

# THE SCIENCE

The way that extremely hot days affects the health of individuals varies depending on many elements. Factors such as age, type of housing, underlying health condition and ability to access cooling facilities will influence how a person is affected by particularly hot days. During a heat wave, temperatures can stay high both during the day and at night for days in a row, making it difficult for the human body to cool down. For certain individuals, prolonged periods of hot temperatures represent a significant threat as they can result in severe health problems or, in some cases, even death.

Various groups of the population have been identified as being more prone to be affected by extreme heat, such as seniors, children, people with low incomes, homeless populations and individuals suffering from pre-existing health conditions. When developing a Heat Alert and Response System, it is crucial for municipalities to consider these groups as they are the most likely to be affected by heat waves.

#### THE TRIGGER

In the early 2000s, the City of Greater Sudbury and its Health Unit determined that no plan was in place to respond to extreme heat events to protect the population from heat-health risk. At the same time, the province noticed an increase in heat-related illnesses in Ontario. The creation of the Hot Weather Response Plan therefore emerged from a desire for the city and its Health Unit to be in a better position to prepare for an extreme heat event. While the plan is intended to protect the entirety of the population from the health risks associated with extreme heat events, it also has a particularly strong focus on assisting the most vulnerable groups of the population. Furthermore, the city differentiates itself by offering free public transit to cooling centres to the entire population on days when heat alerts are called.

## THE APPROACH

Key objectives of the Hot Weather Response Plan are to ensure that all agencies working with vulnerable groups can provide the necessary information on what precautions to take during extremely hot days, and that access to cooling centres is facilitated for high-risk populations. During an extreme heat event, the Sudbury and District Health Unit has the responsibility to notify the City of Greater Sudbury's Emergency Management Department when a heat alert is declared. From there, the City's Emergency Manager informs community heat response partners of the alert status through a pre-established communication network. It is then the city's responsibility to inform the public about heat-health risks as well as the location of cooling shelters. This is done through the use of various social media platforms, public service announcements and the city's website. The Health Unit also responds to health-related media requests and posts important updates on its website. During an alert, the city requests that local utilities halt all service cancellations until after the heat alert has passed, extending hours of operation and supervision at municipal beaches, expanding locations and hours of operation of public swims at city pools, and opening cooling centres at public libraries, citizen service centres, and community centres.



**Figure 18:** During extreme heat events, the City of Sudbury opens cooling centres in public libraries. (Source: Adobe Stock Photo)

In addition to opening cooling stations and informing the city's residents of their locations through various media, the City of Greater Sudbury took another important step by ensuring that access to cooling facilities be possible for all. To accomplish this, the city partnered with Greater Sudbury Transit to make all transit routes free during extreme heat alerts. In addition, they are planning in the future for para-transit to be made accessible at no cost for residents who would need it.

#### THE OUTCOME

While the City of Greater Sudbury has issued heat warnings on many occasions, it has never had to activate the Hot Weather Response Plan since its inauguration in 2007. However the Sudbury Health Unit still reviews annually its educational materials outlining general precautions to take during hot weather. The bilingual documents produced by the Health Unit are distributed widely among the city's residents and to specific community organizations such as clinics, day cares, long-term care facilities, seniors' residences, food banks, religious institutions, school boards, and indigenous groups.

### A WORD FROM SUDBURY

According to Melissa Roney, Assistant Deputy Chief, Emergency Management and Professional Standards for the City of Greater Sudbury, "ensuring that vulnerable people are taken care of during heat waves is crucial to the implementation of a successful Heat Weather Response Plan. In the future, the City of Greater Sudbury plans on focusing its work on additional efforts to communicate heat risk to specific vulnerable groups such as seniors and homeless residents. In addition, we would like to keep developing and showcasing our extreme heat transit plan to the city's population."