TORONTO

REPORT FOR ACTION

Reducing Vulnerability to Extreme Heat in the Community and at Home

Date: May 3, 2017
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. Those most vulnerable to heat include isolated seniors, people with chronic and pre-existing illnesses, children, and people who are marginally housed or homeless. In Toronto, in addition to those who are homeless or underhoused, people who live in older apartment buildings may be at particular risk from heat. The majority of these buildings are not air conditioned, many are home to low income families and newcomers, and more than half of residents surveyed say that they experience symptoms of heat-related illness. Consultations with a broad range of stakeholders identified many actions underway that help reduce vulnerability to heat in apartment towers. Work has also been done with Shelter, Support and Housing Administration (SSHA) and community service providers to begin to review the City's hot weather response.

Access to cooling has repeatedly been identified as an effective way to prevent heat-related illness. Toronto residents can access about 500 cool community spaces including libraries and community centres. On Heat Warning and Extended Heat Warning Days, Toronto offers additional services at seven cooling centres across the city. Formal and informal networks that already exist at the building and neighbourhood level offer opportunities for identifying and reaching vulnerable people on hot days. Further opportunities include creating shared indoor and outdoor cool spaces at or near apartment towers, and exploring funding opportunities for incentives that encourage property owners to retrofit existing apartment buildings with the goal of achieving cooling in combination with energy efficiency without passing costs on to vulnerable tenants.

RECOMMENDATIONS

The Medical Officer of Health recommends that:

1. The Board of Health:
a. commend the Prime Minister of Canada for committing in the 2017 federal budget, to establish a National Housing Fund as part of the National Housing Strategy, and to develop and implement new national building codes to retrofit existing buildings and build new net-zero energy consumption buildings across Canada; and
b. urge the federal government to allocate funds as part of these initiatives, and provide guidance, to encourage owners of multi-unit residential buildings to undertake retrofits that achieve the following health-related goals and do not place a burden on financially vulnerable tenants:

i. reduce summertime indoor temperatures to prevent heat-related illness; and
ii. improve energy efficiency, decrease the need for air conditioning and lower greenhouse gas emissions.

2. The Board of Health:
a. commend the Premier of Ontario and the Minister of the Environment and Climate Change for committing to greenhouse gas emission-reduction actions through the Climate Change Action Plan, including investing in deep energy-efficiency retrofits of high-rise social housing towers; and
b. request the provincial government to expand financial incentives including low-cost loans, and provide guidance to encourage public and private owners of multi-unit residential buildings to undertake retrofits that achieve the following health-related goals and do not place a burden on financially vulnerable tenants:

i. reduce summertime indoor temperatures to prevent heat-related illness; and
ii. improve energy efficiency, decrease the need for air conditioning and lower greenhouse gas emissions.

3. The Board of Health request the Minister of Municipal Affairs to consider changes to the Ontario Building Code to protect the health of building occupants from extreme heat and support the Climate Change Action Plan, including:
a. update the Code to help mitigate climate change, improve adaptation and increase the resilience of buildings;
b. periodically update the climatic data in the Code to incorporate and plan for anticipated future climate, including heat waves of greater frequency, intensity and duration;
c. update the Code to incorporate the use of effective passive cooling measures in buildings to protect against heat-related illness and minimize energy consumption and greenhouse gas emissions from air conditioning; and
d. examine opportunities to increase the use in multi-unit residential buildings of open windows that provide cooling while still addressing public safety.

4. The Board of Health request the Medical Officer of Health to:
a. encourage owners of rental multi-unit residential buildings without air conditioning to provide tenants with access to an indoor cool room and/or outdoor shaded space during hot summer weather;
b. collaborate with building owners and associations including the Greater Toronto Apartment Association and Federation of Rental-housing Providers of Ontario to support access to indoor and outdoor cool spaces; and

c. encourage condominium boards of multi-unit residential buildings without air conditioning to provide tenants with access to an indoor cool room and/or outdoor shaded space during hot summer weather.

5. The Board of Health request the Medical Officer of Health to work with the Executive Director, Social Development, Finance and Administration, and the General Manager, Shelter, Support and Housing Administration to work with existing community networks to build resilience to extreme heat in the community, particularly for those most at risk including people who are homeless or underhoused, by:
a. increasing awareness in the community that cool spaces are available during extreme heat; and
b. connecting neighbours to create community-level supports for vulnerable people experiencing extreme heat.

FINANCIAL IMPACT

There is no financial impact resulting from the adoption of the recommendations in this report beyond what has already been approved in the current year's budget.

DECISION HISTORY

On February 15, 2017, City Council approved an increase 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. Council requested the Medical Officer of Health (MOH), in consultation with the Executive Director, Social Development, Finance and Administration, the Director, Office of Emergency Management and the General Manager, Employment and Social Services, to conduct a review of the program in time for the 2018 budget process (EX22.2).

In 2016, in response to a report (HL14.5) from the MOH, the Board of Health (BOH) requested that TPH explore the possibility of having public health or street nurses at Cooling Centres.

As requested by the BOH previously, in 2015 the MOH reported on the concept of a maximum indoor temperature for apartments (HL8.5 and TD2.1). Also in 2015, the Board directed TPH to consult stakeholders and assess the feasibility of specific strategies to increase access to cooling for residents of multi-unit residential buildings (MURBs) (HL5.5).

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 (HL5.4).

COMMENTS

The health impacts of extreme heat range from heat stress to heat stroke and death. The impacts of heat are disproportionately borne by frail, elderly and isolated people. People experiencing low incomes, including those who are homeless or underhoused, are at higher risk of heat impacts, likely due to poorer quality housing, limited access to air conditioning (AC), and the increased likelihood of pre-existing illness.[1]

Another population that is vulnerable to extreme heat is people living in apartment buildings that do not have air conditioning. In Toronto, there are almost 1,200 older apartment towers (built between 1945 and 1984) with eight or more storeys. These buildings are home to roughly 500,000 people.[2] The majority of older apartment buildings do not have central air conditioning. Maps of heat vulnerability in Toronto completed by TPH in 2011 show that locations of high vulnerability often coincide with clusters of large apartment buildings built prior to 1986. Apartments in older towers without air conditioning can become very hot during the day and stay hot at night.

In 2005, Environment Canada, Health Canada and TPH estimated that between 1954 and 2000, heat contributed to an average of 120 premature deaths per year in Toronto.[3] This number is expected to grow. Between 2000 and 2009, Toronto experienced an average of 20 days per year where the temperatures rose above 30°C. The number of days with temperatures above 30°C is projected to more than triple by 2040 to 2049.[4] The research suggests that Toronto's annual average heat-related mortality could more than double by the 2050s.[5]

A number of studies have identified access to air conditioning as protective of vulnerable populations.[6,7,8] Other protective interventions include visiting cool environments and increasing social contact.[9,10] In addition, heat-related illness can be prevented by increasing community awareness of the risks of extreme heat. In many cases, individuals are aware that there are people in their community who could be vulnerable to heat; however, they may not perceive that they themselves could be vulnerable to heat.

Toronto Public Health, in collaboration with other City Divisions and various partners, has many activities underway to reduce vulnerability among those at risk of heat-related illness.

First, this report provides an update on the value and feasibility of having nurses at Cooling Centres, and describes how this and other information will inform a review of Cooling Centres to be conducted in time for the 2018 budget.

The Board also requested TPH to work with its partners to consult stakeholders and assess the feasibility of several strategies for managing extreme heat in rental multi-unit residential buildings (MURBs) that do not have air conditioning. The strategies were:

- Setting mandatory requirements to provide on-site cooling spaces inside and/or outside the building;
- Implementing a maximum indoor temperature standard of 26 degrees Celsius; and

- Requiring property owners/managers to maintain a list of vulnerable residents who would require assistance getting to the cooling unit.

In addition, the Board requested TPH, with its partners, to develop and provide guidance to owners, property managers and tenants on leading practices to maximize passive cooling and minimize the need for air conditioning. It also requested that TPH advocate to the Province for amendments to the Ontario Building Code to mitigate the impacts of extreme heat in MURBs, including setting requirements for new buildings.

This report provides an update on this work, including consultation findings, work completed/underway and next steps.

Cooling in the Community

A variety of City-run facilities provide an opportunity for people to find refuge from summertime heat. These facilities are an important resource for vulnerable groups who may not have a place to cool down.

Cooling Centres and other community cooling spaces

Cooling Centres are designated air-conditioned locations that provide additional supports when either a Heat Warning or an Extended Heat Warning is in effect. They provide space for people and their pets to escape the heat, rest, have a drink, have a light snack and get information on how to prevent heat-related health impacts. The City has run Cooling Centres since 2002. In 2016, seven Cooling Centres were operated in three community centres and four Civic Centres across the city, including a 24-hour location at Metro Hall. In 2016, Cooling Centres were opened 12 times, and recorded a total of 4083 visits. The total number of visits at each Cooling Centre varied by location from a low of 299 at the East York Civic Centre to a high of 801 at the North York Civic Centre.

In 2017, TPH will operate the Cooling Centres through a contracted vendor for one year. Previously, as part of the multi-partner Hot Weather Response Plan that TPH co-ordinates, the City lead for operating Cooling Centres was Shelter, Support, and Housing Administration (2002-2012), and the Office of Emergency Management (2013–2016).

In September, 2016, the BOH requested the MOH explore the feasibility of having public health nurses or street nurses (those who work with street-involved people) available at each Cooling Centre. Consultations with Change Toronto, the Inner City Family Health Team, and with both senior management and direct service staff working at agencies such as TPH, Street Health, and several Community Health Centres, found that there is perceived value in having nurses available at Cooling Centres. Street nurses were identified as having specialized skills that may be helpful in supporting vulnerable people, such as those experiencing homelessness.

Nurses identified several important roles they could play at Cooling Centres including assessing health needs of clients, providing evaluation, care, and referrals related to heat-related illness, and carrying out heat-health education for visitors at the centres.

However, arranging for nurses to be available at Cooling Centres is challenging because of the unpredictability of Heat Warnings and because there is currently no funding allocated to support nursing staff at Cooling Centres. Most organizations that employ street or community nurses do not have sufficient funding or flexibility to enable redeployment of staff on short notice, and may not have staff available on weekends or holidays.

In addition to the seven Cooling Centres that are open during Heat Warnings, there are 500 other City-run facilities across Toronto where the general public can cool down throughout the summer (Table 1).

Table 1. Type and number of City-run cool spaces in Toronto.

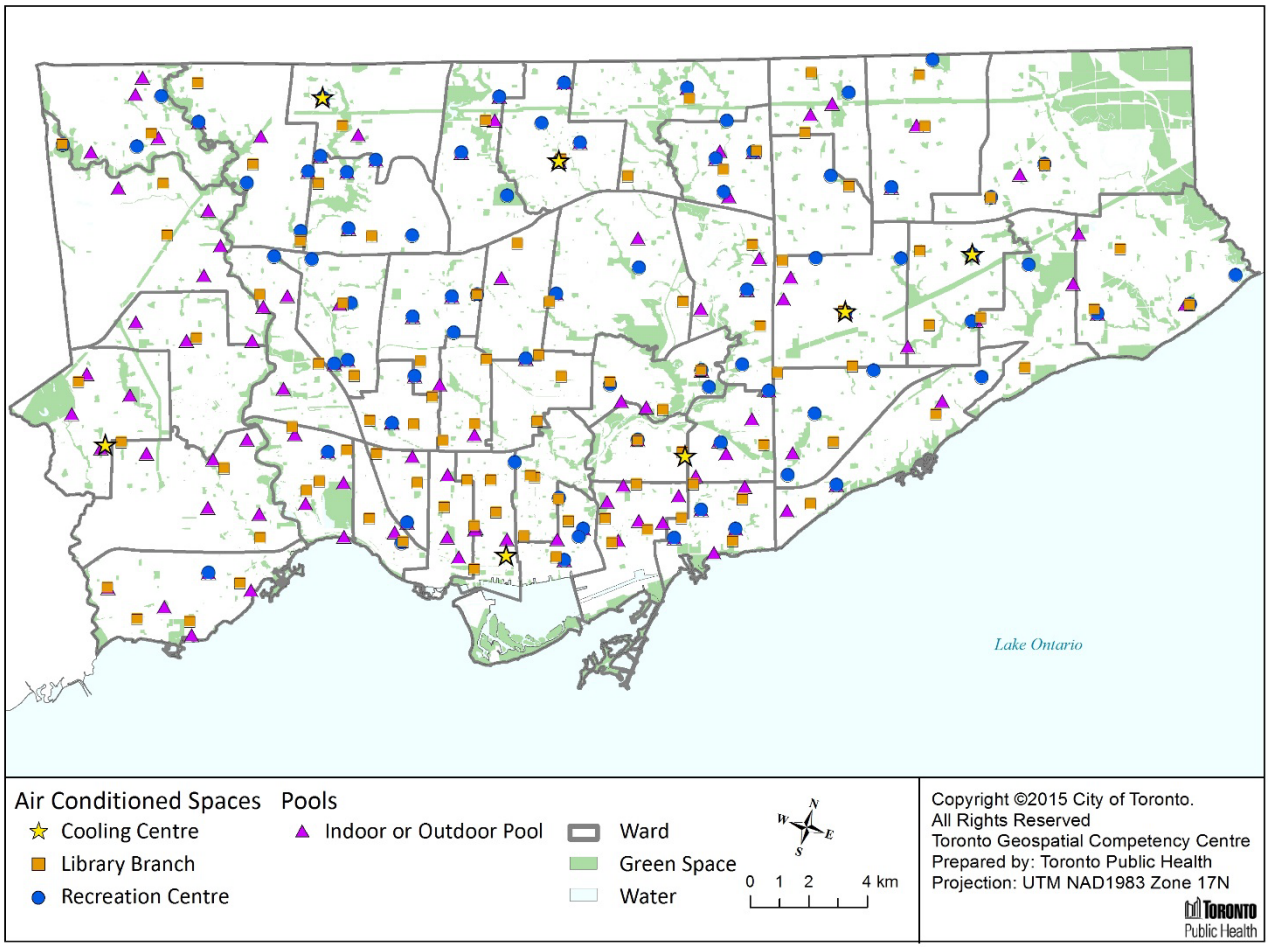
Type of Cool Space	**Number**
Cooling Centres	7
Community centres (with AC)	79
Public library branches	100
Wading pools/Splash pads	200
Indoor/outdoor pools	121
Total	507

Notes: The total number of indoor and outdoor pools, splash pads and wading pools may vary due to repairs or closures. Some facilities are co-located.

As well, a network of drop-ins provides a number of services to people experiencing homelessness.

Figure 1 shows the location of the City-run Cooling Centres, air conditioned library branches and recreation centres, and pools. While there are only seven formal Cooling Centres, the vast majority of Toronto residents live near one or more City facilities where they can go to cool down. Areas with large gaps are primarily non-residential.

Figure 1. Map of the City-run Cooling Centres, air conditioned library branches and recreation centres, and pools.



There is currently little additional data to enable the City to assess who is using Cooling Centres, and how they are used. Toronto Public Health will conduct a review of the Cooling Centre program in summer 2017 and will report back to the BOH by the end the year with recommendations on how the City can best meet the needs of those most vulnerable to extreme heat. While nurses will not be providing service at Cooling Centres for 2017, future opportunities to engage nurses will be considered as this review will include findings about the types of populations who use the Cooling Centres and their service needs.

Cooling at Home

In the summertime many of the City's older apartment buildings that do not have air conditioning become overheated, and they stay overheated during the night. Residents of these buildings need access to a place to cool down, either in their apartment unit itself, or nearby.

Cool spaces in and near multi-unit residential buildings

Toronto Public Health engaged City and external stakeholders to consider the feasibility of potential options for addressing extreme heat in apartments**,** including new legal

requirements for existing apartment buildings without air conditioning (AC). Toronto Public Health consulted with tenant advocacy organizations, property owner/management groups, residents, and experts in areas related to MURBs.

Access to and Use of Cool Spaces

In 2016, Toronto Public Health contracted Ipsos to conduct an online survey of 800 residents of MURBs using their established research panel of Toronto residents living in condominium and apartment buildings. The survey included questions about residents' access to air conditioning and cooling facilities. Surveyed residents of apartment and condo buildings had different demographic characteristics, with apartment residents being more likely to have incomes less than $25,000 (apartment = 29% versus condo = 9%).

According to the online survey, apartment residents were less likely to report having central air conditioning in their buildings (27%) than condo residents (89%) and relied more heavily on window and/or portable AC units (apartment = 79% versus condo = 12%). The survey also showed that apartment residents were more likely than condo residents to report that their unit was too hot (apartment = 58% versus condo = 29%). Residents in apartments were more likely to report symptoms of heat-related illness than condo residents (Table 2).

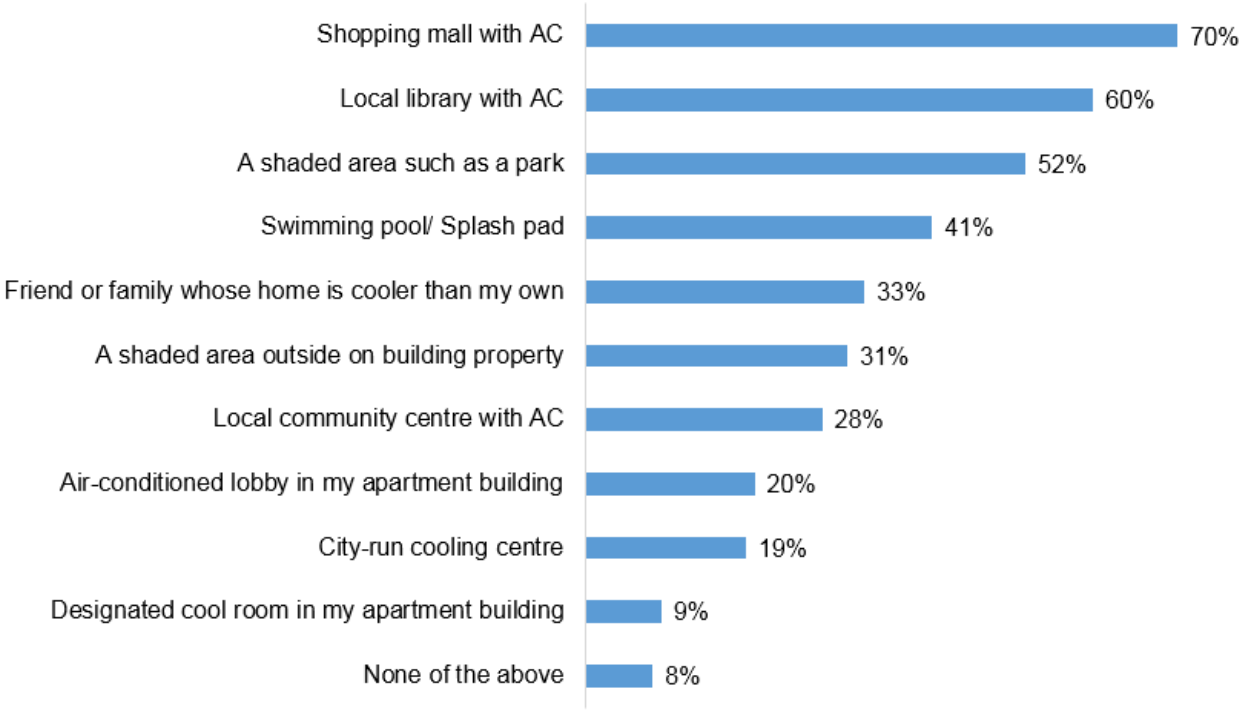
Table 2. Heat-related illness symptoms experienced by those living in condo and apartment buildings, Toronto 2016.

Symptom	**Apartment (%)**	**Condo (%)**
Feel thirsty	62	37
Trouble sleeping	61	40
Sweat heavily	54	31
Feel exhausted	50	30
Feel irritable	49	28
Get a headache	37	25
Feel dizzy or like fainting	26	14
Feel nauseous	25	13
Get muscle cramps	21	15

Survey Question: During a typical summer, how often would you say you and/or others living in your apartment experience any of the following effects due to high temperatures in your apartment?
Data Source: Ipsos Online Survey – May 2016, Apartment residents (n=422), Condo residents (n=347).
Notes: Table shows percent of respondents reporting symptoms "sometimes" or "frequently".

The online survey asked residents to identify the types of cool spaces to which they had access (Figure 2). According to the survey, a majority of apartment residents have access to a shopping mall (70%), library with air conditioning (60%) and shaded area such as a park (52%). Fewer residents reported having access to a City-run Cooling Centre (19%) or a designated cooling room in their building (9%).

Figure 2. Types of cool locations to which apartment building residents have access, Toronto 2016.



Survey Question: Do you have access to any of the following cool environments when temperatures or humidity are high?
Data Source: Ipsos Online Survey – May 2016, Apartment residents (n=422).

The survey suggested that the most common reasons why apartment residents do not visit cool spaces on a more frequent basis is they would rather be home (53%), feel the cooling space is not close enough to their home (36%), or feel their residence is cool enough (32%). Few residents cited limited mobility (12%), a lack of knowledge (11%) or that they do not feel safe doing so (3%).

The survey also suggested that for locations closer to their home (air conditioned lobbies, shaded area outside on building property, designated cool room in the building) resident access was relatively low (ranging from 9 to 31%), but usage of these spaces by those who have access was higher (ranging from 40 to 67%) than for City-operated facilities (ranging from 34 to 58%). This will be further assessed as part of a review of the Hot Weather Response Plan in 2017.

Designated Shared Cool Spaces

Residents of overheated apartments and condominiums without air conditioning need a convenient, safe place where they can go for immediate relief from the heat.

Toronto Public Health consulted with experts and stakeholders about access to indoor and outdoor cool spaces, including tenant organizations and property owners/managers. In addition, a Technical Advisory Group on Extreme Heat in Apartments, made up of City Divisions, Boards and Corporations with expertise in issues connected to extreme heat in apartment buildings, provided advice to TPH and Municipal Licensing and Standards (MLS) on specific efforts to reduce health risk from extreme heat in MURBs. In addition to this role, members of the Advisory Group are addressing extreme heat in apartments in a variety of ways, and example activities are summarized in Appendix A. Interdivisional collaboration is essential to addressing this technically complex and financially challenging issue.

Having shared, cool space on-site of MURBs is one way to provide refuge from the heat. A shared cool space could be an air-conditioned common space in the apartment building, available to tenants during hot weather, or a shady seating area outside the building.

Many of Toronto's older apartment buildings are surrounded by underused green space, and this can be viewed as a great resource. Outdoor green spaces provide many co-benefits. Green space, particularly trees, also helps to cool the air, reducing the urban heat island effect. In addition to providing relief from the heat, green space is associated with reduced obesity, depression, anxiety, cardiovascular disease and mortality.[11] For apartment residents, having shady green space with seating on the building property provides a place to escape the heat when outdoor temperatures are cooler than those indoors, and a place to socialize and build community.

Toronto Public Health has been working with the Ryerson Department of Architectural Science to explore design ideas for outdoor cool spaces at Toronto apartment buildings. In January, 2017, architecture students created innovative architectural designs for shady, outdoor cool spaces that could be used by residents for relief from the heat inside Toronto apartment buildings. Feedback from focus groups being conducted in spring of 2017 will be used to inform policy development in this area.

Among the different experts and stakeholder groups consulted, there was broad agreement that implementing on-site indoor and outdoor cool spaces is a feasible option in buildings that have suitable space. In some buildings, common areas are already air conditioned and are used by tenants to cool down. Some stakeholders cautioned that this solution may not be appropriate for some vulnerable tenants and that each vulnerable tenant has unique needs that should be taken into account when creating cooling spaces.

Based on the consultation, TPH will undertake a study to develop design considerations for indoor and outdoor cool spaces on-site of MURBs, including physical capacity and features that would be required, and whether tenants feel they would make use of these cool spaces.

Tenant Notification of Cool Spaces

At its meeting on March 28, 29 and 30, 2017, City Council adopted a new Municipal Code Chapter called "Apartment Buildings", which creates a new regulatory regime for MURBs with three or more storeys and ten or more units. This bylaw comes into effect July 1, 2017. TPH worked with MLS, the division responsible for developing the bylaw, to include provisions that will help improve access to cool spaces in and near apartment buildings.

The bylaw requires landlords to post in a central location in apartment buildings the location of nearby, publicly available, City-run cool spaces in the community. Toronto Public Health provides a website listing City-run cool spaces, as a resource for MURB owners/operators. Landlords are also required to post the location of a cool room or outdoor space at the apartment building, if one is available. Having this information posted in all MURBs will help residents identify options close to home when they need relief from the heat in their apartments.

MLS and TPH will collect information on what cool space is available at existing apartment buildings through the bylaw's registration system. Data collection will begin in July 2017, and this information will be publicly available for the 2018 heat season via the online information portal being created by MLS.

Maximum temperature standard for multi-unit residential buildings without air conditioning

In November, 2015, the BOH requested the MOH to consult stakeholders and assess the feasibility of a maximum indoor temperature standard of 26°C for rental MURBs.

Existing Buildings

Meeting a health-based threshold of 26°C is a desirable long-term goal, yet it is difficult to achieve in existing, older apartment buildings that do not have air conditioning. Many of these towers are concrete structures without duct work, sufficient insulation, external window shading or other features that would help enable cooling.

In their current state, if individual apartment units are air conditioned, the buildings are generally unable to keep out the heat. This is due to their lack of insulation and lack of airtightness, and results in minimal cooling, significant wastage of electricity and increased greenhouse gas emissions. Air conditioning alone, particularly with inefficient window units, is not a suitable solution to be broadly applied to these types of buildings.

Providing artificial cooling to older apartment buildings would need to be sensitive to existing constraints on electricity distribution as well as electricity consumption and related emissions. Relying on window air conditioners to meet increased future demand for cooling in Toronto's apartment buildings would increase peak electricity demand significantly. Given the electricity distribution constraints that exist today in Toronto, this would pose a substantial challenge for the existing electrical infrastructure.

To be cooled, these buildings would require retrofitting, either for passive cooling (cooling that consumes little or no energy), energy-efficient active cooling, or a combination. Other challenges include the technical difficulty of maintaining all parts of a building at the same lower temperature, regardless of storey or orientation. Research is required to identify the most effective retrofit measures to address these technical challenges.

Today there are many small retrofits (e.g. window blinds, ceiling fans) and larger retrofits (e.g. new windows, external shading, additional insulation, new cladding) that can help manage summertime indoor temperatures and provide other benefits. Building owners/property managers can also improve indoor temperatures by ensuring that building ventilation systems are functioning properly.

Building retrofits can prevent heat-related illness, improve quality of life for residents, lower a building's operating costs, increase the lifespan of certain building systems and attract tenants. While these and other benefits can justify the capital cost of building retrofits, for many large buildings undergoing deep retrofits, up-front costs can be millions of dollars. Financial incentives to overcome this barrier can assist property owners in committing to retrofits that would provide benefits year after year.

There is a need to expand and promote financial incentives for energy efficiency and cooling retrofits without unduly impacting the affordability of housing for residents, particularly vulnerable populations. Later this year the Government of Canada will be launching the National Housing Strategy. The Strategy includes a National Housing Fund that will address housing affordability and support energy efficiency retrofits. The Province of Ontario, through the Climate Change Action Plan, is also investing in deep energy efficiency retrofits to high-rise social housing towers.

Given the technical and financial feasibility issues that have been identified, TPH is not at this time recommending a bylaw to set a maximum temperature standard across all rental MURBs. Approaches to providing relief from the heat should focus in the immediate term on providing access to cool spaces in and near buildings, and in the short to long-term on retrofitting the buildings to maximize passive cooling, enhanced by energy efficient air conditioning if necessary.

New Multi-unit Residential Buildings

The design and construction of new MURBs is an important part of the response to extreme summertime heat. New buildings need to be designed so they are resilient to changes in climate, including unpredictable future weather conditions. They need to provide comfortable, healthy environments in each unit and improve the quality of life for residents. Buildings that are designed to provide summer cooling primarily through passive means could prevent heat-related health impacts, reduce energy use, help achieve Toronto's greenhouse gas reduction targets and be more resilient to power outages and other shocks.

In 2015, in collaboration with Toronto's Chief Building Official, the MOH encouraged the Province to consider amendments to the Ontario Building Code (OBC) to mitigate the impacts of extreme heat in MURBs.

In 2016, the Province undertook an initial public consultation on proposed changes to the OBC and TPH staff contributed to the December 23, 2016 submission from the Chief Building Official, requesting that further consideration be given to the use of effective passive cooling measures in buildings.

The Province has advised that it intends to undertake a second consultation in 2017 and will seek input on proposed OBC requirements to support implementation of Ontario's Climate Change Action Plan. Toronto Public Health staff will continue to work with the Chief Building Official to reiterate the request that the OBC be updated so that new and existing MURBs incorporate measures to protect residents from the health impacts of extreme heat.

Building Community Resilience - Vulnerable Persons Lists

Staff were also directed by the BOH to consult on the feasibility of requiring MURB owners and/or property managers to maintain a list of vulnerable residents who would require assistance getting to a cooling space.

Landlord and tenant advocate groups who were consulted expressed support for protecting Toronto's most vulnerable residents from extreme heat. However, there was very little support by both tenant and landlord groups for the creation of a heat vulnerability registry (list) that would be maintained by landlords. There were concerns about potential confidentiality issues from a tenant disclosing their health status and the feasibility of implementation. For example, people who are socially isolated are unlikely to self-identify and may be left off the list.

Both landlords and tenant advocate groups support using the systems that are already in place, such as the Fire Safety Plan which requires maintaining an up-to-date list of residents who would require assistance in the event of an evacuation. The Toronto Central Local Health Integration Network recommends that their health service providers develop emergency plans for clients at risk. These plans should consider vulnerability to extreme weather, including extreme heat and cold, and may include an internal registry of vulnerable clients. Capitalizing on existing networks throughout Toronto may be an appropriate strategy to increase community resilience. Researchers from the University of Waterloo's InterRAI collaboration on vulnerability measurement estimate that between 70 and 80 percent of Torontonians with risk conditions are already identified in existing databases, which are maintained by diverse service providers (i.e. health care providers, housing providers, community based service providers, utilities, etc.).[12]

The consultation results are consistent with the results reported in other City reports, specifically the response to the 2013 ice storm (report EX43.3) in which staff investigated the potential of developing a Vulnerable Persons Registry (VPR). This work included a review of existing data resources to locate vulnerable persons, a review of VPRs in use in Ontario, and an assessment of the effectiveness of a registry. Due to a number of factors City staff did not recommend the creation and maintenance of a City of Toronto VPR.[12]

Due to the numerous concerns expressed by stakeholder groups about the prospect of creating a VPR maintained by landlords, TPH does not recommend creating a mandatory VPR for extreme heat in apartment buildings at this time. Other approaches such as capitalizing on existing networks within buildings and neighbourhoods, and working with community resiliency-building organizations, such as Community Resilience to Extreme Weather (CREW) and Faith and the Common Good are more appropriate at this time.

Next Steps

Access to cooling is one of the most effective interventions to reduce heat-related illness. Previous research on the health impacts of hot weather in Toronto has shown that vulnerability to heat in Toronto is a complex issue, and that multiple strategies are needed to ensure that people in the city have adequate access to cooling. Toronto Public Health will be reviewing the Hot Weather Response Plan, including the Cooling Centre program, and will report back to the BOH by the end of 2017. In addition, TPH will undertake a study to develop design considerations for indoor and outdoor cool spaces on-site of MURBs.

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ATTACHMENTS

Appendix A. Summary of City of Toronto Activities Relevant to Extreme Heat in Apartments

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