

Climate Change and Innovation Bureau

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GWF Precipitation-Related Extremes
Winnipeg Manitoba
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Outline Health Portfolio Initiatives

Climate Change and Innovation
Bureau (CCIB) Initiatives

Climate Service Needs for Health
Promotion

Water and the National Climate
Change and Health Assessment 2021

Possible Interests in Global Water
Futures

Health Portfolio Initiatives

Health Canada

- **Heat and Health Risk Program**
 - Extreme Heat & Health Risk assessment (National Assessment 2021)
- **Information and Action for Resilience**
 - National Monitoring and Surveillance Program & Capacity Building in the Health Sector based
- **Climate Change and Health Adaptation Program for First Nations & Inuit Communities**
 - North and South of 60
 - Community-driven and culturally relevant adaptation planning & actions

PHAC

- **Infectious Disease and Climate Change Program**
 - Vector-borne, Water-borne, Zoonotic
 - Research, surveillance, lab diagnostics, knowledge translation, health professional education
 - Métis

CIHR

- **Climate Change and Health Research Initiative**
 - Focus on food security in the North and Lyme disease

Heat Program

Protecting Canadians from Extreme Heat

Key Activities:

- Heat Alert and Response Systems (HARS)
- National Heat Health Community of Practice
- Heat Mortality/Morbidity Statistics
- Public Opinion Research of Physicians
- Strategic Communications and Outreach plans

Policy, Outreach, Capacity, and International

Understanding Health Risks and Supporting Health System Resiliency

Key Activities:

- Providing expert guidance and support for local and regional climate change and health activities
- National Assessment on the Health Impacts of Climate Change in Canada (2021)

Data, Monitoring, Surveillance, and Forecasting

Monitoring and Surveillance of Health Impacts of Climate Change

Key Activities:

- Research, Feasibility, and Options development for National Program
- National Technical Expert Consultation
- Research/evidence-base for healthy indoor temperature guidance

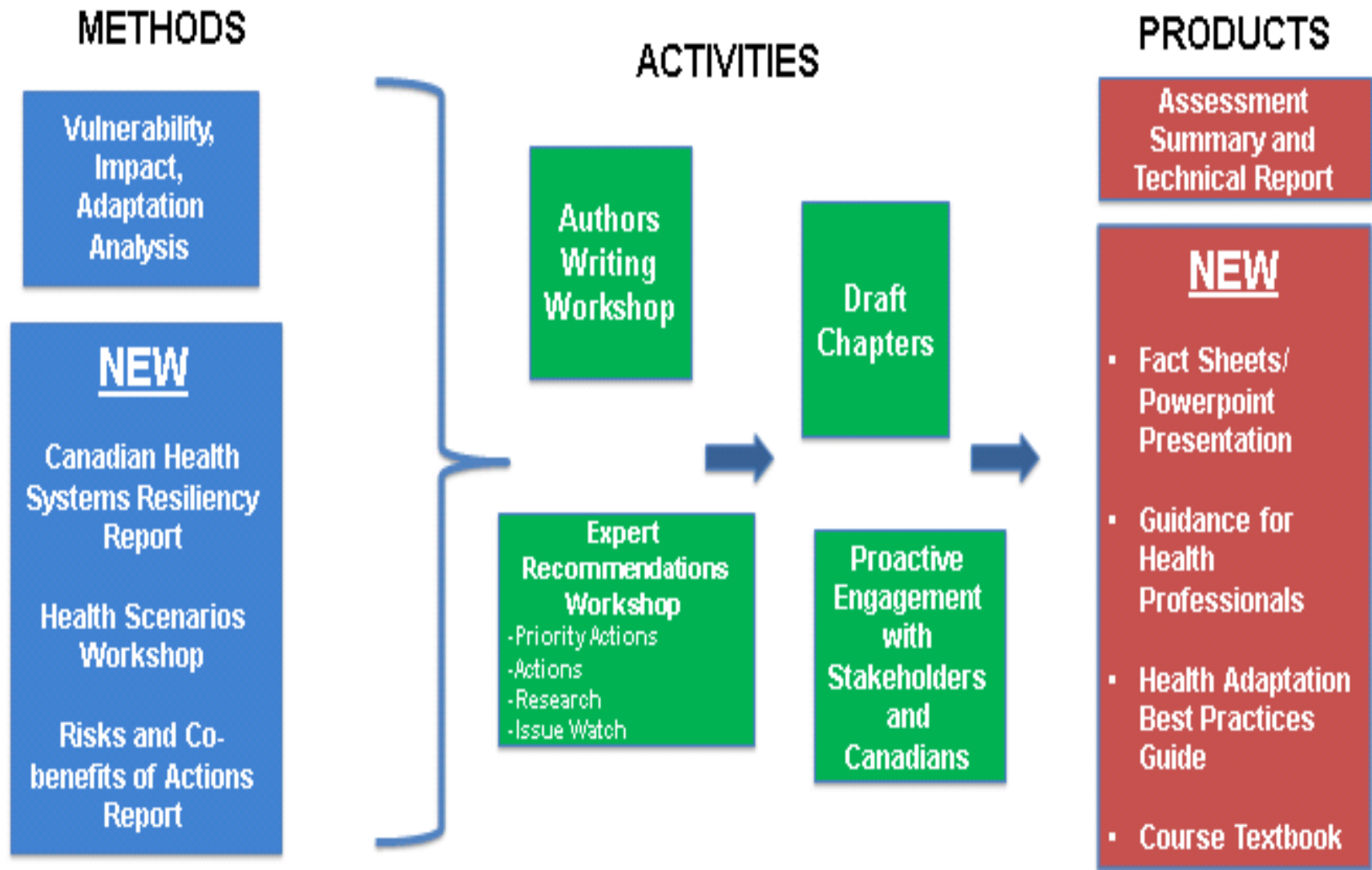
Climate Services Needs

Climate and weather information on different time scales for various hazards is needed to support climate change and health assessment, the monitoring and surveillance of climate change and health risks and the development of national and regional climate change and health plans.

Timescale		Information Products
Historic climate information		Max, min temperatures , dew point, relative humidity, wind speed
		Precipitation intensity, duration and frequency patterns
		Frequency, severity, distribution, and duration of extreme weather events (e.g. wildfires, flooding, droughts and tornadoes)
Weather information		Information for forecasting aeroallergens, air quality (including particulate matter and ground-level ozone levels)
		Max, min temperatures , dew point, relative humidity, wind speed
Future climate information	short-term / medium-term	Projected hot days and warm nights
		Projected cold days
		Long-range forecasts of maximum and minimum temperatures, precipitation (seasonal forecasts and trends)
		Probabilistic prediction of precipitation and temperature
		Probability of extreme weather events
		Risk indexes of extreme weather and climate-related hazards (floods, fire, cyclonic storms, tornados, drought, heat waves etc.)
		Predicted number and duration of air quality events
		Ground-level ozone projections
	long-term	Inter-annual forecasts
		Annual degree days (2020s, 2030s, etc.)
		Stratospheric ozone depletion (extension of warm season due to climate change)

Adapted from WHO and WMO 2016; Scheske and Berry 2017

National Health Assessment 2021 – Proposed Approach



Water will feature in both natural hazards and water-borne disease chapters

Currently conducting background research on the links between climate change, water, and health

Climate Change and Health Assessment 2021

Possible Interests in Global Water Futures

Seasonality and shifts in dominate forms of precipitation

- How might these changes impact health (e.g. gastrointestinal illness)
- The temporal and spatial distribution of these changes

Recreational exposure to waterborne illnesses

- The incidence of illness associated with harmful algal blooms
 - The role of climate change in the development of HABs
 - The possibility of forecasting HABs
- The emergence of new waterborne illnesses due to climate change

Extreme weather

- Possible implications of climate change on water quality
- Possible implications of climate change on water quantity