

Chapter 3: Climate and Health Equity



KEY FINDINGS

- Climate change is **exacerbating existing health and social inequities** in B.C. and creating conditions for new inequities to emerge.
- Different populations in B.C. experience **different levels of exposure and sensitivity** to climate hazards. They experience varying barriers to taking protective measures, influenced by social and environmental determinants of health (e.g., age, living conditions, income, employment).
- People who experience poverty, racial or social inequality, and those who are impacted by colonialism and systemic racism are often **more strongly affected** by the impacts of a crisis, including the changing climate ^[50].
- **Indigenous communities** are disproportionately impacted by climate change, as they are witnessing the immediate impacts on First Nations territories, traditional foods and food systems, medicines, and ways of living, in ways that may resurface past and ongoing trauma from colonialism and systemic racism ^[51–53].
- Addressing the health impacts of climate change requires a focus on **avoidable health disparities** that are rooted in historical injustices and systems of oppression, as well as addressing the **social and environmental determinants of health**—such as access to housing, food security, and economic stability.
- Climate action offers an **opportunity to advance Indigenous reconciliation** by recognizing and upholding Indigenous rights, valuing Indigenous knowledge systems, and respecting, supporting, and advancing Indigenous-led climate action to protect health and well-being.
- To prepare and adapt to a changing climate, **adopting a holistic understanding of well-being that embraces Indigenous knowledge systems** alongside Western science is essential—not only for Indigenous communities, but for all of B.C. ^[50,54–56].
- **Collaboration across sectors** and communities will be necessary to prevent further disparities, and to achieve health equity in climate adaptation. Public health organizations and agencies have a particularly **important role** to play in driving this collaboration.

THE IMPORTANCE OF LANGUAGE

This report refers to those most susceptible to climate change as “priority populations”— meaning equity-denied populations¹ at greater risk from the health impacts of climate change. Note that, as language evolves, this term may not be all-encompassing.

3.1 Introduction

The legacies of colonialism, ongoing racism, discriminatory social and bureaucratic structures, and the uneven distribution of wealth all shape population health outcomes in B.C. today ^[58]. How we approach the health impacts of a changing climate offers an opportunity to address these disparities and strengthen climate resilience for all.

Not only can climate change worsen existing health inequities, it also creates conditions for new inequities to emerge ^[59,60]. Floods and wildfires in B.C. have disproportionately impacted First Nations communities, leading to evacuations, displacements from traditional territories, and cultural and mental health impacts ^[61]. People experiencing economic and social deprivation, who also live with mental and physical illnesses, are at the highest risk of poor health outcomes from extreme heat ^[5]. And poor air quality harms individuals with pre-existing health conditions and those living in areas with limited access to health care ^[18].



“[Clients most impacted during the 2021 heat dome were] typically older men with some chronic diseases, and often a chronic mental illness like schizophrenia, who were just quite isolated in their single-room occupancy. And most of those buildings that we service don't have any air conditioning. They don't have windows that can open; people are living in extreme poverty.”

—Risk to Resilience Project focus group participant

Adaptation to a changing climate must be approached with a focus on health equity and intersectionality, considering the diverse needs of those who are most vulnerable² to the health impacts of climate change. As more frequent and intense climate-related events occur in B.C., a health-equity approach will help guide effective planning, policy, and health services to address climate-related health impacts—including helping to prevent worsening health inequities. Applying an “equity lens” to climate change policy and programs requires considering and addressing the structural factors which allow for inequalities to manifest in the first place, such as structural racism and discrimination, lack of adequate shelter, and economic insecurity.

¹ The term “equity-denied populations” explicitly acknowledges that certain groups are systematically excluded and denied access to an equitable share of societal benefits. Within the context of climate change, equity-denied populations bear the burden of climate impacts and must adapt to these changes, despite having contributed the least to increasing carbon emissions ^[57].

² Vulnerability to health impacts of climate change is determined by the exposure to climate change hazards, the sensitivity to possible impacts, and the capacity to respond to or cope with them. At the individual level, these three factors are influenced by determinants of health, such as socioeconomic status, housing quality, and education. ^[60]

It is also important to understand how climate change affects us as individuals and communities, and how we respond. This is rooted in our identities and experiences, and the ways in which they intersect. Because the impacts of major climate-related events, such as extreme heat, flooding, and wildfires, will vary across geographic locations and social dimensions ^[62], this report has been prepared and developed using the lens of intersectionality. In doing so, we have employed Indigenous Gender-Based Analysis Plus (IGBA+)—a tool for analysis, advocacy, and policy development that addresses intersecting inequalities, including how colonialism has contributed to ongoing and systemic discrimination against Indigenous women, girls, and gender-diverse peoples. In B.C., the need for IGBA+ analysis is clearly evidenced by the [In Plain Sight Report](#) that addresses Indigenous-specific racism in the B.C. health system ^[58].

Health equity and intersectionality

Equity is the absence of unfair, avoidable, or remediable differences among groups of people. Social and environmental inequities are drivers of inequality in health status within and between populations.

Health equity is achieved when everyone can attain their full potential for health and well-being. It involves addressing the structural and social determinants that contribute to health disparities, such as discrimination and unfair distribution of resources. This approach can help to ensure that adaptation measures are effective and equitable, and that all members of the community have fair and just opportunities to achieve good health and well-being in the face of climate change.

Intersectionality is a lens to understand how different social identities—such as race, gender, income, mental health status, housing status and ability—intersect and influence how people experience the world ^[63]. How climate change affects us as individuals and communities, and how we respond, is rooted in our identities and experiences.

3.2 Climate change exacerbates health inequities

Climate change acts as a “threat multiplier,” worsening existing health disparities by affecting many social and environmental determinants of health and well-being ^[60]. Three key concepts measure the degree of climate change vulnerability experienced by priority populations:

- **Exposure:** How much a person/population is exposed to or comes into contact with climate-related hazards. For example, individuals who are underhoused face an increased risk from extreme weather due to heightened exposure, compared to those that are housed.
- **Sensitivity:** Factors such as age, pre-existing health conditions, and social and economic conditions can increase sensitivity to certain climate hazards, such as heat or wildfire smoke.
- **Adaptive capacity:** The ability to avoid, prepare for, and cope with exposure and sensitivity.

Meaningful climate equity will require addressing the downstream impacts of climate change, such as health-emergency response, but also the root causes of inequality and the social and environmental determinants of health—such as access to housing, food security, and economic stability ^[64]. Figure 6 illustrates the multifaceted and interconnected aspects of health equity and climate adaptation.

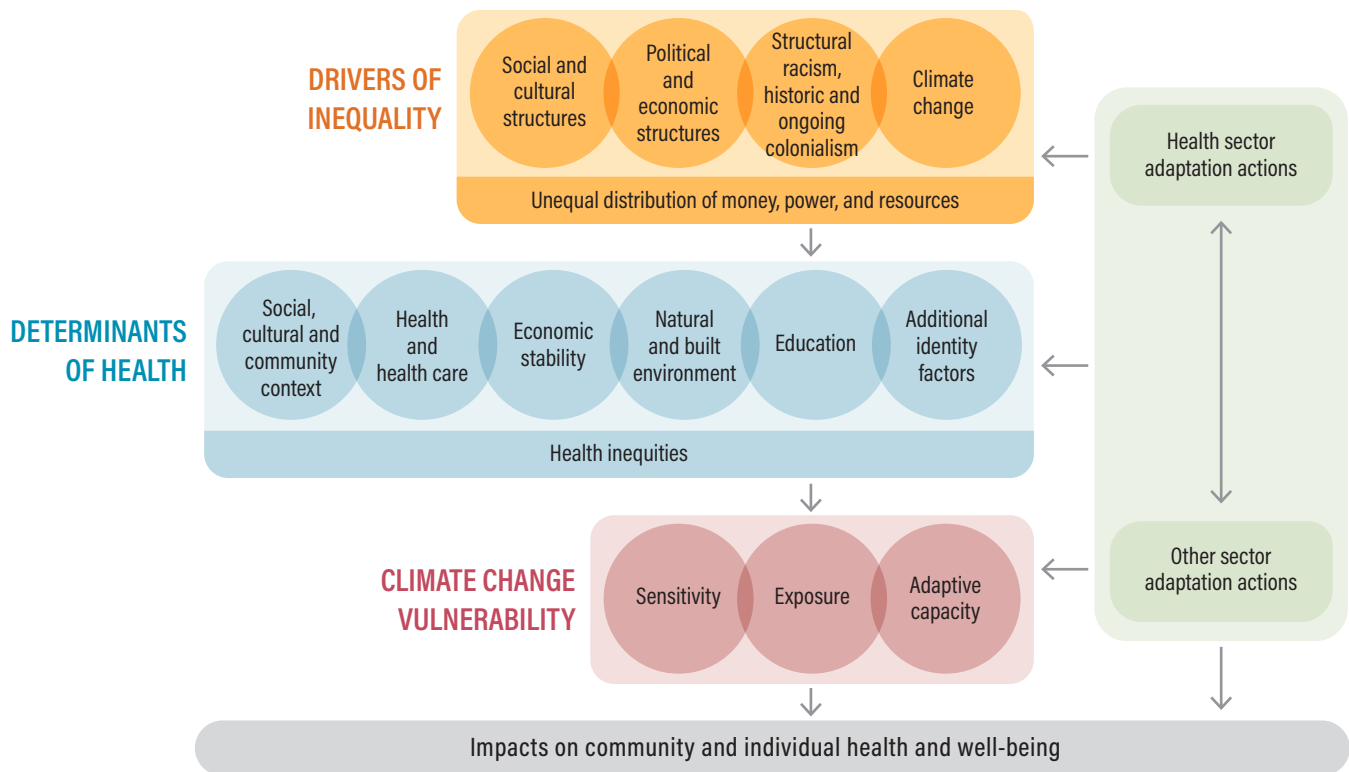


Figure 6. Climate change and health-equity framework ^[60]

Problematic narrative of “vulnerable” populations

In public health research and practice, the inherent negative association of the term “vulnerability” may be problematic for some populations, especially those who face systemic forms of oppression (e.g. racism, discrimination, poverty) ^[59]. Many underrepresented communities have demonstrated—and continue to demonstrate—resilience and adaptation to climate change, despite structural forms of oppression and unequal distributions of power and resources. No group of people is inherently vulnerable, and the *Risk to Resilience Project* recognizes the need for flexibility in the use of terminology.

In B.C., populations are likely to experience different impacts of climate change due to differential exposure, sensitivity factors, or conditions that affect their capacity to adapt. For example, older adults have a reduced ability to adapt to extreme temperatures and environmental hazards due to age-related physiological changes, higher prevalence of chronic health conditions, limited mobility, and social isolation ^[65,66]. Gender plays a significant role in climate-related health risks, with varying vulnerabilities tied to social roles as caregivers ^[62]. Poverty and social disconnection limits access to protective health measures, such as transportation during evacuations, housing quality, and access to air conditioning. Farmers face heightened impacts from climate disasters, given their increased risk of exposure and reliance on the health of the land for their livelihood ^[67–69]. And rural and remote communities have a heightened risk of exposure to wildfires and flooding, and to potential evacuations.

Subsequent chapters discuss disproportionate population impacts for specific climate hazards.

3.3 Climate change and Indigenous Peoples and communities in B.C.

“First Nations communities [in B.C.] hold thousands of years of knowledge stemming from their relationship and connections to the land, the waters, and the Earth.” ^[52]

Since time immemorial, Indigenous Peoples have demonstrated strength and leadership in adapting to changing environments. Indigenous understandings of health are often holistic—including physical, emotional, psychological, and spiritual well-being—and interconnected with the health of the land, waters, and more-than-human kin ^[26].

The direct and indirect impacts of climate change on the health and well-being of First Nations, Inuit, and Métis are interconnected and far-reaching ^[70,71]. Many health and socioeconomic inequities they face are being exacerbated by climate change. These include food, water and housing insecurity, alongside physical health challenges such as respiratory, infectious, and chronic diseases ^[52,70,72–74].

Many First Nations communities in B.C. are particularly susceptible to flooding and wildfires, and to evacuations from home territories. Evacuations can have associated impacts on cultural and mental well-being, sense of identity, and livelihood ^[13,75]. In addition, altered harvesting times and habitats have impacted Indigenous cultural well-being, as traditional foods, ceremonial practices, and language are all tied to the land ^[61].

“The climate crisis is inseparable from the daily experiences and realities of First Nation Peoples and their communities.” ^[52]

Indigenous Peoples in B.C.

There are ~269,000 Indigenous people living in B.C. of First Nations, Métis, and Inuit origin. The majority of Indigenous people (60 percent) live in cities, towns, and villages throughout the province, with the remaining living on First Nations reserve lands ^[76]. Each of the 204 distinct First Nations in the province has its own unique traditions and history, as does the Métis community in B.C. References in this report to Indigenous communities reflects the diversity of Indigenous Peoples across B.C. and the distinction-based approach to the Province’s unique relationships with First Nations, modern and historic Treaty Nations, Indigenous governing bodies, and Métis.

The consequences of a changing climate and extreme weather events vary among First Nations, Inuit and Métis, including men, women, boys, girls, and those who identify as gender-diverse. Impacts are distinct, depending on the individual, family, community, specific Nations, chartered communities, and geography.

Indigenous Peoples face disproportionate exposure and sensitivity to climate risks. This is due to layered, ongoing, historical, and systemic inequities rooted in colonialism and institutional racism, such as the *Indian Act*, failure to uphold Treaty Rights, and the residential school system. As a result, many First Nations communities in B.C. are based in areas most impacted by extreme climate-related events, such as severe wildfires and floods ^[52,77].

In addition, colonialism has attempted to intentionally dismantle Indigenous communities' health systems and cultures. This has resulted in multi-generational impacts and health inequities which are further reinforced and perpetuated by ongoing systemic discrimination ^[56,58]. Colonialism has also attempted to undermine Indigenous sovereignty, rights, and title. This has affected the capacity of Indigenous communities across B.C. to self-determine processes for enhancing climate resilience that build on their unique assets ^[56].

Subsequent chapters in this report will discuss some of the significant climate-health-related impacts on Indigenous Peoples in B.C. (based on *Risk to Resilience Project* Indigenous sharing circle themes and thematic findings in the literature), including:

- **Mental health and well-being:** Indigenous Peoples in B.C. have experienced significant mental health impacts from concurrent disasters and repeated climate-related events, the impacts of which can be compounded by historic and current traumas (e.g. dispossession of land, resources, and traditional territories; loss of language and culture; residential schools; Indian hospitals³; COVID-19; and toxic drug crisis) ^[75]. Witnessing the destruction of traditional lands and wildlife during disasters, displacement, loss of homes and livelihoods, as well as separation from family and friends during evacuations, has caused intense emotional distress and long-term anxiety, grief, and embodied fear ^[56].
- **Food insecurity and traditional foods:** Climate-related events in B.C. have contributed to the loss of traditional foods and cultural practices that are critical to health and wellness for Indigenous communities. Loss or distress of plants and wildlife (including salmon, shellfish, bears, moose, and berries) is impacting mental, physical, and spiritual health, as Indigenous Peoples are less able to access/harvest foods and medicine ^[56,61].

"We have a medicine woman who basically is our pharmacy. For several of the communities, she began a traditional medicines garden; her garden was wiped out [due to extreme weather events]."

—Risk to Resilience Project sharing circle participant

- **Environmental determinants of health:** While climate-related impacts on environmental health are not unique to Indigenous populations, they are acutely experienced in many First Nations communities. For example, water sources and drinking-water quality have been impacted by wildfires, floods, and drought; creeks have disappeared; and wells have been contaminated. This has resulted in health concerns for community members and first responders ^[56].
- **Infectious diseases:** Various health determinants, including poverty, malnutrition, limited health care access, and socioeconomic conditions, influence an individual's ability to resist infections, the development and severity of diseases, and the efficacy of disease treatment and management ^[70]. Due to health inequities resulting from colonization and systemic racism, Indigenous Peoples in Canada experience significantly higher rates of infectious diseases compared to non-Indigenous populations, and are at heightened risk of climate-related infectious diseases.

3 Indian hospitals were segregated, federally operate medical facilities that operated from the 1930's to 1980's across Canada. Indian hospitals were grounded in the same policies of denial and assimilation that underpinned the residential school system. Many former patients have reported traumatic experiences in Indian hospitals ^[58].

- **Access to culturally safe health services:** Indigenous-specific racism in the health system ^[58] affects rural and remote Indigenous communities in a more acute way during climate emergencies and extreme weather events ^[52]. Rural and remote Indigenous communities have faced challenges in accessing health services due to barriers such as transportation, wait times, and culturally unsafe services, all of which are exacerbated during climate emergencies, particularly when communities are evacuated ^[56].

“We look at community in a very wholesome way. So, it’s the river, it’s the creeks, it’s the forest, it’s all the things that dwell there—those are our relatives, and for generations, we have stood in an observation state, and that’s what really feeds into our teachings of ways of being right.”

—Risk to Resilience Project Indigenous sharing circle participant

BC First Nations Climate Strategy and Action Plan (2022)

The First Nations Leadership Council convened with First Nations in all regions of the province to develop the [BC First Nations Climate Strategy and Action Plan](#). The Strategy provides five guiding principles (self-determination and self-government; culture and tradition; guardianship and stewardship; collaboration and partnership; and empowerment, leadership, and self-sufficiency) and four priority pathways for climate action:

- Inherent Title and Rights
- Capacity and Leadership
- Land and Water Protection
- Climate Response and Preparedness

A specific set of objectives and strategies is centered on “community health and wellness” in a changing climate.



Métis Nation Climate Change & Health Vulnerability Assessment (2020)

In June 2020 the Métis National Council released the [Métis Nation Climate Change & Health Vulnerability Assessment](#) which identifies the risks climate change poses to the health and well-being of Métis and highlights the history of resilience and unique knowledge of the Métis Nation. Following this assessment, Métis Nation BC has taken numerous actions to address the health impacts of climate change, such as:

- Conducting a survey on climate change and food access ^[87]
- Supporting Métis led environmental monitoring through annual Harvester Card surveying ^[88]
- Creating the Home Garden Project to support food security ^[53,89]
- Developing the MY Eco Action program to share cultural learnings focused on the environment with youth ^[90]

This assessment has laid the groundwork for Métis National Council, in collaboration with Métis Nation British Columbia and the other Métis Governing Members, to begin development of their own national climate change strategy ^[91].

3.4 Health equity in adaptation

“The inherent rights of B.C. First Nations can only be fully exercised when the ecosystems in which they are embedded are vibrant, biodiverse, and cared for.” ^[78]

It is critical that adaptation efforts prioritize populations most likely to experience climate-related health risks. By addressing the root causes of health inequities through adaptation efforts, populations most at risk can gain additional benefits related to health and resilience (e.g., improvements to the built environment, housing, access to green space, and creation of resilient networks of services/supports). In this way, climate action offers an opportunity to advance progress in many of the upstream social and environmental determinants of health. Without meaningfully integrating equity into planning and adaptation efforts, certain populations may experience worsening health inequities ^[60].

Commitments to an equity-informed approach to climate-health adaptation already exist at multiple levels in Canada and in B.C. Equity is a key guiding principle of:

- The Government of Canada's [National Adaptation Strategy](#) ^[79]
- The Province of B.C.'s [Climate Preparedness and Adaptation Strategy](#) ^[80],
- Building a Climate Resilient and Sustainable Health System in British Columbia: Ministry of Health Climate Action Plan ^[81], and
- Health authority climate change strategies and plans to date.



At the regional level, health authorities in B.C. are undertaking [climate change and health vulnerability and risk assessments](#). These will support a better understanding of how specific climate hazards will impact population vulnerability in different regions of the province, as well as inform how to mobilize multi-sectoral efforts to improve community health outcomes through preparation and adaptation ^[82].

To understand the susceptibility of certain communities and regions in B.C. to specific climate hazards, health authorities have developed Climate Change and Community Health Maps ^[83,84]. Universities have also worked to [map equity in Canadian cities](#).

The Province has led work to explore how climate change impacts diverse populations in B.C., producing the [Climate Change Intersectionality and GBA+ in British Columbia](#) ^[62] and [Lived Experience of Extreme Heat in B.C.](#) ^[85] reports.

Preparing for the health impacts of climate change also presents an opportunity to advance Indigenous reconciliation through climate action. This requires recognizing Indigenous Rights, valuing Indigenous knowledge systems, and respecting, supporting, and advancing Indigenous-led climate action to protect health and well-being. It is essential that the distinct needs of First Nations, Inuit, and Métis are valued in building climate and health resilience. The Province of B.C.'s foundational commitments to Indigenous Peoples, such as the [Declaration of the Rights of Indigenous Peoples Act](#) ^[86], recommendations on addressing racism in the health system ^[58], and the Office of the Provincial Health Officer's [Unlearning and Undoing White Supremacy and Racism Project](#) offer a foundation upon which to build further.

Finally, achieving health equity in climate change adaptation in B.C. requires inclusive and community-based participation. Equitable outcomes in adaptation emerge from equitable processes ^[60]; those most at risk of climate-related health impacts must be involved in developing adaptation strategies moving forward. This will require individuals and organizations in the health system to lead equitable adaptation planning, while supporting other sectors in incorporating considerations of health and well-being into their work.