

# Improving the Climate Resilience of Canada's Health Systems

HEALTH OF CANADIANS IN A CHANGING CLIMATE: SCIENCE ASSESSMENT 2022

Changes in climate are affecting the health of Canadians and their health systems. Recent floods, wildfires, extreme heat events, and severe storms have impacted health facilities, disrupted health care, impacted public health programming, and placed increased pressure on the health workforce.

Health systems and facilities can be vulnerable to climate change impacts in several ways.

For example:

- Health care officials, including first responders, can be affected physically and suffer mental health impacts from extreme weather and disaster events
- Health infrastructure, such as building envelopes, can be damaged or destroyed by wind storms, floods, wildfires, and extreme heat events
- Reduced access to critical support services, including transportation, power, water supply, and telecommunications, can affect the normal operations of a health care facility
- Medical and non-medical supplies and services (e.g., medications and medical products, blood services, food, linen and site cleaning, waste disposal storage and services, data management and patient record systems, and sterilization services) can be disrupted by severe weather events in or even outside of Canada
- During disasters, increased hospital admissions and emergency services in health facilities can create stress on operations, particularly where surge capacity is lacking

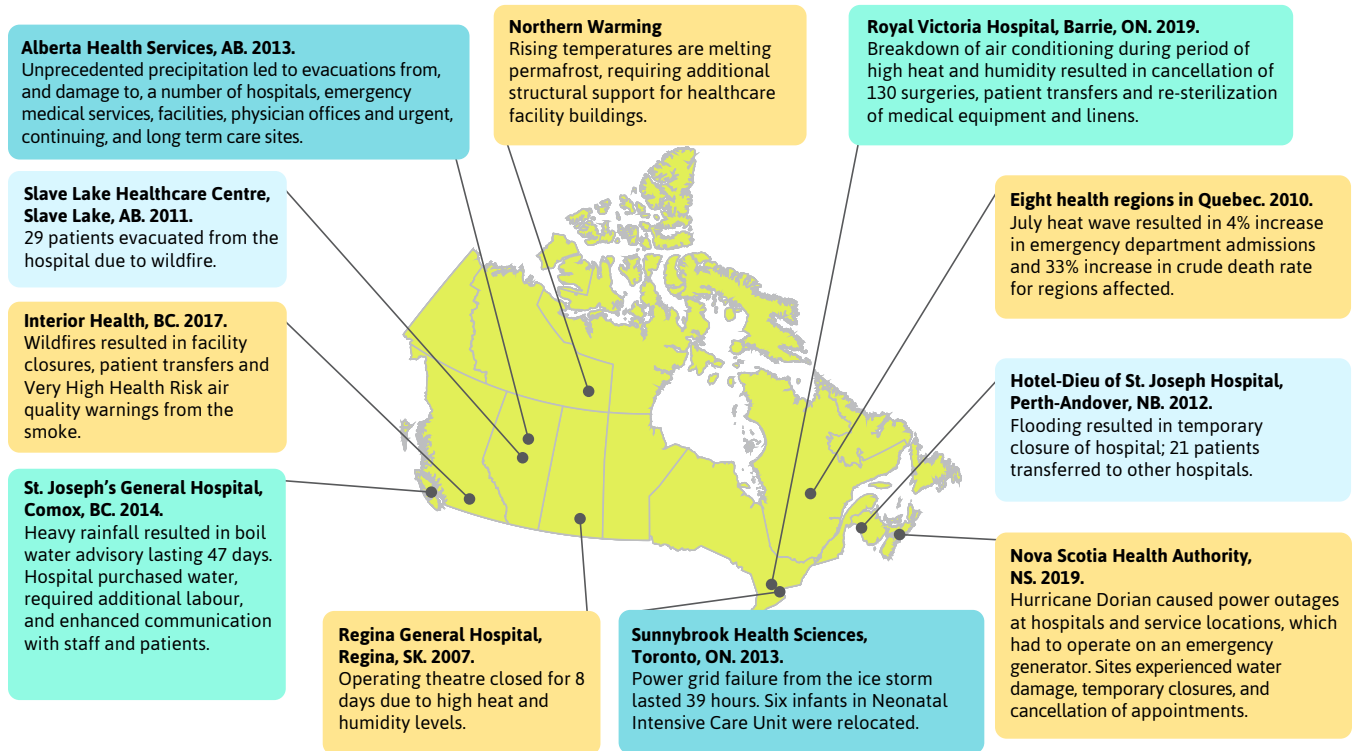


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## Impacts of Climate Variability and Change on Canadian Health Systems



(Berry et al., 2022)

**Adaptation by health authorities with collaboration of decision makers in other sectors can help prepare Canadians and enhance the climate resilience of health systems**

have undertaken a vulnerability and adaptation assessment for climate change and health and 21% report that they have a climate change and health adaptation strategy. Rapidly scaling up activities to reduce risks to health systems can help avoid severe health outcomes for Canadians.

### Adaptation measures to reduce impacts

Many health authorities are not prepared for the impacts of climate change. A survey in 2019 showed that only 56% are undertaking surveillance and monitoring of the health impacts from hazards related to climate change; 35%

### Preparing the health workforce

In 2019 less than a quarter of public health authorities in Canada provided climate-informed training for public health professionals. Educating health sector workers about the impacts of climate change, the needs of people most at risk, and measures to prepare for climate emergencies help to build resilience.



## Raising awareness and educating partners and the public

Health professionals have a primary role in raising awareness of the growing risks of climate change to Canadians and are a trusted source of information that can be effective in influencing behaviours. Educating individual Canadians and engaging decision makers in other sectors like transportation, energy, water, urban planning, and agriculture will support the rapid transformation of communities and health systems to greater climate resilience.

## Health sector leadership in reducing its carbon footprint and increasing resilience

The Canadian health sector as a whole, primarily hospitals, pharmaceuticals, and physician services, is estimated to have emitted between 4.6% and 5.1% of total national GHG emissions (29.6–33 Mt CO<sub>2</sub> equivalent) annually from 2009 to 2014. Well-designed efforts to adapt to climate change impacts and reduce GHG emissions within the health sector can result in very large and near-term co-benefits to health. They also enhance the ability of infrastructures, operations, and staff to withstand current and future impacts of climate change.

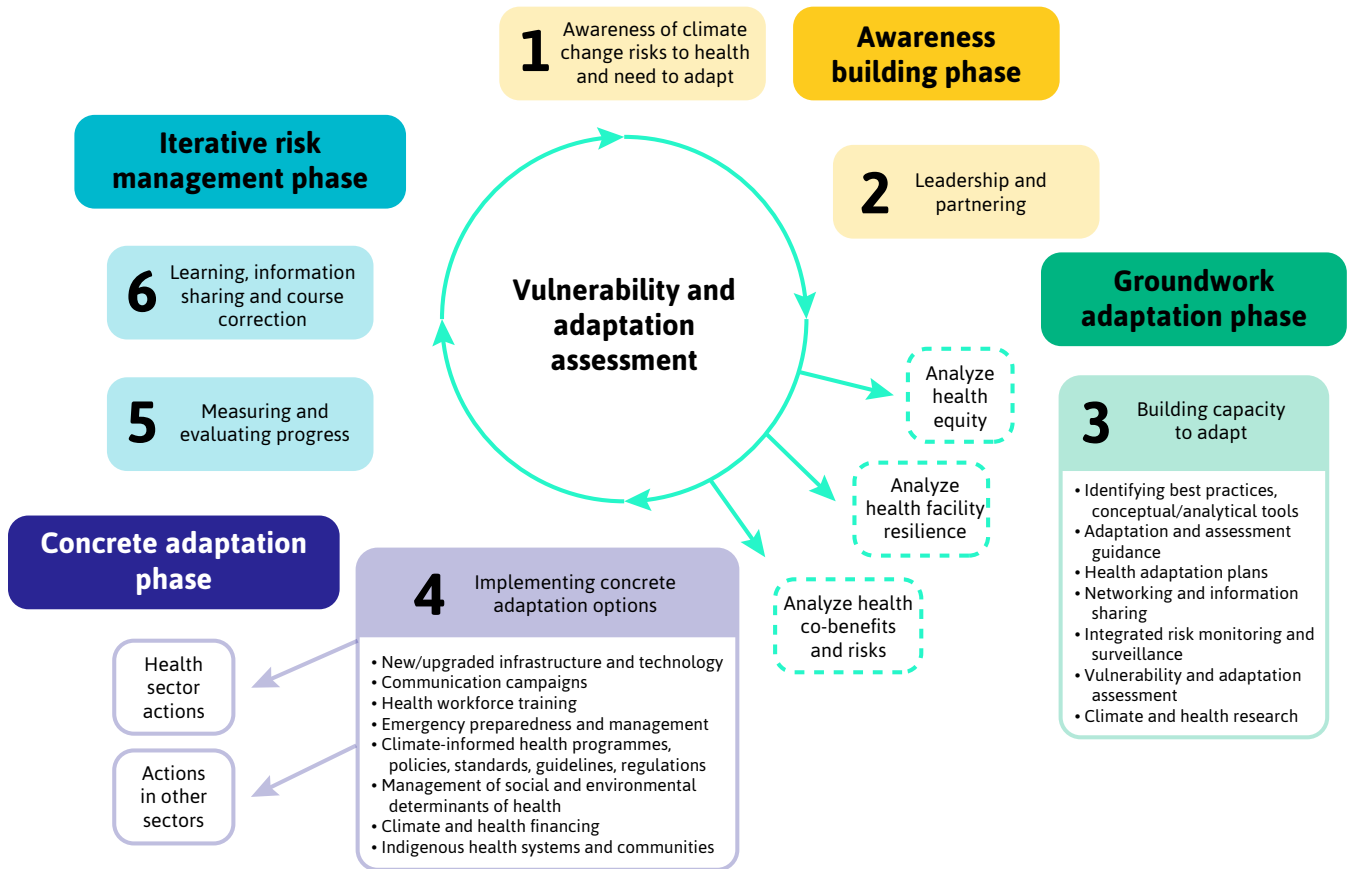
**Efforts are needed to address the unique challenges facing First Nations, Inuit, and Métis peoples and health systems in Canada**

First Nations, Inuit, and Métis peoples face unique challenges in accessing health care, including culturally safe care. Inadequate health human resources, high staff turnover, low population density, geographic remoteness, jurisdictional conflicts over health care provision, lack of health and/or transportation infrastructure, increased travel costs, and a deficit of information on Indigenous Peoples' health to inform evidence-based practices all present significant challenges. Climate resilience can be increased to reduce future impacts by drawing on local, Indigenous, and scientific knowledges to develop climate change responses that meet needs in locally specific contexts and build the capacity of the health sector and emergency response systems.

**To address challenges in adapting, Canadian health authorities have greater knowledge and tools to make progress preparing health systems for climate change impacts**



## Health Adaptation Path and Progress



### Source

Berry, P., Enright, P., Varangu, L., Singh, S., Campagna, C., Gosselin, P., Demers-Bouffard, D., Thomson, D., Ribesse, J., & Elliott, S. (2022). Adaptation and Health System Resilience. In Berry, P., & Schnitter, R. (Eds.). (2022). [Health of Canadians in a Changing Climate: Advancing our Knowledge for Action](#). Ottawa, ON: Government of Canada.

