

COMMUNITY RESILIENCE & WELLBEING AMID CLIMATE CRISIS

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Disclaimer

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Table of Contents

Acknowledgments	<i>page 1</i>
0 Executive Summary	<i>page 3</i>
1 Review of the Literature	<i>page 7</i>
1.1 Key Themes in Community Resilience Literature	
1.2 Clarifying Community Resilience	
1.3 Community and Wellbeing Frameworks	
1.4 Community from a Resilience Perspective	
1.5 Mapping the UBC Community	
2 Guiding Principles of Community Resilience	<i>Page 14</i>
2.1 Identifying Community Resilience Principles	
2.2 Community Resilience Guiding Principles	
3 Issue Linkages	<i>Page 18</i>
3.1 Making Connections Between Issues	
3.2 Alignment with UBC Articulations on Climate Change, Mental Health, and Community Resilience	
4 Key Climate Threats to the UBC Community	<i>Page 21</i>
5 Recommendations	<i>Page 32</i>
6 Conclusion	<i>Page 34</i>
6.1 Next Steps	
6.2 Closing Remarks	

0 Executive Summary

This report was created in partnership with UBC wellbeing, UBC Climate Hub and the Pacific Institute for Climate Solutions to highlight key linkages between climate crisis, mental health, community resilience, and wellbeing. The purpose of this report is to aid UBC stakeholders and decision-makers in identifying guiding principles, gaps in current frameworks, and actions that support mental health and wellbeing across the UBC community amid climate crisis.

The 2018 Lancet Countdown report on health and climate, and the 2019 Global Risk Report both identified the growing impacts of climate change (e.g. extreme weather, floods, fires, heatwaves, rising sea-levels etc.) as a significant threat to public health and global stability.

The Preliminary Strategic Climate Risk Assessment indicates in coming decades, British Columbians will experience more intense heatwaves, water shortages, increased wildfires, extreme storm events, storm surges, and sea-level rise.¹ Heatwaves have decreased outdoor manual labour, weather related disasters are up by 46%, and economic losses for 2016 alone totaled \$129 billion. As climate impacts worsen, current actions will be insufficient.²

The Canadian Public Health Association ranks health and human wellness as one of six key areas of high-risk concern due to climate change.³ Climate related risks rising across communities

include depression, anxiety, PTSD, fear, eco-grief, stress, irritability, anger, violence, and loneliness, as well as disease spread, heatstroke, lung disease, heart disease, suicidal ideation, and premature death. The effects of climate change on community mental health and wellbeing are already taking place globally and locally.⁴

This research draws attention to the fact that nurturing community resilience has become a central factor for helping communities mitigate and adapt to the processes of climate change, and the associated mental health and wellbeing impacts.

Findings indicate there is a need for better definitional clarity around the meaning of community to more effectively foster community resilience, a growing need for communities to identify a clear set of resilience principles based on community needs and contexts, and the importance of highlighting the ongoing impacts of climate change on community mental health and wellbeing across all levels of community planning and decision-making.

As mega-storms, pandemics, heatwaves, flooding, and forest fire events increase, and increasingly overlap, dynamic resilience-building across communities is urgently needed to effectively address the growing challenges of climate change within communities.

Report Overview

1 Literature Review

There are five key takeaways from the literature review on community resilience and wellbeing that can help to more effectively facilitate community resilience building, which in turn functions to better support community mental health and wellbeing amid climate change.

1. Engage a whole system approach to community resilience—the idea all things are interconnected and interdependent.
2. Addressing community inequities and vulnerabilities must be a top priority for effective community resilience building.
3. Fostering “cohesive communities” is a prominent—yet often overlooked—aspect of community resilience, and an important dynamic for dealing with climate change impacts.
4. Inclusive definitional frameworks—using a whole system approach—could help to overcome barriers to assessment of resilience building initiatives across a given community.
5. Lack of definitional clarity around the concept of “community” can critically weaken and distract from community resilience initiatives and processes.

2 Guiding Principles

This report draws on resilience literature to outline ten key community resilience principles. These ten principles are:

1. Whole Systems
2. Cohesive Communities
3. Engagement
4. Future Thinking
5. Mental Outlook and Health
6. Leadership
7. Knowledge Building
8. Connectivity
9. Flourishing

10. Adaptive

These key principles could function as a common guiding framework across UBC plans and practices to more clearly identify and mobilize community resilience actions and processes.

3 Issue Linkages

The impacts of climate change permeate all aspects of community life. Experiences of magnified heatwaves, floods, forest fires, and extreme weather events are directly and indirectly increasing rates of adverse mental health and community trauma. The intersection of mental health and community wellbeing are a rapidly growing area of concern as research increasingly identifies causal connections between climate events and higher rates of mental and public health risk. Engaging key processes of community resilience are fast becoming a notable and effective force in mitigating and adapting to climate change impacts on community wellbeing.

4 Climate Change Threats to the UBC Community

This report looks at five climate events to highlight how heatwaves, forest fires, pandemics, flooding, sea-level rise, and climate related air pollution directly and indirectly impact mental health and wellbeing of community. This section identifies specific impacts that can be expected from these events across the UBC community. Impacts include, but are not limited to, increased rates of anxiety, eco-grief, depression, PTSD, suicidal ideation, and death. Climate change continues to cause disruption to community and social cohesion. This section offers short, medium, and long-term mitigation and adaptation strategies to these five climate change challenges.

5 Recommendations

This report provides a progressively staged set of five recommendations. These recommendations could function as a framework for UBC, as well as other institutions, who are seeking to promote, expand, and institutionalize public health and wellbeing awareness amidst climate change. These recommendations are structured as building blocks that offer immediate and long-term actions. Each recommendation lays the groundwork for the next recommendation.

Stage one is a set of two quick start recommendations that provide a strong foundation for promoting community resilience. The first stage is to develop clear whole system thinking definitions of community and resilience. As well as developing a clear set of community resilience principles. Each of these processes should be rooted in UBC's unique contexts.

These clarifications can help to overcome some common issues noted across the literature when core concepts of community and resilience are not clearly defined. Some common issues include, overlooking pre-existing inequities, ineffective measurement of resilience processes, and identifying where and how to best focus resources and supports to improve overall community wellbeing and resilience.

Stage two also includes two recommendations.

First, engage in a process of asset mapping using a clear community definition and set of community resilience principles to identify community vulnerabilities, inequities, strengths, and capacities. This means mapping out the various community resources, capabilities, talents, networks, spaces, structures, groups, businesses, associations etc. that strengthen and enhance the quality of community life. Asset mapping functions to better inform and focus processes of resilience building.

Second, develop a Community and Climate Health Action Framework that can be embedded across UBC plans. This provides a strong step towards building institution-wide messaging and understanding about the many ways climate change is a current and ongoing community health issue that impacts all planning and decision-making channels.

Stage three of the recommendations involves a strategic shift to promote an institution-wide commitment to a "climate and community health-in-all-policies" approach across UBC campuses. This recommendation aims to institutionalize a shift towards climate change as a prominent and ongoing public health and wellbeing issue.

Recommendations in Three Stages:

- 1—Develop a framework for defining concepts of community and resilience at UBC
- 2—Use these definitions to understand the collective starting point (asset mapping)
- 3—Act in ways that use a whole-systems approach for initiating an institutional shift towards climate change as a community health and wellbeing issue.

Stage 1

Develop a comprehensive UBC community definition using a whole system thinking approach



Stage 1

Develop and implement a clear community resilience definition and set of guiding principles for UBC



Stage 2

Undertake a community resilience asset mapping process



Stage 2

Build a Community and Climate Health Action Framework that can be embedded across UBC mid-level plans



Stage 3

Develop and implement a "climate and community health-in-all-policies" approach at UBC

I Review of the Literature

1.1 Key Themes in Community Resilience Literature

In surveying the community resilience and wellbeing literature to identify connections to issues of climate change and mental health, key themes emerged. The following themes provide insight into aspects of community resilience building that can help to focus attention, resources, and efforts to help overcome common barriers noted in resilience literature. Improved understanding and engagement with these issues can help to generate more equitable and effective community resilience which can better situate a given community to withstand and confront the mental health and wellbeing issues brought on by climate change.

Whole System Approach

A common theme across recent community resilience literature is a shift towards whole system thinking. Earlier literature tends to focus on singular aspects of resilience, rather than engaging a whole system approach to understanding community resilience as relational and interconnected mechanisms.⁵

Work needs to be done to further develop and advance whole system approaches that integrate ecological systems and physical infrastructure performance with social systems and networks.⁶ Methodological approaches that account for the complexity of social, economic, political, physical and natural systems, as well the interconnections and interdependencies between systems, offer

better insight on the causal connections between climate change impact and the direct and indirect effects on community.

Inequities and Vulnerabilities

Another critical area noted in the literature is how communities often don't have a good grasp of the full range of their pre-existing vulnerabilities and the ways in which climate change impacts magnify community vulnerabilities.⁷ Legacies of colonialism, extractive industries, and historical and ongoing racism have generated generational trauma and unique community vulnerabilities and systemic inequities in how individuals and groups experience community and associated climate change impacts.

The most important partnership for building community resilience is between community leaders and vulnerable community members.⁸ Tending to community inequity and vulnerabilities is a key strategy for fostering overall community resilience and wellbeing. Little progress has been made in implementing systems and models that effectively produce equitable resilience. Taking the time to investigate, understand, and meaningfully attend to persistent and systematic community inequities and vulnerabilities is central to mobilizing resilience across a community.

Cohesive Communities

A commonly overlooked yet crucial factor identified in the community resilience literature, is the importance of cohesive communities. The asset of cohesive communities is foundational to community resilience building and central to effectively managing the disruptive impacts of climate change.⁹

A community will see positive effects when its members form a cohesive whole and are regularly able to experience meaningful interconnectedness. Key factors that foster community cohesion include shared values, sense of community trust, and feelings of connectedness.¹⁰ Ongoing systemic racism, gender inequity, legacies of colonialism, exploitative resource extraction practices, and inequitable allocation of community resources and services are some key barriers to community cohesiveness.

Assessment of Community Resilience

Developing standards for effectively measuring community resilience continues to be an essential challenge. This is due to the fact that there is no universal definition of community resilience. Lack of definitional clarity makes it hard to assess community resilience across a specific region, across different cases, and across different timeframes.¹¹

Being able to qualitatively and quantitatively assess processes of resilience building across a community is important for determining where, how, and which resources and processes are best targeted and mobilized for equitable community wellbeing. Being able measure resilience building initiatives is a significant factor for determining if the mobilized actions are fulfilling the desired intent and outcomes.

No current models or measurements can account for all resilience principles and sub elements. It benefits a community to develop assessment frameworks rooted in clear community and community resilience definitions with specific resilience principles outlined as areas of focus for a given community.

Other Notable Issues Across the Literature

Technology is an issue of interest that emerged from the literature. Further attention could be paid to how, where, and what technologies are used in processes of resilience building. Attention could also be shifted to better assess how technologies are best leveraged at different levels of community and across different platforms to address intersections of climate change, mental health, and community wellbeing.

Issues of economy also stood out across the literature. Many of the recent community resilience articles call for a shift towards embracing circular economy modeling.¹² A circular economy is based on principles of purposefully designing out community waste and pollution from community processes, activities and systems. As well as seeking to keep resources and products in use for as long as possible. Circular economy also prioritizes regenerating natural systems to enhance community resilience capacity and wellbeing.¹³

Engaging a circular economy addresses the integration of systems and impacts. This approach could help mitigate factors like GHGs, overconsumption, and waste that continue to drive climate change. A fundamental shift in how community economies are structured could help to alleviate climate change pressures and the associated mental and public health impacts

1.2 Clarifying Community Resilience

Resilience is increasingly being considered as a core concept for responding to the pressures of climate change. Institutions, corporations, cities and nations are embedding resilience language and principles into plans, policies, and aspirational goals. But what does community resilience mean?

No universal definition or model of community resilience exists across the literature. In theory and practice, the concept is often defined and engaged differently depending on discipline, research interests, and community contexts.¹⁴ Early articulations of community resilience focused on the ability of ecological systems to absorb and bounce back from external shock.¹⁵

This early framework of “bouncing back” proved too narrow in scope and scale and was expanded to address how systems both resist and have the capacity for rapid recovery when experiencing disaster and hazards.¹⁶ This resist and respond framework continues to inform core aspects of resilience thinking in human communities.

As the concept of community resilience evolved, it began to include human and social factors like adaptive learning, thinking about future shocks, and mitigating vulnerabilities.¹⁷ The most current community resilience scholarship is increasingly interdisciplinary between fields of social-ecology, systems thinking, developmental psychology, and mental health. There is also a notable turn towards a prioritization of whole system thinking. This includes a move away from deficit modelling towards identification of capacities and types of

natural, cultural, human, economic, social, built, and political capital for resilience building.¹⁸

Given there is no agreed-upon “best” definition of community resilience, this report recommends communities develop their own “best-fit” definition that draws on core resilience principles and a wide range of ideas and systems to craft a meaningful definition for a given community’s contexts. For this report, community resilience can generally be thought of as an ongoing process of diverse, interconnected relationships and processes that build up resilience-enhancing capacities that can promote or limit community resilience in different ways, depending on community context.¹⁹ Such a definition enables whole system thinking and allows for distinct community needs to be accounted for.

Takeaway: Develop a Clear UBC Resilience Definition

UBC’s community resilience strategy should strive to meet the intersecting and disproportionate impacts of climate change through a whole system lens. Resilience should be thought of as the intersection or synergy between climate change mitigation and adaptation strategies. Implementation of a clear UBC specific community resilience definition will more effectively guide how, where, why, who, and what could or should be leveraged for community resilience building processes and engagement. This will become increasingly important as communities continue to be challenged by and experience climate change impacts and threats.

1.3 Community and Wellbeing Frameworks

To address intersections of climate change, mental health, and community wellbeing effectively and justly in relation to resilience building processes, it is essential to understand what “community” is and means. All communities are unique in composition, capacity, assets, history, as well as their social, cultural, economic, political, and environmental actions and networks.

Developing a clear definition of community can provide foundation and focus for identifying and expanding community strengths, help to mitigate community vulnerabilities, and develop meaningful community engagement processes. It can also minimize negative unintended consequences.

As noted above, it can also provide a needed foundation for measuring resilience building initiatives within a community over time.

In Canada, community systems, institutions, and infrastructure must also consider and address the historical and ongoing impacts of colonialism, systemic racism, and discrimination. These legacies continue to generate inequitable community experiences and systematically place a disproportionate share of adverse climate change impacts and vulnerabilities on BIPOC, LGBTQ2+, women, girls, and other marginalized community members.²⁰ It is vital to understand the nuanced demographics and relative boundaries of a given community to effectively plan and mobilize the supports, services, or systems required to promote a resilient and equitable community.

The following is a list of potential questions inspired by the Community Canvas Guidebook to

outline some potential starting points for thinking about a more inclusive definition of community from a whole system approach.

Questions for Reflecting on Community

- Why does the community exist?
- Who is the community for?
- What are the community's vulnerabilities?
- How can marginalized voices be centered?
- What values are important to the community?
- How does the community define success?
- How does the community express itself?
- How do people join or leave community?
- What sustains long-term community identity?
- What experiences do members share?
- What is the shared sense of purpose?
- What content creates value for community?
- What are the strengths and vulnerabilities?
- Who “runs” community, who is left out?
- How are decisions made?
- How are differing world views reconciled?
- What is the plan for systems sustainability?
- How does community communicate, gather, and share information?
- What are the core community systems?
- How are community systems typically accessed and by who?
- Are the community systems equitable?
- How is the land factored into sense of community?

What is Community Wellbeing

Community wellbeing can mean many things depending on community needs, dynamics, resources, location, history, and worldview. The First Nations Health Authority (FNHA) outlines a holistic vision of wellness using five concentric circles that radiate from the individual out towards the broader community.

Centre Circle: taking responsibility for one's health and wellness

Circle Two: mental, emotional, spiritual, and physical balance for holistic wellbeing.

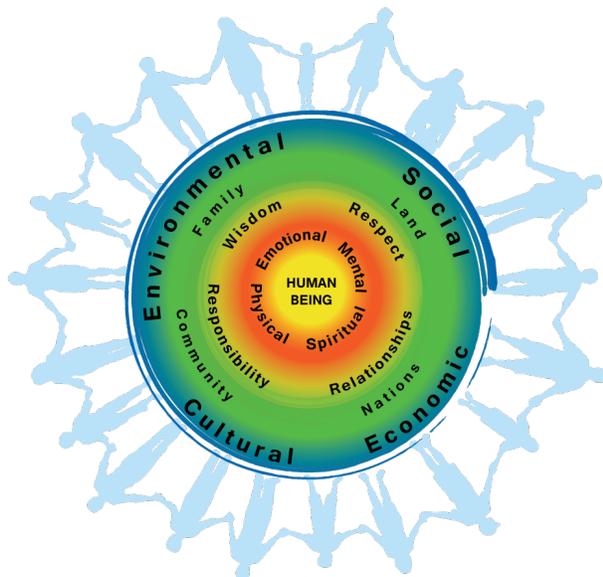
Circle Three: values of respect, wisdom, responsibility, relationships.

Circle Four: sense of place rooted in land, community, family, and Nations.

Circle Five: social, cultural, economic, and environmental determinants of wellbeing

Outer Circle: Strong children, families, elders, and people in communities.

The 2016 Canadian Wellbeing Report defines wellbeing as, the highest possible quality of life and expression rooted in good living standards, robust health, sustainable environment, vital communities, an educated populous, balanced time use, with high levels of democratic engagement, with access to and participation in leisure and culture.²¹



For this report, community wellbeing is generally thought of as an ongoing process of fostering a whole system understanding of a given community to justly support the mental, emotional, spiritual and physical wellbeing of all people, the environment, and to foster dignity preserving and compassionate sustainable systems for the present and for generations to come.

In talking about whole system approaches, it is important to also highlight that the desirable attributes and language articulated in whole system thinking—interconnectedness, circular, emergence, reciprocal relationships, and holistic—heavily relate to many Indigenous concepts and knowledge of being in the world.

However, little accrediting tends to be directly offered to Indigenous Peoples Ways of Knowing as sources for many of the approaches used in whole system thinking. Acknowledging and prioritizing the role of Indigenous Ways of Knowing and how they inform and intersect with whole system thinking approaches needs to be an important part of whole system thinking dialogue and planning.²²

Awareness of these aspects and providing the needed capacity and resources for centering Indigenous voices and perspectives while developing and implementing a whole system community definition is a foundational building block for expanding and nurturing UBC community wellbeing.

1.4 Community from a Resilience Perspective

A lack of clarity around the term community persists across the resilience literature. This means pre-existing conditions—like pre-disaster inequities that shape social and system vulnerabilities and determine how a community navigates the road to resilience—are easily overlooked or unaccounted for when trying to build community resilience.

Community definitions should seek to be inclusive and use a whole system approach to help overcome the common issues that arise from ambiguous articulations of community in resilience literature. Vague definitions of community can leave inequities unidentified which can undermine resilience initiatives for the whole community. When community member dynamics, resource allocation, and community interaction with local systems are not fully understood and accounted for it can hinder effective resilience building. As noted, it can also limit the ability to effectively measure community resilience initiatives and outcomes in the short and long term.²³

Mapping UBC community demographics, systems, structures, and demarcating functional UBC community boundaries can better inform how and where principles of resilience are best focused for mitigating and adapting to different climate impacts.

The 2019 Planning and Institutional Research fact sheet on UBC campus staff and students, the UBC Sustainability Strategy, UBC Climate Action Plan, and the Okanagan Charter provide useful starting points for defining and mapping out an inclusive UBC community framework. However,

further mapping and analysis are needed for clearer articulations of who and what defines a whole system UBC community in theory and practice.

Community asset mapping is a useful tool to identify strengths and notable areas of leverage for mitigation and adaptation opportunities. Asset mapping is an important step in building a deeper understanding of community and a particular community's resilience capacities. Community assets like parklands, bike paths, libraries, community centres, childcare spaces, associations, political organizations, public art, cultural groups, food systems, and others play a role in building and sustaining community resilience.²⁴ Without asset mapping, the full scope of existing community capacities remain unclear and underutilized.

Such oversights may directly or indirectly negatively impact a community's social cohesion, a core principle of community resilience. A breakdown in social cohesion fundamentally undermines a community's overall resilience in times of climate change shocks and stressors in the short and long term.²⁵

Community definitions will always need to be contextual. They will also evolve overtime as communities grow and change. Maintaining a clear, inclusive, and dynamic whole system lens community definition will need to be an ongoing and committed process to ensure effective community planning, equitable investment in community vulnerabilities, leveraging community strengths, fostering meaningful engagement and being able to measure progress.

1.5 Mapping the UBC Community

Clear understanding of the UBC community using whole system thinking and a climate justice lens provides essential context for fully evaluating, and measuring UBC community needs, vulnerabilities, and capacities. Development and implementation of a clear, inclusive, dynamic community definition in planning and policy is a foundational step towards building and expanding community resilience amid climate change. The following diagram was created as an example of a potential visual model for thinking about and mapping out the UBC community using a whole system lens to build a meaningful and operational community definition.

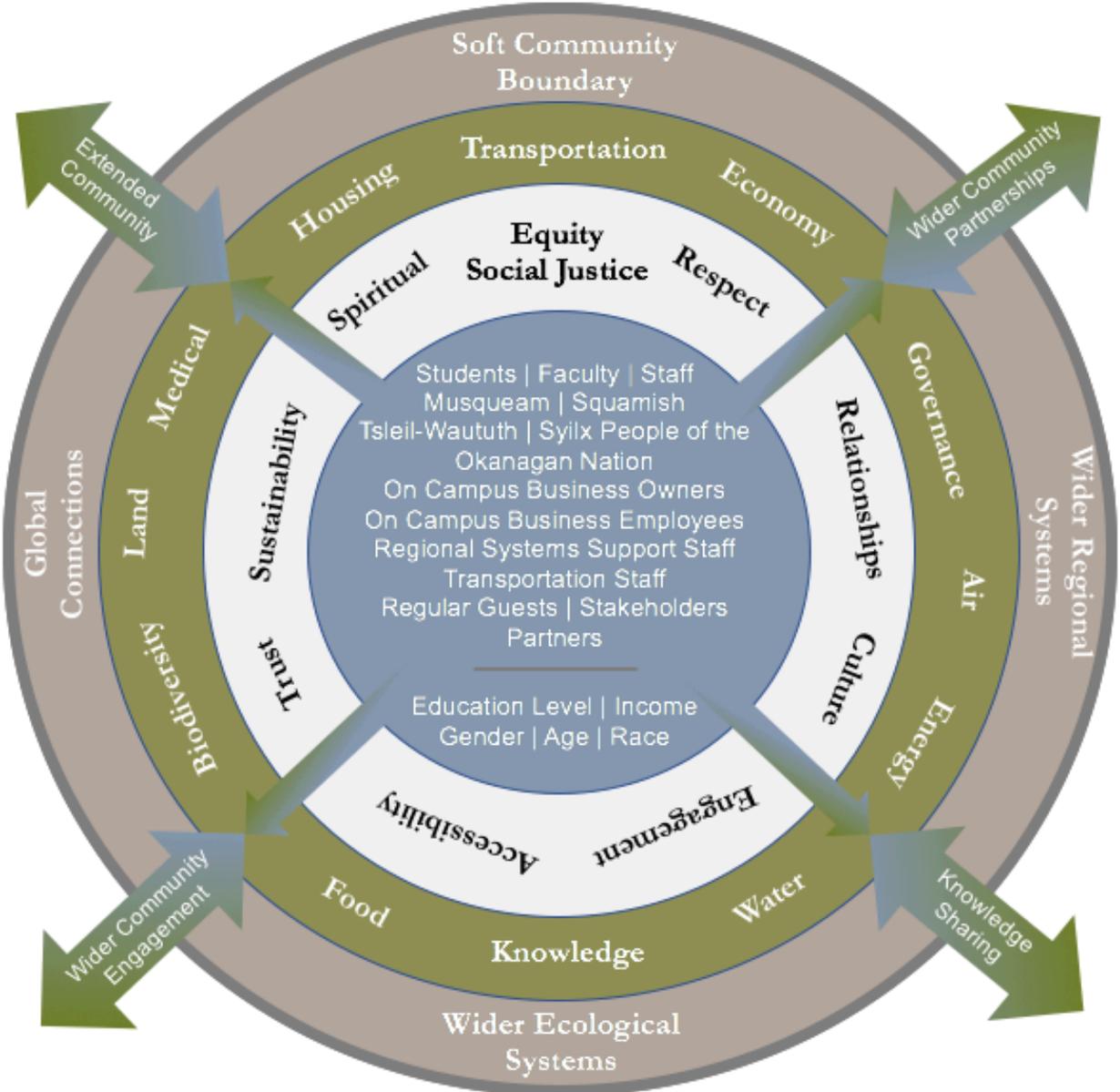


Figure 2. Example of UBC community mapping for community resilience building

2 Guiding Principles of Community Resilience

- WHOLE SYSTEMS
- COHESIVE COMMUNITY
- ENGAGEMENT
- FUTURE THINKING
- MENTAL OUTLOOK & HEALTH
- LEADERSHIP
- KNOWLEDGE BUILDING
- CONNECTIVITY
- FLOURISHING
- ADAPTIVE

2.1 Identifying Community Resilience Principles

This research project surveyed scholarly literature to identify themes, patterns, and best practice models for using community resilience concepts, to address the impacts of climate change across communities.

Given the diverse ways resilience is defined and theorised in relation to communities and climate change, there was a wide range of actions, processes, concepts, and principles employed across the literature.²⁶

As a way to effectively operationalize the many ways of thinking about community resilience, this project identified resilience building terms, concepts, actions, processes, ideas, and principles from across the literature for thematic processing.

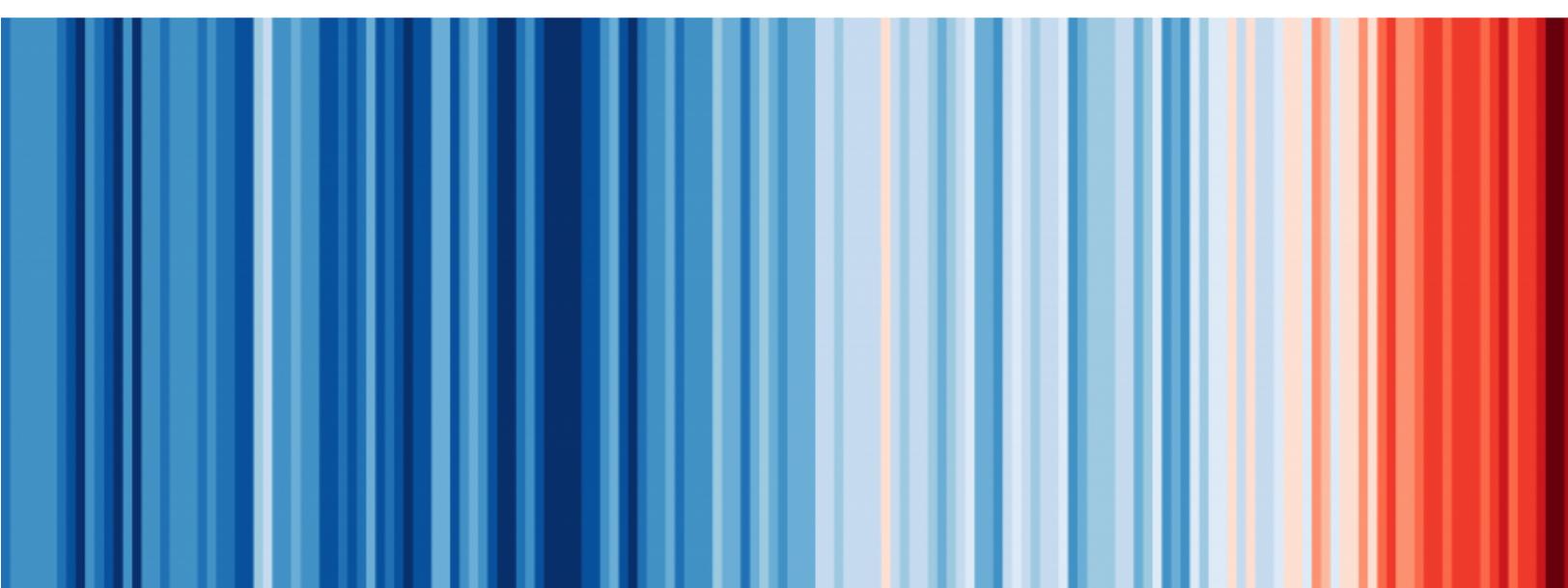
The next phase undertook a metadata analysis of 69 resilience building actions and processes from the literature to generate overarching themes to indicate “guiding principles.” This process sought to meaningfully categorize and represent the many ways resilience is used and engaged through a comprehensive guiding principle framework. The 69 actions and processes were then categorized into subcategory factors under the respective guiding principles. This process

gave rise to ten key overarching community resilience principles, each with associated subcategory actions and processes that function to build up or expand that resilience principle.

Guiding Community Resilience Principles

- Whole Systems
- Cohesive Communities
- Engagement
- Future Thinking
- Mental Health and Outlook
- Leadership
- Knowledge Building
- Connectivity
- Flourishing
- Adaptive

The creation of a guiding principle framework allows for a common community resilience language and organization, while also offering flexibility to determine which subcategory aspects and processes of the overarching principles need to be leveraged within a particular community context to expand a given resilience principle.



2.2 Community Resilience Guiding Principles

Principle	Brief Summary of Guiding Principle	Subcategories
Whole Systems	A comprehensive and inclusive way to think about the interdependencies and interactions of elements, resources, systems, people, and wider species. Whole systems thinking moves away from silo thinking to a cyclical, interconnected, and interdependent focus on understanding linkages, cause and effect, and as a way to identify leverage points and influence change-making. ²⁷ This may involve a circular economy and sustainable systems practices. Equitable distribution of resources and economic investment is used to address short-and long-term community needs, demands, and vulnerabilities. ²⁸	<ul style="list-style-type: none"> • Interconnectedness • Interdependence • Redundancy • Resources • Circular Economy Thinking • Renewable Energy • Food Security • Natural and Built Environments • Measurement • Linear to Circular
Cohesive Community	Community mental health and overall community wellbeing are improved when there is strong community cohesion, and respect for diversity of experiences and perspectives about community life, systems, and resource allocation and use. Identify who or what functions as community catalysts for bringing people together (e.g. cafes, faith centers, schools, industries). Use social hubs as leverage points for inclusion and diversity building. Bring community together around important community issues, like climate action initiatives, to generate solidarity in a common beneficial cause. ²⁹	<ul style="list-style-type: none"> • Diversity • Inclusion • Solidarity • Shared Values • Bonding • Trust Building
Engagement	Resilience is an outcome of successful, deep community engagement processes and involvement. Meaningful opportunities for communication, participation, collaboration, and partnerships about climate issues builds local to global understanding of climate impacts, fosters community trust, and expands community capacities to deal with a range of social, economic, political, and environmental impacts from climate change. ³⁰ Meaningful community engagement on climate issues can also increase community sense of efficacy and ownership over the responsibilities and challenges facing a community.	<ul style="list-style-type: none"> • Incorporation of community Voice • Collaboration • Partnerships • Communication • Internal and External • Local to Global • Participation
Future Thinking	Getting ahead of complex issues by working out detailed plans of action in advance promotes ongoing mitigating and adaptive strategies in just and equitable ways. Proactive investment and actions are taken that generate sustainable community systems, processes, and capacities. Resources, equipment, infrastructure, the natural environment and community members are physically, economically, socially, politically, mentally, and emotionally prepared to withstand unforeseen shocks and disruptions. ³¹	<ul style="list-style-type: none"> • Preparedness • Sustainability • Recovery • Persistence • Striving • Mitigation
Mental Health and Outlook	Includes community attitudes, views, feelings of unease, stress, or uncertainty before, during, or after a climate crisis or shock. Mental health also has a spectrum of positive and adverse aspects. Mental health and outlook are an important point of leverage for building community confidence, hope, optimism, and coping capacities to face ongoing, multifaceted, intersecting climate impacts. ³²	<ul style="list-style-type: none"> • Mental Health • Coping • Optimism • Hope • Self-efficacy

Principle	Brief Summary of Guiding Principle	Subcategories
Leadership	Leadership is considered legitimate, trusted, respected, courageous, ambitious, and climate aware by the community. Leadership and community hold a shared and just vision of community. Leadership and governance are collaborative and distributive. Leadership works to direct finance and resources to local entities to implement the agreed-upon vision. Leadership works to ensure infrastructure and services are effective, efficient, agile, capable, equitable, and sustainable in crisis. Community empowerment can evolve out of collaborative, shared leadership. ³³	<ul style="list-style-type: none"> • Governance • Shared Vision • Foster Productive Emergence • Recognize Complexity • Inspire • Aspire • Agility
Knowledge Building	Knowledge building processes are consistent, factual, non-alarmist, decolonizing. Causal connections between climate change and local community impacts are an ongoing part of the knowledge building and knowledge sharing process. Inform and educate on how addressing existing community vulnerabilities builds community-wide resilience. Centre Indigenous and local knowledge. Train, educate, research, collaborate on climate impacts and issues at the individual, community, regional, and global level. Use knowledge systems as community empowerment to promote community confidence and ability to endure and respond to climate shocks. ³⁴	<ul style="list-style-type: none"> • Information • Education • Indigenous Ways of Knowing • Local knowledge / Memory • Asset Mapping • Research • Transformative Learning
Connectivity	Well-connected communities tend to generate positive outcomes during crisis and act as a cohesive whole. Leverage community networks as pathways for bonding, building and bridging networks, linking issues, organizing, and mobilizing action. Understand the different ways a community is connected to place, and the ways climate events may socially, physically, mentally, and emotionally rupture community connectivity to sense of place. Foster external connections with other communities and build global partnerships to learn, share, and expand networks and connections. ³⁵	<ul style="list-style-type: none"> • Sense of Place • Personal / Social / Political • Social Networks • Internal / External • Local / Global
Flourishing	A community is flourishing when it regularly experiences positive social functioning, mental health, and wellbeing. This includes transcending existing ineffective and inequitable systems and behaviours to increase community wellbeing and improving conditions of the natural and built environment. ³⁶ Identifying, understanding, and acting to address historical and ongoing social, economic, political, and environmental inequities embedded within a community is a foundational priority. To flourish as a whole community, prioritize empowering marginalized groups and voices, creating dignity preserving systems rooted in principles of social and climate justice, and address inequities for long term generative wellbeing.	<ul style="list-style-type: none"> • Empowered • Equity • Dignity for all • Climate Justice • Social Justice • Generative Wellbeing
Adaptive	Communities are more resilient when they are flexible, use resources creatively, and find ways to be innovative across community systems. ³⁷ Adaptive processes allow for community to re-organize, evolve, change and learn from past experiences and ongoing risks or threats in ways that promote inclusive community wellbeing and reinforce mitigation of current or future harms. ³⁸	<ul style="list-style-type: none"> • Elasticity / Flexibility • Resourceful • Innovative / creative • Proactive and responsive • Efficiency • Resistance • Transformation

3 Linkages Between Climate Change, Mental Health, Resilience, and Wellbeing

3.1 Making Connections Between Issues

Research, medical professionals, communities, cities, and nations are increasingly recognizing and prioritizing the severity and range of climate change impacts on the mental health and wellbeing of individuals and communities.

Climate change processes are known to generate shock, PTSD, trauma, anxiety, fear, distress, feelings of loss, grief, depression, helplessness, hopelessness, suicidal ideation, aggression, and violence. Physical impacts include cuts, heatstroke, viral disease, broken bones, increase in asthma and lung problems, sleep disorders, cardiovascular issues, kidney disease due to dehydration, and premature death.³⁹ These experiences of physical consequences and trauma also link to mental health and wellbeing.⁴⁰

Research indicates, physical, mental and emotional impacts of climate change are also felt and experienced disproportionately depending on factors like location, disabilities, pre-existing illness, socioeconomic status, race, gender, age, and education level. Systemic inequalities within communities tend to generate a significant

increase in wider community vulnerability to the impacts of climate change.⁴¹

When assessing climate change impacts on mental health, it is important to acknowledge mental health does not merely mean absence of disease. It also includes positive physical, emotional, place-based, and holistic wellbeing.⁴² Communities that provide equitable opportunities, services, and systems that promote individual and collective flourishing, are more resilient to the ongoing pressures of climate change.

In light of the growing scope and scale of climate change impacts on mental, emotional, and physical wellbeing, it is critical to advance climate health literacy and practices through top-down, bottom-up, and horizontal messaging and policies.

It is essential climate change impacts are moved beyond abstract and disassociated contexts to show how daily lives and whole communities are already being affected by the ongoing climate emergency. Resilience building is a key part of

building climate crisis awareness and preparedness.

It is important to note that resilience is not a trait individuals or communities either have or do not have. Resilience is promoted and expanded through the process of engaging community and systems. Understanding community through whole system thinking is a foundational first step in building a purposeful framework of community resilience. Building equity is another core resilience principle. Tending to community inequities was a common thread across the literature as key to elevating overall resilience and community wellbeing.

Resilience building, through processes like whole system thinking, generating equity, trust-building through community engagement, knowledge sharing, cultivation of coping strategies, and fostering positive experiences must all be thought of as *intentional* and *ongoing* processes that continually improve the health and wellbeing of a community. Resilience building is an attentive and purposeful process to increase community capacities to address, endure, and respond to the multifaceted impacts and pressures of climate change in just and equitable ways.

3.2 Alignment with UBC Articulations on Climate Change, Mental Health, and Community Resilience

Many UBC mid-level plans and strategic frameworks touch on aspects of community resilience principles. However, there is no cohesive thread across UBC plans that unifies local to global messaging on climate change issues, mental health, and resilience building.

Though issues of climate change, mental health, community resilience, and wellbeing are mentioned in various UBC plans, there are notable gaps and points of leverage within each plan to better engage with and respond to these interconnected issues. UBC could more effectively and actively respond to these issues using a clear set of community resilience principles and more focused messaging on climate change and community health. This approach could offer a more consistent and just theory to action thread across UBC planning, policy, and decision making. Thus, providing UBC with a more operational footing to lead and

empower locally and globally on core issues of mental health, community resilience and wellbeing amid the climate emergency.

Currently, the UBC Wellbeing Strategic Framework, the UBC Inclusion Action Plan, the UBC Sustainability Strategy and the Okanagan Charter do not incorporate climate change in the language and framing of issues.

The UBC Inclusion Action Plan, the UBC Sustainability Strategy, UBC Climate Action Plan, and the UC3 Strategic Plan do not address issues of individual or community mental health.

Currently, none of the UBC Plans or frameworks explicitly highlight or address the relationship between climate change and mental health impacts.

The concept of resilience, particularly community resilience, is also an area that could be meaningfully clarified and expanded within

each of the UBC plans and frameworks. Several of the plans mention the concept of resilience. However, what resilience is in relation to climate change and community is not made clear across UBC plans.

There are four ways UBC can better focus its attention and messaging to expand its ability to lead and empower on issues of climate change, mental health, and resilience.

ONE: Explicitly highlight climate change issues in all official UBC plans and strategic frameworks. Climate change should be considered a super structure all other plans and systems must work within. Language and frameworks should reflect this.

TWO: Incorporate mental health as an essential part of community wellbeing across all UBC frameworks. Causal connections between mental

health and climate change should be made clear across all UBC messaging

THREE: Adopt a whole systems approach for UBC plans and policies. A whole systems approach considers how the interconnections and interdependencies of people and systems function in relation to a super structure of climate change pressures. Engaging a whole systems approach is a core principle of community resilience and reaffirms UBC's commitment to the Okanagan Charter principles.

FOUR: Create a clear UBC community resilience definition, outline a set of guiding principles, and use the guiding principles to build wider climate literacy and understanding about how processes of resilience are fostered and why they are vital for promoting positive mental health and wellbeing.

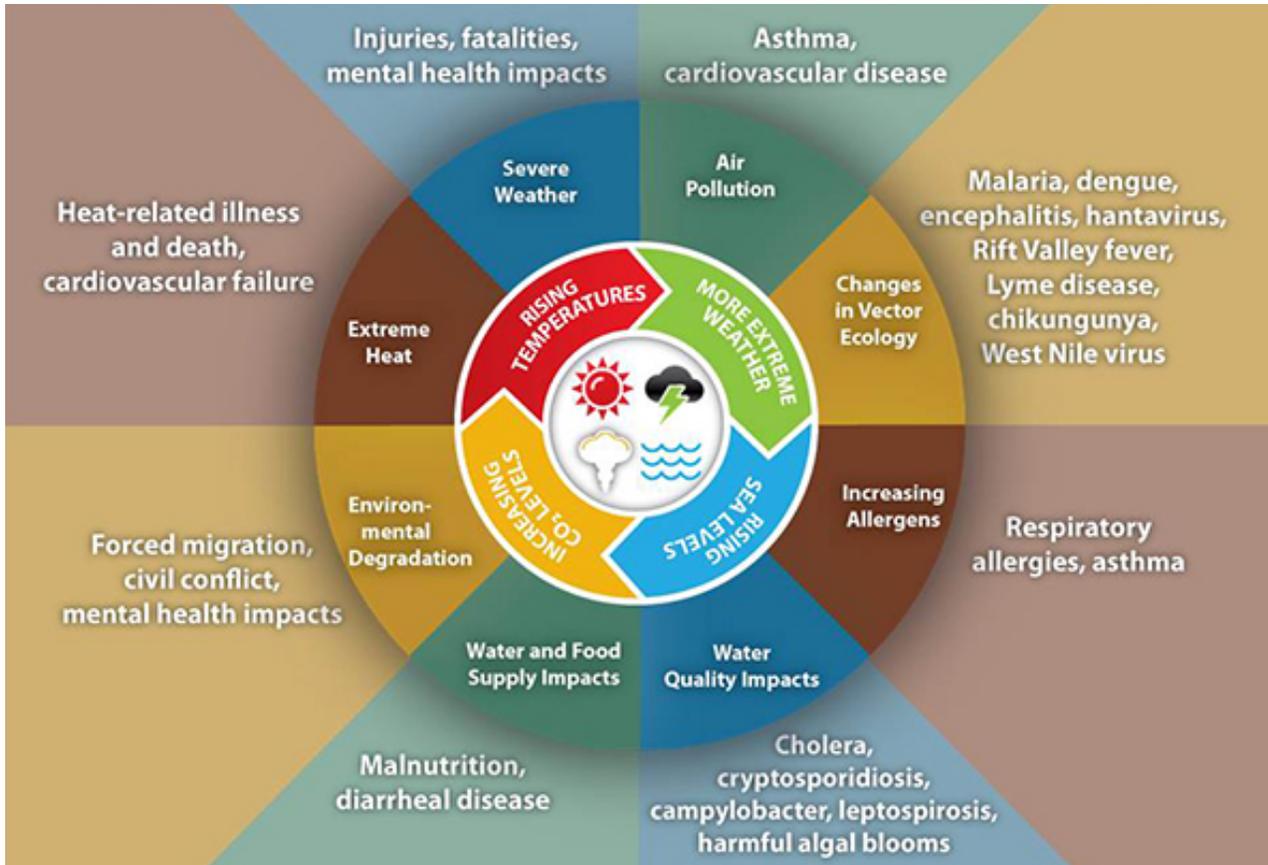
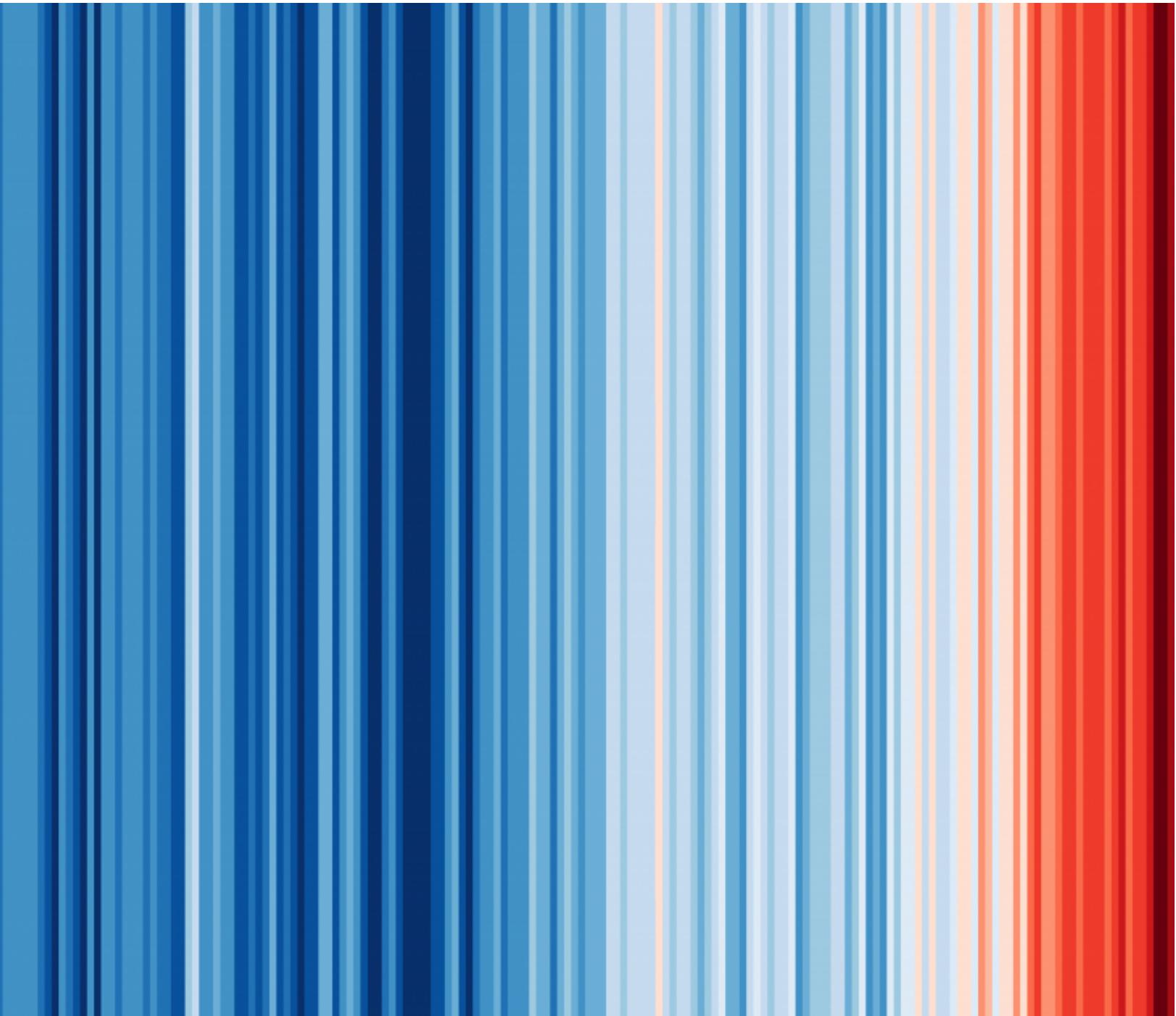


Figure 3. 2014 CDC climate impacts on human health and wellbeing

4 Key Climate Change Threats to the UBC Community





Heatwaves

Mental health and wellbeing during heatwaves

Increasing frequency and magnitude of heatwaves have direct impacts on the mental health and wellbeing of individuals and communities.⁴³ Climate change driven heat events have short- and long-term consequences. As the mercury rises, individuals within a community can experience stress, irritability, waves of depression, anxiety, heat exhaustion, dehydration, heat cramps, heat stroke, heat fainting, and may present emotional distress such as physical pain, stomach aches, or headaches.⁴⁴ Extended exposure to heat can cause developmental impairments, chronic depression, wider mood disorders, schizophrenia, chronic anxiety disorders, and increases in heat-related deaths.⁴⁵ Research has also found that individuals are more prone to anger, irritability, and violence during heatwaves, and community rates of crime and domestic violence also increase.⁴⁶

How does this impact UBC mental health and wellbeing?

- UBC and UBCO campuses are predicted to experience hotter, drier summers and more days exceeding 30°C over the coming decades. This means the UBC community will encounter higher heat-related pressures on mental health and wellbeing during warmer months.
- Temporary or extended extreme heat exposure can magnify mental health impacts. This may include lack of sleep, feelings of irritability amid staff, students, and UBC guests, increased anxiety, lack of concentration, decreased capacity to process information, and experiences of depression.
- Transportation and commuting to and from UBC in a heatwave may lead to experiences of heat stroke or heat exhaustion from biking, walking outdoors for extended times, or waiting for busses. Working outside for extended periods without shade, cooling, or proper hydration can also cause heat related illnesses.
- UBC community members may also feel anxiety or stress about how at-risk friends or family are coping during extreme heat. This may include family and friends in other parts of the world experiencing extreme heat.
- Individuals with mobility and pre-existing health needs are at higher risk during heatwaves and require easy access to cooling stations and shaded routes while navigating campuses.

Responding to mental health impacts of heatwaves and fostering community resilience

Short Term

- Get ahead of the heat! Building public awareness of coming heatwaves through early co-ordinated UBC wide messaging about heatwave related mental health impacts and illnesses.
- Providing accessible, reliable, simplified language information before, during and after a heatwave about mental health and wellbeing coping skills, and available support and resources for mental health and wellbeing. Resources should be available in multiple languages.
- Public messaging should focus on who is most at risk (elderly, those who live alone, individuals with long term illnesses like diabetes), the medications that can increase risk of heat stress, how to stay hydrated (excess alcohol can dehydrate), plan ahead to walk along shaded routes, 11am to 3pm are the most intense heat hours, avoid exercising during the hottest times, take water with you, and list signs of heat illness and distress.

Medium Term

- Build public awareness and knowledge about the connections between heatwaves and community wellbeing and mental health generates community resilience and social capacity. When communities are aware of what to expect and watch for during a heatwave event, they are more likely to respond in ways that proactively mitigate destabilizing individual and community impacts.
- Engage the UBC community to assess what is needed to identify and respond to heatwave stressors on or off-campus.
- Provide the community with opportunities and spaces to navigate extreme heat in comfortable and safe ways. This can build trust in community preparedness and collective efforts, which may function to alleviate aspects of heat-related stress and anxiety. Mitigating extreme heat experiences also allows individuals to arrive at classes or work with clearer headspace and capacity to think, focus, and calmly engage.

Long Term

- Use built and natural environment to mitigate extreme heat. Building “cool corridors” with shade trees and creative awnings for accessible, easy to navigate pathways between buildings with fresh cool water stations en route.
- Designate “cool sanctuaries” as part of the built environment. Spaces where community know they have free, easy public access to cool, safe infrastructure.
- Fully defund from fossil fuel companies and businesses by 2030



Forest Fire

Mental health and wellbeing during forest fires

There are well-known links between forest fire events and issues of anxiety, depression, PTSD, distress, and other mental health impacts.⁴⁷ Smoke pollution from forest fires is an increasing mental, emotional, and physical public health threat.⁴⁸ Individuals with asthma, allergies, or other health challenges may face increased risks and pressures during smoke pollution events. Individuals with limited economic means or experiencing homelessness, children, elderly, and pregnant women may also face unique stressors in times of forest fire events.⁴⁹ Many Indigenous communities face unique risks and impacts on mental health and wellbeing due to relationships to the land and proximity to forested regions. Evacuation pressures and impacts of uncontrolled forest fires in traditional territories and homelands might lead to increased experiences of anxiety, stress, and trauma.⁵⁰

How does this impact the UBC community and wellbeing?

- Extreme temperatures and drought conditions in British Columbia caused by climate change will lead to more forest fire events.
- Both UBC and UBCO Campuses are vulnerable to extreme forest fire threats and smoke pollution. During forest fire events, the UBC community may face physical and mental health risks of smoke inhalation, evacuation pressures, or loss of homes. Such events can trigger anxiety, fear, depression, and sense of loss. This may make it hard for UBC staff, students, or guests to focus on work, general tasks, or studies.
- During forest fires, the public is often advised to remain indoors to limit exposure to smoke. This may not be possible depending on different work duties, commuting needs, or socioeconomic status. In efforts to avoid smoke-related risks, some may decide not to attend work or classes. This may cause increased feelings of stress, anxiety, guilt for not attending work or meeting deadlines while also trying to protect one's health or that of family or loved ones.
- Lockdown situations that arise from smoke pollution events can also trigger feelings of loneliness, stress, and anxiety for community members through experiences of prolonged isolation, feeling “trapped” inside, and health concerns.
- Those who have experienced displacement, evacuation, or loss of a home to forest fire can experience PTSD for extended periods after the event.

Responding to mental health impacts of forest fires and fostering community resilience

Short Term

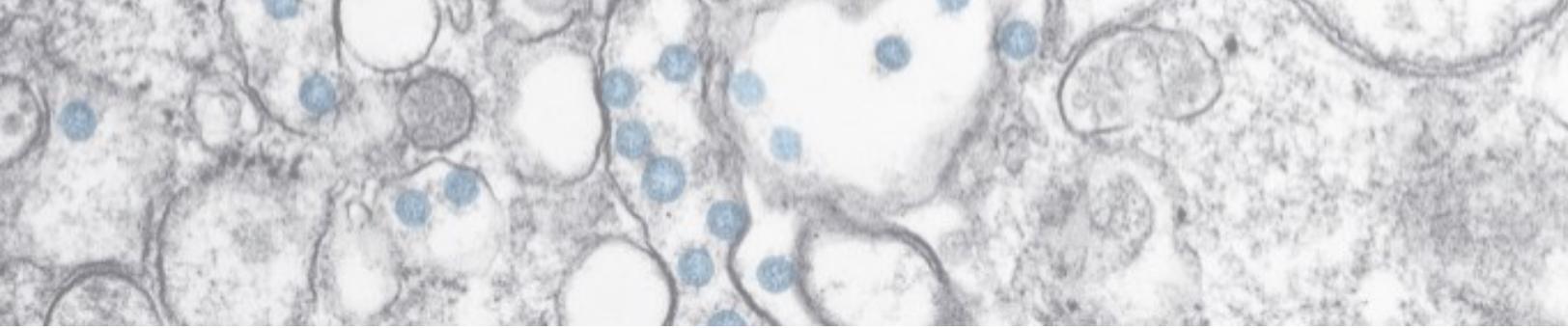
- Build public awareness about how to recognize and understand the connections between forest fire events and the impacts on mental health in one's community, with specific attention to the UBC community's needs.
- Public messaging should highlight how forest fire and high smoke events disproportionately impact community members according to gender, age, health needs, or marginalized identities.
- Create UBC community awareness about how to move effectively and safely to, from, and on campuses during periods of smoke pollution caused by forest fires. For example, advising people not to jog, bike, or play sports outdoors, wear a pollution filtering mask when outdoors, and where to safely access clean air sanctuaries on campus.
- Promote public knowledge and awareness for dealing with forest fires and its impacts can help to create a sense of empowerment and agency to help individuals and communities during forest fires. Public knowledge messaging can include fire hazard prevention, how to support higher risk community members during high-risk smoke events, and how mental health is impacted during public advisories requiring people to stay indoors for extended periods (like during the 2017 BC forest fire season).

Medium Term

- Assess and install air filtration systems to ensure community health and wellbeing inside campus buildings. Having multiple spaces with clean filtered air offers the wider UBC community an escape from toxic smoke, which can help to alleviate anxiety of health risks.

Long Term

- Create ongoing messaging to illuminate the causal relationships between forest fires and human actions, such as fossil fuel-based practices and systems, GHGs emissions, warming temperatures, increased drought, drying forest conditions, causes of forest fire ignition, smoke pollution, and impacts on public health and wellbeing.
- Promote whole system understanding of interdependencies between systems and the value of healthy forests in daily community life.



Pandemic

Mental health and wellbeing in a pandemic

Though the Covid-19 pandemic is not directly caused by climate change, pandemics are a phenomenon predicted to increase in frequency and magnitude due to climate change factors and impacts. Deforestation, expanding human activities into wild spaces, and warmer weather can create conditions for increased infectious disease transmission and risk of zoonotic viral spread from wild animals into the human population.⁵¹ Pandemics can cause serious mental health and wellbeing challenges and risks. These can include but are not limited to issues of, depression, anxiety, fear, obsessive compulsive disorder, vulnerability, anger, feelings of profound isolation due to social distancing measures, increased risk of suicidal ideation, addiction, and domestic violence.⁵² Pandemics place everyone at risk, but not all individuals or communities face the same challenges and risks. Issues of wealth inequity, structural racism, gender, and class can generate unique challenges and disproportionate impacts.⁵³

How does this impact the UBC community and wellbeing?

- The Covid-19 Pandemic has had many significant impacts on the UBC community. The need to establish social distancing to limit and prevent the spread of the virus has meant moving classes online. Students were forced to abruptly leave campus to return to homes all over the world. Classmates, coworkers, and friends have had to abruptly stop daily routines and socialization.
- Staff and students are now working from home to try and meet deadlines and demands under a variety of unique circumstances and pressures.
- The interactive face-to-face nature of the UBC community was quickly and radically transformed into an online community. The daily challenge and threat of global pandemic can foster anxiety, fear, depression, feelings of social, economic, and political uncertainty, isolation, meaninglessness, loss in purpose, and barriers to educational success and momentum.
- Members in the UBC community may also be experiencing loss of employment and feelings of job insecurity due to extended closures and shutdowns of small businesses regionally.
- The serious and deadly impacts of pandemic in other parts of the world can also have significant mental and emotional impacts on community members caused by separation from home communities suffering from the impact of the pandemic, or due to empathetic responses to shared global trauma.
- When isolation measures begin to lift under expert health guidance, lingering feelings of safety and uncertainty may persist across the community, and PTSD may also be a persisting mental health factor.

Responding to mental health impacts of a pandemic and fostering community resilience

Short Term

- Build community knowledge about the facts and known impacts of pandemic on mental health is a powerful mechanism for building self-assuredness and self-forgiveness in a high-stress time. Educating community on the types of feelings, emotions, and potential ranges of mental health impacts can reassure people that these feelings and experiences part of the normal human response to trauma.
- Leverage the human desire to help their community in times of crisis by helping community members connect with actions that promote a shared commitment to community, feelings of unity, and collective wellbeing. This offers a pathway forward to positive community engagements and collective wellbeing.
- In social distancing situations where people must work from home, providing a variety of structures or models for working from home can provide a sense of balance and control in one's life. There is a wide range of abilities, capacities, and contexts at play, with potentially wide disparities between student, employee, and faculty positions.

Medium Term

- Internet-facilitated interventions can be effective in addressing a range of mental health problems, especially when supplemented by human support. Mental health apps such as Calm and PTSD Coach are widely used and can reach large numbers of individuals; similar approaches are being harnessed for disaster response. These tools can be used as a proactive and responsive tool for addressing pandemic impacts and pressures.
- Offer flexible work schedules like a four-day work week.
- Promote equitable, accessible, and culturally attuned mental health and wellbeing resources to community. Health support networks should use whole systems thinking in addressing climate-related public health impacts and responses.

Long Term

- Highlight the interrelationships between climate crisis, environment, and pandemic episodes can help people understand and conceptualize a more holistic understanding of the interconnected nature of humans and their environment.
- Build community programs that help individuals and groups understand how distant global events can have significant impacts upon daily life, experiences, and practices.
- Engage community in building more just and equitable interconnected and sustainable systems.
- Work to address and respond to the gendered impacts of pandemic on issues of work and wage equity.



Flooding and Sea Level Rise

Mental health and wellbeing during flooding and sea-level rise

Flooding is one of the most frequent climate-related disaster events.⁵⁴ Climate change has increased the frequency and magnitude of different types of flooding. Flooding is known to increase individual and community psychological distress and physical trauma that can last for multiple years after flooding has subsided. Initial impacts of flooding can also be compounded due to the interlocking nature of wider social, economic, and political systems that may also be coping with flooding shocks. (e.g. services may be slowed or disrupted, insurance may not cover impacts, lack of financial aid, stressors on relationships). Rates of anxiety, PTSD, bereavement, substance use, domestic violence, and depression often rise when a population has experienced displacement and flooding.⁵⁵ Floods also spread water-borne diseases that can trigger respiratory, skin, neurologic, and gastrointestinal illnesses. Post flooding, rates of heart attack, stroke, and dehydration tend to increase as services and systems may struggle to cope with local medical needs or demands. Post-flood mold growth can also generate allergies and asthma issues.⁵⁶

Ongoing sea-level rise increases surge floods as well as slower onset threats of mass displacements and the need for community retreat from high flood risk zones.⁵⁷ Sea-level rise displacement (or eco-migration) can rupture individual and community sense of place and community cohesion.⁵⁸

How does this impact the UBC community and wellbeing?

- The threat of sea-level rise and displacement can impact a community's sense of belonging in a place. This can include a sense of grief and loss for community spaces claimed by the sea including beaches, traditional territories or sacred sites, public parks, homes, and local businesses.
- Indigenous communities forced into relocation due to sea-level rise experience unique community impacts to culture and relationships to land.
- UBC community members may live in areas in the Okanagan and lower mainland that are high-risk flood zones. The looming threat of seasonal flooding can generate seasonal stress and anxiety. When flooding events occur, it poses serious disruptions to mental and physical health processes at the individual and community level.

- UBC members from regions that have experienced flooding can experience lasting effects on their mental health and wellbeing.
- Sea-level rise may trigger solastalgia, a psychological phenomenon caused by emotional pain and distress caused by the loss of one's home environment.

Responding to mental health impacts of flooding and sea-level rise and fostering community resilience

Short Term

- Proactively spread messaging about potential flooding events in the region where community members reside. Research indicates advanced warning about flooding functions as a protective factor against psychological morbidity for those directly impacted by floods. Individuals who did not receive advance warning during flooding experienced higher rates of PTSD and depression than those who received warnings.

Medium Term

- Prioritize equity building and processes of resilience including: inclusion, listening to community voice, collaborative partnerships, safe built environments. These factors help empower those most at-risk during flooding events including homeless, people living with poverty, LGBTQ2+, BIPOC, women, elderly.
- Effective messaging over time can build trust in community preparedness and build confidence in community capacity to handle difficult challenges. Ensure community members have a shared understanding of important terms, language, and expectations.
- Institute effective public health response plans and supports that address mental health impacts of flooding for short- and long-term duration of impacts.

Long Term

- Address systemic inequities in the short and long term to mitigate vulnerability of the community. Prioritize and build equity for the most at-risk and vulnerable people to create a ripple effect of wider community strength, capacity, cohesion, and wellbeing.
- Create early messaging about a community's "planned retreat" from coastal harm as sea-levels rise over the long term. This will help to alleviate fears, unknowns, and anxiety about loss of place by providing the community the time to process the transition and be active participants in the planning to get out of flood and storm surge zones.
- Foster cohesive community to mitigate mental health impacts from increasing flooding events. Social cohesion is found to have a significant effect on susceptibility to PTSD concerning flooding events.



Air Pollution

Mental health and wellbeing amid rising pollution

Burning fossil fuels for power, production processes, and internal combustion engine transportation are a key cause of climate change. Ongoing fossil fuel use releases pollutants and toxic particulate matter like sulphur dioxide, nitrogen oxides, carbon monoxide, heavy metals, and ground level ozone into the atmosphere.⁵⁹ As these pollutants and chemicals continue to be spread they become concentrated in the air humans breathe. Reduced air quality can lead to asthma, ischemic heart disease, stroke, acute lower respiratory infections, lung cancer, chronic obstructive pulmonary disease, depression, and premature death.⁶⁰ The Center for Research on Energy and Clean Air found an estimated 4.5 million people died prematurely in 2018 as the result of exposure to air pollution from fossil fuels. They also link nitrogen oxide pollution from fossil fuels to approximately four million new cases of asthma in children per year.⁶¹

Hotter days also lead to forest fire smoke and magnification of smog, which lowers ambient air quality. Given the relationships between fossil fuel use, GHG emissions, rising global temperatures, drying forests, and increasing air pollution, it is important to consider how fossil fuel GHGs and their associated outcomes impact community health and community wellbeing. The Lancet Countdown on Health and Climate Change notes that future reports will prioritize indicators that link climate change, air pollution, and mental health.⁶² Since 1990, approximately 71% of 2971 cities monitored in the World Health Organization air pollution data base exceeded annual exposure guidelines of PM 2.5.⁶³

How does this impact the UBC community and wellbeing?

- The increasing trend of GHG emissions and wildfire smoke across BC has exposed and will continue to expose Kelowna and Vancouver community members to “high risk” or “very high risk” air quality warnings more often and for longer periods of time.
- Increasing exposure to air pollution events means community members may be facing increased experiences of respiratory distress, magnification or onset of asthma, or heart health issues.
- During “high risk” and “very high risk” air pollution events commuting to and from the UBCO and UBCV campuses may put student, staff, and faculty health at risk. Distress, fear, and anxiety of personal or family safety and wellbeing may become a daily issue and also lead to experiences of depression.

- Stay indoor warnings can disrupt work learn flow on campuses as UBC community members stay home to protect their health.
- Physical community activities like walking, running, biking, waiting for transit, and working outdoors during elevated air pollution events can have short- and long-term health impacts on community members. The inability to access outdoor recreation can trigger other health concerns.
- Those with pre-existing health issues like asthma or heart disease are placed at higher risk.

Responding to health impacts of fossil fuel pollution and fostering community resilience

Short Term

- Provide messaging and knowledge building about the physical and mental health risks and impacts of air pollution.
- Provide clear steps and actions community members can take to protect their health during mild to extreme air pollution events. This can include not running, walking, biking, hiking, working outdoors during “high” or “very high risk” events.
- Offer telecommuting options during high risk events so community members don’t feel forced to navigate high air pollution spaces to get to work or classes.

Medium Term

- Invest in and promote accessible, clean air sanctuaries. Providing accessible air filtered spaces can reduce medical impacts like asthma attacks and give community members a better sense of individual and community wellbeing.
- Build green spaces and corridors into community landscapes to help absorb harmful emissions and purify the air. Prioritize green spaces in marginalized areas that tend to experience disproportionate impacts of pollution.

Long Term

- Provide equitable access to renewable, non GHG energy sources across the community to mitigate climate change impacts increasing forest fire rates and air pollution. Retrofit buildings and incorporate small to large scale green energy initiatives.
- Divest from all fossil fuels.
- Prioritize, invest in and expand accessible and affordable sustainable public transportation options that reduce the GHG emissions that cause air pollution.
- Take an equity building approach when expanding zero emission public transportation options.
- Ensure campus buildings, both old and new, are equipped with robust air filtration systems.

5 Recommendations

Develop and implement a whole system thinking community definition

- Develop a dynamic definition for what makes up the UBC community using a whole-systems lens. The Community Canvas Guidebook offers helpful guidance for building a more universal underlying framework that a more nuanced community specific definition can be built upon. This framework establishes a core foundation and flexible overlay that is responsive to evolving community needs and dynamics over time. A community definition should seek to reflect the diversity of community members, stakeholders, partners, inclusive community demographics, critical community systems, values, purpose, connections to key systems, and practical community boundaries. A clear and inclusive community definition provides more understanding and leverage for how to engage community-based programs and creates a more functional and effective foundation for building community resilience.

Develop and implement a whole system thinking community resilience definition and guiding principles

- Develop and implement a clear UBC community resilience definition and a set of community resilience guiding principles that address the needs and context of the UBC community. Creating a clear community resilience definition and guiding principles framework helps to operationalize meaningful capacity building based on UBC community dynamics, needs, strengths, vulnerabilities, inequities, and parameters.

Undertake asset mapping with a community resilience focus

- Undertake a community resilience asset mapping process using a clear definition of UBC community and community resilience. Asset mapping is a collaborative community process that utilizes a whole-systems thinking approach. Asset mapping can function to improve understanding of UBC community engagement, community planning, and decision-making about climate change issues and responses. Importantly, asset mapping can provide leverage for measuring and assessing the effectiveness of resilience initiatives created to counter climate impacts.

Develop and implement a Community and Climate Health Action guiding framework

- Build a Community and Climate Health Action Framework that can be embedded into other UBC plans—Climate Emergency Action Plan, Wellbeing Strategic Framework, UBC Inclusion Action Plan, the UBC Sustainability Strategy—as a way to unify and amplify UBC community climate health messaging. This Plan or framework should provide comprehensive and actionable steps for building and expanding community resilience, connecting how climate impacts community health and daily life experiences, and offering effective and meaningful pathways to cope with the mental health and community wellbeing challenges caused by climate change.

Adopt and implement a “climate and community health-in-all-policies” approach

- Adopt and implement a “climate and community health-in-all-policies” approach across UBC platforms to promote consistent messaging and knowledge building about the causal connections between climate change, mental health, and community wellbeing. Climate change should be thought of as a top priority super structure all other planning and policy should work within. A common thread across municipal climate and resilience plans is a call for the “institutionalization” of community resilience actions and principles to prioritize and address issues of climate change in all planning, policy, decision making, and practices. UBC has an opportunity to be a leader in how universities and major public institutions can justly build community resilience to address the growing mental health impacts of climate change. This “climate and community health-in-all-policies” approach should also outline clear steps for integrating climate health equity assessments into decision making processes and outcomes.

6 Conclusion

6.1 Next Steps

This report offers some practical, low risk solutions to help overcome common barriers noted in the literature that can impede community resilience building. Mobilizing these recommendations can help to advance the work being done on these issues.

First steps for moving report recommendations forward:

Determine what sort of processes are needed to develop an inclusive UBC community definition from a whole system perspective. Consider who would lead the recommendation, the types of community engagement needed, and ensure inclusion and centering of marginalized voices and perspectives.

Determine what sort of processes are required for developing a UBC specific definition of community resilience. Consider who would lead the recommendation, types of community engagement needed, and ensure inclusion and centering of marginalized voices and perspectives.

Establish the needed timeframes, resources, and associated costs of each recommendation.

Establish the timeframe, space, and resources needed to assemble a Community and Climate Health Action Framework committee.

Assess where these recommendations are best mobilized and imbedded for maximum influence (e.g. UBC Wellbeing, UBC Climate Action Plan, UBC Student Plan, UBC Wellbeing Strategic Framework, UBC Inclusion Action Plan, UC3).

6.2 Closing Remarks

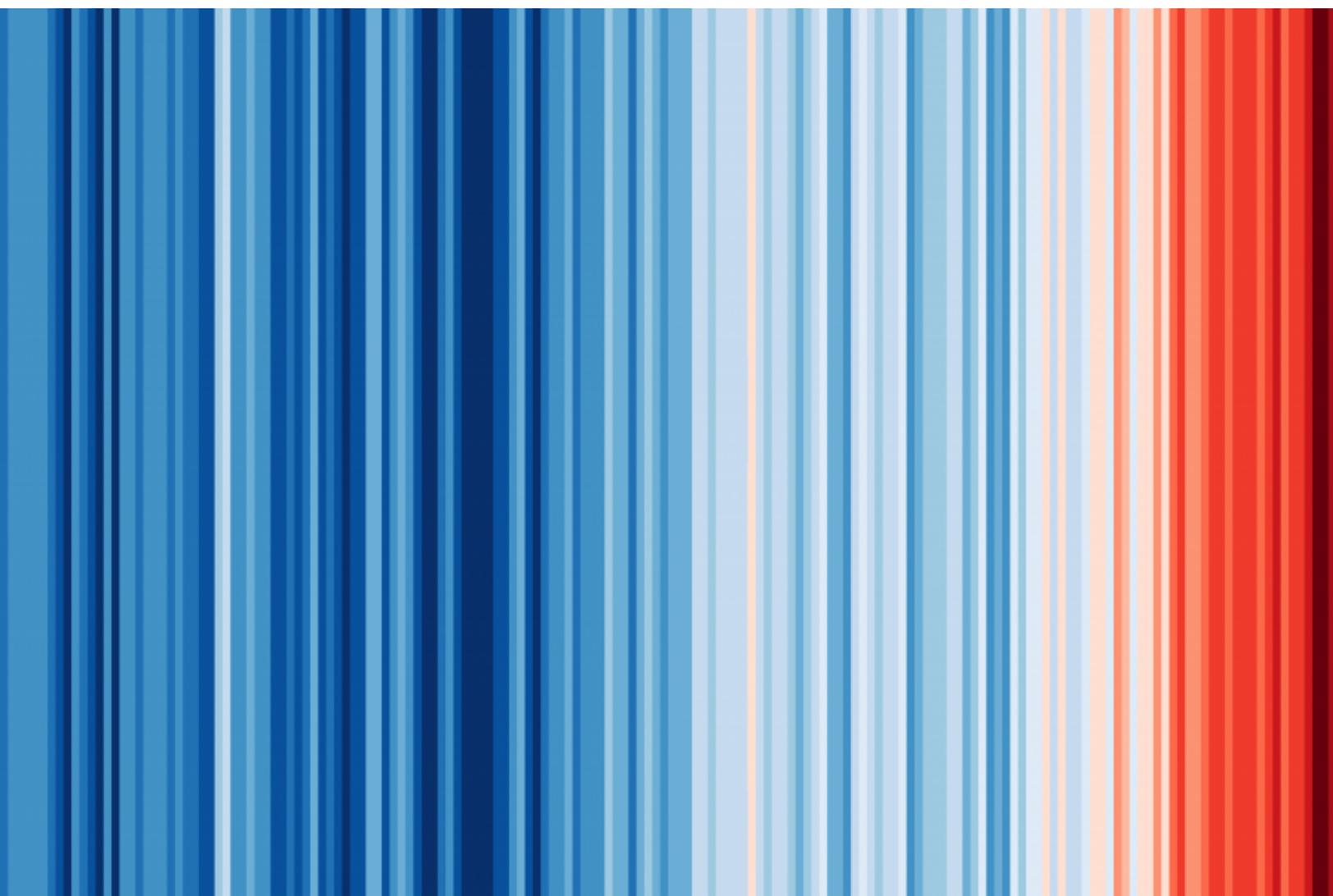
The impacts of climate change on the natural and built systems of communities are causing trauma, PTSD, anxiety, fear, depression, anger, violence, domestic abuse, loneliness, suicidal ideation, eco-anxiety, ecological grief, and solastalgia—emotional or existential distress caused by negative environmental changes.

The mental health and public wellbeing impacts highlighted throughout this report indicate an urgent need to shift public health impacts of climate change from a secondary to a primary focus for community planning, decision making, policies, and practices.

Moving forward, UBC has several key projects, plans, and policy opportunities to imbed

principles of community resilience and address the impacts of climate change on community mental health and wellbeing.

UBC could also benefit from wider partnerships with the xʷməθkʷəy̍əm (Musqueam) Skwxwú7mesh Úxwumixw (Squamish), sə́lilwətaʔt (Tseil-Waututh) peoples, Syilx Okanagan Nation, City of Vancouver, City of Kelowna, wider regional districts, BC government, as well as other regional stakeholders and institutions to promote urgently needed climate action and leadership on the mental health and community wellbeing impacts of climate change.



List of Figures

Page 11: Figure 1. First Nations Health Authority Visual Concept of Health and Wellness

Page 13: Figure 2. Example of UBC community mapping for community resilience building

Page 20: Figure 3. 2014 CDC climate impacts on human health and wellbeing

Appendix

[UBC Wellbeing Strategic Framework](#)

[UBC Inclusion Action Plan](#)

[UBC Sustainability Strategy](#)

[UBC Strategic Plan](#)

[UBC Climate Action Plan](#)

[Okanagan Charter](#)

[UC3 Strategic Plan](#)

[Community Canvas](#)

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