

About this Summary Report

This document summarizes the objectives, methods, results, interpretation, limitations and implications of the *Differential and Combined Impacts* study:

Differential and Combined Impacts of Winter and Summer Weather and Air Pollution due to Global Warming on Human Mortality in South-Central Canada. Chad Shouquan Cheng¹, Monica Campbell², Qian Li¹, Guilong Li¹, Heather Auld³, Nancy Day², David Pengelly⁴, Sarah Gingrich², Joan Klaassen¹, Don MacIver⁵, Neil Comer¹, Yang Mao⁶, Wendy Thompson⁶, and Hong Lin¹. Technical Report. (Health Policy Research Program: Project Number 6795-15-2001/4400011).

¹ Meteorological Service of Canada (MSC)—Ontario Region, EC; ² Toronto Public Health, City of Toronto;

³ Science Assessment and Integration Branch, MSC, EC; ⁴ Department of Medicine, McMaster University;

⁵ Adaptation and Impacts Research Group, MSC, EC; ⁶ Surveillance and Risk Assessment Division, Health Canada.

The overall objective has been to write an interesting, coherent and understandable "story", based on the technical information in the full report. As much as possible the focus is on concepts, principles, and general conclusions by simplifying (without ignoring) much of the technical detail. In this sense, the reader may from time to time observe a departure from the structure of the full report, in the interests of harmonizing the flow of ideas. There are three themes: assessment of yearly mortality from extreme temperatures and air pollution using synoptic weather classification; developing the synoptic-based models to forecast daily mortality using daily data; and using the daily models to estimate the influence of global climate change on mortality from extreme temperatures and air pollution.

Funding Support: We acknowledge the generous funding support of the Health Policy Research Program, Health Canada, which made the original research project summarized here possible. The views expressed herein are solely those of the authors and do not necessarily represent the views or official policy of Health Canada.