

For the Chief Public Health Officer of Canada's Report on the State of Public Health in Canada 2022





Mobilizing Public Health Action on Climate Change in Canada

Public health has made tremendous gains over the past century in improving the health and lives of people in Canada and around the world. Working with other sectors, we must build on these strengths to better prepare for and respond to what the World Health Organization calls the greatest health threat of our time.

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Climate change is the single biggest health threat facing humanity and the livability of the planet. In Canada and around the world, we are already feeling the health impacts and, if left unchecked, these will be considerably more serious and wider reaching.

When sufficiently resourced, public health systems are well positioned to play an important role in reducing these health risks and impacts. This includes helping communities adapt to a changing climate, protecting those who are vulnerable to climate-sensitive health outcomes, and preparing for climate-related emergencies. Working with other sectors, public health can also promote policies and actions to reduce greenhouse gas emissions that cause global warming in a way that benefits our collective health.

Climate change threatens everyone's health, but some face greater risk

The reality is Canada is warming at a rate two times faster than the global average, while the north is warming three to four times faster. The changing climate is impacting our way of life – from our environment to our economy and infrastructure – and our health.

Stormwater flooding, saltwater intrusion, and thawing permafrost threaten the safety of drinking water, while heatwaves and shifting precipitation patterns are affecting agricultural crops and our food supply. Rising heat and humidity is worsening air quality, exacerbating chronic conditions, and facilitating the spread of climate-sensitive infectious diseases, such as Lyme disease. The risk of existing and new zoonotic diseases being transmitted between people and animals is also heightened by climate change.

The impacts are not just physical, however. Negative mental health impacts, such as worry, grief, anxiety, anger, hopelessness, and fear are linked to climate change. People and communities can face multiple and cascading threats at the same time. For instance, exposure to extreme weather events can cause physical injuries but can also result in long-term mental health impacts due to displacement and property damage or loss. Floods may destroy crucial health infrastructure while also affecting the safety of water and food production systems. These risks only increase as climate threats multiply and repeat.

Whether it is weeks of breathing wildfire smoke, suffering through record-setting heatwaves, or being unable to reach traditional grounds to hunt for food, no one is immune to the effects of climate change. The shifting climate is also compounding existing public health challenges and widening health inequities. As we saw with COVID-19, not everyone will be affected equally: some face greater risk of exposure, are less able to adapt, and are more vulnerable to serious health outcomes.

A crisis that calls out for a public health response

Admittedly, it is daunting to think about what climate change has in store for us. The far-reaching health impacts offer compelling evidence as to why public health systems must mobilize around this issue. The good news is that climate change action can be good for our health. At its core, climate action *is* public health action, with significant and near immediate health and environmental benefits.

By advocating for healthy environments, like walkable neighbourhoods, cycling, and public transit, we can reduce the burden of cardiac and respiratory disease, premature deaths and hospital admissions, promote positive mental well-being, and reduce air pollution. By supporting more tree canopies and building retrofits, we can promote and protect health while mitigating greenhouse gas emissions. Green building certification can reduce emissions,

improve air quality, and reduce respiratoryrelated morbidity and mortality. These compelling co-benefits are win-wins for many facets and sectors of society.

This crisis also calls for us to think beyond human health and prioritize the well-being of our environment. First Nations, Inuit, and Métis Peoples have long recognized the interconnected nature of human, animal, and environmental health. For us to be healthy, our air, water, land, and ecosystems must also be healthy. It is time to rethink our place in the natural world and take a unifying approach to balance and optimize the health of humans, animals, plants, and ecosystems, preserve biodiversity, and reduce habitat loss.

Public health is well-positioned to take action

This report is a roadmap for public health systems to navigate climate-health action. It offers tangible ideas and explores opportunities to build on and expand current public health functions, including health protection and promotion, population health surveillance and risk assessment, and emergency preparedness and response. Used together, these functions can support a broad range of actions to prevent health impacts and inequities due to climate change, effectively respond to unavoidable impacts, and promote health in a changing climate. This includes:

- Advocating for action on the determinants of health that impact climate vulnerability (e.g., policies to support affordable and safe housing, promoting self-determination and self-governance for Indigenous Peoples);
- Assessing the health risks of a changing climate and projecting future risks and impacts on communities (e.g., identifying populations or places that are particularly vulnerable to extreme heat or other weather events);
- Tracking climate-sensitive infectious diseases (e.g., Lyme disease, West Nile virus) and disease vectors (e.g., ticks, mosquitos);
- Monitoring water systems, food-borne diseases, and air quality;
- Communicating with the public about the health risks of climate change and during climate-related emergencies;

- Supporting programs that are led by communities to adapt to a changing climate;
- Identifying and implementing community supports for populations impacted by climaterelated emergencies (e.g., mental health supports, cooling centres).

COVID-19 has shown that our public health systems can act quickly and boldly when urgent action is needed. They have also proven that they can work simultaneously to address immediate challenges and look further ahead to prevent future risks, which is an asset in the face of a broad range of climate health impacts.

Given that health equity is a guiding principle of public health across Canada, it is critical that it remain front and centre in our climate efforts. We must work closely with communities and partners across sectors and jurisdictions to influence and carry out this work. This includes linking with and supporting leadership, knowledges, and practices from First Nations, Inuit, and Métis Peoples.

It is essential that our collective action is well coordinated and equitable, to avoid duplication or fragmentation of services as well as action that is poorly adapted to the health needs of communities and people facing the greatest risk.

With the right resources, public health can make a real contribution

As Canada moves forward with broader efforts to address the root causes of climate change and reduce ongoing and future impacts stemming from it, public health systems can play an important role in meeting these objectives.

The everyday work of public health offers practical entry points, such as the deliberate integration of climate considerations into current public health functions and data tools to inform forward planning. We must continue to bring public health's voice to existing climate change efforts, working closely with intersectoral partners to ensure population health is considered alongside. This focus on health must extend to climate change research, which requires new opportunities to integrate knowledge across disciplines that reflects the complex and multi-faceted challenges posed by climate change.

That said, the COVID-19 pandemic continues to impact the resources of public health systems across the country and further stretch their capacity. For these systems to be equipped with the people, tools, and skills that are critical to climate action, a strong foundation built on investment is needed.

Public health has made tremendous gains over the past century in improving the health and lives of people in Canada and around the world. Working with other sectors, we must build on these strengths to better prepare for and respond to the greatest health threat of our time. Already, there is promising work happening across Canada. We must leverage this work to strengthen our capacities, advance our knowledge, and maximize our collective efforts across systems, jurisdictions, and sectors. We must work with communities and young people to make sure the actions we take benefit all, today and in the future.