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CONNECTION

# Tackling Heat in Umlazi

## *Exploring community perceptions of climate change, heat stress and passive cooling*

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Some of the team members involved in the project

USINGA is committed to conducting intervention projects that address socio-economic challenges identified in their research, translating insights into action and driving real change within the community.

In line with this vision, and in partnership with ARISE and C-EARTH, funded by the Harvard School of Public Health, USINGA conducted a pilot Heat Stress Study in Umlazi. This pilot project examined the effects of extreme heat on nutrition and health, and evaluated community perspectives on passive cooling solutions, including cool roofs. The cool roof assessment was primarily aimed at gathering understanding, preferences, and insights from the community, rather than full-scale testing, due to funding constraints.

Funded by the Department of Science, Technology & Innovation (DSTI)
Hosted by the South African Medical Research Council (SAMRC)

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The pilot employed a combination of quantitative and qualitative data collection methods. Focus group discussions provided a comprehensive view of how households understand extreme heat and their opinions on the cool roof system. The data are now being analysed to prepare scientific publications and to support funding applications for a full-scale intervention in the future.

Community participation was a central component of the pilot. Community Advisory Board (CAB) members from wards 79, 82, and 88 actively contributed through interviews and discussions, ensuring that local knowledge and lived experiences guided the research. Their input was critical in shaping an understanding of the challenges and potential solutions for heat stress in Umlazi.

The research focused on understanding how heat exposure affects wellbeing, including symptoms of heat stress, health events, and dietary outcomes. It also explored community knowledge, attitudes, and practices around heatwaves and drought, and gathered opinions on passive cooling strategies, including cool roofs, to inform future interventions.

The pilot was led by Dr Nompumelelo Mbele, Nodal Director of USINGA, Professor Saloshni Naidoo and Dr Nisha Nadesan-Reddy, from the University of KwaZulu-Natal (UKZN). The entire research team assisted with coordination, ensuring the success of the pilot study.

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