

RESILIENT RURAL HEALTH SYSTEMS: A REVIEW OF INTERVENTIONS AND RESOURCES AIMED AT BUILDING CLIMATE RESILIENCE IN RURAL HEALTH SYSTEMS

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OUTLINE

Brief Overview of Climate Change and Health in Rural Canada

Health Systems and Rural Realities

Climate Change and Health Adaptation - Tools to Support Action

CLIMATE CHANGE AND HEALTH

HOW CLIMATE CHANGE AFFECTS YOUR HEALTH

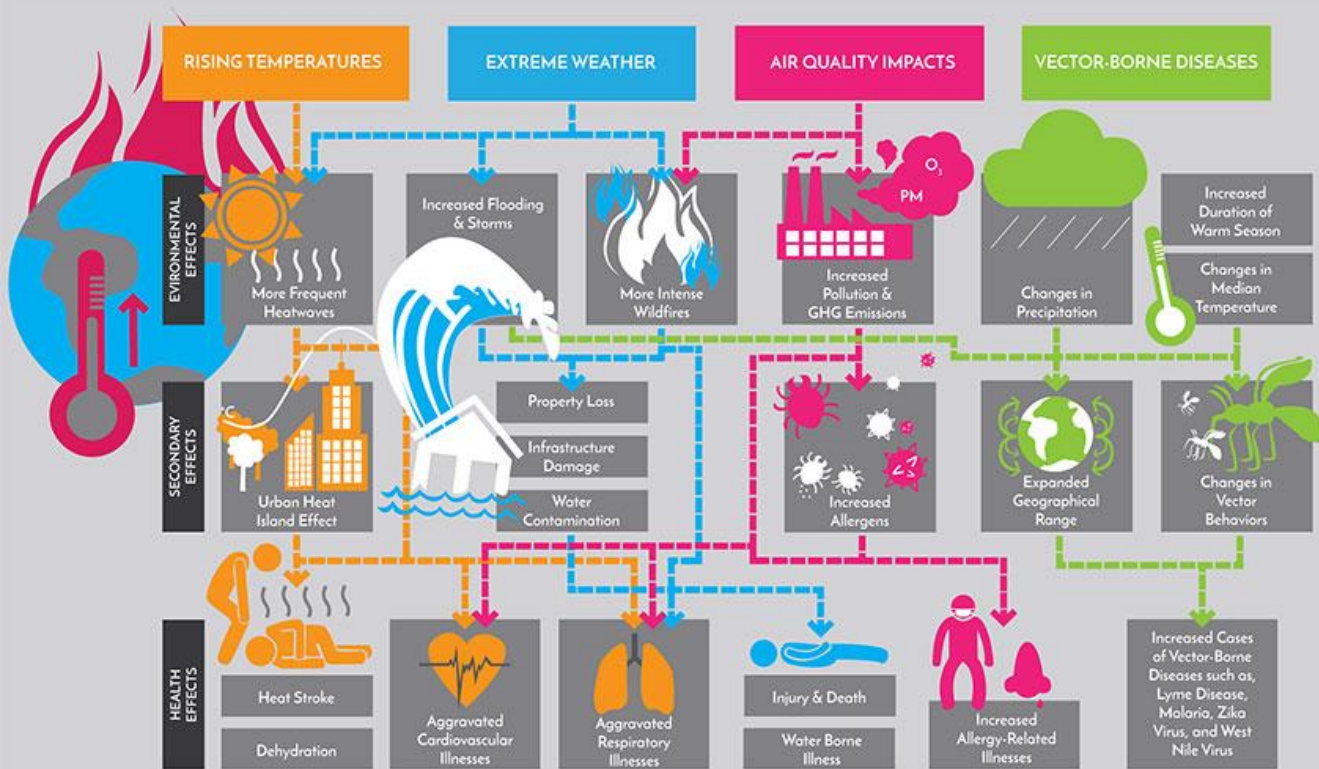


Image Source: http://www.healthvermont.gov/sites/default/files/images/2016/12/ENV_CLIMATECHANGE_Climate_Change_Overview.jpg

climatenexus

APHA
AMERICAN PUBLIC HEALTH ASSOCIATION



Image Source: https://www.thestar.com/content/dam/thestar/news/gta/2013/07/09/toronto_flooding_released_raw_sewage_in_a_sweep_to_lake_ontario/wading_in_flood_water.jpg



Image Source: <https://www.jpl.nasa.gov/images/earth/fire/20150409/wildfire1.jpg>

EXAMPLES OF KEY HEALTH SYSTEMS COMPONENTS

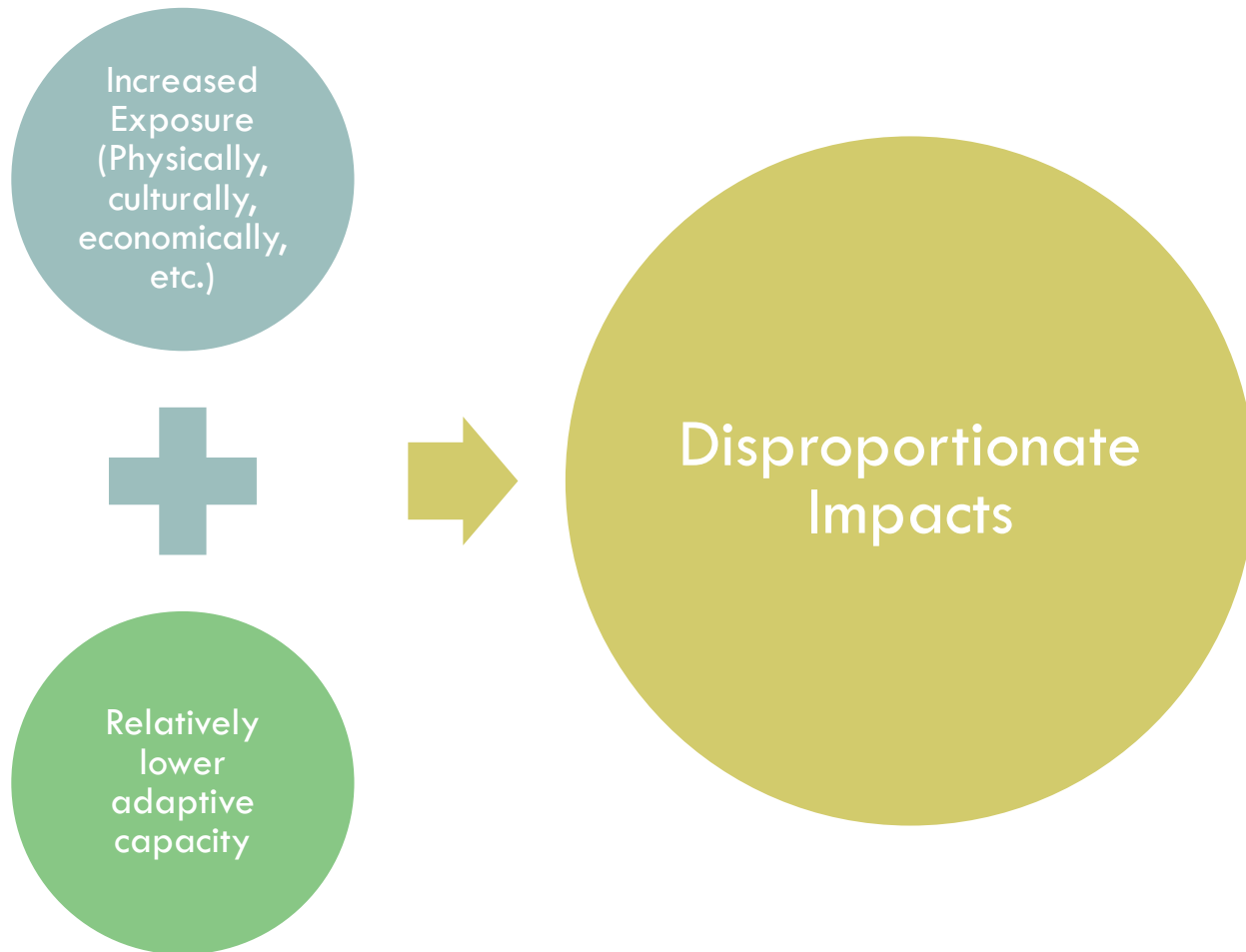
People	Institutions	Resources
Physicians	Hospitals	Financial
Nurses	Clinics	Utilities
Allied Health Professionals	Research Centres	Transport Networks
Educators	Places of Community Relevance	Supply Chains
Community leaders	Long-term Care Facilities	Telecommunications
Mental Health Professionals	Pharmacies	Monitoring and Surveillance
Emergency Responders	Public Health Laboratories	Access to Data and Relevant Research



EXAMPLES OF CLIMATE-DISASTERS AND HEALTH SYSTEM IMPACTS

- **Evacuations:** which impact both evacuee health and the health system capacity of host communities
- **Health Workforce:** Health workers need to be able to reach their place of work and function at a high-level (e.g. health workers have reported being overwhelmed with both professional and personal stress during emergencies)
- **Health facilities:** may be (and have been) directly impacted by extreme events – in rural communities there is often little redundancy when a facility is impacted

CLIMATE CHANGE IN RURAL AND REMOTE COMMUNITIES



- Rural/remote communities are uniquely susceptible to both health and health system impacts
- Reduced system redundancy (e.g., inability to travel to alternative care centres, low staff surge capacity, etc.) further reduces health system resilience
- However, rural health systems may have enhanced capacity in other ways (e.g., volunteers, family, neighbours, etc.)

HEALTH SYSTEMS AND RURAL REALITIES

Impacts to the local environment have consequences for communities, and health systems – which can impact sense of place and mental wellness

Climate

Local Environment

Health systems are interconnected – an impact at the local-level can have cascading impacts at higher system levels, or vice-versa

Sense of Place

Community

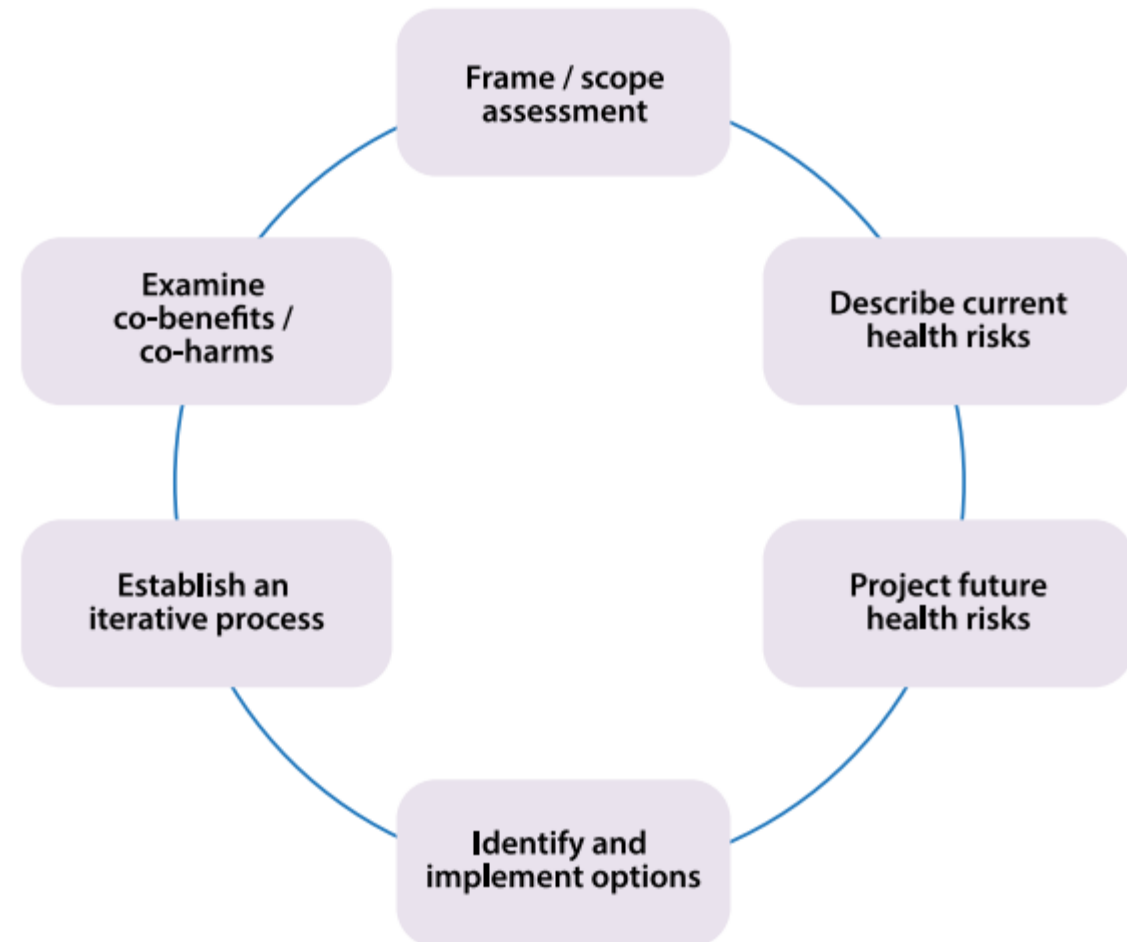
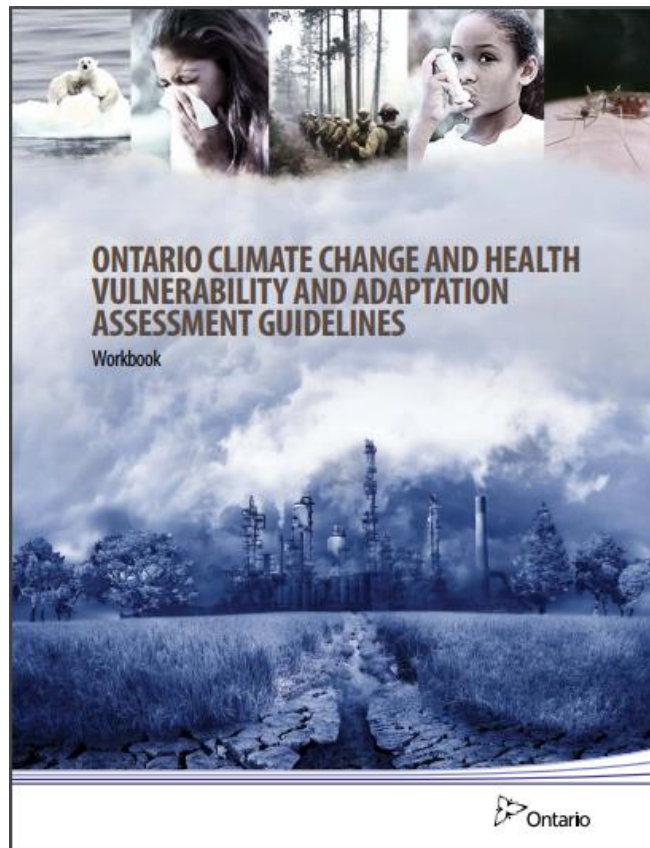
Local Health System

Impacts to the local environment can disrupt resource-based jobs and other social determinants of health (e.g., housing) which may increase pressure on health systems

State/National Health System

Patients

VULNERABILITY AND ADAPTATION ASSESSMENTS



RESILIENT HEALTH FACILITIES

A growing array of guidance is available to support health facility risk and vulnerability assessment and resilience building

Facilities are only one piece of a health system – but often serve as anchor institutions within communities (e.g., often largest employer)

Building health facility resilience will support broader community efforts

WHO GUIDANCE FOR
CLIMATE RESILIENT AND
ENVIRONMENTALLY SUSTAINABLE
HEALTH CARE FACILITIES



(WHO, 2020)

SCENARIO BASED STRESS TESTING

Use of plausible qualitative and/or quantitative future scenarios to envision climactic impacts and consequences

Can be used for both acute and chronic impacts

In low resource settings expert driven scenarios can help augment climate data gaps (Ebi et al., 2018)

THANK YOU
