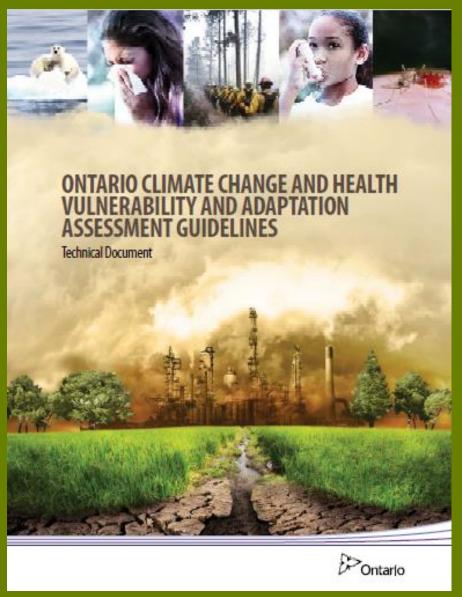


Climate Change Health Vulnerability and Adaptation Assessment

Sue Shikaze, Health Promoter HKPR District Health Unit







What is a CC Health Vulnerability and Adaptation Assessment?

Why are we doing this work?

What are we doing?

Preliminary findings

Municipal role





### A CCHVAA is intended to...

- Build our understanding of relationship between climate and health
- Look at current and future health risks of climate change, including who is most vulnerable
- Identify where and how health unit and community programs and services currently contribute to adaptation, and what else can be done
- Create a baseline against which future changes can be monitored
- Create collaborations with other sectors





## A few key words....

#### **Vulnerability**

The tendency or predisposition to be adversely affected by climate-related health effects. A wide range of factors can determine an individual or community's susceptibility to harm and ability to cope.

#### Adaptation

Measures taken or capacity to reduce the negative effects or cope with consequences of climate change.

#### Mitigation

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





#### **OPHS**

Ministry of Health and Long-Term Care

# Healthy Environments and Climate Change Guideline, 2018

Population and Public Health Division, Ministry of Health and Long-Term Care

Effective: January 1, 2018 or upon date of release



## Healthy Environments Program Standard

Requirement: "The board of health shall assess health impacts related to climate change."

Healthy Environments and Climate Change Guideline, 2018

"Boards of health shall monitor the impacts of climate change within their jurisdiction..."





## Local Impact

We see impacts of climate change locally

New opportunity to collaborate with municipal and community partners

Opportunity to engage HKPR staff across departments



"Adaptation to climate change is most effectively carried out at the local level." Dr. John Liu





### Climate Change Impacts Health

"Climate change is the greatest public health challenge of the 21<sup>st</sup> century." Lancet Climate Change Commission, 2009

"By making the case for climate change as a health issue, we hope that the civilisational crisis we face will achieve greater public resonance. Public concerns about the health effects of climate change...have the potential to accelerate political action in ways that attention to carbon dioxide emissions alone do not."

The Lancet, 2015

BUT..."There is a widespread lack of awareness of climate change as a health issue." Lancet Commission



#### HOW CLIMATE CHANGE AFFECTS YOUR HEALTH **RISING TEMPERATURES EXTREME WEATHER** AIR QUALITY IMPACTS **VECTOR-BORNE DISEASES** Increased Increased Flooding Duration of & Storms Warm Season Changes in Increased Median Changes in More Frequent Pollution & Temperature Heatwaves **GHG** Emissions Precipitation Property Loss Infrastructure Damage Changes in Expanded Water Geographical Vector Island Effect **Behaviors** Increased Cases of Vector-Borne Diseases such as, Lyme Disease, Heat Stroke Injury & Death Malaria, Zika Aggravated Increased Aggravated Virus, and West Allergy-Related Cardiovascular Water Borne Respiratory Nile Virus Dehydration Illnesses Illness Food borne Illness Mental Health Impacts climatenexus SAPHA





## Who is most Vulnerable?

Vulnerability = Exposure + Sensitivity + Adaptive Capacity











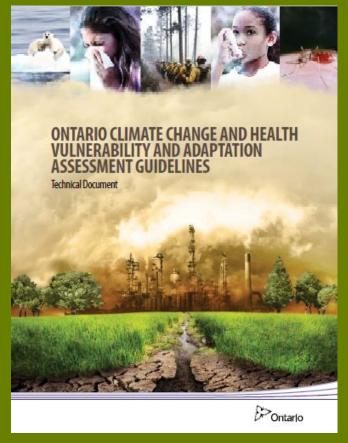


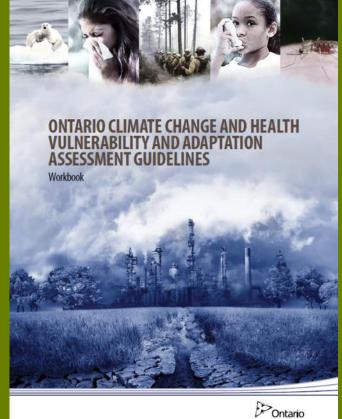


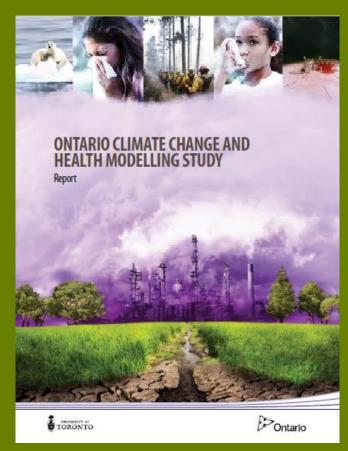




## What are we doing?











#### Phase 1: Assessment: Understand Current Situation

#### In HKPR district....

Who is most vulnerable? What is the historic and current climate situation? What is current burden of illness? What changes are projected in climate? How do we anticipate these will impact health in our district? What programs exist at HKPR and the community that contribute to adaptation?

## Climate-sensitive Categories

- Extreme temperatures
- Extreme weather and natural events
- Vector-borne disease
- Safe food and water
- Air quality
- Exposure to solar ultraviolet radiation



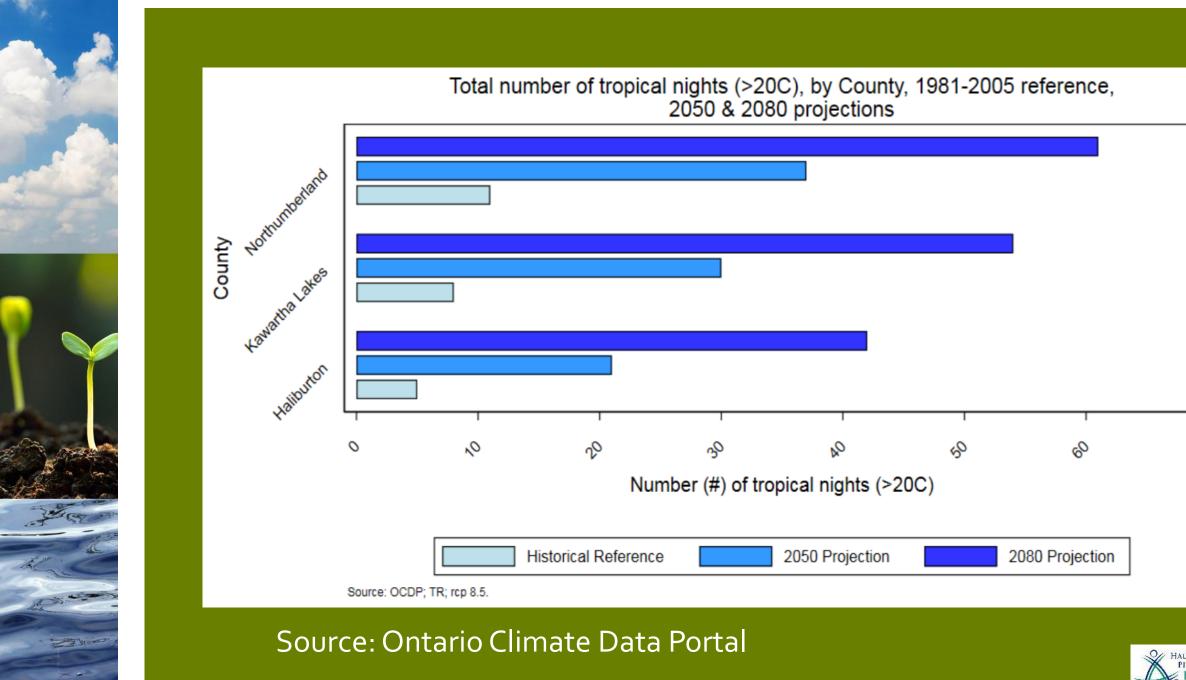


#### Phase 2: Develop Adaptation Plan

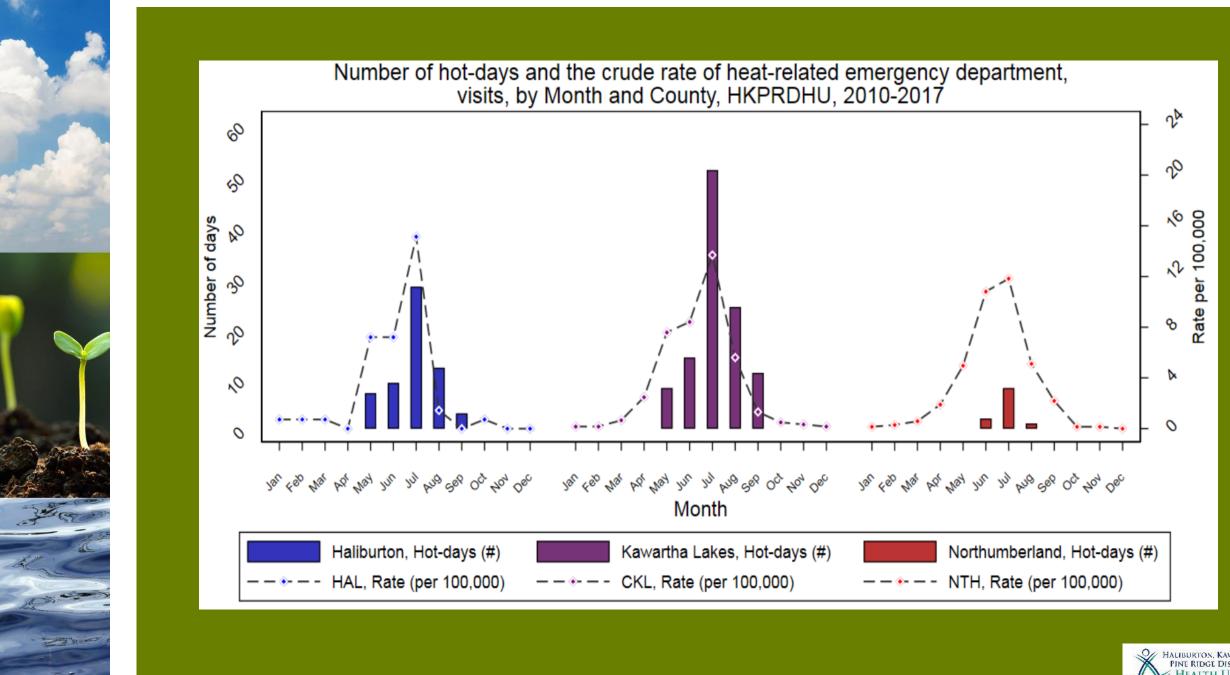
Develop a Climate Change Adaptation Plan that:

- Identifies effective strategies for increasing adaptation within HKPR programs
- Identifies opportunities to work with community partners to increase adaptive capacity
- Develops a strategy for evaluation and monitoring of progress and effectiveness











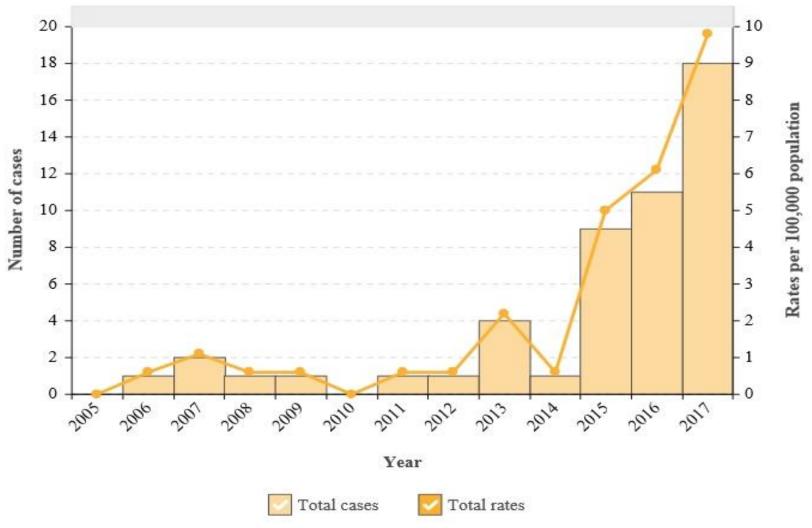


		Baseline (1986 – 2005)	<b>2050</b> s	% change (from baseline)	<b>2080</b> s	% change (from baseline)
City of Kawartha Lakes						
	Precip amt extremely wet days	56mm	+28mm (	50%	+50mm (	89%
	Total annual precip	995mm	+66mm (	7%	+101mm (	10%

- Percentages rounded to nearest whole
- Source: Ontario Climate Data Portal



## Lyme disease rates and cases for all ages, for all sexes, in Haliburton, Kawartha, Pine Ridge District







#### HKPR Work Contributing to Adaptation



- Monitoring & surveillance of ticks and mosquitoes, WNV and Lyme
- Heat alert notification
- Recreational water testing
- Public outreach, education and skill building
- Collaboration with municipalities and other community partners
- Advocating for healthy policy
- Poverty reduction work





## Municipal Role

Municipalities have a key role in increasing adaptation

- Climate change plans
- Policies and planning
- Transportation
- Poverty reduction
- Emergency planning and preparedness
- Community infrastructure & design
- Agriculture and community food initiatives
- Energy and environmental initiatives
- Protecting water quality
- Economic development







## How can this project benefit you?

An evidence-based document that....

- Adds a detailed health lens to climate change adaptation planning done in the Healthy Environments Plan
- Provides analysis of past and projected climate changes in relation to health of local populations, especially people who are most vulnerable
- Supports other municipal initiatives such as poverty reduction and implementation of the Healthy Environments Plan
- Brings climate change impacts to a local and personal level





### What's Next?

- Communication campaign
- Completing key informant interviews and community focus groups
- Presentations to County/City Councils
- Phase 1 draft complete Dec 2019
- Phase 2 tentatively June 2020
- Continued communication with staff throughout the project





Thank you!

Sue Shikaze Sh

