

Extreme Heat and COVID Focus Group Global Report:

*A cross-cutting review of themes
from 10 focus groups*

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July 5, 2023



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FORWARD

The Office of Community Partnerships and Strategic Communication (OCPSC) manages California's top public education and community outreach campaigns addressing California's most pressing issues. The Extreme Heat campaign raises awareness of the potential deadly impacts of extreme heat for our most vulnerable populations.

In-person focus groups across the state provided insights directly from community members to effectively operationalize the state's campaign on extreme heat. The groups also addressed areas of concern related to COVID-19 and its impacts.

The work was conducted by [Root Change](#), with a team led by [Dr. Beryl Levinger](#) and included Justin Bench, Evan Bloom and Rachel Dickenson. The project was supervised by Aubrie Fong, OCPSC's Deputy Director of Partnerships and coordinated by Carrie Rose with assistance from OCPSC's Regional Program Managers Hugo Munoz, Poonie Holst, and Bertha Perez-Sanchez.

OCPSC acknowledges the community-based organizations, nonprofit organizations and community foundations who organized the meetings with the community members. These include: Pacomia Beautiful, Los Amigo de Guadalupe, Santa Barbara Foundation, Mixteco/Indigena Community Organizing Project, Ventura County Community Foundation, Disability Rights and Education Defense Fund, Agency on Aging Area 4, Wind Youth Services, Central City Neighborhood Partners, Resources for Independence Central Valley, and Oroville Southside Community Improvement Association.

As with all focus groups, the actual application of the themes provided here will depend on the local context and available resources. We hope this report encourages discussion, provides a starting point and contributes to better communication and outreach strategies for those who are most vulnerable to extreme heat and COVID-19.

For more information or for a presentation on this report, please contact Aubrie Fong, aubrie.fong@opr.ca.gov.

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January 9, 2024

INTRODUCTION

Between March and June of 2023, the Office of Community Partnerships and Strategic Communication (OCPSC) organized ten unique focus groups called Community Reflections. The groups were designed to shed light on how participants from identified vulnerable groups think, feel, and behave when confronted with events or situations related to Extreme Heat and COVID 19, two of OCPSC's priority areas. Focus group learning is used to develop effective messaging and outreach resources to support campaigns sponsored by OCPSC. This report presents a global analysis of findings drawn from the ten focus groups.

The selection of demographic and sociographic groups represented in the ten focus groups was intended to closely mirror traditionally underserved, vulnerable populations deemed to be at significant risk during COVID or extreme heat episodes. Accordingly, the groups spanned a broad spectrum and included indigenous farmworkers on the Central Coast; people with disabilities in Berkeley; rural Californians in Oroville; people with limited English proficiency in Pacoima; parents of young children in Pacoima; housing insecure youth in Sacramento; older adults in Sacramento; people with chronic medical conditions in Fresno; and low-income urban Californians in LA. Four of the sessions were conducted in Spanish.

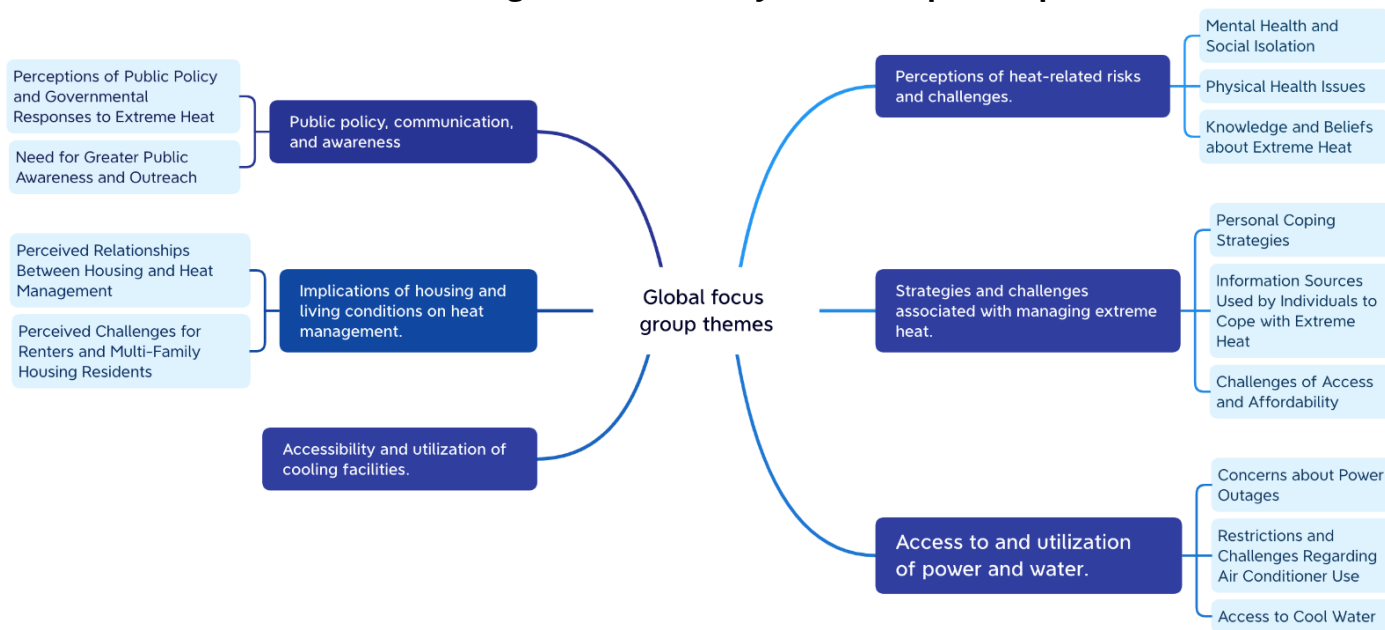
Over the course of 90-minute sessions, focus group participants explored two main issues: how they, their family members, and the community experience extreme heat (defined during the discussions as three or more days of temperatures at 90 degrees or above)¹; and how they and those close to them experienced COVID. Annex B contains the protocol that guided the discussions.

To conduct this global analysis, a master file was created that included all key findings from the topline reports, 70 in total. These findings were then thematically analyzed; 41 *global* findings were identified as displayed in Figure 1.

This summary report's body presents the main findings by topic.

¹ This was used as an introductory definition of extreme heat and is not OCPSC's official definition.

FIGURE 1. Global themes that emerged from an analysis of 10 topline reports.



TOPIC 1:
Perceptions of heat-related risks and challenges.

1A-Mental Health and Social Isolation

- 1) Extreme heat leads seniors to close their houses and stay indoors, which in turn leads to mental health issues and vitamin D deficiency.
- 2) Participants see social isolation (mental health) as a risk factor during extreme heat events.
- 3) Social isolation and lack of community connection are risk factors for seniors during extreme heat events.

1B-Physical Health Issues

- 1) Participants reported that they have experienced assorted physical problems due to extreme heat.
- 2) Age and health status make extreme heat particularly dangerous. Diabetics and people with heart conditions and high blood pressure are viewed as being especially vulnerable.
- 3) Older people may not perceive the risks posed by extreme heat in the same way that people in their 40s or younger see them.
- 4) Most people had an extreme heat health scare within their families (heat stroke, mostly). Many people have family members with health conditions (diabetes, heart conditions, migraines, high blood pressure) that make extreme heat particularly dangerous.

- 5) People who require medical devices for survival are at risk during blackouts associated with heatwaves.
- 6) Individual physical reactions to heat vary greatly among individuals and throughout an individual's lifespan.

1C-Knowledge and Beliefs about Extreme Heat

- 1) Farmworkers recognize that they face serious health risks when working in extreme heat and recognize the importance of hydration and protection from the sun. However, they struggle to balance safety concerns with the financial pressures they face.
- 2) People are fully aware of the need to stay in cool places on very hot days and exhibited a good understanding of the health risks associated with extreme heat for themselves and their family members.
- 3) People see extreme heat, climate change, and pollution as interrelated problems. People believe that previous generations faced less extreme heat conditions.

TOPIC 2:

Strategies and challenges associated with managing extreme heat.

2A-Personal Coping Strategies

- 1) Participants employ many different strategies for coping with extreme heat, such as using fans, staying hydrated, seeking shade, and wearing cooling vests. They also highlighted the importance of accessible bathrooms and reliable electrical sources to charge medical devices. People with cars have additional options as they can easily visit malls and other publicly cooled spaces.
- 2) A common response to heat involves adjusting daily routines.

2B-Information Sources Used by Individuals to Cope with Extreme Heat

- 1) People rely on a variety of information sources, including weather apps, news outlets (Telemundo and Univisión), social media platforms like Instagram and Facebook, and word of mouth.
- 2) Many people subscribe to text alerts from the county, a trusted source of information.

2C-Challenges of Access and Affordability

- 1) During days with extreme heat, vulnerable groups (children, the elderly, and people with medical conditions) become even more vulnerable, especially if they have limited resources. Access to clean water is a major concern for many of these groups.
- 2) Housing-insecure youth know that they must hydrate in hot weather, but they struggle to find clean and reliable sources of water.

- 3) There is a distinction between people with cars and without cars. People with cars can relocate to cooler places, while those without cars must be extremely strategic when it's very hot.
- 4) In communities where many people have AC, electricity is expensive. Cost often limits AC usage.

TOPIC 3:

Access to and utilization of power and water.

3A-Concerns about Power Outages

- 1) During days with extreme heat, access to electricity is a major concern due to the potential for power blackouts.
- 2) Many people worry about power outages, especially those who rely heavily on electronic devices for their health (CPAP, oxygen concentrators) and those who care for family members dependent upon such devices. Participants also emphasized the need for reliable refrigeration of medications.

3B-Restrictions and Challenges Regarding Air Conditioner Use

- 1) Air conditioning is an essential tool in managing heat, but its use is restricted by cost, lack of infrastructure, and concerns about carbon footprints.
- 2) Keeping houses cool is often resource intensive. Costs may be financial (electricity), health (mold on hot, humid days or risks associated with medical device failure), social (the isolation that comes from staying inside), and environmental (carbon footprint).

3C-Access to Cool Water

- 1) There is concern about cost and access to cool water during periods of extreme heat.
- 2) Some people do not drink tap water and need to buy water, which can become expensive. Many participants struggle to remain hydrated due to limited access to clean, cool water.

TOPIC 4:

Accessibility and utilization of cooling facilities.

- 1) Cooling centers are viewed as beneficial. They provide relief from the heat, but they are not always accessible to all community members due to such factors as distance, transportation issues, lack of knowledge about their location, and stigma associated with their use. Distance and transportation are significant barriers for those with mobility issues and those without cars or access to convenient (and inexpensive) public transportation. Fear of theft at cooling centers also dampens usage. These generalizations are particularly true for seniors.

- 2) The use of public spaces (libraries, malls) as cooling centers is a common strategy, but the availability and accessibility of such spaces can be a concern.

TOPIC 5:

Implications of housing and living conditions on heat management.

5A-Perceived Relationships Between Housing and Heat Management

- 1) Those living in old or inadequate housing suffer the most during heatwaves.
- 2) Many participants live in older houses that are not well insulated or have inadequate cooling systems. Homes without proper insulation or air conditioning can quickly become unbearable during extreme heat. The condition of housing greatly affects how people cope on very hot days. Those in older, poorly insulated houses or apartments without air conditioning struggle the most.
- 3) People living in older houses or mobile homes (which get hot quickly and stay hot longer) use diverse strategies to stay cool, including electric fan operation, use of wet towels, and application of ice packs.

5B-Perceived Challenges for Renters and Multi-Family Housing Residents

- 1) Renters and those living in multi-family housing face additional challenges in dealing with heat. Often, they are not allowed to install air conditioning units.
- 2) Many rental units are not properly insulated, and property managers do not permit window fans. These limitations exacerbate the impact of extreme heat.

TOPIC 6:

Public policy, communication, and awareness.

6A-Perceptions of Public Policy and Governmental Responses to Extreme Heat

- 1) Most participants felt that public policy is not addressing the increasing risks associated with extreme heat.
- 2) Participants feel there is a lack of public policy to address increasing heat risks. They are aware of climate change and its impacts but feel powerless to do anything about it.
- 3) Participants believe that new public policies and government-sponsored initiatives are needed to help individuals and communities cope with extreme heat.
- 4) Many participants expressed the need for more government support in managing heat. This includes better access to air conditioning and cooling centers, more education and public awareness programs about the dangers of heat, and more policies to support those who are most vulnerable to extreme heat.

6B-Need for Greater Public Awareness and Outreach²

- 1) Many participants had no idea that heatwaves kill more people than any other natural disaster. They see a need for better public outreach to build awareness about the dangers of heat and how to stay safe. Participants also said that they themselves would like more information and education on how to stay safe during extreme heat events.
- 2) Participants agree that there is a lack of community-level adaptation and resilience planning for extreme heat events.
- 3) Participants expressed the need for better communication and planning at the community level.

² Findings presented under “Topic #1, Knowledge and Beliefs about Extreme Heat,” initially appear to contradict the findings presented under this topic heading. A plausible explanation for the discrepancy may be that although discussants demonstrated sound knowledge of what to do on very hot days (e.g., hydrate, seek shade, adjust daily routines), they may believe that there is more for them and others to learn.

RECOMMENDATIONS

Many important insights emerged from the global analysis of the ten focus group discussions. Among these are the following:

- In general, people know how to protect themselves from extreme heat. Campaigns should not solely or predominately focus on “the basics” of hydration, shade, and daily schedule shifting but rather explore what additional information or access to resources would be useful additions.
- Access to a car or affordable, dependable transportation matters when vulnerable Californians confront extreme heat. If you have a car, you may not need to go to a cooling center. Driving to a mall, public library, swimming pool, or fast-food restaurant is equally protective and perhaps even more satisfying when the cost of transportation is not a barrier. Behaviorally focused outreach messaging should reflect available transportation options.
- Tenant rights are intimately linked to self-protection during episodes of extreme heat. Although the focus groups were not intended to address housing availability, affordability, and adequacy, these topics were introduced by participants repeatedly. Homeowners and renters have different risk profiles on very hot days. These differences should be reflected in campaign messaging.
- Farmworkers are keenly aware of the risks associated with working in the sun during extreme heat events. However, economic pressures frequently lead them to choose much needed income over safety. Messaging should honor farmworker knowledge about self-protection strategies.
- Participants in many different groups were eager to get more shade trees and parks into their communities as protection from extreme heat. There is also widespread awareness of the underlying reasons why Californians are experiencing extreme heat events more frequently than in the past. Consideration should be given as to whether it is prudent to link extreme heat messaging to broader awareness of climate change.
- Often, people have the same motivations for choosing seemingly opposing behaviors. For example, people who opted to get vaccinated and those who refrained all wanted to keep themselves and their loved ones safe.

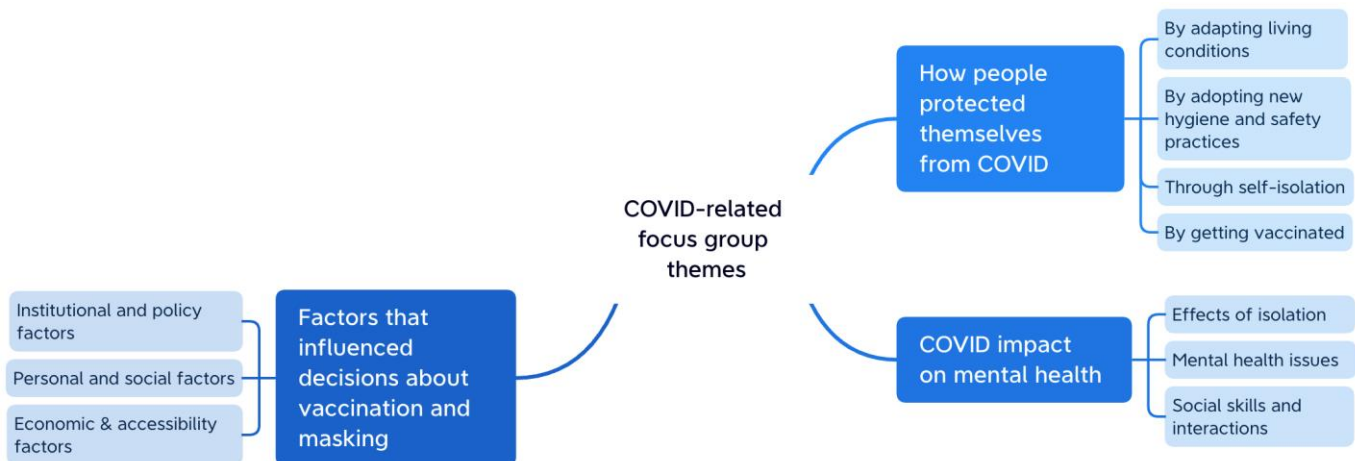
ANNEX A: COVID-related Findings

INTRODUCTION.

This annex presents findings about how individuals across the focus group spectrum experienced the COVID pandemic. This theme was discussed in nine of the ten groups.

To conduct this analysis, a master file was created that included all COVID-related participant comments and interpretative interjections that appeared in the nine topline reports, 33 in total. These comments were carefully reviewed and categorized as shown in the drawing below. Three categories (topics) were identified, each with three or four sub-topics.

FIGURE 2. Key COVID-related themes drawn from 9 focus group discussions.



TOPIC 1: How people protected themselves from COVID

Adapting Living Conditions

Synthesis: The focus group discussions revealed the challenges of adapting living conditions during COVID, with experiences ranging from health-related relocations under consideration due to air quality concerns, to increased indoor stays during extreme heat. The pandemic's intersection with other crises, such as wildfires and heatwaves, exacerbated these difficulties, forcing individuals into crowded living situations or high-risk environments.

Focus group comments:

- 1) "I have long COVID, and my doctor told me that I'd be better off moving to the coast or back to SoCal because of the air quality [especially on very hot days]." [CMC]

- 2) "During COVID I stayed indoors. During extreme heat, I get out of my house." [DIS]
- 3) "We found a loophole for the schools and were able to be open. We had distance learning inside. It was a lot of utilities, but it was so hot in the building, like 20-25 degrees hotter than outside. Combining the heat and the pandemic, it was horrible." [ORO]
- 4) "It wasn't but a couple months after the pandemic when we got hit by the fire and had to go live around a ton of people at a motel. I was working at the hospital to help and took the risk of living with my kids and boyfriend." [ORO]

Hygiene and Safety Practices

Synthesis: The focus groups highlighted the importance of hygiene and safety practices during the pandemic, with participants emphasizing measures such as mask-wearing, vaccination, and social distancing. However, concerns were raised about the safety of public amenities, particularly school water fountains, which were perceived as potential sources of contagion due to poor maintenance during the pandemic. The need for clean drinking water and affordable cooling spaces was also underscored.

Focus group comments:

- 1) "We were careful to avoid contamination and we practiced good hygiene. We washed our food and our hands and used masks." [OX]
- 2) "During COVID we masked, got vaccinated, and practiced distancing." [CCF]
- 3) "COVID has made school water fountains unsafe [although they were poorly maintained and unsafe before COVID.]" [P2]
- 4) "Water fountains in schools and other public spaces are a source of contagion." [P2]

Self-Isolation and Vaccination

Synthesis: The focus groups highlighted the practice of self-isolation, particularly among individuals with compromised immune systems, as a key strategy during the COVID-19 pandemic. Farmworker participants reported receiving vaccinations as part of their protective measures.

Focus group comments:

- 1) "We stayed home as much as we could during COVID." [CCF]
- 2) "During COVID, I stayed in and isolated myself. I'm a Type I diabetic with a compromised immune system." [UC]
- 3) "We all got vaccinated." [OX]

TOPIC #2: Mental health and social isolation linked to COVID.

Isolation and Its Effects

Synthesis: The focus groups shed light on the psychological and physical impacts of isolation during the COVID-19 pandemic, with participants expressing concerns about the compounded effects of heat and isolation. The enforced seclusion not only led to feelings of loneliness and distrust but also had tangible health impacts, such as reduced vitamin D intake. The experience of isolation was described as a significant life-altering challenge.

Focus group comments:

- 1) "The isolation is not doing everyone any good. We're also isolating in the summer for the heat which isn't good for people again." [CMC]
- 2) "Shelter in place [during COVID] means sheltering in the heat." [CMC]
- 3) "During Covid-19, I felt isolated." [UC]
- 4) "Covid kept me inside. Just staying home affected me and my vitamin D intake." [UC]
- 5) "During Covid, I tried to keep myself inside as much as I could, but it was a very big challenge. It really changed my life in so many ways." [UC]
- 6) "Covid-19 increased social isolation and distrust of others." [S60]

Mental Health Impacts

Synthesis: The focus groups underscored the severe mental health impacts of the COVID-19 pandemic, with participants describing feelings of entrapment, fear, and heightened anger. There was a particular emphasis on the alarming increase in suicide rates, especially among veterans and teenagers, which was attributed to prolonged isolation and the associated psychological distress.

Focus group comments:

- 1) "I felt like a prisoner [during COVID]. I was feisty. I'm glad my wife didn't realize how angry I was." [CMC]
- 2) "I thought I was going to die during Covid-19." [UC]
- 3) "Suicide rates [during COVID] among veterans are higher than they say they are." [CMC]
- 4) "There was a secondary effect of mental health and being isolated for so long. The suicide rate for teens went up 800% since 2017. We have the highest teen suicide rate here." [ORO]

Social Interactions and Skills

Synthesis: The focus groups revealed that the COVID-19 pandemic has significantly impacted social interactions and skills. Participants noted an increased sense of caution and tentativeness in interpersonal relationships, exacerbated by the political climate and instances of mass violence.

Concerns were also raised about the decline in social skills among the youth, who are struggling to forge and maintain social connections in the aftermath of the pandemic.

Focus group comments:

- 1) "There's a lot more caution in relating with people. We've recalibrated and then with the political climate too. It's been a big divide. Even mass shootings. There's a lot more tentativeness." [ORO]
- 2) "There's a lack of social skills in general in youth after COVID. People don't know how to get along, or how to get those social connections with others." [Y]

TOPIC #3: Factors that influenced decisions about COVID vaccination and masking.

Institutional and Policy Factors

Synthesis: The focus groups highlighted the role of institutional and policy factors in the COVID-19 response. People with disabilities in particular expressed concerns about the lack of mask mandates, which they perceived as detrimental to vulnerable populations. Farmworkers discussed the influence of workplace policies on vaccination rates, with some employers requiring vaccination for continued employment or access to medical clinics and other facilities.

Focus group comments:

- 1) "COVID is a problem since we don't have mask mandates. This is bad for vulnerable people." [DIS]
- 2) "Our employers required us to get vaccinated." [CCF]
- 3) "It [vaccination] was encouraged at work." [OX]
- 4) "You need your vaccination card to go into medical clinics." [OX]
- 5) "The bosses don't require it, but they won't give you work if you're not vaccinated." [OX]

Personal and Social Factors

Synthesis: The focus groups illuminated the influence of personal and social factors on COVID-19 responses. Participants noted the difficulty of mask-wearing in extreme heat yet acknowledged its importance for safety. Personal experiences and familial considerations played a significant role in deciding whether to get vaccinated. The importance of community outreach for vaccination promotion was emphasized, and specific concerns were raised about the heightened vulnerability of the elderly to COVID-19.

Focus group comments:

- 1) "If it's 100 degrees outside wearing a mask is hard but you want to be safe." [ORO]
- 2) "My wife got the vaccine first. They told us [to get vaccinated] for our son's health. Once I saw that my wife didn't get sick [after getting vaccinated], I went and got my shot." [OX]

- 3) "During COVID, it was important to go out and meet people in their homes and communities [to convince them to get vaccinated]." [S60]
- 4) "COVID accelerated breathing for the elderly. It was really bad for the elderly." [CMC]

Economic and Accessibility Factors

Synthesis: The focus groups highlighted the significant economic and accessibility factors that influenced the response to the COVID-19 pandemic. Participants noted the stark disparities in resource access. The elderly and those without transportation were deemed to be especially vulnerable. The importance of free services, such as vaccinations, was emphasized, as was the need for ongoing prevention and therapeutic care. The pandemic's impact on public transportation funding, due to decreased usage, was also discussed as a concerning issue.

Focus group comments:

- 1) "It was a reality check of disproportion—those who could go to the store to stock up and others who couldn't... It was clear that we weren't ready to support the elderly, those without transit, etc. We need a plan for if this would happen again." [ORO]
- 2) "Providing free services was important; people didn't have to pay for the vaccine." [S60]
- 3) "Covid is with us to stay. The state will need to provide prevention services as well as therapeutic care." [S60]
- 4) "Transportation is in a negative feedback loop. Less bus use (post-COVID) means less funding for buses." [DIS]

ANNEX B: The Basic Focus Group Protocol

Area: Launching the session

- Self-introduction by moderator
- Thanks for coming
- Purpose of today's discussion: learning about how you, your family, and your community are affected by extreme heat³
- Identification of session "sponsor"
- Permission for audio recording
- Confidentiality promise

Area: Participant introductions

1. Name
2. Share something about your community that makes you happy.

Area: Beliefs & knowledge

1. Speaking *as a mom with young children*, [or, *as an older person*] what should you do or avoid doing on very hot days?
2. Think about your parents or grandparents. What did they do to stay safe on very hot days?

Follow-up questions:

- (Q1) Think about other members of your household. What should they do or avoid doing? [Probe only if this has not already been addressed in Q1 responses]
- (Q1) Where do you get information about how to stay safe in hot weather (e.g., government, community, family, TV, radio)? Get as many specifics as possible.
- (Q2) How have you continued or changed these practices in your own homes?

Area: Behaviors

1. How does very hot weather affect your daily routines or activities? What about other members of your household?
3. Have you ever left your home because of the heat? Where did you go? What was that experience like for you?

Follow-up question for Q1: What more can you share about how your specific activities are affected by extreme heat?

³ The US Government defines "extreme heat" as a period of high heat and humidity with temperatures above 90 degrees for at least two to three days.

Area: Feelings

1. Think of a time when you experienced a very, very hot day. What worries or concerns did you have?
2. Have you or someone you know ever experienced a heat-related illness or emergency? Tell us what happened. How did that experience make you feel?

Follow-up question for Q1: How does extreme heat affect your mood, work, or relationships?

Area: Aspirations

1. Think about a very, very hot day. What things does your community already have that are very helpful to people like you?
3. Imagine that your community had the perfect place to go on very, very hot days. What does this place offer that makes it so perfect?

Follow-up question for Q2: How would this perfect place address such issues as language barriers and communication, transportation, or accessibility?

Area: Conclusions

1. Imagine that a high-ranking government official were with us today. What would you say to that person about how extreme heat affects your family and community?
2. Compare COVID-19 to extreme heat. Which is the bigger problem? Why?
4. What was the most important thing you heard today?

Follow-up question for Q2: Based on what you heard today, is there anything new you might do the next time that it's very, very hot?