

TRIBAL AND RURAL HEAT LISTENING SESSION REPORT



THE UNIVERSITY OF ARIZONA
MEL & ENID ZUCKERMAN COLLEGE OF PUBLIC HEALTH
**Southwest Center on
Resilience for Climate
& Health**

Key Takeaways

Tribal and Rural Communities Have Diverse Heat Needs and Experiences. Participants emphasized that rural and Tribal communities differ in culture, language, infrastructure, resources, and perceptions of extreme heat. These differences shape how communities experience and respond to extreme heat and highlight the importance of locally tailored approaches.

Trusted Partnerships and Two-Way Communication Are Essential. Participants emphasized the importance of relationships with Tribal leaders, CHRs, CHWs, healthcare providers, and community organizations that are already trusted within communities. Two-way communication was also important for ensuring that communities can identify their own needs and help guide locally appropriate solutions.

Gaps Remain in Tribal Heat and Health Data. Participants identified gaps in how impacts are captured in heat-related data, including underreporting of American Indian and Alaska Native populations and limited community-level information on heat risk. Data needs included hyper-local temperature data, information on vulnerable populations and household conditions, and cooling center and hydration station utilization.

Heat Funding Is Limited and Unevenly Distributed. Participants described limited and uneven funding for heat preparedness and response, particularly between counties and Tribal communities. They also identified a need for sustained funding to support housing, transportation, communication infrastructure, community-based services, and the work of CHRs and CHWs.

Session Overview

*The Tribal and Rural Heat Listening Session was conducted by the **Southwest Center on Resilience for Climate and Health (SCORCH)**, in collaboration with the **Arizona Center for Rural Health**, and the **Arizona Department of Health Services (ADHS)**. The session took place during the 3rd Annual Arizona Heat Summit hosted by the Arizona Department of Health Services (ADHS). The session included 25 participants divided into six small discussion groups, representing five tribal communities as well as organizations and individuals who collaborate with indigenous communities, with a note-taker at each table. Participating agencies included education, health departments, Tribal government/Tribal health services, government agencies, local non-profits, emergency management offices, community-based organizations, and utility companies.*

Opportunities

Participants identified several opportunities to strengthen heat preparedness and response in rural and Tribal communities:

Policy

- ▶ Improve heat and health data for decision-making by incorporating hospital, emergency department, EMS, utility, and cooling center data
- ▶ Increase dedicated support and funding for heat response by establishing heat-focused funding and increasing state support for Tribal communities.

Infrastructure

- ▶ Invest in more durable heat relief and infrastructure solutions by moving beyond short-term cooling kits and considering options discussed by participants such as solar energy, generators, mobile health clinics, energy efficiency, and building codes.

Communication

- ▶ Improve heat communication and language access by using trusted messengers such as CHRs and CHWs, locally available channels such as AM radio, and heat information that is translated and culturally appropriate.
- ▶ Integrate heat into existing public health programs by incorporating heat into chronic disease education, maternal and child health, and opioid and substance use programs.
- ▶ Expand heat education for children and youth by incorporating heat information, cultural competency, and cultural awareness into education so children grow up understanding heat risks.

Community Preparedness

- ▶ Strengthen partnerships and community-led decision-making by engaging Tribal leadership and elders, community members, hospitals, private organizations, CHRs, CHWs, and other community partners in identifying needs and developing solutions.
- ▶ Expand and support CHRs and CHWs in heat response by partnering with them for community outreach and checks, increasing their compensation and recognition, and considering their own safety while working in hot weather.
- ▶ Address heat through an equity lens by considering wages, utility costs, food, childcare, and other basic needs when identifying the resources communities need to thrive.
- ▶ Tailor heat response to individual rural and Tribal communities by recognizing that communities experience heat differently and creating a repository of best practices that communities can use to identify approaches that work for them.



Current Landscape

Efforts and Challenges

Rural and Tribal communities across Arizona use a variety of strategies to address extreme heat, including cooling centers, mobile health services, elder checks, heat relief supplies, and outreach through Community Health Representatives (CHRs), Community Health Workers (CHWs), and community organizations. Partnerships with health departments, libraries, the Red Cross, local businesses, and other organizations also support these efforts.

However, participants described substantial differences in communities' capacity to prepare for and respond to extreme heat. Limited transportation, electricity and water access, cellular and internet service, housing conditions, and access to cooling resources were common challenges. Participants also described limited funding and differences in how heat relief resources are distributed between counties and Tribal communities. As one participant noted, "Heat promo items from state are good but often give a truckload to county but get a box—make more resources available for tribes."

Communication Challenges

Participants described multiple ways that rural and Tribal communities receive heat-related information, including AM radio, social media, television, emergency alerts, door-to-door outreach, and communication through CHRs and CHWs. However, access to these communication channels varies considerably. Limited cellular and internet coverage can make digital alerts less effective in these communities and noted that television weather coverage often focuses on urban areas and may not reflect conditions in Tribal and rural communities.

Language, culture, and trust were also important considerations. Participants emphasized that heat information should be available in Native languages when appropriate and tailored to different age groups, literacy levels, and cultural contexts. Trusted local messengers, including Tribal leaders, CHRs, CHWs, and community organizations, were viewed as important for sharing information and understanding community needs.

Participants also emphasized the importance of two-way communication rather than simply providing information to communities. Building trust requires involving communities in determining what information is needed and how it should be used. One participant described this approach as asking communities, "What do you want us to know?" rather than approaching them with predetermined data needs.



Vulnerable Populations and Risk Factors

Participants identified older adults, children and youth, people with chronic health conditions, unhoused individuals, outdoor workers, and people without reliable access to cooling as particularly vulnerable to extreme heat. Isolation, limited mobility, utility costs, and inadequate housing can further increase risk. Participants also noted that high nighttime temperatures can prevent recovery from daytime heat exposure, while dehydration and prolonged heat exposure can affect an individual's ability to recognize risk and seek assistance.

Transportation and geographic isolation were additional concerns. Long distances to healthcare and cooling resources, limited public transportation, and inadequate road and address systems can make it difficult for residents to access services or for emergency responders to reach them. As one participant explained, "People without cars—no access to healthcare, sometimes there are hours to travel. Many bus stops are just a bench. No public transportation on the rez."

Participants also described differences in perceptions of heat risk. In some communities, high temperatures are considered a normal, and residents may take pride in their ability to withstand extreme heat. One participant described 105°F as feeling like relief. These differences highlight the importance of understanding local perceptions when developing heat messaging and response strategies.

Infrastructure, Housing, and Long-Term Resilience

Participants discussed how housing, infrastructure, and access to maintenance affect communities' ability to respond to extreme heat. Traditional adobe homes were described as being well adapted to the local environment because they stayed cool during the summer. In contrast, discussions of current housing focused on building practices, maintenance, and the need for stronger enforcement of building codes. One example involved a mobile home that was not adequately tied down during a 2022 storm, resulting in damage that later affected the home's air conditioning and swamp cooler.



Access to maintenance services was another concern, particularly in rural and Tribal communities where services may be located far away. Participants noted that residents may face additional costs simply to have contractors travel to their communities. As one participant explained, "One of issues in [Tribal nation] is—can call someone from [town]—will charge \$200 to drive out there; infrastructure and building—more expensive because of haul."



Participants also discussed longer-term strategies to address infrastructure needs. Solar energy was identified as a potential source of electricity for residents living in more remote areas, although participants noted the higher upfront costs. Building codes and education on home maintenance were also discussed as ways to prevent smaller housing problems from becoming larger issues over time. Participants also highlighted the Salt River Pima-Maricopa Indian Community's LIFE (Listing Information for Emergencies) program as an existing program for identifying residents who may need additional assistance during emergencies.

Equity, Economics, and the Right to Thrive in Tribal Communities

Participants discussed how economic insecurity fundamentally shapes heat vulnerability. The costs of food, childcare, utilities, and other everyday needs were raised as concerns, particularly when individuals and families have limited resources to meet these needs. As one participant noted,

"Sometimes for childcare we can't afford food; need to think—oh wow, health isn't good, but can't afford a gym."

Participants emphasized the importance of approaching extreme heat through an equity lens. The affordability of cooling was one consideration, with some residents limiting their use of air conditioning because of high electricity costs. Income and wages were also discussed in relation to the resources individuals and families have available during periods of extreme heat. As one participant asked, "If employees are not paid enough to live, how can they be expected to thrive during extreme heat?" Participants also identified the need for dedicated heat funding to support long-term planning, implementation, and culturally informed solutions.

Participants also discussed the need to integrate heat into existing health programs rather than addressing it separately from other health concerns. Chronic disease and maternal health programs were identified as opportunities to incorporate heat education into existing public health efforts. As one participant asked,

"Heat is addressed outside of all other health concerns. Why hasn't heat been integrated into chronic disease?"

Conclusion

Participants emphasized that there is no single approach to addressing extreme heat across rural and Tribal communities. Existing community networks, CHRs and CHWs, Tribal programs, and local partnerships provide important resources for heat response, while challenges related to infrastructure, transportation, communication, funding, and data remain. Across discussions, participants emphasized the importance of community input, locally appropriate approaches, and partnerships that build on existing community resources and knowledge. Discussions also highlighted the need to consider broader economic conditions and basic needs when addressing extreme heat. As one participant summarized:

"We don't just want to survive, we want to thrive. How do we identify the resources needed to thrive?"

