

Community Conversation: Climate Change and Planetary Health

Powassan Library, November 2023

Shannon Bird

Community Health Promoter

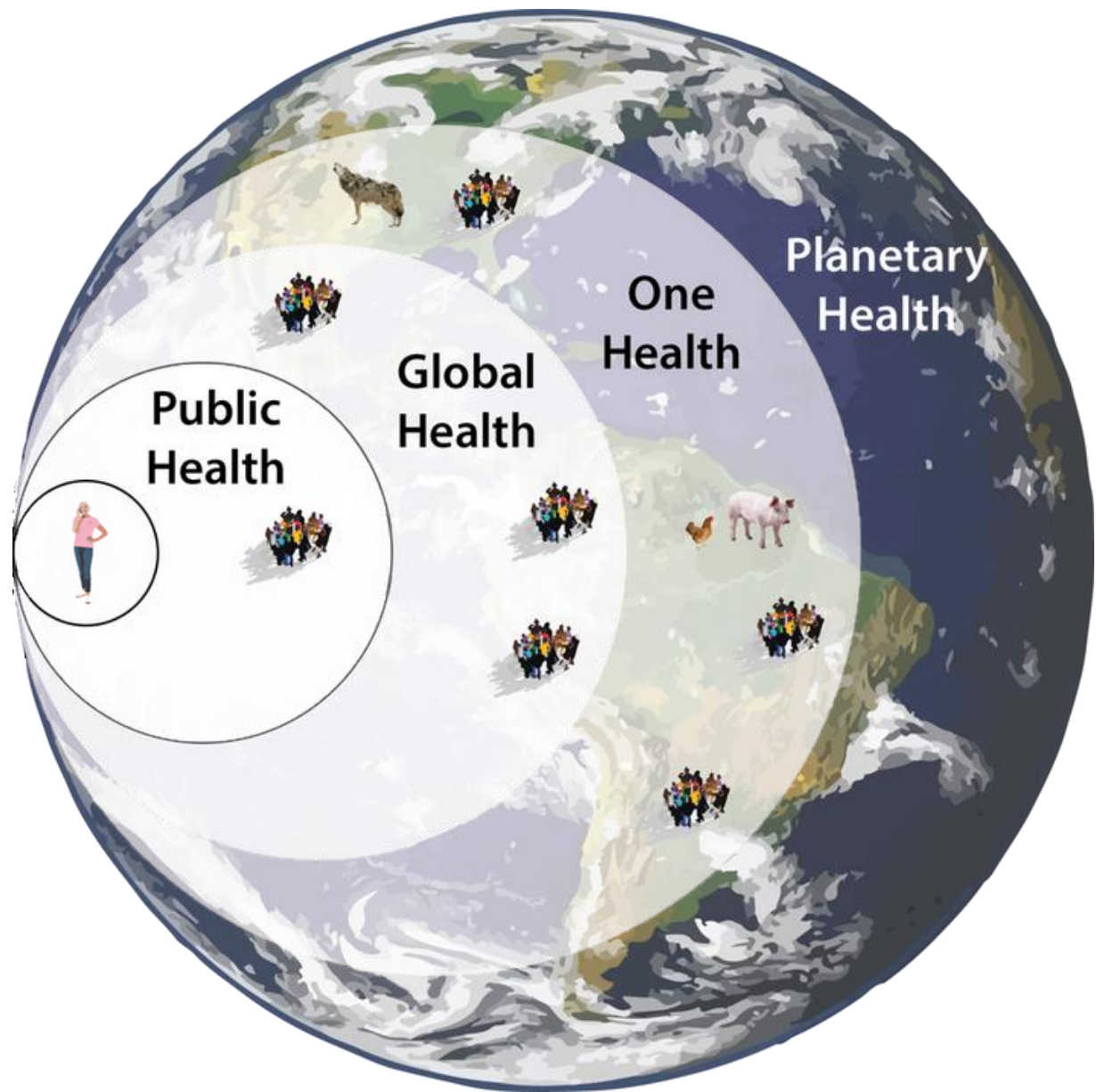
North Bay Parry Sound District Health Unit

Introduction

- Education
 - Honours Bachelor of Science in Biology, McMaster University
 - Master of Public Health, Brock University
- Career
 - Community Health Promoter, Healthy Schools Team, North Bay Parry Sound District Health Unit
- Interests
 - Planetary health
 - Camping, canoeing, hiking
 - Imperfectly sustainable home practices
 - Climate art







Climate Change



Increasing air and water temperature



Sea level rise and acidification



Increased frequency and severity of extreme weather



Changes to growing seasons and habitats



Loss of biodiversity



Air pollution and changes to wind and weather patterns

How Climate Change Impacts Our Health

Extreme Weather



- Injury
- Death
- Impact on mental health
- Limited access to essential supplies

Heat Stress



- Heat stroke
- Dehydration
- Cardiovascular and respiratory effects
- Pregnancy complications

Air Pollution



- Respiratory conditions, allergies, cardiovascular disease
- Eye, nose and throat irritation
- Increased risk of lung cancer
- Premature death

Changing Habitats



- Tick or mosquito-borne infectious diseases (e.g. Lyme, West Nile)
- Increased risk of zoonotic disease transmission between animals and people
- Increased risk of pandemics

Food Security



- Increased risk of food-borne illness
- Poor nutrition or undernutrition due to crop damage, disruptions in food supply, or lack of access to traditional hunting grounds

Water quality



- Risk of water-borne diseases by parasites and bacteria
- Gastrointestinal illness from algal blooms
- Contamination of fresh drinking water sources.

Some people are at greater risk of poor health outcomes from climate change. Risk factors include:

- Low-socio-economic status
- Age (very young or advanced age)
- Pre-existing health conditions
- Geographic location

Co-benefits

- What's good for the planet, is good for people!
 - Active transportation
 - Locally grown food
 - Protected green spaces
 - Clean air and water





Local data

- Extreme weather and temperature as key concerns
- Emphasis on Indigenous perspectives
- Concern about impact on food availability, vector-borne diseases

Climate Change and Health:

An Exploratory Study Investigating Perceptions of Climate Change Impacts and Adaptations to Protect Health in the Parry Sound Region

MAR. 2021





Local data

- Northern regions are experiencing faster warming and more intense weather
- Health consequences of climate change are predicted to increase in Northern Ontario





Outdoor worker

- Increased metabolic heat production
- Pooling of blood in the cutaneous circulation
- Insufficient blood replenishment as well as blood volume loss due to insufficient fluid replenishment and profuse sweating



People living on low income

- Limited financial resources to adequately take protective actions
- Reduced access to drinking water and cool places
- Limited access to health care and social services
- More environmental exposure (e.g., homelessness, living on higher floors without air conditioning)
- Social isolation



Newcomers to Canada

- Language and literacy barriers for French or non-English speakers
- Cultural differences, such as food consumption habits, clothing choices, pre-existing cultural or social beliefs
- Limited knowledge of local alert systems, health and social service programs



Older adults (65+ years)

- Reduced sweating ability
- Decreased plasma volume
- Decreased blood flow to skin and extremities
- Reduced cardiac output
- Lower fitness, increased body fat, reduced lean body mass
- Reduced thirst sensation leading to increase susceptibility to chronic dehydration
- Dependence on caregivers for awareness and recognition of the impact of heat



Children (<5 years)

- Reduced sweating ability
- Inability to increase cardiac output
- Faster heat gain from the environment if air temperature is greater than skin temperature, due to greater surface area to body weight ratio
- Lower exercise intensity when active but often active for longer
- Dependence on caregiver for awareness and recognition of the impact of heat



People with chronic illnesses or who are physically, psychologically

- Physiological characteristics that may amplify health risks, such as cardiovascular and respiratory illness, hypertension, mental illness, renal illness, diabetes and obesity
- Taking certain medications that affect heat sensitivity or that interfere with the body's cooling functions or water and salt retention
- Confinement to bed or dependence on caregiver for daily living
- Presence of co-morbidities
- Social isolation

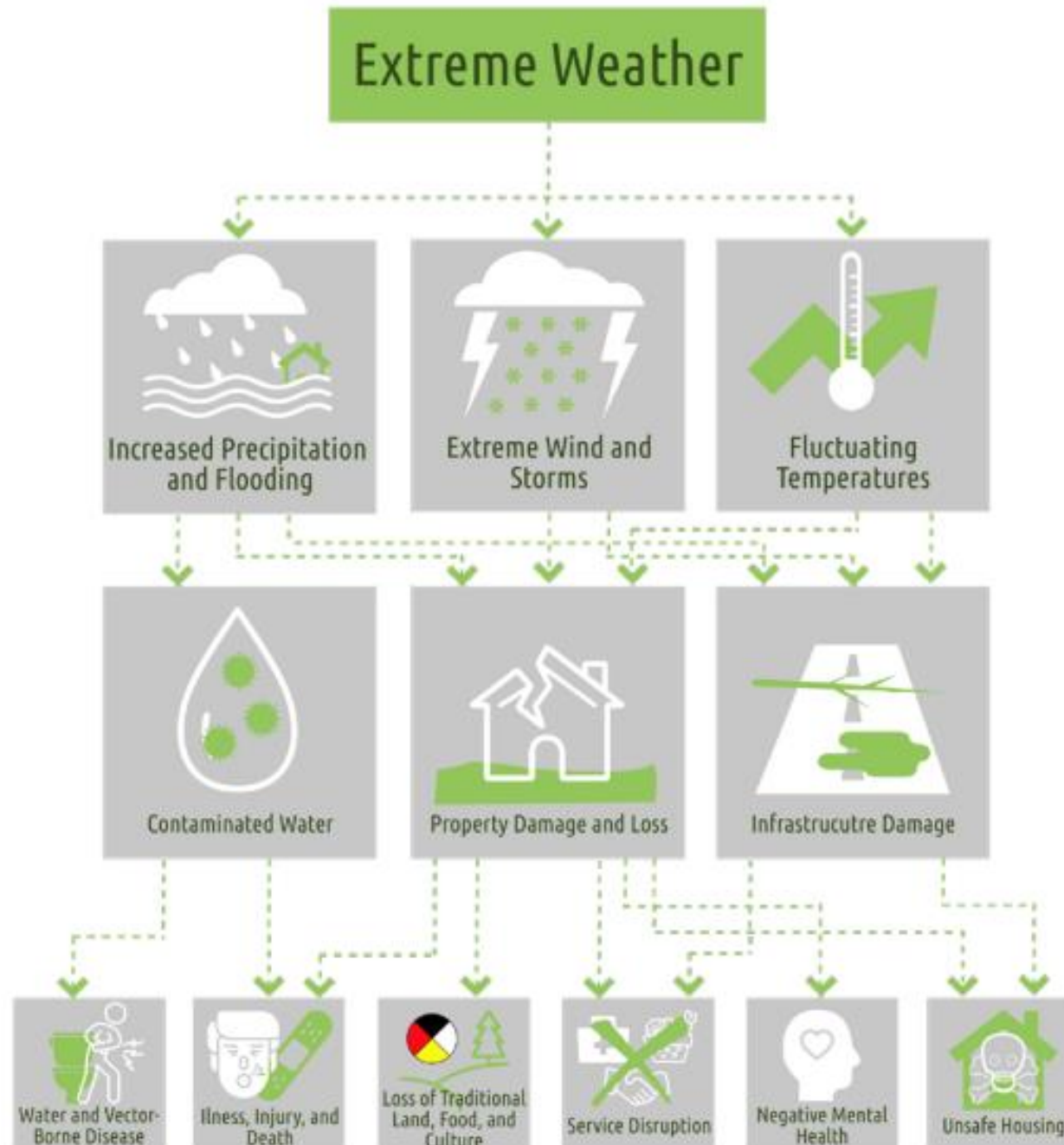


Figure 20: Impact pathways from extreme weather events related to flooding and storms.

Resources



North Bay Parry Sound District
Health Unit
Bureau de santé
du district de North Bay-Parry Sound

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Climate Change

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Health Topics

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[Air Quality](#)

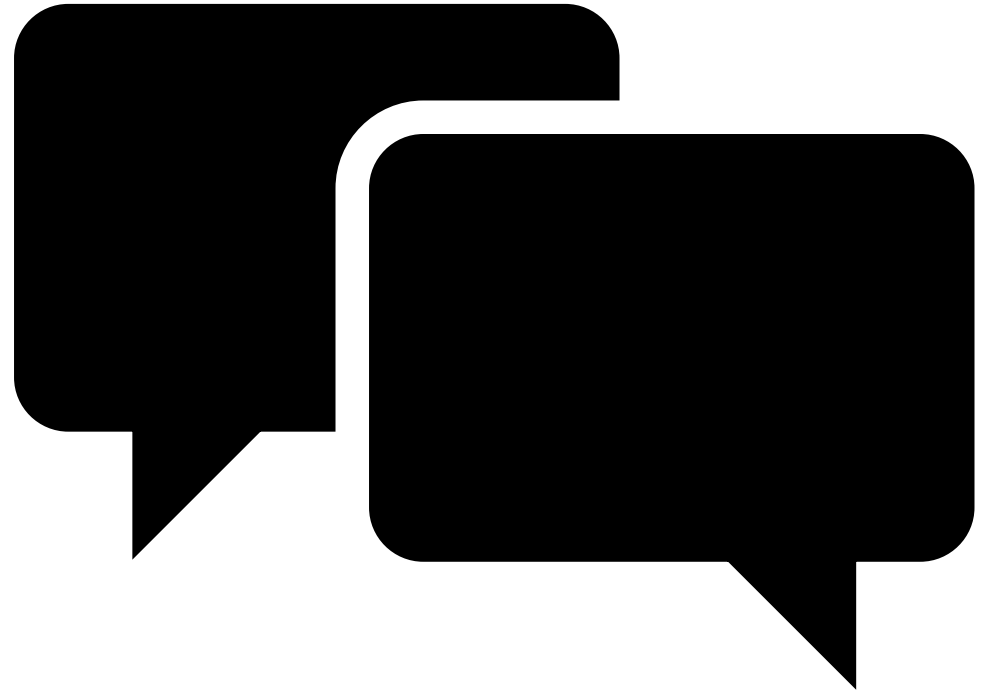
[Alcohol](#)

What is Climate Change?

Climate change is the long-term shift in average weather patterns. The impacts of climate change are felt on a global, regional and local level, and pose a growing threat to human health.

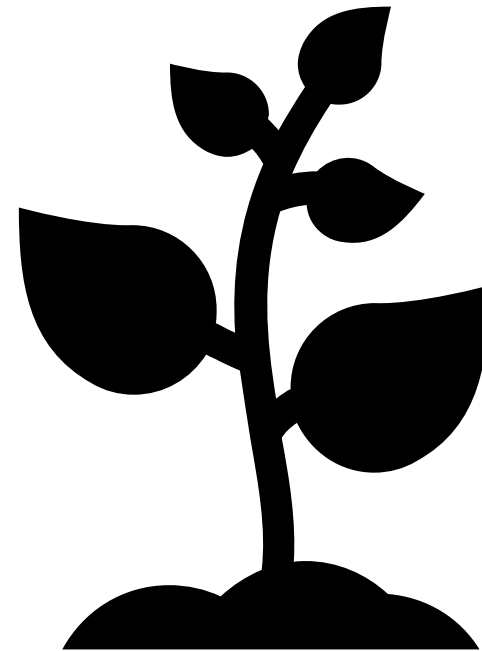


Conversation & Questions



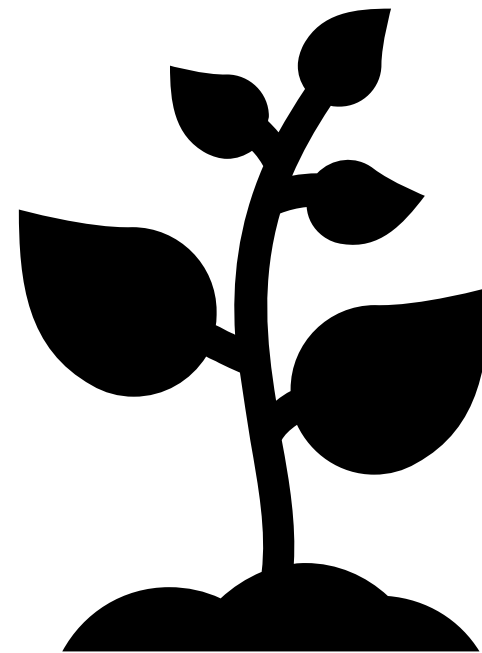
Reflection Questions

- Whose responsibility is planetary health?
- What are some ways planetary health is relevant to your life?
- What are actions you do (or could do) to improve planetary health in your community?
- What do you need from community leaders and organizations to support planetary health?



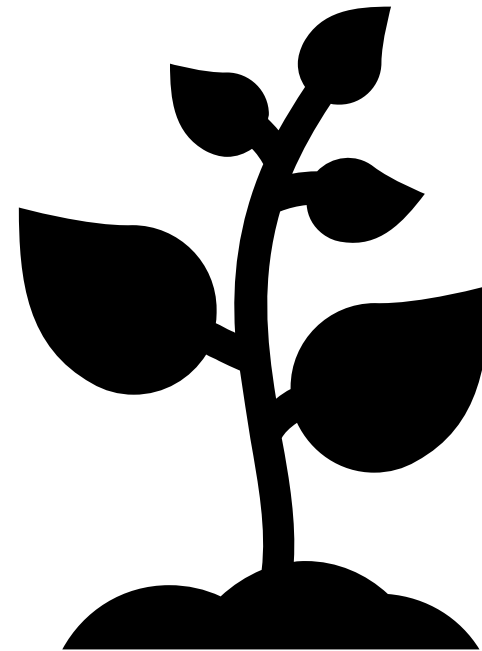
Reflection Questions

- How are different populations affected by planetary health?
- What is the connection of planetary health and the social determinants of health?



Reflection Questions

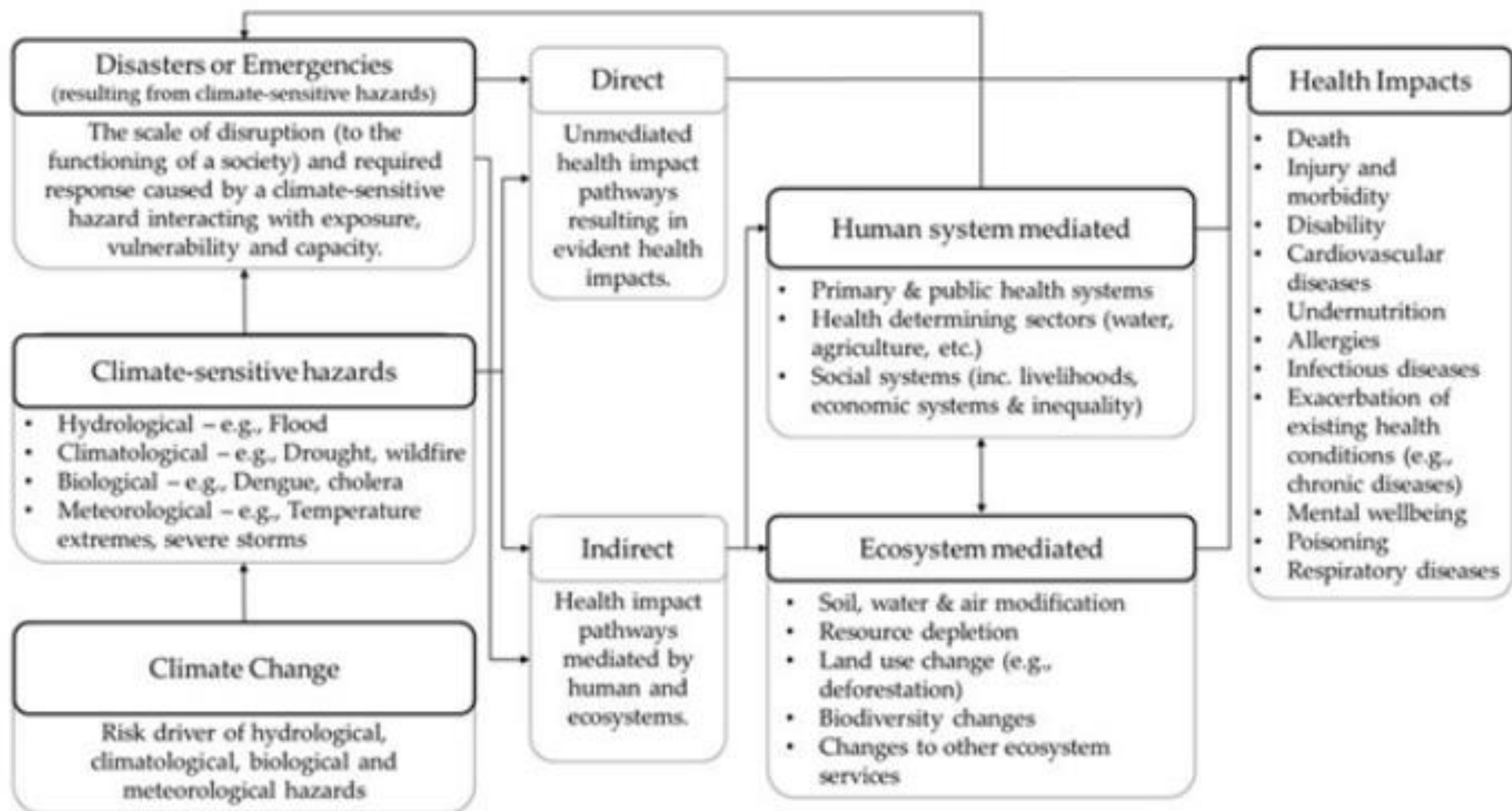
- What information about climate change or planetary health is missing in your community?
- What made you interested in this topic enough to attend tonight's event?
- What climate and health topics would you like to see addressed in more detail?



What can we do?

- Individual sustainable actions
 - Reduced commuting, energy use, water use, food waste, disposable products
- Awareness and education
- Actions with co-benefits
- Involvement in community groups
- Advocacy for sustainable and climate conscious policy





Thank you, Powassan!

Shannon Bird
Community Health Promoter
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