler summer temperatures meant that there were few hot days from which to collect data. Maintaining the existing Cooling Centre approach within the trial Heat Relief Network for 2018 will allow for more time to assess how best to meet the cooling needs of Toronto's most vulnerable people.

RECOMMENDATIONS

The Medical Officer of Health recommends that:

1. The Board of Health request the Medical Officer of Health, to continue to work with the General Manager, Shelter, Support and Housing Administration, City Librarian, Toronto Public Library and General Manager, Parks Forestry and Recreation, to
 - a. conduct a trial of a Heat Relief Network that would maximize access to cool spaces within neighbourhoods and in locations that people already visit;
 - b. continue to review the Cooling Centre program during the summer of 2018 to determine their role as part of a Heat Relief Network; and
 - c. report back in early 2019 on the results from the trial Heat Relief Network.

2. The Board of Health request the Medical Officer of Health, to continue to work with the General Manager, Shelter, Support and Housing Administration to determine how best to integrate into the Heat Relief Network locations and facilities that serve those experiencing homelessness, and to assess how best to increase access to cooling for people who are experiencing homelessness or are underhoused.

FINANCIAL IMPACT

Development of the Heat Relief Network can be undertaken within the existing resources at TPH. Operation of the Heat Relief Network, including retaining facilities that currently operate as Cooling Centres can be accommodated in 2018 within the budget of \$70,000 gross and \$17,500 net, funded by the Tax Stabilization Reserve, included in the 2018 Budget Committee Recommended Operating Budget Request. Future reports will assess and outline the resource needs for maintaining the network.

Toronto Public Health will use funds requested in the 2018 Operating Budget to operate and evaluate the Cooling Centres in 2018.

The Acting Chief Financial Officer has reviewed the report and agrees with the financial impact information.

DECISION HISTORY

On May 18, 2017, the Board of Health (BOH) adopted a report focused on the feasibility of a maximum indoor temperature standard for apartment buildings without air conditioning and opportunities to increase access to cooling by promoting existing City facilities such as libraries and community centres as heat relief facilities for the public and to encourage landlords to create a cool space in their lobbies or common rooms for tenants. In addition, the report recommended creating better community-level supports for vulnerable people experiencing extreme heat.

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2017.HL19.5>

On February 15, 2017, City Council approved an increase from the Tax Stabilization Reserve to Toronto Public Health's (TPH's) 2017 Operating Budget of \$70,000 gross and \$17,500 net to fund and operate seven City-run Cooling Centres during the 2017 warm season and to conduct a review of the program in time for the 2018 budget process.

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2017.EX22.2>

On September 30, 2016 the BOH requested the Acting MOH, in collaboration with City Divisions and community agencies represented on the Hot Weather Response Committee, to review the Hot Weather Response Plan and to report back in the Fall of 2017.

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2016.HL14.5>

In 2015, the BOH adopted the "Climate Change and Health Strategy for Toronto" which includes exploring options to protect vulnerable populations from extreme heat and improving the effectiveness of Toronto's Hot Weather Response Plan.

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2015.HL5.4>

COMMENTS

This report has been prepared in consultation with Shelter, Support and Housing Administration, Social Development, Finance and Administration, Office of Emergency Management, Parks Forestry and Recreation, Toronto Public Library and Toronto Employment and Social Services.

Extreme heat poses a health risk for heat-vulnerable groups including children, older adults, people who are socially isolated or have low incomes, those who are experiencing homelessness, as well as people living in apartment buildings that do not have air conditioning.^{1,2} Toronto Public Health estimates that extreme heat currently contributes to an average of 120 deaths per year in Toronto and that this figure could increase with climate change.^{3,4}

Very hot weather or extended periods of heat can increase health impacts among all people. Ways of preventing heat-related illness include spending time at home in cool environments, having social contact, and increasing awareness of risks so that people can take measures to protect their health and understand who may be vulnerable in their community.⁵⁻⁹

The Medical Officer of Health declares a Heat Warning when Environment Canada advises that the forecast temperature high is greater than or equal to 31°C, forecast low temperature is greater than or equal to 20°C and/or humidex is greater than 40 for two consecutive days. Extended Heat Warnings are issued if conditions are forecasted to continue for three or more days.¹⁰

When the Medical Officer of Health declares a Heat Warning or Extended Heat Warning various City divisions undertake different activities aimed at reducing the incidence of heat-related illness. This includes the operation of seven Cooling Centres and other activities included in Toronto's Hot Weather Response Plan (HWRP).¹¹

Access to Cooling

Places that provide access to cooling in Toronto include Cooling Centres as well as other cool spaces that are promoted by TPH such as air conditioned libraries and community centres. People may also choose to go to other cool places such as shopping malls, coffee shops and movie theatres.

Toronto's Cooling Centre program offers designated air-conditioned locations that provide additional supports when either a Heat Warning or an Extended Heat Warning is in effect. In recent years, seven Cooling Centres were operated in three community centres and four Civic Centres across the city, including a 24-hour location at Metro Hall. They provide space for people and their pets to escape the heat, rest, drink water, have a light snack and get information on how to prevent heat-related health impacts. Cooling Centres are staffed with people with lived experience of homelessness. The City has run the Cooling Centre program since 2002.

Review of the Cooling Centres

In 2017, TPH operated the Cooling Centres for the first time, and was requested to conduct a review of the program and report back through the budget process for 2018. Previously, the Cooling Centre program was operated by the Office of Emergency Management. Methods used by TPH to evaluate the Cooling Centres included:

- a jurisdictional scan of heat relief programs across North America; and
- a survey of Cooling Centre users.

Findings from the Jurisdictional Scan

The Centers for Disease Control and Prevention (CDC) reports that access to cooling is an effective way to prevent heat-related illness.¹² Heat-health warning systems are also clearly identified as being an effective intervention. Most of these systems incorporate multiple components, including a large number of facilities that through the provision of air conditioning provide relief from the heat and are known as heat relief facilities. While it is difficult to evaluate the effectiveness of heat relief facilities as a stand-alone intervention, they are recommended by a number of agencies (including Health Canada) as one element of a comprehensive heat response approach.¹³ Toronto Public Health's 'jurisdictional review identified common features of heat relief facilities across North America including the following factors that make them more effective:

- **Maximizing the number and broadening the definition of facilities that are designated as heat relief facilities.** While each facility may offer varying levels of service, basic criteria typically include accessibility to all and availability of air conditioning, water and seating. These facilities are often located in community centres, libraries, seniors' centres, non-profit organizations, faith organizations and city buildings.
- **Selecting facilities where people choose to spend their time.** Capitalizing on places where there are things to do or services aimed at vulnerable populations increases the likelihood that heat-vulnerable people will feel comfortable remaining in the space rather than requiring that people go somewhere that is inconvenient in order to access cooling.

- **Allocating resources to promote and coordinate work.** Many facilities are able to accommodate their role as a cooling location within existing budget. Additional support is often provided for external co-ordination to promote their location and determine eligibility to be a cooling location.

Survey of Cooling Centre Visitors - 2017

Toronto experienced an uncharacteristically cool summer in 2017 and as a result, the Cooling Centres were open on only seven days in the spring and fall. The Cooling Centres recorded a total of 2,714 visits (Attachment 1).

For 2017, TPH developed a survey to better understand the population using the Cooling Centres and their needs. The survey included questions about the visitor's age, income level, reasons for visiting, if they were experiencing symptoms of heat-related illness and if they had pre-existing health conditions. Due to cool weather, the number of completed surveys was low and had to be collected when Heat Warnings were issued in May and September. Exploratory analysis of the survey suggests that a majority of respondents walked to the Cooling Centres and stayed for a limited amount of time. In addition, a majority of respondents expressed interest in visiting a library or community centre with air conditioning.

A Heat Relief Network for Toronto

While the Cooling Centre program is one of the most prominent components of Toronto's Hot Weather Response Plan, their manner of operation is different than in other major North American jurisdictions. In Toronto, the Cooling Centres are promoted as designated heat relief locations and other air conditioned public spaces such as libraries and community centres are not as widely promoted. This contrasts with how other North American cities use all publicly accessible air conditioned spaces (such as libraries and community centres) as heat relief facilities that are part of a Heat Relief Network.

A Heat Relief Network that maximizes use of existing air conditioned spaces on hot days is a proven approach to protect the health of heat-vulnerable persons. Based on the jurisdictional scan and findings from the 2017 survey (of Cooling Centre users), a trial Heat Relief Network that would maximize access to cool spaces within neighbourhoods and in locations that people already visit is recommended for Toronto. A Heat Relief Network has several advantages. It can support the promotion of existing cool spaces, enable heat-health information to be accessed and provide training for staff at the designated cool space locations.

Based on a review of literature on the implementation of Cooling Centres in other jurisdictions, access to cooling for those most vulnerable in Toronto could be best achieved by phasing in a Heat Relief Network similar to networks that are effective in large American cities. The Network would maximize the number and type of facilities available and offer cooling to people in places they are already likely to visit. Such a network could include City facilities as well as other organizations, and offer targeted promotion of cool spaces located in high-demand areas. Collaboration with Shelter, Support, and Housing Administration and other divisions whose facilities would be

considered viable for this use will help ensure that the Heat Relief Network includes heat relief facilities that meet the needs of people who are experiencing homelessness or are underhoused.

The Heat Relief Network would enable the City to capitalize on existing facilities with air conditioning and promote heat safety with residents. In addition, the Heat Relief Network would attempt to overcome barriers that prevent residents from using the existing Cooling Centre program including:

- Limited access to transportation to access cooling
- Fear or inability to leave home
- Not self-identifying as heat-vulnerable
- Stigma
- Not wanting to spend time in a place with no relevant activities.

The following steps are proposed for the 2018 heat season to increase access to cooling and reduce barriers:

- **Promote Air Conditioned City Buildings:** In addition to the seven Cooling Centres, Toronto has 100 library branches and 79 community centres with air conditioning. These spaces are currently being promoted by TPH as places that residents can go to cool down and could be formally incorporated into a Heat Relief Network. It is anticipated that there are other City buildings that may be able to serve as a heat relief facility. Toronto Public Health will collaborate with host divisions and facility operators to determine which spaces would be best to include in the Heat Relief Network.
- **Partner with Other Organizations with Air Conditioning:** Toronto Public Health will explore broader partnerships with other levels of government and other external organizations that have air conditioned facilities within Toronto's boundaries that also have access to water. Example organizations include provincial/federal buildings, Early Learning Centres, museums, not-for-profit organizations, faith organizations, and private businesses (e.g. movie theatres, shopping malls, coffee shops).
- **Continue to Engage Landlords:** In July 2017, the landlord licensing by-law came into effect led by Municipal Licensing and Standards. As a result, landlords are now required to post the location of the nearest publicly accessible air conditioned building (library or community centre) on an information bulletin board. Toronto Public Health will continue to promote onsite cooling options for apartment buildings without air conditioning including cool rooms and outdoor cool spaces.
- **Support People Experiencing Homelessness:** Cooling Centre staff have lived experience of homelessness, as such, they provide a welcoming environment and support for basic, immediate heat-related issues. However, unlike other city programs for individuals who are experiencing homelessness, the Cooling Centres do not provide a range of ongoing services.

With Shelter, Support and Housing Administration and other relevant divisions, Toronto Public Health will review the Cooling Centre program, how it meets the needs of its users and propose how best to address the cooling needs of those who are experiencing homelessness.

- **Enhance Resident Engagement:** Toronto Public Health already provides heat-health information to people across the City before and during the heat season. In 2017, TPH distributed 125,000 educational flyers through the Greater Toronto Apartments Association. Many of the participating buildings did not have air conditioning. Toronto Public Health also distributed 19,000 flyers through City divisions and community partners. Toronto Public Health will continue the education campaign focused on extreme heat and health and to provide information about where people can go to cool down. The Heat Relief Network would identify and promote cool locations across the City and especially in vulnerable areas.

Toronto Public Health will collaborate with partners leading up to the 2018 heat season to implement the trial Heat Relief Network by formally promoting all air conditioned libraries, community centres and civic centres as heat relief facilities. The trial will include creating branding for the Heat Relief Network facilities and training host facility staff. Toronto Public Health will also support the work by Municipal Licensing and Standards on the development of a strategy related to heating and cooling in apartment buildings. Toronto Public Health will continue to review available literature in order to apply best practices for supporting heat-vulnerable persons and will continue to engage residents on the extreme heat issue in the months leading up to the heat season through educational resources and social media.

Toronto Public Health will report back to the Board of Health in early 2019 on the findings from implementing the trial Heat Relief Network and potential long-term plans to increase resident access to cooling.

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SIGNATURE

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ATTACHMENTS

Attachment 1: Visitor Statistics for the 7 Cooling Centres in 2017

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Attachment 1
Visitor Statistics for the 7 Cooling Centres in 2017

Appendix 1: Cooling Centre attendance in 2017.

Cooling Centre	Visits in 2017
Centennial Recreation Centre	380
Driftwood Community Centre	411**
East York Civic Centre	184
Etobicoke Civic Centre	277
McGregor Community Centre	225*
Metro Hall	578
North York Civic Centre	659
TOTAL	2,714

*One day of data is unavailable. ** Two days of data are unavailable.