

Climate Change and Mental Health

KATIE HAYES, PHD_c

UNIVERSITY OF TORONTO, DALLA LANA SCHOOL
OF PUBLIC HEALTH

LEAD AUTHOR: MENTAL HEALTH AND WELLBEING
CHAPTER FOR THE NATIONAL CLIMATE CHANGE
AND HEALTH ASSESSMENT

CPHA

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1. Overview of the mental health consequences of climate change

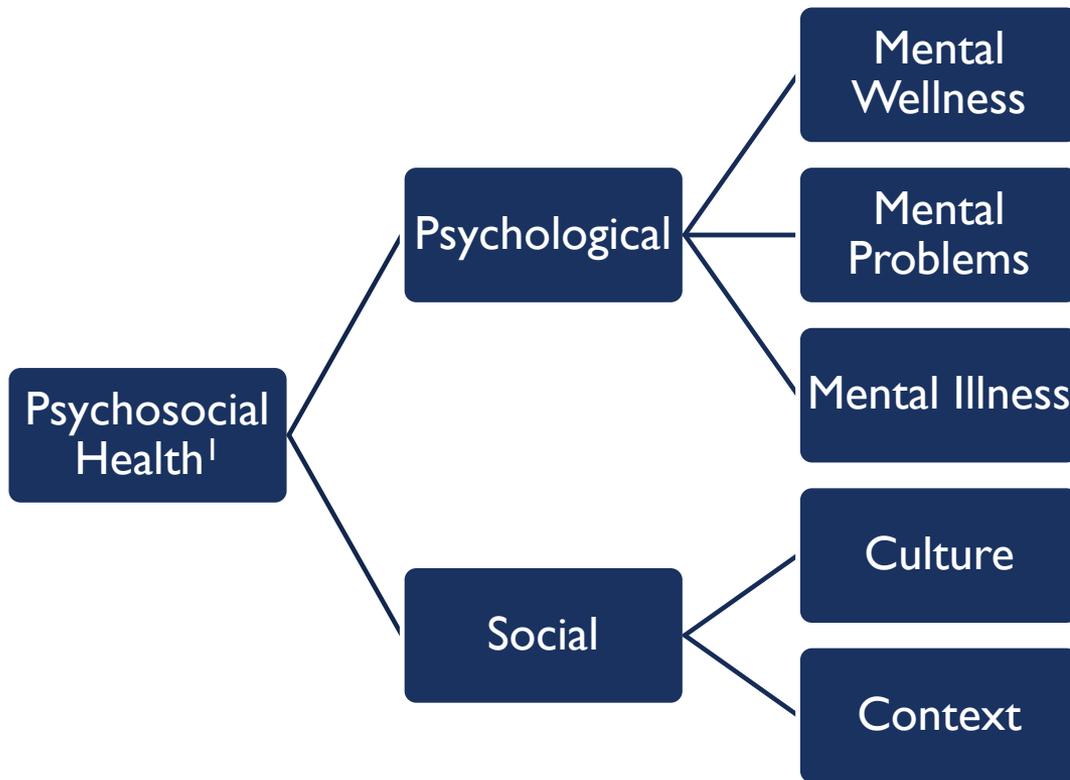
2. Monitoring and surveillance

3. High River, Alberta case study

4. Informing climate change and mental health adaptation

WHERE WE
ARE GOING
TODAY?

DEFINING MENTAL HEALTH



MENTAL HEALTH OUTCOMES

Climate Hazards

Extreme heat, heat waves, floods, wildfires, mudslides, drought, hurricanes, sea-level rise, extreme temperatures, melting permafrost, vector-borne disease



Mental Health Outcomes

- PTSD
- Major Depressive Disorder (MDD)
- Anxiety
- Grief
- Depression
- Suicidal Ideation and Suicide
- Violence
- Aggression
- Addiction
- Survivor Guilt
- Vicarious trauma
- Altruism
- Compassion
- Post Traumatic Growth³



PSYCHOTERRATIC SYNDROMES

Ecoanxiety²

Ecoparalysis²

Ecogrief³

Solastalgia^{3,4}

KEY CONSIDERATIONS

Health Equity



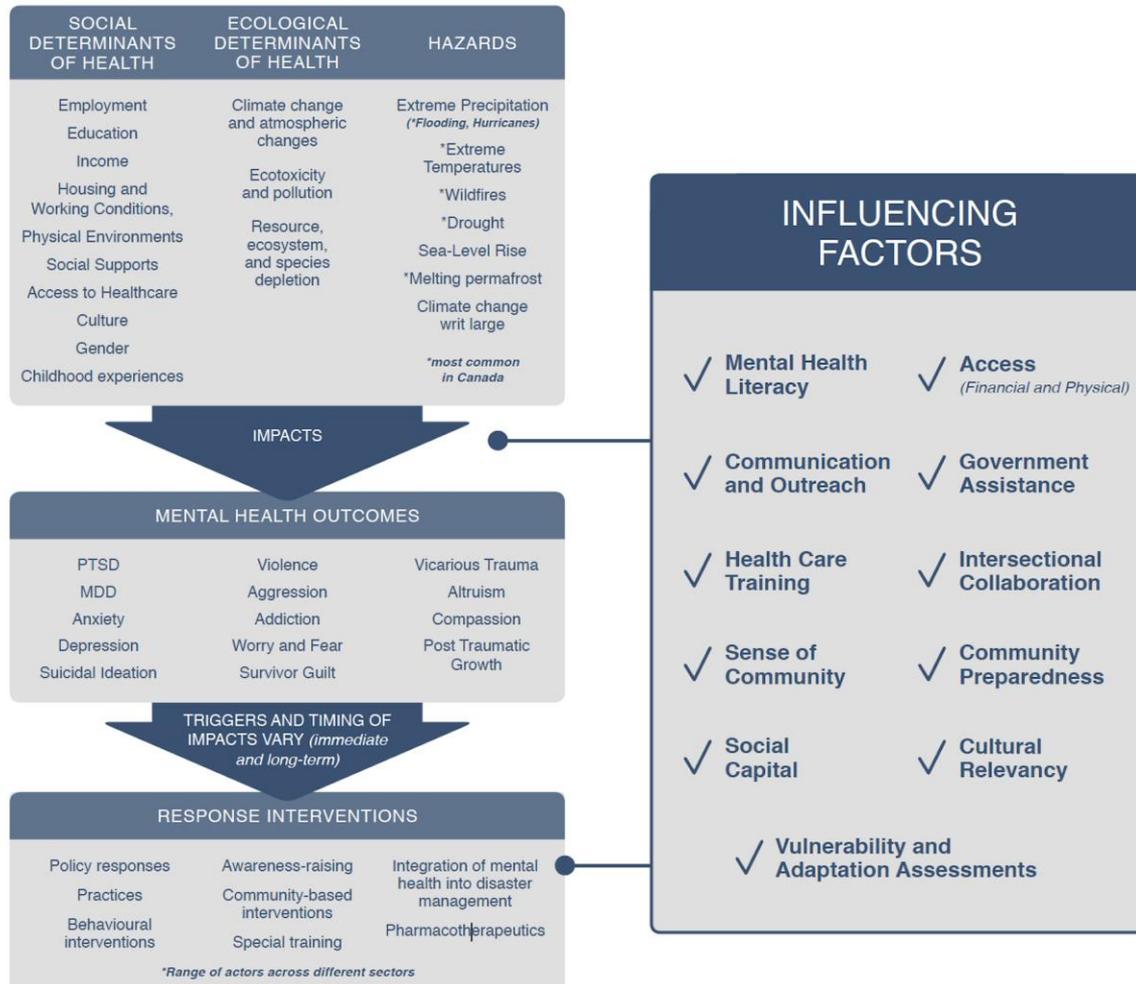
Triggers and Timing



MONITORING AND SURVEILLANCE

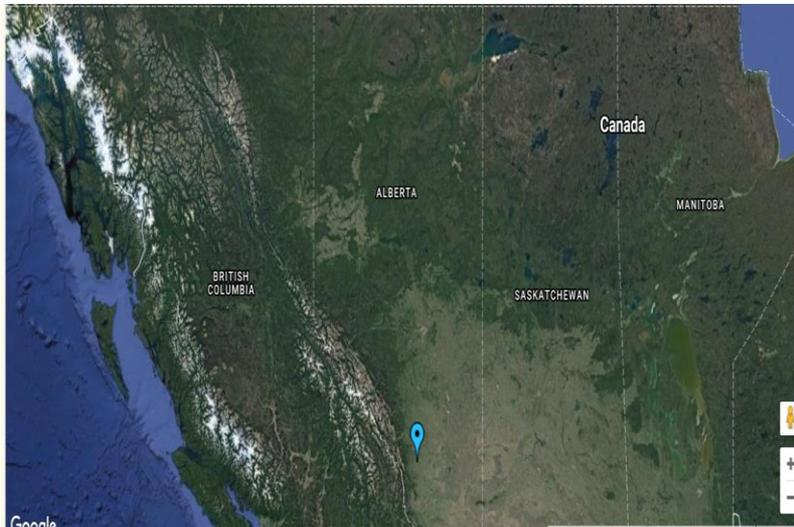
Climate Hazard	Populations of Concern	Potential Mental Health Outcomes	Indicators and Measurement Tools
Extreme Weather	<ul style="list-style-type: none"> • Gender (Female) • Sex (Female, particularly pregnant women) • Age (children, infants, older adults) • Race and ethnicity (non-Caucasian, non-white) • Immigrants • People with pre-existing health conditions • People with low-socioeconomic status • The under and non-insured (health care and home insurance) • The under-housed and homeless • Outdoor laborers • First responders • Indigenous Peoples 	<ul style="list-style-type: none"> • Post-traumatic stress disorder (PTSD) • Depression (including major depressive disorders) • Anxiety • Suicidal ideation • Aggression • Substance abuse and addiction • Violence • Survivor guilt • Vicarious trauma • Altruism • Compassion • Post-traumatic growth • Other 	<ul style="list-style-type: none"> • Surveys • Patient Records • Monitor emergency department visits • Review of new prescriptions • Interviews • Psychosocial asset mapping

Factors that Influence the Psychosocial Health Impacts of Climate Change



HIGH RIVER CASE STUDY

Southern Alberta



High River, Alberta

Flood Hazard Map Application

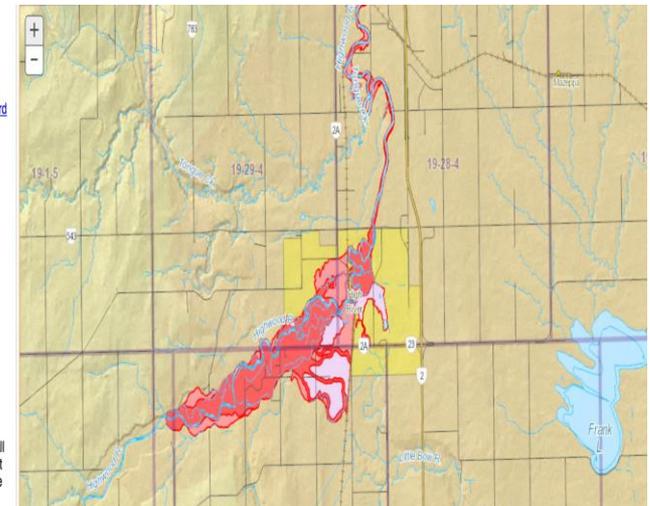
This application uses Geographical Information System (GIS) technology to display flood hazard mapping prepared for Alberta communities under the [Flood Hazard Identification Program](#).

Legend

- Floodway
- Flood Fringe
- Overland Flow (Flood Fringe)
- Under Review
- 855.09 m Cross Section and Design Flood Level
- Water Body
- First Nation Boundary
- Municipal Boundary

Limitations

Flood hazards have not been identified in all communities and may exist in areas without flood hazard mapping. New mapping will be added to the application when available.



What are the long-term psychosocial consequences of the 2013 Southern Alberta flood in High River, Alberta?

What implications does an exploration of the long-term psychosocial consequences of the 2013 flood have on the field of climate change and health?

What is the health and social service response to the long-term consequences of the 2013 flood in High River, Alberta?

How can an understanding of this response support community-level psychosocial adaptation to a changing climate?

RESEARCH QUESTIONS

STUDY DESIGN AND APPROACH

Multi-methods Qualitative study

- Desktop climate change and health vulnerability and adaptation assessment
- Key informant interviews (n= 14)
- Psychosocial asset mapping via focus group sessions (n= 14)
- Semi-structured interviews (n= 18)

RESEARCH FINDINGS



Range of psychosocial Outcomes	Enduring Psychosocial Effects	Disproportionate Risks and Impacts
<ul style="list-style-type: none"> • Increased emergency department visit • Self-reported: <ul style="list-style-type: none"> • PTSD • Anxiety • Worry • Fear • General trauma • Distress • Compassion fatigue • Sense of community • Altruism • Resiliency 	<ul style="list-style-type: none"> • Ongoing grief and loss <ul style="list-style-type: none"> • Lost mementos • Unexpected triggers • Hierarchy of needs • Trauma related to infrastructure rebuilding • Re-traumatization • Looming threat of climactic hazards 	<ul style="list-style-type: none"> • Disproportionate risks and impacts to marginalized community members • Help-seeking behaviours impacted by: <ul style="list-style-type: none"> • Social, cultural, economic factors • Life experiences • The stigma of mental illness and mental problems • Over reliance on self-efficacious behaviours

KEY COMPONENTS INFLUENCING PSYCHOSOCIAL ADAPTATION

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- Respondents highlighted:
 - The difference between response and recovery
 - The need for local capacity building
 - Lack of mental health care training for response organizations
 - Diverse mental health care needs



Sense of
Community



Core Community
Services



Government
Services



Emergency
Response

PSYCHOSOCIAL ASSET MAPPING

PSYCHOSOCIAL ADAPTATION INTERVENTIONS

- Community Level



- Individual Level



IMPLICATIONS FOR POLICY AND PRACTICE



Capacity building



Mental health care training



Raising Awareness



Multitude of psychosocial
intervention options

Q&A

■ **THANK YOU!**

■ **Contact information:**
katie.hayes@mail.utoronto.ca

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PART I: TABLE DISCUSSION

Based on your local context, what stands out for you as priority areas for action to address the health impacts of climate change?

(could be mitigation or adaptation)