

## **Abstract**

Van Tol, Z.<sup>1\*</sup>, A. Middel<sup>2</sup>, J.K. Vanos<sup>1</sup>, and K.M. Ferguson<sup>3</sup>. *Exposed: Environmental Risks Among Older Adults Experiencing Homelessness in Phoenix, Arizona.*

Individuals experiencing homelessness are highly vulnerable to environmental hazards, such as heat and air pollution, due to a lack of stable housing and limited access to cooled spaces. This risk is heightened for older adults and individuals with preexisting health conditions. With intensifying summer heat in the American Southwest and the persistence of urban homelessness, this study explores how older adults experiencing homelessness in Phoenix, Arizona, perceive and interact with heat and air pollution, as well as the adequacy of available resources and information. A survey was co-produced with community members with lived experience during two working sessions in March 2024. A sub-group assisted in proctoring the surveys at a downtown service provider in June 2024. Survey results informed the placement of meteorological data collection using MaRTy, a mobile cart measuring thermal comfort, and remotely sensed particulate matter (PM<sub>2.5</sub>). Findings reveal that heat and air pollution significantly influence travel decisions and contribute to health issues for many respondents. Midday and evening thermal radiation levels regularly exceed safe thresholds, while PM<sub>2.5</sub> concentrations often surpass annual air quality guidelines, though they pose less acute health risks. Most participants reported awareness of health risks and employed strategies to reduce exposure. However, many expressed that community resources are insufficient to prevent heat- and air-pollution-related health issues. Findings underscore the need for targeted interventions—such as better access to transportation, extended hours of operation for service providers, and healthcare reforms—to enhance resource accessibility and mitigate environmental health risks for vulnerable populations.

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\*Lead author is a graduate student, but they will not be in attendance to present the poster.

## **Citation**

Zachary Van Tol, Ariane Middel, Jennifer K. Vanos, and Kristin M. Ferguson. *Exposed: Environmental Risks Among Older Adults Experiencing Homelessness in Phoenix, Arizona.*

## **CAP V Interdisciplinary Research Teams (IRTs)**

- Urban Climate and Air Quality
- Environment and Human Wellbeing