RNAO Submission on Strengthening Heat Resilience in the City of Toronto

To the City of Toronto – Board of Health

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The Registered Nurses' Association of Ontario (RNAO) is the professional association representing registered nurses (RNs), nurse practitioners (NPs), and nursing students in all settings and roles across Ontario. Since 1925, RNAO has advocated for healthy public policy, promoted excellence in nursing practice, increased nurses' contributions to shaping the health system, and influenced decisions that affect nurses and the public they serve. This includes a long-standing commitment and history of action on the environmental and social determinants of health. The objectives of such action are to improve and protect the health of all Ontarians and decrease health inequities for marginalized people who bear a disproportionate burden of avoidable sickness and premature death.

Background

Global climate change is an "existential risk to human civilization"[1], and Canada is warming at twice the global rate.[2] Those who are most marginalized, in Toronto as in the rest of the world, are most at risk from the rapidly changing effects of climate change. These changes include but are not limited to extreme heat and cold. Those living without safe, affordable housing or even adequate shelter are particularly vulnerable and their numbers are growing.

Health and temperature

An international study analyzing over 74 million deaths in 13 countries between 1985 and 2012 found that temperature was responsible for 7.71 per cent of mortality.[3] As one of the countries studied, Canada's temperatures were found to be linked with five per cent of mortality, with 4.46 per cent due to cold and 0.54 per cent due to heat.[4] Each five degree Celsius change in daily temperature is estimated to induce seven excess deaths per day in cold seasons and four excess deaths per day in warm seasons.[5]

Cold and heat impair physiological processes in many ways and interact with pre-existing chronic conditions. Hypothermia (core temperature below 35 degree Celsius) can lead to death as impaired blood flow and decreased metabolic activity alter brain function causing confusion, memory loss, and low energy and constricted blood vessels and viscous blood increases cardiac workload.[6] Unable to think clearly or move well, people are at risk at extremely low temperatures as well as when temperatures are above freezing especially if a person becomes chilled from rain, sweat, or immersion in cool water.[7]

Heat stroke (core temperature above 40 degree Celsius) is associated with reduced blood pressure, increased heart and respiratory rates and possible damage to the brain, heart, lungs, liver, and kidneys.[8] Key risk factors for heat stroke and heat exhaustion include being younger or older; having chronic diseases such as cardiovascular, mental health and addiction, neurological, respiratory, renal, and metabolic conditions; and social conditions including confinement to bed, food insecurity, homelessness, isolation, reduced income, and reduced access to cooling options.[9] In addition to people often having a combination of more than one risk factor, prescription medicine to treat Alzheimer's disease, bipolar disorder, cardiovascular disease, depression, epilepsy, Parkinson's disease, and psychosis interfere with the body's ability to regulate health and so further predispose people to heat illnesses.[10]

Current Context

Intersecting the danger of climate change is an increasing number of people living with low income and at risk for homelessness and a decreased commitment to pursuing the common good through government action.

In June 2017, the average nightly number of people served in Toronto's shelter system was 4,884. In June 2019, this number was 7,019 people – an increase of nearly 44 per cent.[11] These numbers don't include the more than 500 people that stayed at 24-hour respite sites and 24-hour women's drop-in centres on an average summer night.[12]

Toronto's First Resilience Strategy, released on June 4, 2019, acknowledged the interlinked challenges of climate change making Toronto "hotter, wetter, and wilder" and the fact that those who face systemic barriers already are especially vulnerability to additional shocks.[13] Despite this compelling evidence, the city's current response through its Heat Relief Strategy is not adequately providing the services and resources needed by Toronto's most vulnerable.

The response this past summer involved the end of issuing heat alerts and the cancellation of the cooling centre program. In its place, a web-based interactive map of a heat relief network that listed organizations and locations people could go. Front-line RNAO members who work with people experiencing marginalization in Toronto expressed their concerns throughout the summer that this new approach was not enough.[14] [15] [16] Not only did the locations listed on the map lack signage and resources, but many locations were inappropriate and

inaccessible.[17] [18] [19] During extreme heat, people need 24 hour access to air-conditioned spaces, not a swimming pool or splash pad. They also need to feel welcome in those spaces and be met with the appropriate resources including water, food, and trained staff.

The City of Toronto's new approach is a form of changing the role of government away from providing services and resources toward providing information. This approach has been taken before, and with deadly consequences. More than 700 people died during an extreme heat event in Chicago in 1995. An examination of the factors that enabled this disaster found a key component was the expectation by governments that "city residents, including the elderly and frail, will be active consumers of public goods, smart shoppers of services made available in the market rather than 'citizens' entitled to social protection".[20] The lessons from Chicago have important implications for Ontario as environmental protection, public health, social assistance, and other systems to safeguard the public are changing or are under review.

RNAO's Recommendations

RNAO shares the common objective of a healthy city where all people can live with dignity. To this end, the City of Toronto has a role and responsibility to provide services and resources to all its citizens, including and especially the most vulnerable. RNAO urges the Board of Health to make recommendations to City Council to ensure the city is meeting its obligation to all Torontonians of providing adequate and accessible services and resources during extreme weather. This includes:

1. Toronto Public Health to re-start the practice of issuing heat alerts.
2. City of Toronto to operate and fund 24/7 cooling centres with properly trained staff and resources on site, including water, food and program activities.
3. City of Toronto to enhance funding of drop-ins to operate expanded hours during heat alerts.
4. City of Toronto to offer free public transportation on heat alert days to remove barriers to accessing heat relief locations.

Thank you for considering this feedback.

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