

# How do we move from talk to action?

Bolstering community resilience  
through health-focused climate  
adaptation

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# Outline

1. Context
2. Problem
3. Methods
4. Findings
5. Conclusion



It's getting  
HOT in here

A hand-drawn illustration of two flames, one on the left and one on the right, positioned below the word 'HOT' on the sign. The flames are drawn with black outlines and filled with yellow and orange colors.

“...the biggest health threat facing humanity.”

World Health Organization,  
2021

## Climate stressors pose significant risk to human health.



displacement, injury,  
mental health  
consequences



exacerbation of  
respiratory illness



water- and vector-  
borne disease  
transmission



heat -related illness,  
increased mortality  
rates

Climate change impacts will result in decreased health outcomes and increased premature death rates, in the near- to long- term future (*high confidence*).

Intergovernmental Panel on Climate Change, 2022

# ADAPTATION IS KEY

The Government of Canada recognizes that climate adaptation is fundamental.



This involves the implementation of strategies to reduce risk and vulnerability.



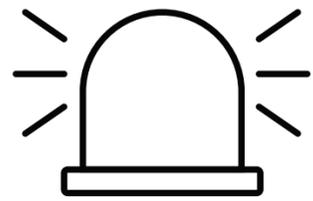
Regardless of mitigation efforts, future projections indicate worsening climate stressors.

# Health-Focussed Climate Adaptation

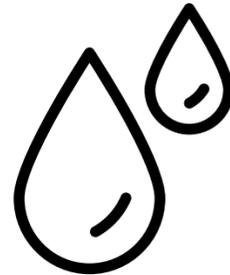
- Adaptation can effectively improve health outcomes associated with climate stressors.
- Implementation of adaptation should occur at the municipal level, with support from broader levels of government.
- Strategies fall into 6 categories: capacity building, planning/policy, practice/behaviour, information, observing systems, & vulnerability assessment.

REAL  
CLIMATE  
ACTION  
NOW!

# Health-Focused Adaptation Strategies



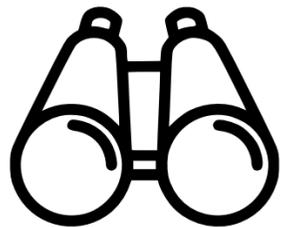
Early warning/  
response systems



Increase potable  
water access



Decrease flood risk



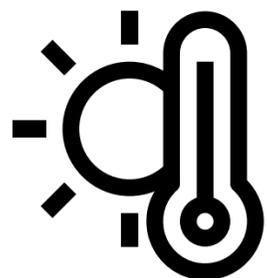
Surveillance



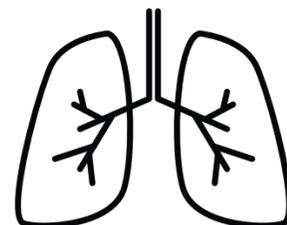
Education



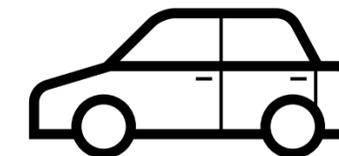
Access to mental  
health services



Reduce heat  
island effect



Air filtration  
systems



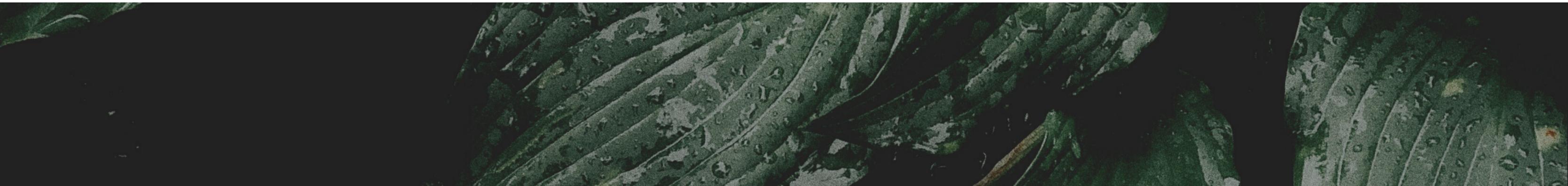
Vehicle traffic  
reduction

Adaptation action targeted at preserving community health has been slow to commence, and is often disjointed between levels of governance.



# Research Problem

To what extent are communities prepared for the health risks associated with anthropogenic climate change?



# Methods

- Qualitative, case study methodology
- Criterion sampling approach
- Edmonton, Prince George, Surrey, Calgary & Vancouver



# Methods

- 16 semi-structured, key actor interviews
- Informants from communities and public health sector
- Review and analysis of strategic community documents
  - MDPs, OCPs, and climate adaptation plans



# Overview of Findings

- Communities are generally underprepared for the health risks associated with climate change.
- Although progress has been made to develop policy/plans, implementation appears to lag.



# Reported Stressors & Health Risks

- Heat, wildfire, variable precipitation and extreme weather events are immediate threats
- Stressors are increasing in severity
- Health impacts are evident, and expected to worsen

# Reported Stressors & Health Risks



high mortality rates, heat-related illness



exacerbation of preexisting respiratory conditions, increased use of medical services



water-borne disease, illness related to mixing of overflow and sewage water



risk of injury, mental health consequences

# Current Response

## Strategic Documents



- High-level focus on health
- Understanding of the health impacts associated with relevant climate stressors
- Commitment to mitigating risks
- Social equity lens



- Strategies are often vague, lack specificity
- Non-committal language common



# Current Response

## Interview Data

- Implementation lags in practice
- Adaptation efforts remain within the planning phase, or the planning has been finished, but they have not yet moved into action
- Actualization of the plans is weak, implementation is ambiguous
- "Better at developing plans than implementing them"

When asked directly, the majority of respondents describe their communities as "not prepared".

"We can plan all we want, but if we can't actually implement those plans, it doesn't really impact anything that we do."



# Capacity

## Interview Themes

### Enabling

- Strong knowledge base/ expertise
- Partnerships
- General awareness of climate change & support for action

### Constraining

- Lack understanding of health consequences
- Lack of resources
  - time, funding and personnel

# Governance

## Interview Themes

### Enabling

- Political will at the municipal level
- Climate champions, motivated decision-makers

### Constraining

- Jurisdictional boundaries stagnating action
- Reactionary decision-making processes

# Implications

- To avoid negative health outcomes, adaptation is critical.
- While health-focused adaptation planning has been initiated, efforts must be bolstered to ensure prepared and resilient communities.

"We had the heat dome last year. There was... I think 600 or some odd deaths across BC... 60 people passed away within our community, to heat related illness."

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# Bolstering Health-Focused Adaptation

- Reframing the issue
  - Shifting climate change from an environmental issue to a public health issue
- Improving multi-level government coordination
  - Clarifying roles and responsibilities
- Addressing gaps in plans
  - Including steps for implementation and monitoring



## References

World Health Organization. (2020). Urban planning crucial for better public health in cities [Web page]. Retrieved from: <https://www.who.int/news-room/feature-stories/detail/urban-planning-crucial-for-better-public-health-in-cities>

Frumkin, H., Hess, J., Luber, G., Malilay, J., & McGeehin, M. (2008). Climate change: the public health response. *American journal of public health*, 98(3), 435–445. doi:10.2105/AJPH.2007.119362

Government of Canada. (2022). Protecting your health from climate change impacts [Web page]. Retrieved from: <https://www.canada.ca/en/health-canada/services/climate-change-health/protecting-your-health-from-impacts.html>

Intergovernmental Panel on Climate Change [IPCC]. (2022). *Climate change 2022: Impacts, adaptation and vulnerability*. Cambridge University Press. Retrieved from: [https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC\\_AR6\\_WGII\\_SummaryForPolicymakers.pdf](https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_SummaryForPolicymakers.pdf)

Austin, S., Ford, J., Berrang-Ford, L., Araos, M., Parker, S., & Fleury, M. (2015). Public health adaptation to climate change in Canadian jurisdictions. *International Journal of Environmental Research and Public Health*, 12(1), 623-651. doi: 10.3390/ijerph120100623

Bajayo, R. (2012). Building community resilience to climate change through public health planning. *Health Promotion Journal of Australia*, 23(1), 30-36. doi: 10.1071/HE12030

Cardwell, F., & Elliot, S. (2013). Making the links: Do we connect climate change with health? A qualitative case study from Canada. *BMC Public Health*, 13(1), 1-12. doi: 10.1186/1471-2458-13-208