

## Strengthening Heat Resilience in the City of Toronto

**Date:** October 10, 2019

**To:** Board of Health

**From:** Medical Officer of Health

**Wards:** All

### SUMMARY

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Evidence demonstrates that temperatures are rising and heat waves are more frequent and longer in duration due to climate change. The resulting exposure to extreme heat is a health risk that needs to be managed in a coordinated manner across City divisions who are also mitigating other climate change related risks. Over time, it is important for the City and its residents to continue to evolve the response to heat through strategies that build the City's resilience to extreme weather.

In 2018 and 2019, the Board of Health and City Council directed Toronto Public Health (TPH), along with other City divisions, to review the City's hot weather response. An interdivisional Heat Relief Working Group, co-chaired by the Deputy City Manager, Corporate Services and TPH, was convened in fall of 2018 to develop a Heat Relief Strategy for the City.

This report describes the results of the collaboration among City divisions to implement a coordinated Heat Relief Strategy in 2019. The report also makes recommendations for the City to continue to strengthen its response to hot weather. As mitigating the impacts of heat is a key aspect of the City's efforts to build resilience to climate change, incorporating the Heat Relief Strategy into planning for resilience is recommended as an effective long-term approach.

### RECOMMENDATIONS

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The Medical Officer of Health recommends that:

1. City Council request the Medical Officer of Health, the Deputy City Manager, Corporate Services, and the Deputy City Manager, Infrastructure and Development Services, to collaborate on the continued implementation of the City-Wide Heat Relief Strategy through the Resilience Strategy and the Heat Relief Working Group.

2. City Council request all City Divisions, including Parks, Forestry & Recreation, Social Development, Finance and Administration, City Planning, Environment and Energy, Municipal Licensing and Standards, Strategic Communications, Shelter, Support and Housing Administration, Information and Technology, and Corporate Real Estate Management, to continue to incorporate hot weather response activities as a part of their divisional mandates.
3. City Council request staff to report in 2020 on the progress of incorporating the City-Wide Heat Relief Strategy through the Resilience Strategy.

## **FINANCIAL IMPACT**

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Funding for the continued implementation of the Heat Relief Strategy will be identified among the three lead divisions (Toronto Public Health, Corporate Services, and Infrastructure and Development) within 2020 Operating Budgets.

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

## **DECISION HISTORY**

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At its meeting on March 27-28, 2019, City Council requested the Executive Director, Municipal Licensing & Standards (MLS), in consultation with the Medical Officer of Health (MOH), as part of their Heat in Apartments Working Group to identify strategies to address indoor temperatures in apartment buildings, and in consultation with the Chief Communications Officer to increase communications to landlords and the public about the heating bylaw during shoulder season - the time period in May when warm summertime temperatures may arise early in the season. City Council also requested the Chief Planner to consider opportunities to increase access to cooling as a part of development applications.

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2019.HL3.5>

In January 2019, City Council approved the development of an interdivisional working group to coordinate the implementation of heat relief strategies for summer 2019, and to consider specific initiatives, including neighbour checking, signage, shade structures, and cool rooms.

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2019.OM2.1>

In May 2018, City Council directed the Executive Director, Municipal Licensing and Standards, to develop and implement a plan to communicate to landlords and tenants about providing heat during the shoulder seasons.

<https://www.toronto.ca/legdocs/mmis/2018/ls/bgrd/backgroundfile-114428.pdf>

In March 2018, the Board of Health requested the Medical Officer of Health to report back on the Heat Relief Network, including the review of the Cooling Centres and assess how best people who are experiencing homelessness or are under-housed can

access cool space.

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2018.HL25.3>

In May 2017, the Board of Health adopted a report that considered options to reduce vulnerability to extreme heat, including a vulnerable persons list.

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

## COMMENTS

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Hot weather is associated with a number of health impacts ranging from heat stroke to more serious effects, such as cardiovascular-related morbidity and mortality. Certain groups may be more at risk from extreme heat than others, including isolated adults and seniors, individuals experiencing homelessness and/or under-housed, people with chronic illnesses, and infants and young children.

It is projected that by 2040-2050, the City can expect to experience approximately 66 days with maximum temperatures above 30°C<sup>1</sup>. It is anticipated that both the duration and intensity of hot weather will increase with climate change. A coordinated approach that includes adjustment to operational services and City-wide strategies involving multiple City Divisions and partners is recognized as an effective response to improve the City's resilience to hot weather and climate change.

Toronto Public Health has prepared this staff report with input from the following divisions Shelter, Support & Housing Administration, Municipal Licensing & Standards, Environment & Energy, Social Development, Finance & Administration, Parks, Forestry & Recreation, Facilities Management, City Planning, Information & Technology, Strategic Communications, Corporate Real Estate Management, and the City Manager's Office Resilience Lead.

### 2019 Heat Relief Strategy

The interdivisional Heat Relief Working Group was convened in fall 2018 with a mandate to develop a City-wide Heat Relief Strategy. The Working Group included ten City Divisions in addition to partner organizations such as Toronto Public Library and Toronto Community Housing Corporation, all of which were critical to the success of the Strategy.

Based on published evidence and review of the approach taken in other cities, the Heat Relief Strategy was launched on May 15, 2019 and included the following:

1. a Heat Relief Network that was expanded from 180 to more than 300 cool spaces available to the public across the city;
2. a new interactive online map to locate cool spaces and water in the Heat Relief Network at [toronto.ca/keepcool](http://toronto.ca/keepcool);
3. a proactive outreach program focusing on vulnerable individuals experiencing homelessness;
4. a neighbour checking pilot program to promote messages about heat and health;

5. collaboration with MLS to implement a communications strategy in May 2019 to educate landlords and residents on the Heating Bylaw; and
6. greater integration with Environment and Climate Change Canada (ECCC) by amplifying Heat Warnings issued by ECCC and promoting the WeatherCan app.

The following section describes the Heat Relief Strategy ("the Strategy") that was implemented. Throughout the summer of 2019, feedback was provided from the community, other City divisions, and external partners. Adjustments were made to the Strategy to incorporate these suggestions or to plan for their implementation ongoing.

### **Expanded Heat Relief Network and Interactive Online Map**

Access to cool space is recognized as a key intervention to reducing the impacts of hot weather on health<sup>2</sup>. In 2019, the Heat Relief Network was expanded from 180 to more than 300 locations, including libraries, community centres and pools, some Civic Centres and City facilities, drop-ins, and several private and non-profit organizations, including some shopping malls and YMCA locations. The network also includes shelters and 24-hour respite sites for individuals experiencing homelessness.

#### Website Updates

The Information & Technology Division worked with TPH to develop a new Cool Spaces Near You interactive online map to assist the public in locating cool spaces in the Heat Relief Network. Features of the map include the ability to filter by type of Heat Relief Network location (e.g., community centre, indoor pool, outdoor pool, splash pad, library, etc.) and available amenities (e.g., drinking fountains, washrooms). The map also has a live feed for service updates, such as pool closures and other alerts. The map and additional resources about heat and health can be found at [toronto.ca/keepcool](https://toronto.ca/keepcool). While some transition was needed to assist all members of the public to share this public space, it is expected that with time and ongoing public and staff education this intervention will become more supportive to all members of the public.

#### Signage

In response to City Council direction, TPH identified possible enhancements to signage for the Heat Relief Network. A proactive approach to develop and disseminate signage to Heat Relief Network partners was implemented where key partners received electronic copies of the signage, to print and post. In response to community feedback on the need for signage, funds for signs to be printed and distributed to all Heat Relief Network locations is included in relevant divisional 2020 budgets.

### **Outreach Program for Vulnerable Individuals Experiencing Homelessness**

To better reach vulnerable populations, an outreach initiative was piloted by the Shelter, Support & Housing Administration division in 2019. This initiative involved staff with lived experience of homelessness to engage with people in and around drop-in centres, shelters, and 24-hour respite sites and provide information to those experiencing homelessness on places to get cool. Other staff outreach activities included, but were not limited to the following services:

- engaging with people who may be street involved to check on well-being;
- providing information about the effects of heat exposure;
- facilitating referrals to respite/shelter or contacting 911 for emergency services, as required;
- providing sunscreen and bottled water, as needed;
- building relationships with security personnel and property managers of neighbouring buildings to assist with identifying and providing support to street involved individuals in need of heat respite; and
- facilitating ongoing access to heat relief network locations.

It was found, in general, that this peer-model approach was an effective way to engage with vulnerable people and provide support in hot weather. Positive feedback on this approach was received from community organizations. Some feedback requested the continuation of cooling centres, citing the need for temporary and long-term shelter. It is recognized that shelter/housing is an extremely important determinant of health, and TPH actively supports the efforts of the Housing Secretariat to increase access to housing for the City's most vulnerable, in particular through the HousingTO 2020-2030 Action Plan. Toronto Public Health also supports Shelter Support & Housing Administration's efforts to increase access to temporary emergency housing/shelter. Based on our experience of operating cooling centres in previous years it was found that 1) they did not reach those most in need and 2) they functioned as makeshift shelters or respite service sites but without the full range of service offerings, due to their temporary nature. Given these results, the Strategy going forward includes, proactively reaching out to vulnerable populations and providing the temporary cool space at numerous locations across the City. The outreach initiative is included in the 2020 Budget, to be implemented by Shelter Support & Housing Administration.

### **Neighbour Checking Pilot**

In partnership with Toronto Community Housing Corporation (TCHC) and a private property management group, the City launched a neighbour checking pilot program at two apartment sites. In total, seven resident champions were recruited to participate in the pilot and four hundred and fifty three residents were reached with heat messages at both apartment tower sites. In addition, nine representatives from various community agencies that service the pilot sites were engaged to further reinforce hot weather and health messages and help reach the most vulnerable residents. More than six hundred 'Beat the Heat' resources (i.e. posters, placemats, door hangers, water bottles) were distributed. Through direct interaction, group meetings and print resources, information about how to keep cool was conveyed to residents. Overall, the pilot found that the resident champion model requires regular support from City Staff to keep champions engaged and that for the pilot to expand there would need to be a dedicated community agency/network to take the lead in supporting the champions.

Given the outcomes of the pilot and the importance of community-based implementation, the Strategy will ensure that key messages on hot weather and health needs that are integrated into existing outreach programs operated by a City Division or Community Partners. The Heat Relief Working Group could also consider future opportunities to encourage community organizations to implement neighbourhood

champions within their programs independently or by building the approach into their existing outreach agreements.

## **Heat in Apartments**

In 2019, City Council directed the Executive Director, MLS, in consultation with the MOH, to identify strategies to address the issue of indoor temperatures in apartment buildings. City Council also provided direction to Municipal Licensing & Standards to develop a by-law requiring property owners to create an up-to-date voluntary contact list of their tenants to be used in extreme weather emergencies. Municipal Licensing & Standards will be reporting back on these issues as part of their Apartment Buildings Review in Q4 2019, and the Property Standards Review in Q1 2020.

## **Greater Integration with Environment and Climate Change Canada (ECCC)**

As part of the 2019 Heat Relief Strategy, the City worked with ECCC to support greater integration of heat warnings. For example, the City amplified ECCC heat warnings via the City's corporate Twitter account (over 368,000 followers) and traditional media as well as internal networks. The City also encouraged residents, visitors, City Divisions, and external partners to download ECCC's WeatherCan application to receive real-time notifications of heat warnings.

One of the components of the 2019 Communications Strategy was to enhance communication about the "shoulder season": the late spring when warm temperatures may arise making indoor temperatures uncomfortably warm. Municipal Licensing & Standards and TPH consulted with ECCC to prepare for hot weather and identify resources to incorporate in messaging to owners/operators of apartment buildings and residents, when applicable. Given the success of integrating ECCC's Heat Warnings and disseminating them through ECCC's online platform and WeatherCAN application, these sources will continue to be used to provide weather updates to inform Divisional response to heat. Ongoing amplification of this messaging through social media (i.e., Twitter) and other outlets will continue to be an important way to notify the public about hot weather.

## **Additional Heat Relief Strategies**

### Hot Weather and Health Training and Information

In summer 2019, TPH developed and launched electronic and in-person training on hot weather and health for Heat Relief Network partners and other stakeholders (e.g., Toronto Community Housing Corporation). Toronto Public Health also engaged members of an internal Hot Weather Response Committee to lead the operational response to heat relief, and to update them on the training for staff and the enhancements for summer 2019.

### Cool Rooms and Shade Structures

Toronto Public Health and City Planning met to discuss strategies to expand cooling options for residents, such as additional measures beyond current Toronto Green

Standard requirements to encourage property owners to add shade structures and cool rooms when doing redevelopments and new developments. The Heat Relief Working Group will continue to work with City Planning to explore opportunities to integrate cool spaces and shade structures into the long-term Heat Relief Strategy. Toronto Public Health also met with TCHC to discuss strategies for implementing cooling options, such as shade structures and cool rooms at TCHC buildings. Toronto Community Housing Corporation is committed to identifying opportunities for cooling, as a part of their ongoing state of good repair work.

### **The Long-Term Heat Relief Strategy**

The 2019 Heat Relief Strategy has successfully expanded the city-wide response to heat and has identified areas for ongoing development. While several Divisions have responsibilities within the Heat Relief Strategy, a strategic and coordinated approach is key to mitigating the impacts of heat. To achieve this goal it is recommended that the Medical Officer of Health collaborate with the Deputy City Manager - Corporate Services and Deputy City Manager - Infrastructure & Development to ensure continued implementation of the city-wide Heat Relief Strategy through the Resilience Strategy.

As Toronto's climate continues to change, the Heat Relief Working Group will continue it's work to determine how best to implement heat-related initiatives and update City Council through the Infrastructure and Environment Committee on strengthening the City's resilience to heat and extreme weather in general.

### **CONTACT**

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### **SIGNATURE**

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Dr. Eileen de Villa  
Medical Officer of Health

## REFERENCES

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1. Toronto Environment Office. 2012. Toronto's Future Weather and Climate Driver Study: Outcomes Report. Summary of the SENES Consultants Ltd. Study. Available at: <https://www.toronto.ca/wp-content/uploads/2018/04/982c-Torontos-Future-Weather-and-Climate-Drivers-Study-2012.pdf>
2. Toronto Public Health (TPH). 2011. Access to Cooling to Protect Health During Hot Weather. Toronto, Ontario: March 2011.