

CANADA

LANCET COUNTDOWN ON HEALTH AND CLIMATE CHANGE DATA SHEET 2025

Health and climate change in Canada

The Lancet Countdown on Health and Climate Change tracks the evolving relationship between climate and health through 50+ peer-reviewed indicators. Since 2016, it has provided peer-reviewed annual assessments, published in *The Lancet*. The 2025 report reveals the grave health toll of climate change inaction: fossil fuel dependence, rising emissions, and delayed adaptation are costing millions of lives. Recent climate policy rollbacks further threaten our ability to respond to the accelerating crisis, undermining progress towards a healthy future.

This document highlights key country-level findings from the 2025 Lancet Countdown report for Canada, showing that:



In Canada, populations are increasingly exposed to extreme heat, contributing to rising cases of heat-related illness and mortality, and undermining livelihoods and wellbeing.



Continued use of fossil fuels and biomass contributes to high levels of air pollution, increasing the risk of respiratory and cardiovascular diseases, adverse pregnancy outcomes, and premature death.



Extreme weather events, such as wildfires, droughts, are increasingly threatening health by worsening air quality, disrupting water and food systems, and straining emergency and healthcare services.

With the threats of climate change growing, protecting people's health and survival demands simultaneous and unprecedented efforts to advance adaptation and mitigation, and requires an "all hands on deck" approach.

Heat and Health

Exposure to high temperatures threatens lives and health, increasing the risk of heat-related illness and mortality. Vulnerable groups, including older adults, young children, pregnant women, and those with pre-existing conditions, face the greatest risks. In the Canada, heatwave exposure is rising, placing growing pressure on health systems.

"Inuit Elders and youth have told us that the warming temperatures have meant that hunting for country food (traditionally hunted or sourced local food) is changed, and country food is important for supplementing diet in a place where imported food is egregiously expensive, and country food is important for culture and wellbeing."

-NGO member, Nunavut



In 2024, people in Canada were exposed to 10.7 heatwave days each, on average. Of these, 6.45 (60%) would not have been expected to occur without climate change. (Indicator 1.1.1)



In 2024, individuals were exposed to 29 more hours per-person which would have posed least moderate heat stress risk if undertaking moderate exercise (running), relative to the 1990–1999 baseline average. (Indicator 1.1.2)



In 2024, heat exposure resulted in a loss of an estimated 40,220,000 potential labour hours, 136% more than in 1990–1999. The construction sector accounted for 64% of the lost potential work hours in 2024. (Indicator 1.1.3)



Workers in the construction sector was the most severely affected, incurring 77% of the losses. The associated loss of potential income due to heat in 2024 was 1billion USD. (Indicator 4.1.3)

Air Pollution and Health

Transitioning energy systems to renewables would benefit human health, simultaneously reducing air pollution; mitigating greenhouse gas emissions; and contributing towards universal, affordable and clean energy.



Between 2016 and 2022, CO₂ emissions from fossil fuel combustion in Canada declined 2.5% to 523,000 kilotonnes. As of 2022, coal still made up 2.4% of total energy and 4% of electricity energy in Canada. As of 2022, renewable energy made up only 1.2% of total energy supply, and 7.2% of total electricity. (Indicator 3.2.1)



There were over 16,200 deaths attributable to anthropogenic ambient air pollution (PM_{2.5}) in 2022 in Canada, a slight decrease from the 17,300 in 2010. Fossil fuels (coal and liquid gas) contributed to 3,900 (24%) of the deaths in 2022, a sharp drop from the 6,100 deaths they had contributed to in 2010. The biggest decrease in fossil fuel-based air pollution was seen in the power sector, where associated deaths fell from 1500 to 400. Deaths associated with air pollution from the agriculture sector however increased from 4000 in 2010 to 5800 in 2022. (Indicator 3.2.1)



In 2022, the monetised value of premature mortality due to air pollution in Canada amounted to US\$ 62 billion, the equivalent of 2.7% of gross domestic product. (Indicator 4.1.4)

Wildfires and Droughts

Wildfires and droughts are increasing in frequency and severity due to climate change. These events degrade air quality, disrupt food and water systems, and elevate risks of respiratory, cardiovascular, and infectious diseases. In Canada, health systems face rising demand during and after such events.



In 2020-2024, the PM_{2.5} concentration from wildfires was 0.70 ug/m³, a 172% increase from the baseline 2003-2012. In 2020-2024, wildfire smoke (PM_{2.5}) was accountable for an annual average of 1400 deaths in Canada. (Indicator 1.3.1)



The amount of land experiencing at least one month of extreme drought each year has increased by 119%, from 1951-1960 to 2020-2024. During 2020-2024, 56% of the country's land area faced at least one month of extreme drought per year, illustrating the scale and persistence of water stress. (Indicator 1.2.2)

“During the wildfires, there was just no capacity to deal with the asthma and breathing problems on top of evacuation and firefighting. This won't go away soon – we expect another season of fires this year.”

–Government ministry member,
Northwest Territories

Diets, Health and Emissions

Shifting to healthier, plant-rich diets can reduce agricultural emissions and improve health outcomes. In Canada, diet-related risks contribute to preventable deaths and chronic disease burden.



In 2022, 50% of emissions associated with the consumption of agricultural products in Canada were associated with the consumption of red meat and dairy. (Indicator 3.3.1)



In 2022, 20,000 deaths were associated with insufficient consumption of nutritious plant-based foods (including fruits, vegetables, legumes, wholegrains, nuts and seeds), and 16,000 deaths were attributable to excessive consumption of dairy, red meat, and processed meat. (Indicator 3.3.2)

Testimonials were collected by The Geneva Learning Foundation as part of efforts to elevate health worker voices and recognize their lived experiences as valuable evidence in climate and health policy.

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