

MELITA

Building on social capital and social networks to improve preparedness

By Sophie Guilbault

THE SCIENCE

Canadians living in both urban and rural areas of the country are at risk of being affected by extreme heat events. While urban areas may be warmer than their rural surroundings on extremely hot days because of the urban heat island effect, high temperatures still pose a significant health risk to those living in smaller communities.

Implementing a Heat Alert and Response System comes with different challenges in rural regions. For instance, issuing timely alerts can be challenging in a place where the local newspaper is only printed weekly. Similarly, identifying vulnerable populations can represent a demanding task in rural communities as less data is available to monitor the relationship between temperature, mortality, and morbidity. Cooling options during extreme heat events also differ between urban and rural settings. While larger cities are more likely to have more and larger public buildings for use as cooling facilities, smaller communities may tend to rely instead on the support of social networks to communicate about and identify and access cooling alternatives. In general, the implementation of successful Heat Alert and Response Systems in small rural communities benefits from strong social capital and the reliance upon solid social networks. These important relationships among community members can contribute to increased preparedness and response capacity, thereby helping to ensure everyone is cared for within a community.

THE TRIGGER

In 2011, Health Canada published a Best Practices Guidebook on Heat Alert and Response Systems, which included a chart presenting heat projections for specific Canadian cities, including Winnipeg (see Figure 19). The publication became a catalyst for the Government of Manitoba, which had not yet ranked extreme heat as a significant health risk. Subsequently, a dialogue began between Manitoba, Health Canada and other Canadian communities on how to develop local Heat Alert and Response Systems. In consultation with various stakeholders, Manitoba Health, Seniors and Active Living (MHSAL) decided to develop a plan that was province-wide, incorporating both urban areas and more rural/remote parts of the province. Shortly thereafter, two regional health authorities partnered with the MSHAL's Office of Disaster Management to conduct vulnerability assessments for both the urban centre of Winnipeg and the smaller rural community of Melita (and immediate surroundings), which lies within the southwestern corner of the province. Both Winnipeg and Melita consequently became the sites of two Heat Alert and Response System case studies in the province of Manitoba using the findings of the respective vulnerability assessments.

THE APPROACH

In order to facilitate the development of a Heat Alert and Response System in the region, the town of Melita established a local Heat Alert Response Advisory Committee (HARSAC) with the assistance of the local regional health authority (the Assiniboine Regional Health Authority at the time of development). This committee was composed of local health and regional disaster management partners, as well as community members and representatives from the local municipality. Health Canada

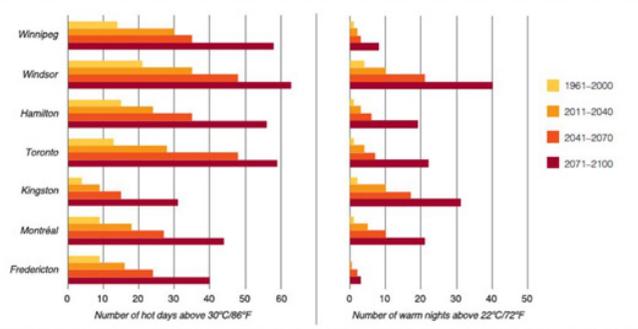


Figure 19: Heat projections for select Canadian cities (Source: : Health Canada, *Heat Alert and Response Systems: Best Practices Guidebook*, 2011)

supported the completion of a heat vulnerability assessment for Melita and surrounding areas, and provided guidance in the design of a rural Heat Alert and Response System for the community. The vulnerability assessment was conducted in parallel with a table-top exercise, which simulated an extreme heat event. These two activities revealed the risks related to extreme heat faced by the small rural community, the characteristics of vulnerable groups, and existing capacities and limitations within the community. The Assiniboine Regional Health Authority and the Town of Melita used this information to begin development and implementation of a local Heat Alert and Response System for the community.

Following the assessment, the committee asked local Emergency Medical Services to include a heat vulnerability assessment of all older adults as part of a general health assessment, including, for example, whether or not they had a means by which to cool their homes. Information about reducing health risks from extreme heat events has also been made available through various sources such as the local newspaper, heat-health fact sheets, brochures, and through informal resources such as children's colouring sheets. Information on heat-health risk was distributed to medical clinics, published on both the MHSAL and Regional Health Authority websites, and communicated through a provincial information line dedicated to providing a wide range of health advice. The information was also provided to the community through public health staff, home care programs and Emergency Medical Services. The acute care staff at the Melita Health Centre and other Assiniboine RHA sites also used Health Canada heat tools in their assessments for out-patients in the emergency rooms.

As part of the development of the Heat Alert and Response System, the potential locations for cooling options within the Melita area were identified. One of the highlighted limitations facing this small community was that potential cooling facilities are not large enough to welcome large numbers of people during an extreme heat event. Therefore, multiple cooling alternatives had to be identified including the outdoor swimming pool, bowling alley, seniors centre, and the library. A discussion was held in relation to local resources that could be used to transport high-risk individuals to cooling stations; the local Handi-Van service was one such resource. In summary, the case study highlighted the ability of the community to draw upon strong social networks in provision of support to those needing transportation or other assistance during extreme heat.

THE OUTCOME

The Regional Health Authority was able to leverage Melita's strong social capital and social networks to undertake a vulnerability assessment and identify strengths and challenges in the implementation of a local Heat Alert and Response System. Through this process, volunteers were identified as valuable assets for assisting with aspects of the system such as transportation to cooling facilities or water distribution during extremely hot days. The engagement of various stakeholders in Heat Alert and Response System activities helped reinforce communication and relationships between the residents and those providing social support services, and enabled the system to be adapted to local conditions. For instance, the participation of Emergency Medical Services allowed for a greater understanding of heat-health risks within the community and served to simultaneously educate the population about these same risks.

One of the other take-away lessons learned during this study was the importance of including air-conditioned or cooling areas in long-term care facilities. Following the completion of the assessment, there was a push to provide air-conditioned areas in all long-term care facilities located within the boundaries of the Assiniboine Regional Health Authority. The first site to receive upgrades was the Melita Personal Care Home. Three other capital projects were completed within the next year across the region.

A WORD FROM MELITA

One of the main challenges faced by the Assiniboine Regional Health Authority was finding ways to communicate heat risk to the general population in a way that provides sufficient time for people to prepare and take necessary precautions to protect their health. The Assiniboine Regional Health Authority developed a region-wide Heat Response Plan for its staff, facilities and community programs as a result of this study. There are still many areas in Manitoba that do not have heat plans, cooling centres or effective means to communicate to vulnerable people. Fortunately, the province's HARSAC still continues to engage this challenge and strives to have a provincial plan in place for the next heat season.

When asked what advice she would give other rural municipalities that are considering implementing a Heat Alert and Response System, Dr. Toni Morris-Oswald, Disaster Management Specialist for MHSAL, suggested it is important to work with the local community to develop the system as much as possible around pre-established social capital and social networks. "In rural communities, councillors may be part-time or even volunteers and therefore have limited time and resources available to them; they must also plan for a range of potential hazards," said Dr. Morris-Oswald. She also noted that local health authorities can play a key role to encourage and work cooperatively with local leaders in addressing a health-related hazard such as heat. Dr. Morris-Oswald emphasized "the importance of assisting local leadership to better understand heat-health risks so that municipal councillors and community emergency managers begin to prioritize adaptation to extreme heat. Encouragement and support to conduct a local vulnerability assessment is also an essential step in developing a formal response plan or Heat Alert and Response System in a way that reflects local capacities and limitations."