



Climate Change Toolkit for Health Professionals

Factsheet: Preparing for Climate Change in our Communities

Introduction

Climate change can affect the health of Canadians in many ways with extreme heat and cold, severe storms (e.g., hurricanes, tornadoes, ice storms, and hailstorms), floods, droughts, wildfires, avalanches, landslides, air pollution, and in zoonoses and vector-borne diseases. Climate change can also increase risks from food and water-borne diseases and insecurity and affect mental health.

The promising news is that many actions are being taken by local governments and the public health sector to reduce climate-related risks and improve community resiliency. Here are some examples of adaptation efforts that are being taken locally and actions that can be taken by health professionals to minimize the health impacts of climate change in their communities.

Extreme Heat

Many communities in Canada are already experiencing an increase in hotter days due to climate change. It is projected that the severity and frequency of heat waves will continue to increase. Heat response activities to protect health include actions such as educating the public about how to take protective measures, monitoring those most at risk such as the elderly and people who live alone, providing air conditioned spaces, and extending hours for pools and splash pads. Adaptation measures to reduce urban temperatures include increasing green spaces and the use of reflective surface materials that reflect or reduce heat conduction (e.g., green and cool roofs).

Health Professional Tips for Taking Action on Extreme Heat

- Discuss the risks of hot weather with your clients/patients and promote the use of local cooling spaces (e.g. air conditioned spaces and shaded areas). Provide them with information on how to stay safe in the heat and links to resources such as [Health Canada's "It's Way too Hot" web page](#).
- Discuss [UV index implications](#) with your clients/patients and encourage them to seek shade.
- Encourage your clients to spend time in green spaces, prescribe nature and take the time to enjoy activities in natural environments. [Learn more about the benefits of being outside](#)
- Support projects in your community to decrease urban temperatures and prevent climate change impacts on health such as green roofs and increasing the amount of green spaces.

Extreme Cold Weather

During extreme cold weather events, people experiencing homelessness are at higher risk for hypothermia and frostbite. Cold weather, even with moderate temperature changes, can also increase the risk of cardiovascular-related mortality for up to several days after exposure. Adaptation efforts include services for the homeless population and education to alert the public to the risks of extreme cold weather.



Health Professional Tips for Taking Action on Extreme Cold Weather

- Be aware of local extreme cold weather alerts that are issued and discuss the risks of extreme cold weather with your vulnerable clients/patients (e.g. seniors, people who have cardiovascular disease and the under-housed).
- Provide clients/patients with information on how to stay safe in the cold and provide links to resources such as [Health Canada's Extreme Cold web page](#)
- Be aware of and connect clients/patients who may be experiencing homelessness, or are under-housed to cold weather services in your community. These services may include warming centres and shelters that add temporary beds.

Floods

In Canada, heavy precipitation events and rising sea levels will increase the risk of flooding in many communities. Along with immediate injury and death from flood water, impacts on health include respiratory illness related to an increased risk of mould developing in homes damaged by flood waters, contamination of

Health Professional Tips for Taking Action on Floods

- [Be aware of local flooding risks and warnings in your community](#)
- Provide clients/patients with information on the health risks associated with flooding and [link to resources](#)
- Connect clients who have experienced flooding with local health authorities to learn about when it is safe to return to their homes and how to safely clean-up after a flood.
- Support policies in your community that decrease flood risks.

drinking water from wells and mental illness associated with destruction of infrastructure and homes. Adaptation includes measures such as prohibiting future development in floodways, increasing awareness of local flooding risks, flood forecasting and public warnings, mental health programs to support affected individuals, and advice on how to safely clean-up after a flood.

Health Professional Tips for Taking Action on Wildfires

- Consider how local wildfires, or smoke from more distant fires may be affecting your clients/patients. [Natural Resources Canada provides detailed information about wildfire conditions across Canada](#)
- Encourage your clients/patients to learn about how to protect themselves and their families during wildfires. Protective actions include keeping the indoor air as clean as possible by keeping the windows and doors closed and checking local air quality reports such as the Air Quality Health Index (AQHI) tool. The AQHI provides guidance about protecting health by limiting short-term exposure to air pollution and adjusting activity levels during increased levels of air pollution such as a wildfire or smog events. [Visit the Government of Canada's AQHI site for more information](#)

Wildfires

Increased drought and heat, among other factors, contribute to the occurrence of wildfires and many regions of Canada are expected to see an increase in the extent and severity of wildfires as the climate continues to change. Adaptation to reduce health risks includes measures such as avoiding building in higher risk locations, preparing for the health impacts of smoke and supporting the community after a wildfire.



Health Professional Tips for Taking Action on Wildfires

- Connect clients/patients who have been evacuated from their homes due to a wildfire with local health and/or emergency management authorities to get advice about safely returning to their homes.
- Connect clients/patients with mental health services for those who may be experiencing psychosocial impacts associated with the event.

Food Systems and Food Security

The food system encompasses activities related to the production, processing, distribution and consumption of food. Key activities of the food system are vulnerable to climate change impacts and may face increasing challenges and stress as the climate continues to warm. Food production can be impacted by climate change and related weather events such as flooding, drought and heat as they affect agriculture and may reduce the availability of some foods. Adaptation measures include supporting local agriculture production and distribution. This could include improving the availability of community gardens for residents or reviewing zoning bylaws to allow market food gardening in residential areas and allowing urban farming.

Vector-borne Diseases

Vector-borne diseases such as West Nile virus (WNV) and Lyme disease are of concern in Canada with changes in precipitation patterns and rising temperatures. Adaptation activities include vector surveillance to act as an early warning system for health officials and public education on preventing or seeking time treatment for vector-borne diseases.

Health Professional Tips for Taking Action on Vector-borne Diseases

- Be aware of local vector-borne risk areas in your community by contacting the local health authority.
- Provide guidance to your clients about the risks and prevention activities associated with vector-borne diseases. Link them to Health Canada factsheets on [WNV](#) and [Lyme Disease](#).

Health Professional Tips for Taking Action on Food Systems and Food Security

- Advocate for and support local policies that encourage local food production, including community gardens or Community Food Centres that encourage local food security especially in lower-income areas.
- Advocate for integration of food-related issues such as the availability of food in an emergency and food safety risks into your community's emergency plans.
- Advocate for measures that increase the resiliency of the Canadian food system
- Educate your clients about food safety concerns if power outages occur and link them to resources such as the Canadian Food Inspection Agency's ["Food Safety in an Emergency"](#)



Water Quality

Climate change is increasing health risks associated with the availability and quality of water in Canada. Health can be affected when water-borne illnesses result from contamination of food and drinking and recreational waters due to exposure to chemicals and microbes. This can result from many pathways including severe storms, floods, droughts, permafrost melt, sea level rise and landslides. Climate change may also increase health risks from cyanobacteria (i.e., blue-green algae) that can taint drinking and recreational waters. Adaptation measures include the implementation of stormwater management plans, boil water advisories, recreational water testing and advisories, monitoring of harmful algal bloom outbreaks, and by planning for water supplies during times of drought through watershed monitoring and analysis.

Health Professional Tips for Taking Action on Water Quality

- Be aware of drinking water advisories issued by your local health authorities and provide guidance to clients about safe drinking water practices. This may be particularly important during or after extreme weather events such as heavy rain, droughts, and floods.
- Encourage your clients to be aware of beach swimming advisories. This information may be available through the local health authority or [the Blue Flag certification program](#).
- Support local governments in the development of stormwater and drought management plans as well as related public education activities.

Increasing Resiliency in Communities

Many communities are responding to climate change and health challenges by taking actions to increase resiliency. A healthy climate resilient community is one in which institutions (e.g., governments, health facilities, transportation systems, social programs), workers (e.g., doctors, nurses, community care givers), businesses and individuals have the ability to adapt and grow in response to shocks or stresses that they may experience.

Health Professional Tips for Taking Action on Increasing Resiliency in Communities

- Health care professionals are important partners and leaders in responding to the health threat of climate change and in building resiliency in their communities. You can partner with local governments, health authorities and community organizations to educate your clients on risks and health protection measures, and advocate for action to be taken to reduce climate-related risks. You can also volunteer with organizations involved in climate change programs, emergency preparedness and other related activities to be a resource to your neighbourhood. Finally, as the climate changes so do the health risks, you are encouraged to stay current by undertaking education/training courses, as available.

NOTE: References for this Factsheet can be found in Module 7 of [CAPE's Climate Change Toolkit for Health Professionals](#).