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# LIVED EXPERIENCE OF EXTREME HEAT IN B.C.

Final Report to the Climate Action Secretariat

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# Executive Summary

Climate change is projected to increase the number, intensity, and duration of heat waves in British Columbia (B.C.). We know that the effects of extreme heat are not experienced equally across the province, with some populations being more exposed and at greater risk of life-threatening outcomes. As heat waves become more common, directly hearing from and engaging with populations most vulnerable to a changing climate is urgently needed.

This report provides a summary of engagement of people with lived experience of extreme heat events in B.C. in 2021. The BC Climate Action Secretariat (CAS) commissioned this project to inform forthcoming planning and policy development on extreme heat response in B.C.

Engagement occurred in March 2022 and was conducted in response to the 2021 Heat Dome and other recent extreme heat events in BC. Feedback was gathered both from people with lived experience and service provider organizations supporting **heat-vulnerable, equity-denied populations** - hence referred to as **priority populations**. Centering **lived experience** in this engagement approach allowed for priority populations to directly share stories about direct impacts, and knowledge and expertise about needs and opportunities for improvement to future heat preparedness and response.

This report summarizes participant input and provides recommendations for improving outcomes for priority populations engaged through this project: **people with disabilities**; socially isolated & economically marginalised **seniors** (rural and urban); and **people who are unhoused / insecurely housed** while often experiencing **mental health** or **substance use** challenges (rural and urban). **Service providers**—representatives from organizations that support priority populations—were also engaged throughout this process.

## KEY MESSAGES

The following five key messages came through clearly from the voices and perspectives of both lived experience participants and service providers:

- 1 Focus needs to be on **cooling infrastructure, not just cooling centres**, to keep heat-vulnerable populations safe.
- 2 Heat response must be **resilient to compounding effects**, such as pandemic restrictions, holiday closures, & wildfire smoke.
- 3 There is an **opportunity to apply existing response plans** (e.g., extreme cold, COVID-19) to heat and initiate community-level response and supports.
- 4 **Urban and rural communities have differing needs and priorities** for addressing social inequities exacerbated by heat.
- 5 People living in B.C. can **no longer escape the frequency and intensity of climate change** and we must adapt and be flexible to **our new normal**.

## RECOMMENDATIONS

From the engagements, the following recommendations for the Province came through clearly from the voices and perspectives of participants with lived experience and service providers.

<p><b>THINK OUTSIDE THE COOLING CENTRE BOX</b></p> <ul style="list-style-type: none"> <li>▪ Ensure cooling centres are welcoming to all</li> <li>▪ Enable a range of cooling options suitable to specific needs of heat-vulnerable individuals (such as A/C and electricity costs subsidies)</li> <li>▪ Address underlying challenges of inadequate housing</li> </ul>	<p><b>ENHANCE MOBILITY FOR CLIMATE RESILIENCE</b></p> <ul style="list-style-type: none"> <li>▪ Increase availability of air conditioned public transit options during extreme heat events</li> <li>▪ Plan for a range of available transportation options to meet accessibility needs during extreme heat events</li> </ul>
<p><b>COMMUNICATE PROACTIVELY TO SAVE LIVES</b></p> <ul style="list-style-type: none"> <li>▪ Produce and distribute clear, targeted communications materials specific to heat-vulnerable populations</li> <li>▪ Work with the media to raise public awareness</li> <li>▪ Communicate early, directly and in a coordinated fashion with local and regional authorities and service providers</li> </ul>	<p><b>ENCOURAGE CONNECTION AND MUTUAL SUPPORTS</b></p> <ul style="list-style-type: none"> <li>▪ Develop ways to reach out with time-critical lifesaving information to people that are truly isolated</li> <li>▪ Work with community partners to enhance mutual support networks (e.g., neighbour-to-neighbour)</li> <li>▪ Develop easily accessed supports to fill the gaps in community and social networks</li> </ul>
<p><b>INVEST IN SERVICE PROVIDERS</b></p> <ul style="list-style-type: none"> <li>▪ Invest in capacity of service provider organizations to provide enhanced services and be a direct distribution point for required resources to heat-vulnerable populations</li> <li>▪ Develop coordinated communication and response protocols and improve extreme heat planning and preparedness at local and regional levels</li> </ul>	<p><b>DEVELOP TRANSFORMATIVE EQUITABLE POLICIES</b></p> <ul style="list-style-type: none"> <li>▪ Enable solutions tailored to different needs in rural and urban areas</li> <li>▪ Consider a range of needs and situations</li> <li>▪ Use existing programs to target resources and supports to heat-vulnerable and low income individuals</li> </ul>

# 1. Introduction

From June 25 to July 1, 2021 amidst the COVID-19 pandemic, British Columbia (B.C.) experienced an acute extreme heat event, which became known as the most deadly weather event in Canadian history (Gomez, 2021). At its height, 16 daily maximum temperatures in specific locations were above 45°C and 106 daily maximum temperatures were between 40-45°C (Environment Canada).

Climate change is projected to increase the number, intensity and duration of heat waves, which in turn increases the risk of heat-related mortality and morbidity, especially for the elderly, chronically ill, very young and socially isolated individuals (WHO, 2009; IPCC, 2022). Specific consideration of targeted response actions will be required for heat-sensitive populations.

This report summarizes feedback gathered from a series of engagements on extreme heat and climate equity commissioned by the B.C. Climate Action Secretariat (CAS) through SHIFT Collaborative. Engagement occurred in March 2022 and focused on experiences of the 2021 Heat Dome and other recent extreme heat events across the province from both people with lived experience and service provider organizations. Feedback is organized by the following topics: (1) Heat Impacts and Cross-Cutting Barriers, (2) Communications, (3) Mobility & Transportation, (4) Community & Social Networks, and (5) Accessibility and Suitability of Cooling Centres. Feedback from this project will inform forthcoming planning and policy development on extreme heat response in B.C.

## A note on language

*"I don't want special treatment.  
I want equal treatment."*

– Meredith, a severely diabetic transgender woman

In this report, we chose to use the term 'heat-vulnerable, equity-denied priority populations' (referred to throughout as priority populations) to emphasize differences that place historically, persistently, or systemically 'underserved' or 'marginalized' populations at greater risk from heat events. By using the term 'heat-vulnerable,' we draw explicit attention to a specific climatic vulnerability, which was the focus of this project. By using the term 'equity-denied,' we explicitly acknowledge that certain groups are systematically denied access to an equitable share of societal benefits.

This engagement process made it very clear that across the priority populations there were remarkable degrees of strengths, care, and resourcefulness when it came to dealing with extreme heat. The intent of this report is to recognize and amplify the lived experience of these individuals and priority populations—their agency and integrity, but also their barriers, needs and challenges to stay safe during extreme heat.

## 2. Our Approach

The findings of this report are informed by input from over 100 people engaged who shared their experiences and challenges related to extreme heat through the following formats:

- Four sharing circles: two in-person and two online (28 participants)
- One service provider workshop (43 participants)
- Five service provider interviews
- Two surveys: a province-wide service provider survey (N=21) and a survey specifically for people with disabilities (N=9, administered by the organization PLAN).

Within the limited project scope, engagement focused on three main groups known to experience greater vulnerability to heat, each of which represented a range of intersectional identities. Priority populations were collaboratively identified based on provincial data and gaps, literature review, and conversations between the Provincial staff and the consulting team. These included:

- **People with disabilities:** Urban, from Lower Mainland / Vancouver Island
- **Socially isolated and economically marginalized seniors:** Combination of **urban** and **rural**, from across different regions of B.C.
- People who are **unhoused, insecurely housed** and those experiencing **mental health or substance use** challenges: Combination of **urban** (Greater Victoria) and **rural** (the Kootenays).

The project was greatly impacted by a tight timeline and COVID-19 restrictions, and relied heavily on service provider networks and existing trust to ensure attendance. The companion report serves as a guide for how to incorporate climate equity into planning and policy discussions at the provincial level.

### Invitation to Witness

Provincial representatives attended the sharing circles and service provider workshop as ‘witnesses,’ a critical component to the engagement process. They listened openly as participants engaged in truth-telling and shared their stories and creative solutions. Witnessing allowed for relational understanding of experiences and impacts.

To expand upon this process, we invite you, the reader, to practice sitting as a witness to the remainder of this report, being open to understanding the personal stories of the lived experience of those who can often be invisible: those who do not have the privilege to stay cool and safe, and those who are on the frontlines of a changing climate.

## 3. What We Heard – Lived Experience and Service Providers

This section reflects on what was heard across the sharing circles and service provider workshop held during March 2022 and is organized into five focus areas: (1) Impacts and Cross-Cutting Barriers, (2) Communications, (3) Mobility & Transportation, (4) Community & Social Networks, and (5) Accessibility and Suitability of Cooling Centres.

Each focus area details the perspectives from those engaged with lived experience (e.g., seniors, people with disabilities, insecurely housed, rural, urban) and service providers to support the Province and other partners in planning for equitable and effective extreme heat response measures. See Appendix for greater detail on the experiences of each priority population.

### 3.1 Impacts and Cross-Cutting Barriers

Across the lived experience of all priority populations and feedback from service providers, there were a number of themes that stood out in relation to the impacts of the heat event and significant barriers to access support.

- **Health impacts from heat:** 70% of service provider respondents to the March 2022 survey indicated that the populations they support experienced “a great deal” of physical health impacts during the heat events of 2021 and 45% indicated the populations they support experienced “a great deal” of mental health impacts. **Pre-existing health conditions** significantly amplified heat-related health impacts for many lived experience participants. There was also a **lack of awareness of the warning signs of heat-related illness** or how heat could exacerbate existing conditions (e.g., cardiovascular, respiratory and renal conditions), resulting in confusion about when to seek support, and leaving many extremely vulnerable to escalating impacts.

*“It felt as though there was not much planning, [it was] all hands-on deck, and responding minute by minute.”*

(Service Provider)

In addition to physical health impacts, service providers reported that the interruption of support from caregivers, mental health impacts, social isolation, and economic impacts were all **factors that aggravated heat impacts** on priority populations.



*"There was a lack of awareness about how to recognize the signs of heat injury, lack of awareness about cooling shelter locations, lack of awareness to check on your isolated elderly neighbour, lack of awareness about when to seek out help."*

*"I had nausea and migraines. I couldn't get away from the heat wave. I threw up a bunch. The heat was inescapable. It was a nightmare to deal with it. I hope no one ever has to go through that again. It was like a prison in your own home."*

(Disabilities Sharing Circle)

- **Overloaded response system:** The magnitude of the heat event had cascading impacts on emergency response (seniors, service providers). In many areas, the 911 systems were overwhelmed. Ambulance wait times were long and at times resulted in dire consequences. In rural communities, far away medical support prevented people from seeking and getting care quickly (seniors). Moreover, overlapping crises (e.g., COVID-19 pandemic, wildfire smoke, extreme heat, overdoses) strained emergency response capacity.
- **Strain on service providers during the heat event:** Many priority populations sought relief from service providers, who were overwhelmed themselves. With the emergency response system overloaded and lack of coordinated support from municipalities, the Province, and health authorities, service providers worked overtime to provide valuable community supports. One workshop participant put it simply that the *"heat response fell to community and non-profits. Regionally [in the Lower Mainland] impacts [to staff included] sunstroke, sunburns... indoor spaces (transition houses, shelters) reaching unbearable heat for staff & people accessing services."*

- **Poverty and inadequate housing exacerbated impacts:** Overall, participants shared that poverty significantly exacerbated one's ability to stay safe and cool during heat events. Many urban insecurely housed participants were sleeping outside, in hotels with no air conditioning, or in 'tiny homes' described as being "unbearable" during the heatwave - feeling like a "hotbox" and recording 36°C degrees inside at night. Furthermore, living on fixed or low incomes prevented many from getting to and accessing cooling centres and water parks, purchasing an AC, or finding cooler accommodations (rural & urban insecurely housed, seniors, people with disabilities). Kara shared: *"Most of us live on disability. We don't have a lot of extra money. I'm lucky if I have 10 bucks in my bank account after paying for everything."* Moreover, there is a lack of legislation to initiate response, safety, and building standards for heat in buildings.

*"We would have to go without something in order to get a new AC. If the government could develop a program to assist people who are elderly or living with disabilities to subsidize some portion of that (50% at least), that would be a lot of help for people."*

(Barbara, Seniors Sharing Circle)

- **Challenges for apartments with no A/C and renters:** Service providers reported that **low-income seniors** in small apartments with limited ventilation were among the most impacted. **Renters** also experience tensions with their landlords around utilities and costs for cooling their units to be safe and comfortable. Currently, there are no minimum cooling standards for landlords in B.C. to mirror the minimum heating standards that already exist. Stronger tenant rights to use A/C and the creation of minimum cooling standards for rental housing are needed.

*“From what we heard from tenants who contacted us during and after the heat dome, tenants’ physical safety was put at risk, often to a lethal degree, by the heat dome, and others faced backlash or threats of loss of housing due to disputes over air conditioning & utilities costs (e.g., a tenant was served with an eviction notice for using their air conditioner during the heat dome).”*

(Service Provider Workshop)

- **Intersecting barriers for priority populations:** For many populations, there were intersecting barriers, such as poverty, language, literacy, mental health challenges, substance use, lack of awareness of supports available, and lack of social networks that exacerbated heat impacts. For example, for some of the participants from rural communities experiencing homelessness, it was often difficult for people to fill out the paperwork needed to access the heat-response services due to cognitive disabilities, mental health conditions, or other factors.

*“A lot of people are uncomfortable to give out information, part of that is social stigma, or concern, if they are on record as requiring food help, fear that you would be seen as unfit to feed your family.”*

- **Historical trauma and lack of trust of emergency services:** For some populations (Indigenous peoples, disabled populations), historical harms of colonialism and trauma result in a lack of trust in emergency services and supports. In these cases, participants were less likely to reach out for help.

*“[Newcomers], having little or no English, low literacy clients had very little understanding of the significant impacts of the weather in the extreme heat in 2021. Most are newcomers that are trying to acclimatize to their new community and adjusting to the weather here on the West Coast so they have little awareness of the extreme heat, cold, or flooding that can take place here in B.C.”*

*"Folks weren't feeling safe enough to reach out for help...based on historical harms coming from emergency services...especially for disabled populations, Indigenous people" and "lack of trust for government, organizations, emergency services, health authorities."*

- **Rural and urban communities** experienced the heat differently within the priority populations given lack of services and long distances to life supports, such as food banks, hospitals, and cooling centres. In rural areas, for low-income seniors in unsafe housing conditions and who don't have a vehicle, dealing with extreme weather (hot or cold) can be deadly. For example, Carolyn and her husband live in a condemned trailer that was flooding at the time of the interview. In the winter, staying warm is very challenging due to high electricity costs, lack of insulation, and inability to use the damaged wood stove, and, in the summer, staying cool is also a challenge. During the heat wave, air conditioning was a critical life safety factor for her husband who has *"chronic obstructive pulmonary disease, heart failure, emphysema, fibromyalgia, allergies and a lot of mental health issues. He is at stage 4, there is no cure... we needed to have air conditioning"* (Carolyn, Rural Insecurely Housed Circle).
- **Feelings of being unwelcome or stigmatized** were voiced by several participants in accessing indoor air conditioned public spaces or shaded green spaces, particularly for those who were unhoused. **Tensions with law enforcement** and people living in tents were heightened, as police often requested people 'pack up' and move their belongings early in the morning, following sleepless hot nights (urban insecurely housed).
- **Lack of accessible drinking water** for unhoused populations made staying hydrated difficult. Participants reported avoiding drinking water to reduce the need to use public restrooms. As a result, some were hospitalised due to dehydration and resulting bladder and kidney infections (urban insecurely housed).
- **Impacts of heat on the natural systems and animals**, pets, chickens, and garden vegetables were also mentioned, which raised **concerns about food security** for some (seniors, people with disabilities).

*"There's limited green shady spots when you're homeless... it's hard to find a place where you can be without someone giving you a hard time."*

(Urban Insecurely Housed Sharing Circle)

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## 3.2 Communications

Heat communication campaigns can help build capacity to stay safe during heat events, and reduce heat-related morbidity and mortality. Some of the common objectives of heat communications include the following: a) raising public awareness on heat risks; b) establishing warning systems to alert the public about excessive heat events c) improving social network interactions and reducing social isolation by engaging family members, friends, coworkers, neighbours (Health Canada, 2011; Marx and Morales-Burnett, 2022). At the core of the heat communication is building trust and engaging with heat-vulnerable individuals, social networks, and service providers through intersectoral communication. Developing heat communications requires taking into consideration the needs of specific communities (e.g., rural vs. urban, people with disabilities, socially isolated people) (Health Canada, 2011; BCCDC, 2017; Marx and Morales-Burnett, 2022).

### 3.2.1 Key Take-Aways

- Direct communication from a trusted source, heat and emergency alerts, local governments, member to member / word of mouth, media, and health reports are preferred communication methods for organizations.
- Calls for more mass emailing, tips on how to stay safe and support communities, and resource sharing.
- Coordinated proactive planning and efficient communication from the Province, local governments and health authorities are needed.
- Multiple forms of communication are needed to meet differing community needs, including: face to face communication, leaflets, phone and email, at community and employment places, in multiple languages, and through radio and newspapers.

### 3.2.2 Perspectives from People with Lived Experience

The 2021 heat events presented unique communications challenges for participants across the sharing circles. At the same time, priority populations know what they need and many participants offered creative solutions to solving these communications challenges.

#### Key themes included:

- **Lack of coordinated communication**

**about heat risk:** There was a lack of coordinated communication from the Province, health authorities, and municipal governments on how to stay safe, where and when to seek help, and how to specifically support vulnerable populations during extreme heat. Seniors and those with pre-existing conditions particularly pointed out lack of access to clear, coordinated information on who was most at risk for heat. Overall, there is a need for **better communication, delivered through trusted sources, of how certain health conditions and heat interact** (e.g., diabetes). Meredith,

a severely diabetic transgender woman who participated in the rural insecurely housed interviews, shared: *“Because of my medication I cannot be in the sun. I do know better than to be in the sun but not because anybody told me. I read it on the [medication] bottle. Heat made me want to retreat to the bed. I spent a lot of time in the bedroom in the dark in the summer. [It] impacted my ability to work and duration of my work - going to 4 hrs / day maximum.”*

*“We need good communications from the local council and fire department. First, we need a list of those most vulnerable. They need to be notified before the next heat dome. Second, people have to feel confident in figuring out correct information and get help fast. My heart goes out to people who aren’t computer savvy or don’t have a landline. We need an up-to-date communications system that functions.”*

(Don, 87, living alone rurally)

- **Need for targeted and diverse methods of communications:** Priority populations have different needs and preferred methods of communication. Preferred communication channels named from lived experience participants included: (i) face-to-face communication, often by word of mouth through direct relationships; (ii) print materials such as leaflets, laminated cards, information at community and employment places; (iii) phone and email outreach; and (iv) local radio and newspapers. Some participants also stressed the need for communications to be available in multiple languages. Specific preferred examples of communications for seniors and people experiencing homelessness included:

- » **For seniors living alone,** targeted communication channels (like a phone tree) or communications from a trusted local organization could be effective. Thelma shared: *“Through James Bay [Seniors Centre in Victoria], I participate in the New Horizons Reassurance Program. I found out about it by word of mouth. I phone them every morning and if I don’t phone them, they phone me to make sure I’m okay. They are really good people.”*

» **Mass distribution of laminated cards** with tips on how to stay safe in the heat and where to get help was suggested as a preferred method of communication for people without cell phones or regular internet access (urban insecurely housed circle).

- **Role of Service Providers:** Service providers played a key role in getting the word out to the populations they support during the heat events, and can continue to do so with more support and funding (seniors, people with disabilities).

### 3.2.3 Perspectives from Service Providers

#### Communication Methods to Service Providers

In a survey for this project, service providers identified that less than half (37%) received information about the heat events from Environment and Climate Change Canada (ECCC) Emergency Alerts or local government emergency alerts. And even fewer received heat information from Provincial government communications (32%), or health authority websites (16%). The most common way they received information was from social media (42%) and direct communication with partners and networks (42%) (see Figure 1).

*“There wasn’t enough information provincially at the beginning. They identified a heat event coming but didn’t ramp up services to meet that. Things weren’t as coordinated as they could have been.”*  
(Service Provider)

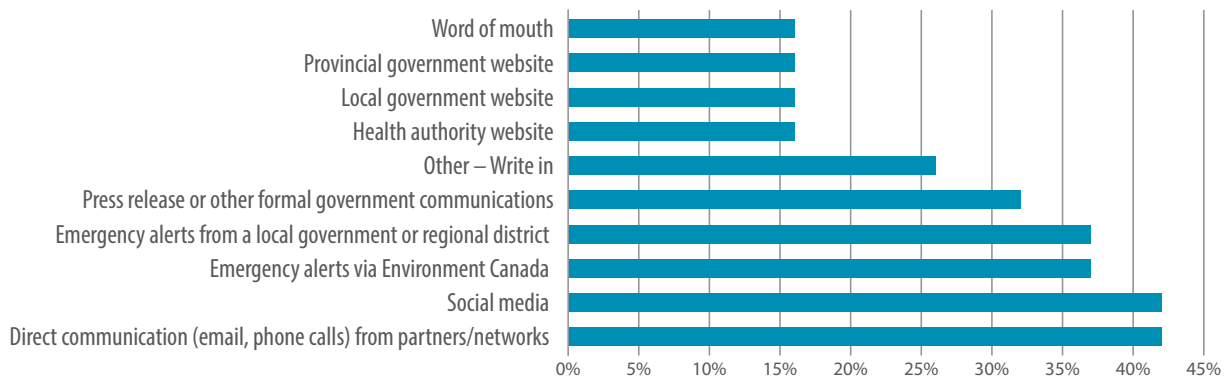


Figure 1. Methods that service providers received heat information 2021 (N = 21)

However, the preferred methods that service providers indicated for receiving communications about heat events was by far **direct communication from partners and networks** (90%). Notably, nearly half (47%) indicated they would like to receive emergency notifications/alerts from both ECCC and local governments, indicating there is room for improvement here. After receiving information themselves about extreme heat, service providers then share it with the populations they support via phone, text, emails, and staff conducting direct outreach.

## Communication Barriers, Considerations, and Needs

Several themes emerged about communications barriers, considerations, and needs during heat events for service providers, and subsequently through service providers to priority populations:

- **Need for coordinated, clear heat information:** Many service providers felt overwhelmed during the 2021 heat events and felt the information shared from the province, local governments and health authorities lacked coordination. One service provider shared, *“we monitor weather conditions and receive alerts via Environment Canada through our role. . . but we really had to look at a number of places to get a full picture of the region’s [heat] response.”* Sifting through information and making sense of alerts fell on service providers to identify how extreme heat might impact the populations they serve.
- **Need for information in multiple languages:** One service provider shared, *“It is important that in any kind of government communication, there are resources and tips available in various languages so that we as an organization can disseminate the urgency of a situation along with tools and resources for those that may be seeking more support.”*
- **Need for media to communicate key messages:** Service providers who participated in the urban insecurely housed circle shared that the media needs to play a stronger role in communicating heat alerts, including raising public awareness about who is most at risk during hot weather. This would reduce public stigma for those seeking shaded greenspace or respite in public air conditioned places. For example, one participant compared it to appeals to the public for warm jackets and supplies during extreme cold days, and wondered whether a similar public appeal could be done for donations for cooling devices (e.g., fans) or hats, bottled water, or sunscreen. One service provider in this circle advocated for greater empathy-centred communications: *“Tell the general public that some people are more at risk—ask them for help, and understanding.”*

*“We could contact a local radio station next time to let seniors [in the region] know they could come on down.”*

(Kim, Seniors Service Provider)

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## 3.3 Mobility & Transportation

Heat exposure is affected by human mobility and transportation patterns (Yin et al, 2021). During extreme heat events, people with mobility limitations (e.g., seniors, people with disabilities) may have challenges getting help and moving to cooler locations. Unshaded bus stops have been found to have large impacts on public transit ridership during extreme heat events (Lanza and Durand, 2021). Some urban design strategies, such as implementing cool pavement treatment on city streets, have been found to reduce heat exposure by 5.5°F (Arizona State University, 2021), yet these design strategies may be too costly or not as desirable to implement in low-income neighbourhoods or rural communities (otherwise known as structural discrimination). Applying an intersectional lens to better understand mobility and transportation challenges in extreme heat could help advance cross-sector planning and design to reduce heat-related exposure and impacts.

### 3.3.1 Key Take-Aways

- Lack of mobility is a significant heat risk factor. Walking in extreme heat to access transportation was a barrier for many people, keeping people in their homes.
- Transportation during heat events needs to be affordable, accessible, and cool – the occurrence of a long weekend, or not having a driver’s license or money for a bus ticket, shouldn’t put one at higher risk of heat impacts.
- Transportation needs, overall capacity, and modalities differ in urban and rural areas. Solutions to mobility challenges need to be creative and responsive to local conditions.
- Bringing a cooling centre to populations vulnerable to heat (e.g., utilizing mobile cooling centres) may be more effective than expecting them to self-organize to get themselves to centralized cooling centre locations.



### 3.3.2 Perspectives from People with Lived Experience

Lived experience participants experienced significant mobility and transportation challenges during the 2021 heat events, including:

- **Transport challenges to cooling**

**centres:** Getting to a cooling centre or cooler place proved difficult, costly, or not available. Michelle, who is living with developmental disabilities and health conditions that make her

more sensitive to heat, shared that her walk to her local bus stop was not shaded, the sidewalk was too narrow, and the bus stop itself lacked shelter. In other words, transportation anywhere became unbearable in the extreme heat. Other participants in the disabilities sharing circle noted that public transit can lack adequate cooling:

*"[I was] hot and nauseous and I wanted to go back where the air conditioning was and take grandma with me. But I take transit and she doesn't drive, so I was there for a couple days... I found out later that it hit 46 degrees in Langley."*

(Emilie, Disabilities Sharing Circle)

*"Some buses are air conditioned, and some are not—but if you have a bus pass you can use the bus to cool down."*

*"A lot of us [seniors] are transitioning to not being able to legally drive. We need that emergency backup and options for busing."*

(Don, living rurally, Seniors Sharing Circle)

- **Specific transportation barriers for**

**rural communities:** For rural participants, transportation – and associated transport issues, such as having a license, having a running vehicle, being able to afford fuel costs, being able to get to a hospital that is over an hour away – was named as **the single most important factor for safety**, exacerbated by the fact that the rural area engaged in this project had recently been through major wildfire event. Over half of the rural insecurely housed participants **were not able to drive or did not have a license** due to health/mental health conditions.

Providing equitable transportation strategies, such as gas cards or buses to get to cooling centres during heat waves or to assist with evacuations during wildfires could save lives, especially in areas where people are being pushed to live in insecure housing scattered throughout forested areas (such as buses and sheds) due to housing unavailability / unaffordability crisis. Cassandra, a mother of four children in her late 20s, was 8 months pregnant and "in between homes," living in a yurt in a forested area at the time of the heat dome. Reflecting back on the heat wave and the following seven weeks of deep smoke from the Trozzo Creek Wildfire, she remembers: "When we were put on the evacuation order – we had a quarter tank of gas and no money. So just the thought of trying to get out was super stressful. How to have enough gas to leave, looking for people to borrow some money." Cassandra's story is evidence that transportation equity is a critical safety factor for rural communities.

### 3.3.3 Perspectives from Service Providers

Mobility and transportation challenges were identified as crucial heat risk factors by service providers during the 2021 heat events. **80% of survey respondents** shared that in general **mobility or lack of transportation** created barriers to the population they serve to access indoor and outdoor cooling spaces.

*“Even if municipal cooling centres had been designed to support unsheltered individuals, we observed transportation challenges with accessing the spaces. Oftentimes the spaces that were open were too far to walk in the heat.”*

(Service Provider Survey)

*“Many people with disabilities do not drive or own a vehicle. Where there is local transit, many buses do not have air conditioning so transportation itself is a place where people can get overheated. Many small communities in B.C. don’t have buses or even taxis for people to get to cooling centres. Local communities need to plan to provide special buses with air conditioning that can provide curbside pickup, for example HandyDART.”*

One of the mobility barriers identified was that populations most impacted by heat often **rely on others** to help them get around, and the heat event may have impacted their support systems.

For example, **reliance on volunteer drivers** for service providers was identified as an increasing challenge due to the limited volunteer capacity during extreme events, soaring gas prices, stretched capacity within existing programs (e.g., Better at Home), and insurance difficulties to cover volunteer drivers. This puts service delivery to priority populations at further risk.

Another major challenge identified was that the heat event occurred leading up to a long weekend, **impacting regular transportation schedules**. There is a need for mobility services year-round, regardless of weekends or holiday schedules to support heat-vulnerable populations. Transportation for heat-vulnerable populations needs to be “on call” during heat events (e.g., HandyDART typically needs to be booked in advance).

*“This would allow folks to access supports during extreme alerts in the summer but also in the winter. Bus ticket programs could be run out of libraries but again a lot of municipal spaces were closed when the heat event occurred over a Stat holiday.”*

Service providers offered several recommendations to improve accessible transportation, including:

- Giving out bus vouchers to populations vulnerable to heat so they can get somewhere cooler;
- Using RVs or buses as mobile cooling centres; and
- Coordinating buses and shuttle services with A/C where people can bring their pets or get basic supplies like drinking water.

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## 3.4 Community & Social Networks

Extreme heat events globally show that social isolation is associated with higher heat risk within heat-vulnerable populations (Kim et al, 2020). Research shows that an estimated 30 percent of Canadian seniors are at risk of becoming socially isolated and that social isolation can lead to poor health, loneliness, emotional distress and other negative effects (Government of Canada, 2021). Heat-related risks due to age and social isolation can be exacerbated by low income, inadequate housing conditions, and less likelihood to have access to air conditioning during extreme heat events (Kafeety et al, 2020). Investing in community response plans can help remove barriers to action, improve community well-being and reduce heat illnesses and deaths for most heat-vulnerable populations during an extreme heat event (Health Canada, 2011).

### 3.4.1 Key Take-Aways

- Before the heat event, many populations vulnerable to heat were already socially isolated due to:
  - » COVID pandemic
  - » Reliant on social networks or support
  - » Lack of family or friends for support
  - » Lack of advocates for health and safety
  - » Lack of in-person programs to support information sharing and word of mouth
- Social networks were critical for safety and kept people informed and connected during heat events
- Wellness checks and direct outreach by service providers during the 2021 heat event proved successful, where there was organizational capacity to offer it
  - » Phone trees and volunteer outreach were useful for checking in on seniors

## 3.4.2 Perspectives from People with Lived Experience

*“Isolation is a major factor... partly chosen [as] people moved to a more remote valley. The mental part and the practical part of isolation is particularly hard for seniors [with] no phone, Internet or vehicle... We had extreme heat, extreme drought, extreme smoke - a deadly challenge over 4 days of extreme heat and their phone is not working. People [were] unhappy or desperate, and not feeling able and not aware to initiate accessing resources.”*

(Susan, Rural Service Provider)

Social networks and community care were highlighted across all sharing circles as important for accessing support, information, and resources during the 2021 heat events. Having the privilege of someone checking in was also highlighted. Feedback related to social networks included:

- **Informal networks:** Many relied on neighbours or peer networks for support. For example, participants in the urban insecurely housed circle relied on informal networks of peers to support each other during the heat events. They checked on each other to see who needed help and let each other know where to seek support. As one participant put it: *“We tell new people in the street community where they can go.”*
- **Family and community networks of support:** Two populations vulnerable to heat – Indigenous elders and people with disabilities – specifically named the benefits of family supports during the heat events. Elder Lucy from the seniors circle shared that *“we had all of the supports we needed. The Adams Lake Band kept checking in on us during smoke. They even offered to bring in groceries for us. They were very supportive and I was glad for that.”* Participants with disabilities were also relatively well connected through family. Some had the option to stay with family who had air conditioning, a pool, or could get to the beach together. Tricia from this circle shared, *“The whole building has air conditioning where I live. I could just go in the hallway and it’s always cool. Everyone came together during the heatwave... I went to my friend’s house – I didn’t care about COVID. It was helpful for mental health.”* Social connections played an important role for many in a time that was otherwise stressful, confusing, or scary.
- **Support from service organizations:** Being connected to advocates and supports from service organizations significantly increased the safety and comfort for heat-vulnerable populations during the heat events. Many from the urban insecurely housed circle reported that advocates from service organizations were checking in on them all the time during the heatwaves, and participants with disabilities were relatively well connected through family, friends, and organizations, such as PLAN and BACI, which made extra services available for many participants.
- **Rural isolation:** Rural insecurely housed participants had limited reliable social networks, in part due to a lack of social services and large distances between people. Many participants reflected that social isolation in rural areas can be deadly in extreme weather, hot or cold: *“For my neighbour,*

*if outside people had not intervened, she may have frozen to death.” A need for more social supports for rural adults was voiced: “Help with mental health is very limited. People feel helpless but they are not helpless... it is just that there are no supports for the ones that need help the most. No help if you are over 20. There are no jobs. That’s why they are living out in the bushes, no income.”*

### 3.4.3 Perspectives from Service Providers

Social isolation was a top concern for service providers, with 65% of survey respondents identifying it as a factor affecting the ability for heat-vulnerable populations to stay safe and be supported during the 2021 extreme heat events. Specific feedback about heat-vulnerable populations and social isolation included:

- **Seniors:** Low-income seniors at high risk were living in units with no A/C, and with no friends or family nearby to check on them or to bring them to a cool place were at high risk. Moreover, seniors were already at heightened risk to COVID and were isolating at home already when this heat event happened.

*“Due to the pandemic, many were already in social isolation to follow COVID protocols. Given this, it was already harder to reach them.”*

- **People with disabilities:** Many people with disabilities are already socially isolated and are heavily reliant on friends, families, and advocates to meet day-to-day needs like getting groceries. As one service provider shared:

*“Without social networks and without being able to go out in the heat, many people with disabilities didn’t get to medical appointments, grocery shopping etc., because they don’t have people to help them. Some may not know what to do to stay safe in extreme heat.”*

A need for investing in safety nets support systems before calling an ambulance was stressed:

*“There needs to be a pathway to get people out of harm’s way before the ambulance. Once they reach the ambulance, that means they have not reached any of the other safety nets, or worse, nobody found them, and we find a fatality.”*

Service providers identified several supports and creative solutions to foster greater social support networks that could enhance capacity to prepare for and respond to heat, including:

- Working with local health authorities to identify isolated heat-vulnerable populations;
- Increasing community capacity to conduct direct outreach to heat-vulnerable individuals in the event of emergencies;
- Encouraging neighbour-to-neighbour mutual aid support networks, especially in multi-unit dwellings; and
- Implementing wellness check programs (e.g., two wellness check programs for seniors were mobilized during the heat event in Cedar Cottage, Vancouver and through Silver Harbour Centre in North Vancouver).

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## 3.5 Cooling Centres

Establishment of dedicated cooling centres where people can seek shelter and assistance is a common emergency preparedness strategy in response to extreme heat. In B.C., some municipal plans have implemented cooling centres or direct the public to cool public spaces (e.g., libraries, malls, pools) (BCCDC, 2017). However, there has not been a systemic evaluation of the effectiveness of cooling centres for mitigating risk for heat-vulnerable populations in B.C. and cooling centres have been critiqued for being ineffective at attracting target heat-vulnerable audiences (U.S. CDC, 2017).

A public health study evaluating cooling centres in Maricopa County, Arizona found that people go to familiar places they know, with 78% of respondents visiting to use the primary services provided by the facility rather than to seek refuge from the heat (Berisha et al., 2017). Mobility and transportation are also important factors for whether the cooling centres are effective. Identifying potential cooling centres based on their frequency of community use, availability, and walkability from where vulnerable populations are located is an important planning consideration (Marx and Morales-Burnett, 2022).

### 3.5.1 Key Take-Aways

- Cooling centres were largely not used due to lack of awareness and availability, mobility and transportation challenges, lack of welcoming and safe spaces, concerns of discrimination, and inability to bring pets and belongings;
- Concerns due to COVID pandemic contributed to low use of cooling centres in 2021;
- Cooling devices and at-home solutions, such as A/C, weren't always accessible or affordable for people who didn't have access to a cooling centre in their local area;
- More accessible and familiar language is needed to attract people to cooling centres;
- There is a need for more trauma-informed training for municipal staff and non-profit outreach workers to better support people who use cooling centres and services; and
- There are lessons to be learned, and opportunities to build from existing cold weather response plans, strategies, and partnerships.

## 3.5.2 Perspectives from People with Lived Experience

*“For whom [do cooling centres] actually work? Mobility issues... I wouldn’t have gone from my suite to the library. I would have had to take a taxi, go out in extreme heat (worse outside than in my unit). There’s a building close by for intellectual disabilities -- they opened that, but again we’re in COVID and other logistics that people don’t clue into. No one went there.”*

(Ember, Disability Sharing Circle)

Very few of the lived experience participants knew about, had access to, or used designated cooling centres. Mobility, transportation, mistrust, availability, access, and awareness about resources available were key factors for not using cooling centres. Feedback gathered about cooling centres revealed the following considerations:

- **Lack of awareness of cooling centres:** When asked about cooling centres, most participants across the sharing circles did not know about a designated cooling centre near to them.
- **Lack of access to a cooling centre:** At the time of the June heat event, many air conditioned public spaces (e.g., libraries) were closed due to COVID-19 restrictions, and a long weekend. While some participants in the disabilities circle accessed cool public and private spaces (e.g., malls, private pools, or outdoor spaces) using transit or through family and friends, there was an overall perception amongst participants that these options were not accessible or available due to cost or social isolation. For example, the closest cooling centre for rural insecurely housed participants was over an hour away by bus, and buses do not run as regularly in the evening or at all on Sundays.
- **Lack of feeling invited and welcomed to a cooling centre:** Several people voiced a concern that municipal cooling centres are not designed or intended to serve priority populations (e.g., insecurely housed). For example, for those in the urban insecurely housed sharing circle, participants had concerns about being able to bring their belongings, often in shopping carts or bags, into a cooling centre with them. Alternatively, they felt there was no safe place for them to store their belongings while they sought respite from the heat.

*“The issue is you can’t leave your things to go to a cooling centre! Who’s going to watch your stuff? They don’t allow carts.”*

Furthermore, those with mental health challenges faced added barriers to feeling comfortable and safe attending public cooling centres. For example, James, 40, a diagnosed paranoid schizophrenic camped during a wildfire evacuation order and *“only came in town to get the meds.”*



While municipal cooling centres were generally not utilized by sharing circle participants, there were a few examples where the cooling centres were hosted in familiar spaces by trusted organisations, which did result in participants using them. For example, Elder Lucy had access to the Adams Lake Band office with oxygen: “They invited me to come down here.” And, Thelma, 87 who has one lung and lives on her own in a small apartment that gets very hot, had access to and used a cooling centre in her seniors’ centre that she visits frequently in Victoria (although, she did not realize that it was called a cooling centre).

Notwithstanding lack of attendance at cooling centres, participants, where available, reported using natural areas, such as lakes, rivers, ocean to cool down, if mobility permitted.

### 3.5.3 Perspectives from Service Providers

Service providers also shared that cooling centres were not always welcoming, accessible, or open at the times people needed it (e.g., at night). In the service provider survey, 95% agreed to a great extent or somewhat that there was a **lack of access to indoor cool spaces** during the day and night (Figure 2), and 78% agreed there was a lack of access to shaded outdoor spaces / greenspace across the populations they support.

*“Inclusive and accessible is a basic requirement, but these spaces were not welcoming, enjoyable or entertaining - merely life sustaining, but many who could have used that support did not as a result.”*  
(Service Provider Survey)

#### Lack of access to cool indoor spaces during the day and night

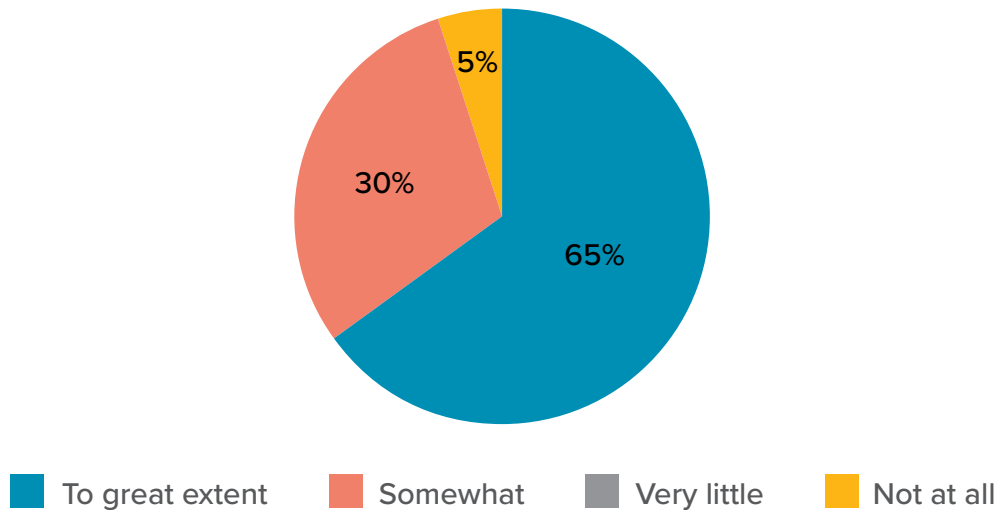


Figure 2. Service provider perception of access to cool spaces during the 2021 heat events for the populations they support

Some of the barriers to cooling centres identified by service providers included: lack of awareness around location, hours of operation and rules of cooling centres; inability to bring a pet; stigma stymied safety and sense of belonging especially for the underhoused, homeless and/or living in an encampment or shelters; distrust of authority, emergency or government services; lack of trained staff and services at cooling centres to support priority populations; and increased stress and interpersonal conflict during heat events.

*“We have heard feedback from some municipalities that the cooling centre opened to support housed seniors and... was not meant to serve homeless individuals because ‘municipal staff are not trained to deal with those people.’”*

(Service Provider)

*“For our clients, many of whom are unhoused, and experienced mental illness and substance use issues, the spaces listed above (community centres, libraries, playground water parks) are not accessible as they are stigmatized by staff and patrons of those places. Further, everyone was incredibly emotionally heightened during the heat, leading to far more conflict in those public spaces.”*

Service providers also encouraged future heat policy and planning to go beyond cooling centres to also address **cooling services and infrastructure** more broadly. For example:

- **Misting tents** (with drinks and snacks) were quick and easy to set up in critically needed locations and were utilized.
- **Access to safe drinking water and washrooms** (especially for unhoused and insecurely housed populations) is critical. Several shared stories of consistently looking for public water fountains, but being mindful of not drinking too much because they did not have options for washrooms, especially women.
- Providing safe, inclusive access to **shaded green and blue outdoor spaces** was also named as a critical consideration.

Finally, service providers are used to planning, coordinating, and mobilizing **extreme cold weather response strategies**, including defining clear temperature thresholds, expanding shelter capacity, and developing targeted communications and outreach strategies. People with lived experience and service providers both wondered how these foundational capacities could be adapted for systematic heat response planning. For example, the outreach and mobilization infrastructure for partner organizations could support both extreme heat and cold response.

## 4. Role of Service Providers

*"Oftentimes when systems are not in place to offer supports, those on the front lines and in community carry the load. These are the same people carrying the load the rest of the year. Staffing capacity is stretched, resources are scarce, and people are tired."*

Service providers played critical roles and went above and beyond their normal programming and capacities to support heat-vulnerable populations during the 2021 extreme heat events. In the survey, service providers identified the **3 top challenges** that their organizations faced: (1) **lack of clarity on roles and responsibilities** for extreme-heat response in communities, (2) **staff capacity** to respond, and (3) **funding** and **resources**. One service provider reflected: *"Largely we do not have enough funding at the community non-profit level where much of the relationship and knowledge of the people in the community exists. So, at most times, [there are] insufficient staff levels for the needs, and more so in times of crisis."*

Organizations also faced additional challenges with their facilities being able to support cooling, storing cooling devices, or people waiting to receive services, especially with pandemic restrictions on indoor room capacities. One rural service provider shared:

*"The heat wave was challenging especially when combined with Covid, because the clients had to wait outside [for their food bank order] in a hot dusty parking lot, smoke and dust, with little shade, and water available by an outside tap. People were very, very uncomfortable and got irritable, frustrated, easily triggered and impatient. [It was] especially difficult for seniors and disabled people."*

(David, Rural Service Provider)

Only 35% of survey respondents said their organizations have an **extreme weather response plan / protocols** in place, which may have contributed to overwhelm on how to respond and support people in need in 2021.

50% of survey respondents said the **needs of the populations they support changed** during the 2021 heat events as compared to other past heat waves. For example, one service provider shared: *"The extremity of the heat meant that tenants who did not have access to cooling facilities in their homes could often not access cooling at all, whereas in less extreme heat events, there would be lulls in the temperature or at least an opportunity to cool off overnight."*

To support better coordination and effective heat response efforts, service providers identified that they could play the following roles:

- Outreach and communication of information (94.4% of survey responses);
- Participating in local/regional heat preparedness and response planning (72.2%); and
- Coordination of wellness checks (38.9%).

Advocacy for better rules and guidelines, distribution of cooling supplies and water, and coordinating with local governments / NGOs / partners to fill gaps were mentioned.

## 5. Key Messages

From the engagements, the following five key messages came through clearly from the voices and perspectives of both lived experience participants and service providers:

KEY MESSAGE	DESCRIPTION
(1) Focus needs to be on <b>cooling infrastructure, not just cooling centres</b> , to keep heat-vulnerable populations safe.	<p>Relying solely on cooling centres is not effective.</p> <p>Priority populations need cooling infrastructure that accounts for their specific needs. As one PLAN survey participant wrote, in order to be safe in the next heat wave: <i>“We’ll need air conditioning, water, someone to check on them more... ableism priorities hurt disabilities, [need] someone [to] relate to.”</i></p> <p>Being able to stay cool at home or in places that people already visit regularly was voiced as a priority.</p>
(2) Heat response must be <b>resilient to compounding effects</b> , such as pandemic restrictions, holiday closures, & wildfire smoke.	<p>Many participants remembered the heat within the context of other impactful events and restrictions. Heat is not experienced singularly.</p> <p>Heat response system must be able to handle multiple crises.</p>
(3) There is an <b>opportunity to apply existing response plans</b> (e.g., extreme cold, COVID-19) to heat and initiate community-level response and supports.	<p>Participants across sharing circles wondered if public health messaging and actions related to the pandemic could be used to support heat response.</p> <p>Similarly, lived experience participants and service providers wondered if existing response protocols for extreme cold (which don’t always work) could be adapted for extreme heat.</p>

KEY MESSAGE	DESCRIPTION
<p>(4) <b>Urban and rural communities have differing needs and priorities</b> for addressing social inequities exacerbated by heat.</p>	<p>How to keep people safe and cool looks different in urban and rural communities. Provincial heat response must be responsive to these differences.</p> <p>Service providers called for more information on who is vulnerable to extreme heat, and applying an intersectional lens to response approaches.</p>
<p>(5) People living in B.C. can <b>no longer escape the frequency and intensity of climate change</b> and we must adapt and be flexible to our new normal.</p>	<p>Heat-vulnerable communities in B.C. also lived through wildfires, prolonged smoke, and flooding all within one calendar year.</p> <p>Addressing climate change was seen as a priority by several participants. As Don, an 87 year-old senior living alone rurally stated after a summer of extreme heat and weeks of wildfires and smoke: <i>"This is going to be the norm. This is what we will be encountering going forward. We need to know who it is that needs the help first."</i></p>

## 6. Recommendations

The following recommendations offer specific actions for the Province to take, as well as broader solutions rooted in what was heard from the pilot engagement conducted in Spring 2022.

FOCUS AREA	OBJECTIVE	KEY CONSIDERATIONS
1. Cooling Spaces	1.1 Ensure cooling centres are welcoming to all	<ul style="list-style-type: none"> <li>▪ Improve general familiarity with cooling centres</li> <li>▪ Ensure people can feel safe, bring pets &amp; belongings, and not feel discriminated against</li> <li>▪ Increase trauma-informed training for people working at cooling centres</li> </ul>
	1.2 Enable a range of cooling options suitable to specific needs of heat-vulnerable individuals	<ul style="list-style-type: none"> <li>▪ Open familiar and accessible options, spread throughout the community</li> <li>▪ Remove cost barriers to alternative options during the emergency (hotels, waterparks, pools)</li> <li>▪ Provide affordable, viable cooling equipment (A/C, heat pumps) to heat-vulnerable people to cool their own living space</li> </ul>
	1.3 Address underlying challenges of inadequate housing	<ul style="list-style-type: none"> <li>▪ Provide financial supports for low-income residents and renters in buildings with poor ventilation to afford AC units and utility costs</li> <li>▪ Support people experiencing homelessness living in tents or on the street to stay cool and safe</li> <li>▪ Identify older BC Housing buildings for heat retrofits to improve living conditions</li> <li>▪ Develop stronger tenant protections against being evicted for installing AC</li> <li>▪ Initiate legislation to regulate minimum cooling standards for landlords to meet</li> </ul>

FOCUS AREA	OBJECTIVE	KEY CONSIDERATIONS
2. Mobility & Transportation	2.1 Increase availability of air conditioned public transit options during extreme heat events	<ul style="list-style-type: none"> <li>▪ Utilize transit as mobile cooling spaces</li> <li>▪ Provide cool transportation to other cooling spaces</li> <li>▪ Institute emergency air-conditioned bus routes to serve as a mobile cooling centre in rural communities</li> </ul>
	2.2 Plan for a range of available transportation options to meet accessibility needs during extreme heat events	<ul style="list-style-type: none"> <li>▪ Make public transportation free during heat events</li> <li>▪ Offer a range of transportation options to meet individual accessibility needs, on demand</li> <li>▪ Ensure that accessibility and shade are considered in design of all bus stops</li> </ul>
3. Communications	3.1 Produce and distribute clear, targeted communications materials specific to heat-vulnerable populations	<ul style="list-style-type: none"> <li>▪ Produce targeted information for people with specific medical conditions</li> <li>▪ Clearly communicate the dangers of extreme heat, how to recognize impacts, and the seriousness of heat impacts</li> <li>▪ Hire people with lived experience to develop or advise on targeted communications materials; use accessible language</li> <li>▪ Ensure information is distributed through a range of common communication channels and through direct outreach</li> </ul>
	3.2 Work with the media to raise public awareness	<ul style="list-style-type: none"> <li>▪ Promote more lived experience stories in the media to help reduce stigma and enhance empathy.</li> <li>▪ Raise public awareness about the impacts for more heat-vulnerable populations, and how to support their safety and well-being</li> </ul>
	3.3 Communicate early, directly and in a coordinated fashion with local and regional authorities and service providers	<ul style="list-style-type: none"> <li>▪ Apply lessons from success of COVID-19 communications</li> <li>▪ Implement a coordinated heat alert system</li> </ul>



FOCUS AREA	OBJECTIVE	KEY CONSIDERATIONS
4. Community & Social Networks	4.1 Develop ways to reach out with time-critical lifesaving information to people that are isolated	<ul style="list-style-type: none"> <li>▪ Work with service providers</li> <li>▪ Use different approaches to reach people with less access to mainstream communication channels</li> </ul>
	4.2 Work with community partners to enhance mutual support networks (e.g., neighbour-to-neighbour)	<ul style="list-style-type: none"> <li>▪ Identify who is heat-vulnerable in advance of emergency events</li> <li>▪ Emphasize social connectedness as a protective factor before and during an event</li> <li>▪ Work through existing programs such as <i>Better at Home</i> or <i>Safe Seniors</i>, <i>Strong Communities</i>, <i>Senior Centres</i></li> </ul>
	4.3 Develop easily accessed supports to fill the gaps in community and social networks	<ul style="list-style-type: none"> <li>▪ For example, a well publicized hotline service with a range of information and supports</li> </ul>

FOCUS AREA	OBJECTIVE	KEY CONSIDERATIONS
5. Service Providers	5.1 Invest in capacity of service provider organizations to provide enhanced services and be a direct distribution point for required resources to heat-vulnerable populations	Enable service providers to: <ul style="list-style-type: none"> <li>▪ provide cool spaces during extreme heat events</li> <li>▪ enhance wellness checks and direct outreach capacities in the community in advance of extreme heat events</li> <li>▪ support development of individual extreme heat event plans in cooperation with family or other caregivers</li> <li>▪ hire people with lived experience to conduct direct outreach</li> <li>▪ distribute water, resources, cooling equipment</li> </ul>
	5.2 Develop coordinated communication and response protocols and improve extreme heat planning and preparedness at local and regional levels	<ul style="list-style-type: none"> <li>▪ Include service provider organizations in planning &amp; response</li> <li>▪ Support local governments to ensure a range of facilities (misting tents, drinking water, public restrooms, water parks, cooling centres), green spaces and other cooling infrastructure are available and accessible to all, day and night during heat events</li> <li>▪ Move towards all-hazards planning (extreme heat events may co-occur with wildfire evacuations and smoke events)</li> </ul>

FOCUS AREA	OBJECTIVE	KEY CONSIDERATIONS
6. Policy Development	6.1 Enable solutions tailored to different needs in rural and urban areas	Consider differences in: <ul style="list-style-type: none"> <li>▪ distances to services, including emergency services, hospitals and centralized cooling centres</li> <li>▪ proximity to natural spaces</li> <li>▪ access to basic provisions such as water, fuel and electricity in an emergency</li> <li>▪ overall capacity and redundancy of services, transportation and communication options</li> </ul>
	6.2 Consider a range of needs and situations	<ul style="list-style-type: none"> <li>▪ Consult with people with lived experience and service providers</li> <li>▪ Design flexible solutions so that individuals can creatively apply supports to their specific situation</li> </ul>
	6.3 Build on existing programs and tools	<ul style="list-style-type: none"> <li>▪ Target resources and supports to heat-vulnerable and low-income individuals through existing B.C. Medical systems</li> <li>▪ Apply knowledge of extreme cold response protocols, and lessons learned from COVID-19 response to extreme heat</li> </ul>

## 7. Conclusion

Extreme heat is one aggravating factor that adds to other challenges faced daily by priority populations. Underlying conditions and identity characteristics can contribute to greater vulnerability to a range of stressors, such as extreme cold, wildfires, smoke, atmospheric rivers, flooding, and many others.

Through this report, we have outlined what we heard from engagement conducted on extreme heat and climate equity. The report captures comments and experiences from both people with lived experience and service providers who supported vulnerable populations through the 2021 heatwaves. This report is intended to support Provincial planning for future extreme heat response measures.

Including lived experience in policy development allows for centering the voices of equity-denied priority populations and creating policies and solutions directly guided by them. The learnings offered in this report may also be useful in the Province's broader work around climate risks in general, avoiding duplicative future engagements on extreme heat.

As Don, an 87 year-old senior living alone rurally stated after a summer of extreme heat and weeks of wildfires and smoke: *"This is going to be the norm. This is what we will be encountering going forward. We need to know who it is that needs the help first."*

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