

Canada



KEY FACTS:

- ◆ Joined Commonwealth: 1931
- ◆ Capital: Ottawa
- ◆ Population: 32,876,000 (2007)
- ◆ GDP growth: 2.2% p.a. 1990–2005
- ◆ Official Language: English, French
- ◆ Time: GMT minus 8-3 hours
- ◆ Currency: Canadian dollar

Current vulnerabilities and threats

1. What are the health risks from current or future climate change impacts that are of most concern to your country?

Health Canada has identified a number of potential health risks related to climate change. These include health impacts from temperature extremes, extreme weather events and natural hazards, air quality, contamination of food and water, infectious diseases transmitted by insects, ticks and rodents, and stratospheric ozone depletion. Among this list, infectious diseases and temperature extremes are the causes of greatest concern. Of significant importance are the impacts that climate change will have on northern populations and the resulting health outcomes.

2. What population groups in your country are most vulnerable to the health impacts of climate change and what are the impacts likely to be?

In general, Health Canada has identified four groups in the country that are most vulnerable to the health impacts of climate change – seniors, children and infants, the socially disadvantaged, and those with pre-existing illnesses. Impacts range from the ability to cope with extreme temperatures, sensitivity to vector-borne infectious diseases, water-borne and food-borne contamination, and smog and heat events.

Northern communities and particularly Aboriginal residents are the most exposed and likely the most vulnerable to climate change health impacts in Canada. Observed changes in climate are already having an impact on health and safety. Travel is becoming more dangerous. Risks from avalanches, landslides and other hazards have increased; Food security is of concern in traditional diets. Finally, communities and households are experiencing impacts related to water availability and water-borne infections.

Strategy and policy

3. How much of a priority is addressing the impacts of climate change on health for your country?

Mid-level priority.

4. Please describe the strategies your country has developed (for example health and climate change adaptation strategies) that address the health impacts of climate change.

Health Canada is implementing a Heat Resiliency Project – a three-year

research project that will help strengthen the capacity of communities, healthcare professionals and individuals to manage heat-related health risks. By 2011, the Heat Resiliency Project will have produced the following:

- ◆ a functioning heat alert and response system in four Canadian communities;
- ◆ a *Best Practices Guidebook on Heat Alert and Response Systems* (for provincial/municipal governments, as well as public health and emergency management officials); and
- ◆ training tools and improved diagnostic tools (for health professionals).

Health Canada will also host a National Heat Conference (in 2011) to exchange knowledge with stakeholders, launch the guidebook, and identify next steps for developing risk management approaches for extreme heat events.

Health Canada is also implementing a programme on Climate Change and Health Adaptation in northern and Inuit Communities which funds community-centred research, in which community members will pursue research to find long-term human health adaptation strategies. It is designed to be carried out by communities in co-operation with Aboriginal associations, academics, and government departments, ministries and agencies over the next three years. One of the aims of this community-based research is to develop scientific and communication materials to help in decision-making at the community, regional and national levels with respect to human health and a changing environment.

The Public Health Agency of Canada currently is leading the programme on Infectious Disease Alert and Response System to Protect the Health of Canadians. This initiative will examine the spread and severity of key vector- and water-borne infectious diseases. The objectives of the programme are to contribute to the capacity of public health and other community health and safety officials in anticipating and responding to health risks associated with infectious diseases attributed to, or exacerbated by climate change. Research will focus on literature searches, modelling and data analysis leading to the development of tools (including risk maps) to assist decision-making on surveillance and intervention to minimise impact on public health from water-borne and vector-borne infectious diseases.

5. Has health been integrated into national climate change mitigation and adaptation strategies?

Yes. The climate change and health activities are part of the Government of Canada's Clean Air Agenda and Turning the Corner plan. Through this plan the Government of Canada is putting in place a regulatory regime to significantly reduce greenhouse gas emissions by 20 per cent by 2020 relative to a 2006 base year.

6. What steps have been made towards implementation of these strategies?

Climate change adaptation initiatives including health are part of the Government of Canada plan to take concrete measures to help Canadians adapt to a changing climate under the Clean Air Agenda and Turning the Corner.

7. What are the current policy gaps in addressing climate change and health?

Recent investments in climate change and health adaptation initiatives within Canada are directing attention to the health risks associated with climate change. The networks, partnerships and knowledge development activities that will help address these risks are developing and will be assisted by an improved understanding of climate processes, the interacting socio-economic variables that influence climate change, and future societal responses to the expected impacts.

8. How well equipped is your health system to cope with the impacts of climate change?

Canadians are well-equipped to address climate change and health issues due to well developed health and social services, and because of generally high levels of health and well-being in the population. Current efforts revolve around improving emergency management systems. For example, in order to protect Canadians from health risks associated with extreme heat events, Health Canada is improving its knowledge of the efficacy of heat alert and response systems for different types of communities.

Infrastructure age is integral to the protection of human health. Improvements being made to roads, sewage treatment, storm sewers and water distribution networks are reducing the vulnerability of citizens to a range of climate-related hazards and reducing future risks.

9. Have you made any changes to your health system in response to increased risks resulting from climate change and if so what changes have you made?

Canada's 2008 publication *Human Health in a Changing Climate: A Canadian Assessment of Vulnerabilities and Adaptive Capacity*, indicates that provincial and municipal governments have not made direct changes to their health systems from the increased risks of climate change. However, there are indications that some provinces and municipalities understand the increased risks to human health from extreme heat events and are beginning to address this through their public health units.

10. What are the main constraints to addressing the health impacts of climate change in your country and how will these be addressed?

The main constraints to addressing the health impacts of climate change come from the number of research gaps that exist. Canada will benefit from improvements in our climate modelling capacity and the scenarios

that can improve the uncertainty regarding future exposure to hazards for specific populations. Also, the country will benefit from understanding the regional distribution of health risks associated with climate change including northern and southern capacities to adapt. In this regard, there is a need to develop regional and local assessments of vulnerabilities, including adaptation strategies, measures and an understanding of vulnerable populations.

11. Have national resources been allocated to address climate change and health in your country? If so, approximately how much has been allocated and for what issues?

As part of Canada's Clean Air Agenda, \$21.9 million has been allocated over three years for climate change and health.

- ◆ \$7 million for climate change and health adaptation in northern/Inuit communities;
- ◆ \$7 million to develop pilot infectious disease and emergency response systems;
- ◆ \$7.9 million to develop pilot heat alert and response systems and clinical guidelines on extreme heat for health professionals.

Additional resources of \$64 million allocated to address environmental and regional adaptation initiatives will also have indirect benefits for health adaptation. These include:

- ◆ \$20 million for improved climate change scenarios and risk management tools;
- ◆ \$30 million for regional adaptation work programmes;
- ◆ \$14 million to assist northerners in assessing key vulnerabilities and opportunities.

12. Is the Ministry of Health working together with other ministries (such as Ministries of Agriculture, Environment, Fisheries and Finance) to address health and climate change issues?

Yes.

13. Has your country been involved in work to manage climate change and health at the international level?

Health Canada has worked with international partners to contribute to international efforts to address climate change risks to health. In 2003 at the Conference of the Parties 11 in Montreal Canada, the *Methods of Assessing Human Health Vulnerability and Public Health Adaptation to Climate Change* was released. This document was a joint publication of WHO, WMO, UNEP and Health Canada. The document provides guidance to both developed and developing countries for gauging risks to the health of populations, particularly the most vulnerable, to inform efforts to protect public health. The guidance set out in the *Methods* document was used to direct assessment activities which informed the recently released report *Human Health in a Changing Climate: A Canadian Assessment of Vulnerabilities and Adaptive Capacity*.

Health Canada has also provided an expert review function for the Human Health Chapter of the Fourth Assessment Report (2007) released by the Intergovernmental Panel on Climate Change.

14. How would you describe the capacity of your country to participate at the global level on climate change and health?

Health Canada can contribute expert knowledge and information to contribute to global level efforts to address climate change health risks.

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All strategy, policy, initiatives and other relevant documents

<http://www.hc-sc.gc.ca/ewh-semt/climat/eval/index-eng.php#guide>
<http://www.ec.gc.ca/cc/default.asp?lang=En&n=A3CB096D-1>