



Protecting the Health of Canadians Through Climate Change Adaptation

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Health Canada

Ontario Climate Change Workshop

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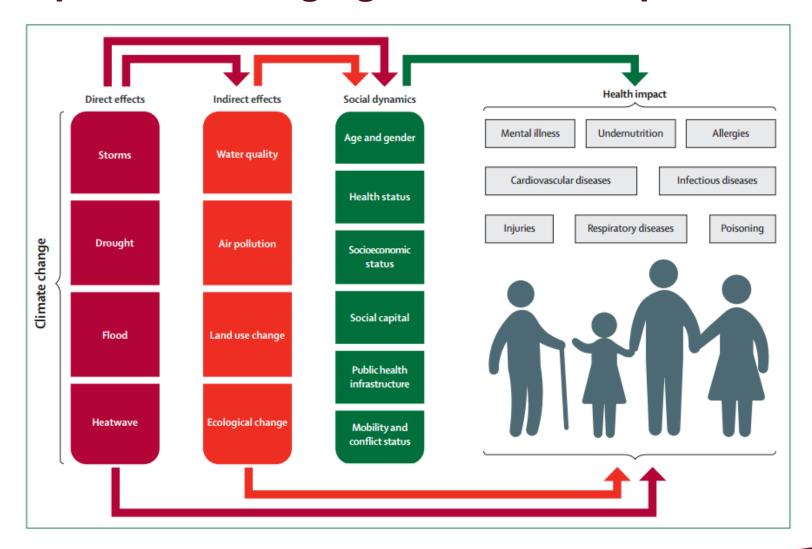
Greatest Health Risk of the 21st Century

http://www.thelancet.com/climate-and-health

"Indigenous, local, and traditional knowledge systems and practices, including indigenous peoples' holistic view of community and environment, are major resource for adapting to climate change, but these have not been used consistently in existing adaptation efforts. Integrating such forms of knowledge with existing practices increases the effectiveness of adaptation."

IPCC 2014

Multiple, Wide Ranging, Interactive Impacts



Impact of Climate Change on Human Health

Injuries, fatalities, mental health impacts

Asthma, cardiovascular disease

Heat-related illness and death, cardiovascular failure

Forced migration,

civil conflict,

mental health impacts



Malaria, dengue, encephalitis, hantavirus, Rift Valley fever, Changes Lyme disease, in Vector chikungunya,

Extreme Heat

Environmental Degradation

Increasing Allergens

Ecology

Respiratory allergies, asthma

West Nile virus

Water and Food Supply Impacts

Water **Quality Impacts**

Malnutrition, diarrheal disease

Cholera, cryptosporidiosis, campylobacter, leptospirosis, harmful algal blooms

Luber et al., 2014

Provinces and territories will continue to face climate change and health risks. Examples include:

Northern Territories

- Food security
- · Water-borne contamination
- Dangerous travel
- Cultural impacts

Atlantic Canada

- Coastal erosion
- Water-related morbidity
- Hurricanes
- Vector-borne diseases
- Flooding

• Dr

- PrairiesDrought
- Extreme temperatures
- Flooding
- Wildfires
- Mental health impacts
- Lyme disease

Quebec

- Urban heat island effect
- Air quality smog and aeroallergens
- · Vector-borne diseases
- Wildfires

Ontario

- Extreme heat
- Storms (ice, wind)
- Lyme disease
- West Nile Virus
- Air quality
- UV radiation

British Columbia

- Coastal erosion
- Storm surges
- Wildfires
- Cryptococcus gattii

- Climate Change

What is going on in Northern Ontario

- Spread of infectious disease such as Lyme and West Nile Virus cause increased health risks, losses in productivity due to illness and higher treatment costs
- Warming water and air leads to changes to traditional foods and risks food security
- Loss of ice roads can lead to health risks from food and energy security as well as the health hazards associated with risky travel conditions
- Increased forest fires leads to poorer air quality and increased respiratory issues as well as evacuations
- Extreme weather events such as ice and wind storms can lead to mortalities
- Metal health concerns related to above risks such as PTSD, knowledge of future risks and economic security

How do we adapt to climate health risks

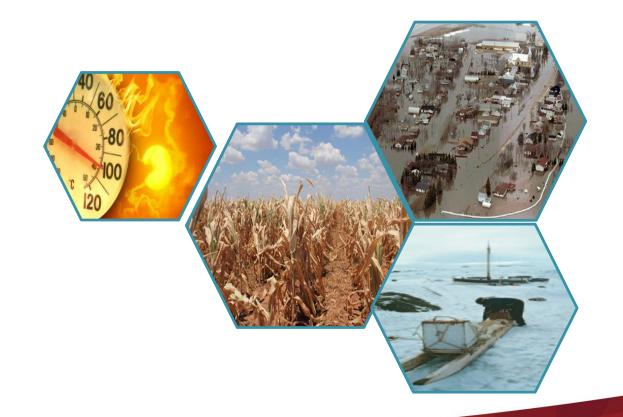
Addressing knowledge gaps

Health Canada has successfully applied a collaborative, capacitybuilding model to increase resilience to climate change-related health risks.

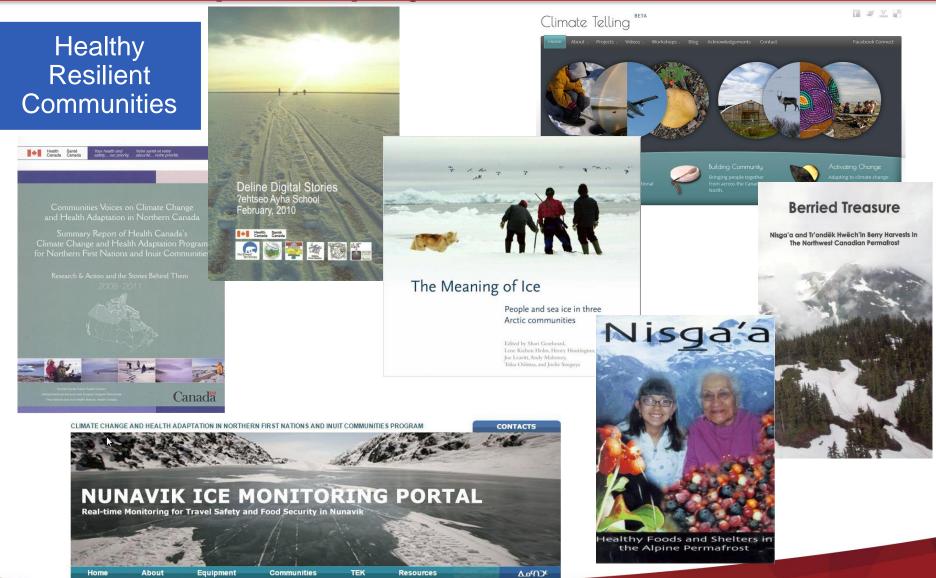
Capacity Building

> **Tools** Development

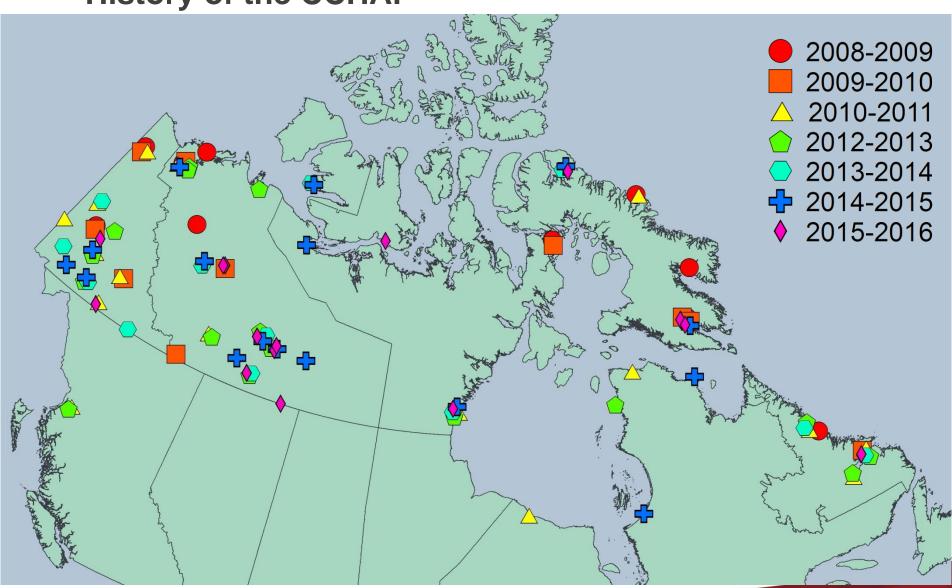
Network of Champions



Supported 95 First Nations and Inuit communitydriven adaptation projects in North



History of the CCHAP



What does this mean for Indigenous populations

Lessons learned from the northern CCHAP

- Adaptation increasingly requires a multidisciplinary approach
- Importance of integration of scientific and Traditional Knowledge
- Community-led research moves quickly to action
- The more resilient a community the better prepared it is to adapt to climate change
- Climate change exacerbates existing conditions

THANK YOU

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