

# Climate Change and Health

An Introduction to PPH's Vulnerability  
Assessment and Adaptation Plan

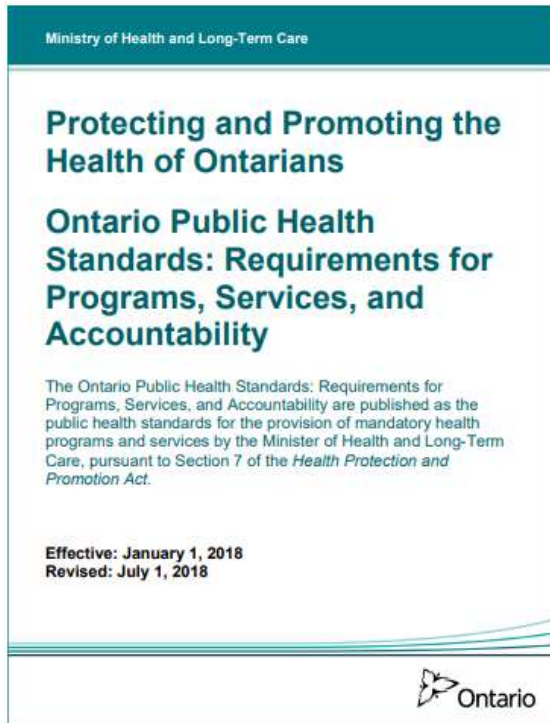
December 5, 2019



Peterborough  
Public Health

# Ontario Public Health Standards

## Healthy Environments Program Standard

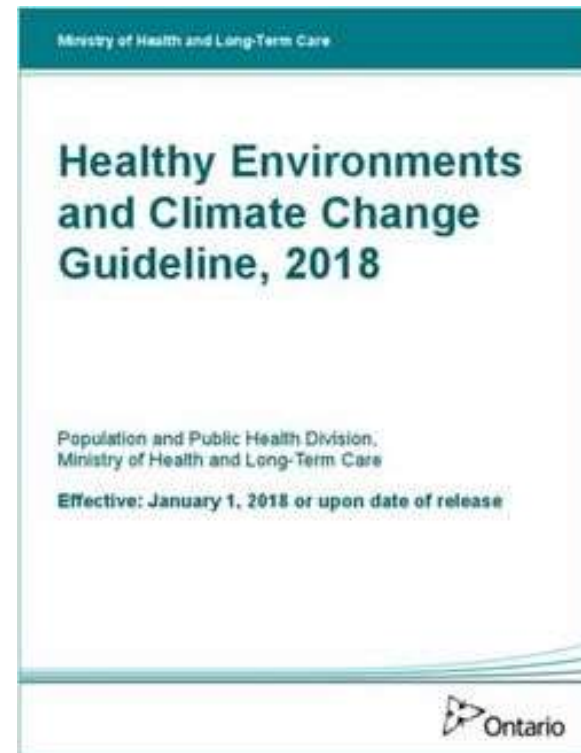


**Goal:** To reduce exposure to health hazards and promote the development of healthy built and natural environments that support health and mitigate existing and emerging risks, including the impacts of climate change.

# OPHS: Healthy Environments and Climate Change Guideline, 2018

## Climate Change Adaptation:

- Monitor impacts
- Conduct assessments on health hazards
- Mitigate heat health impacts



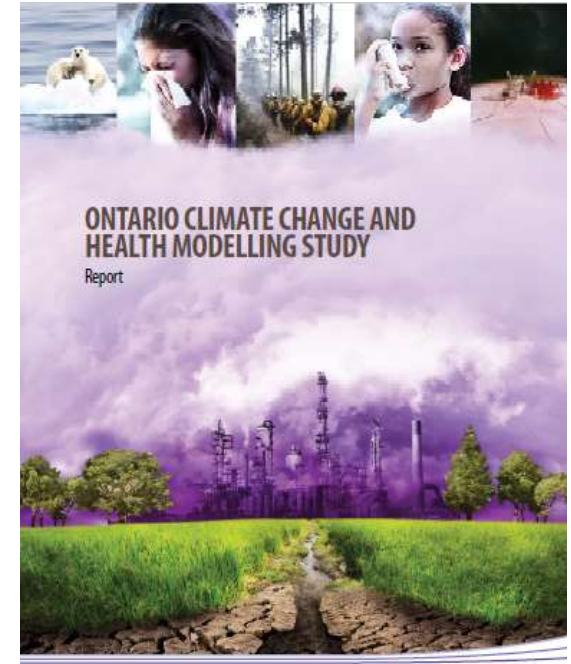
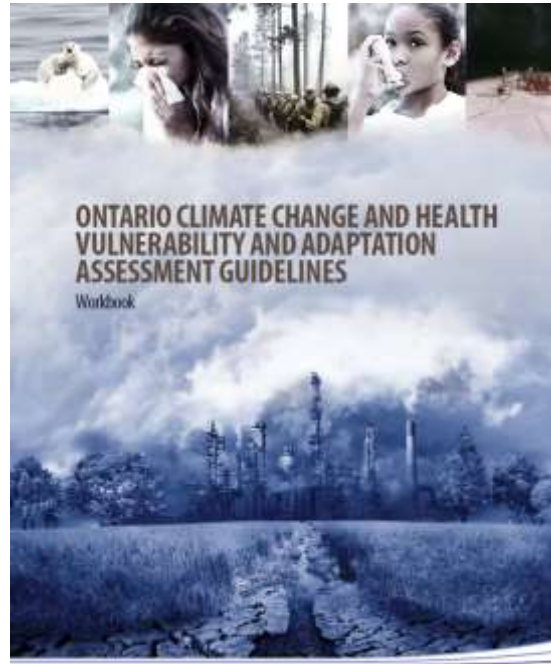
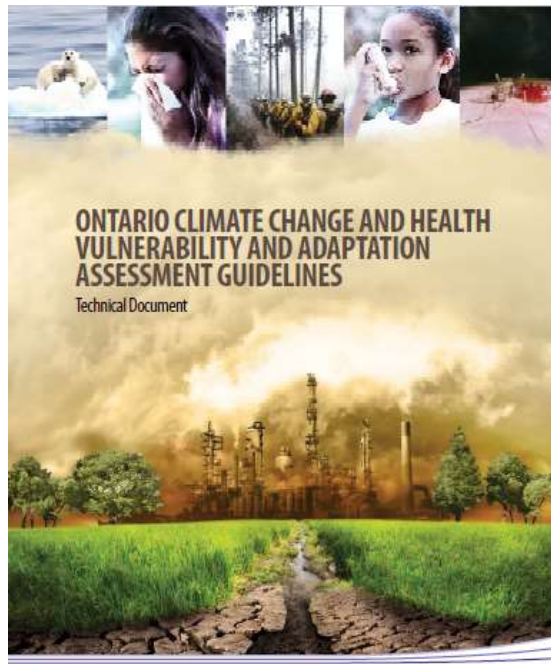
## Adaptation (Adaptive Capacity)

- Measures taken or capacity to reduce the negative effects of climate change, take advantage of the positive effects or cope with consequences

## Mitigation

- Human interventions to reduce the sources of greenhouse gases or enhance their carbon sinks.

# Ontario Climate Change and Health Toolkit



# Health Hazards

- **Extreme Temperature**
- **Extreme Weather Events**
- **Air Quality**
- **Foodborne and Waterborne Illness**
- **Vectorborne Disease**
- **Stratospheric Ozone Depletion/UV Rays**



# The Opinion of Peterborough County and City Residents; RRFSS, 2019

A large, three-dimensional red '90%' is centered on a white background. The numbers and the percentage symbol are thick and have a slight shadow underneath them, giving them a 3D appearance.

reported being concerned about climate change



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# Context: Human Health Impacts

*Climate change is more than an environmental phenomenon. Humans are directly exposed to climate change and its related health hazards through changes in weather patterns. Humans are also at risk of adverse health outcomes from the impacts of climate change.*



## Rising Temperatures

- Increased incidence of heat-stress related illness
- Increased risk of diseases transmitted by mosquitoes, ticks and other vectors
- Drought



## Reduced Air Quality

- Increased incidence of respiratory and cardiovascular disorders



## Extended Warm Weather Season

- Aggravation of allergy symptoms and respiratory conditions
- Increased incidence of sunstroke, eye damage and other related conditions



## Extreme Weather Events

- Flooding, wind damage and severe winter storm damage
- Increased risk of food and waterborne illnesses
- Increased risk of injury, illness or loss of life due to damage and weakening of infrastructure





# PPH and Climate Change

## 2014 - 2015

- A Review of Frameworks Related to Public Health Adaptation to Climate Change and of the Health Impacts of **Flooding and Severe Precipitation**, 2014
- Application of the Multiple Exposures Multiple Effects Model (MEME) to Four Flood Events in Canada: Lessons Learned for Public Health Adaptation to **Extreme Precipitation and Flooding** in the Context of Climate Change, 2015
- Climate Change **Adaptability Assessment**, 2015

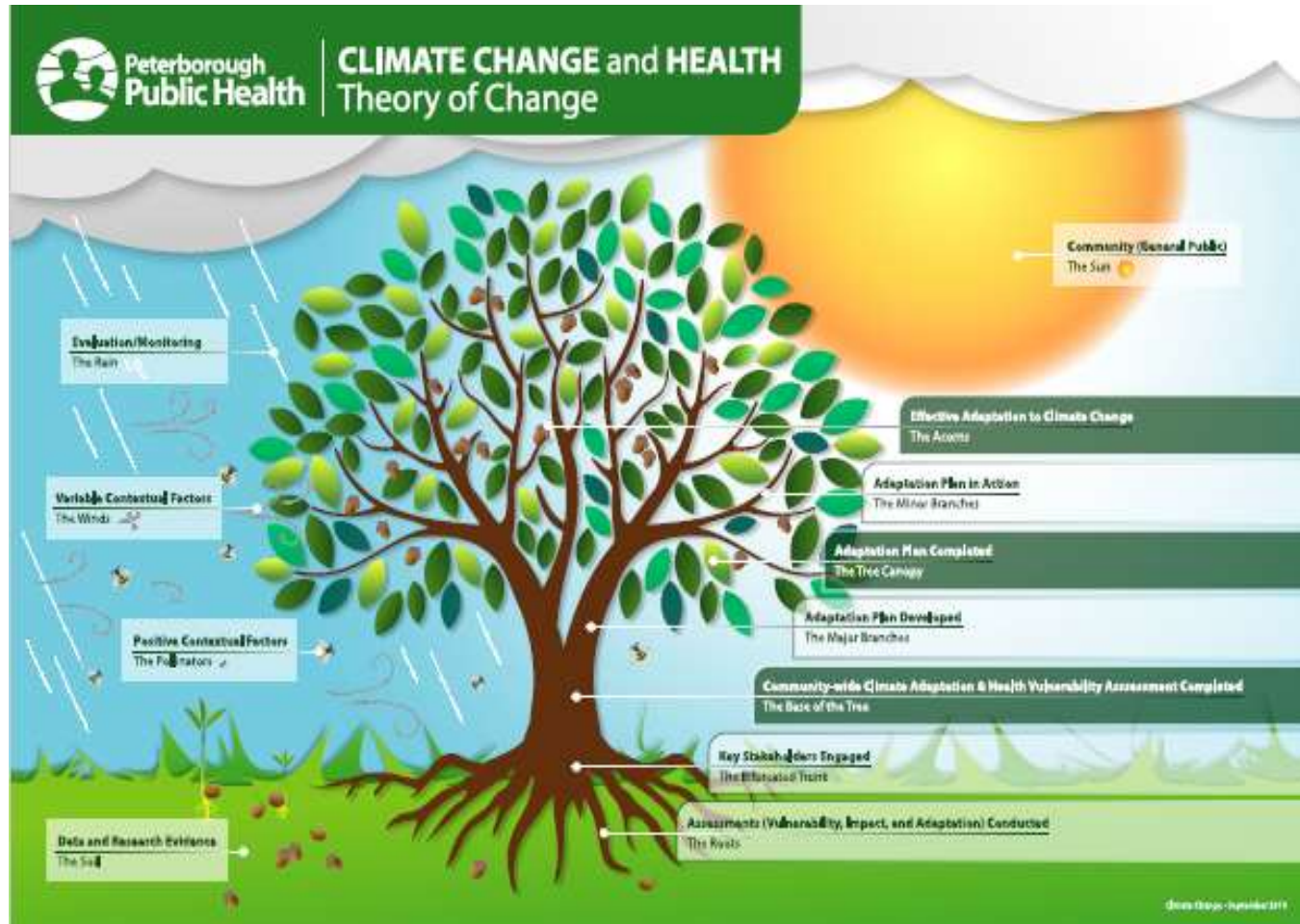


# PPH and Climate Change

## 2018 – present

- Began planning of Climate Change and Health Vulnerability Adaptation Assessment in September 2018
- A local assessment will:
  - Improve evidence and understanding of link
  - Produce evidence on health risks
  - Identify opportunities to incorporate climate change into policies and programs
  - Serve as a baseline analysis for monitoring of changes
  - Create collaborations and partnerships among differing sectors

# A Plan for the Community



# Who is moving this work forward?

## Worker Bees

- Jocelyn and Monique (Health Promoters)

## Data Superhero

- Sarah (Epidemiologist)

## Internal Advisory Group

- PPH Managers

## External Advisory Group

- Key community partners



# Quantitative Information Gathering

- Developed a comprehensive indicators list
- RRFSS data – general public attitudes and behaviours



# Qualitative Information Gathering

- Internal team focus groups
- Key informant interviews
- Health sector focus group
- On-line survey for climate change champions



# Literature Review

**Initial focus (now) on:**

- **Extreme Weather Events (Monique)**
- **Extreme Temperature (Jocelyn)**
- **Followed by (2020-2021) food and waterborne illnesses, air quality, vectorborne illnesses and UV exposure.**



# FOR MORE INFORMATION:

Contact Jocelyn and/or Monique

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