



PRESENTER

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## BACKGROUND

- Half of a person's health status is influenced by Social Determinants of Health (SDOH) and one-third to individual health behaviors.
- We developed and validated a novel Community Connected Classification (C3) to characterize regional positive SDOH factors evaluate health behavior associations

## METHODS



Population level data from the American Community Survey and Behavioral Risk Factor Surveillance System



Final SDOH 'score' from PCA component named and cut into deciles to represent classifications



A C3 score of 10 indicates communities with greater connection (high) while a 1 indicates communities with greater privation (low)



118 zip codes with available complete data



Analyzed using STATA 17.0 and ArcGIS Pro

## RESULTS

Communities with higher C3 scores: 1) have higher household income, 2) are above the federal poverty line, 3) are considered food secure, 4) have internet access, 5) attained higher education, and 6) have a primary care provider.

C3 when adjusted for demographics, technology access, and geography was significantly inversely associated with Southern Arizona population rate:

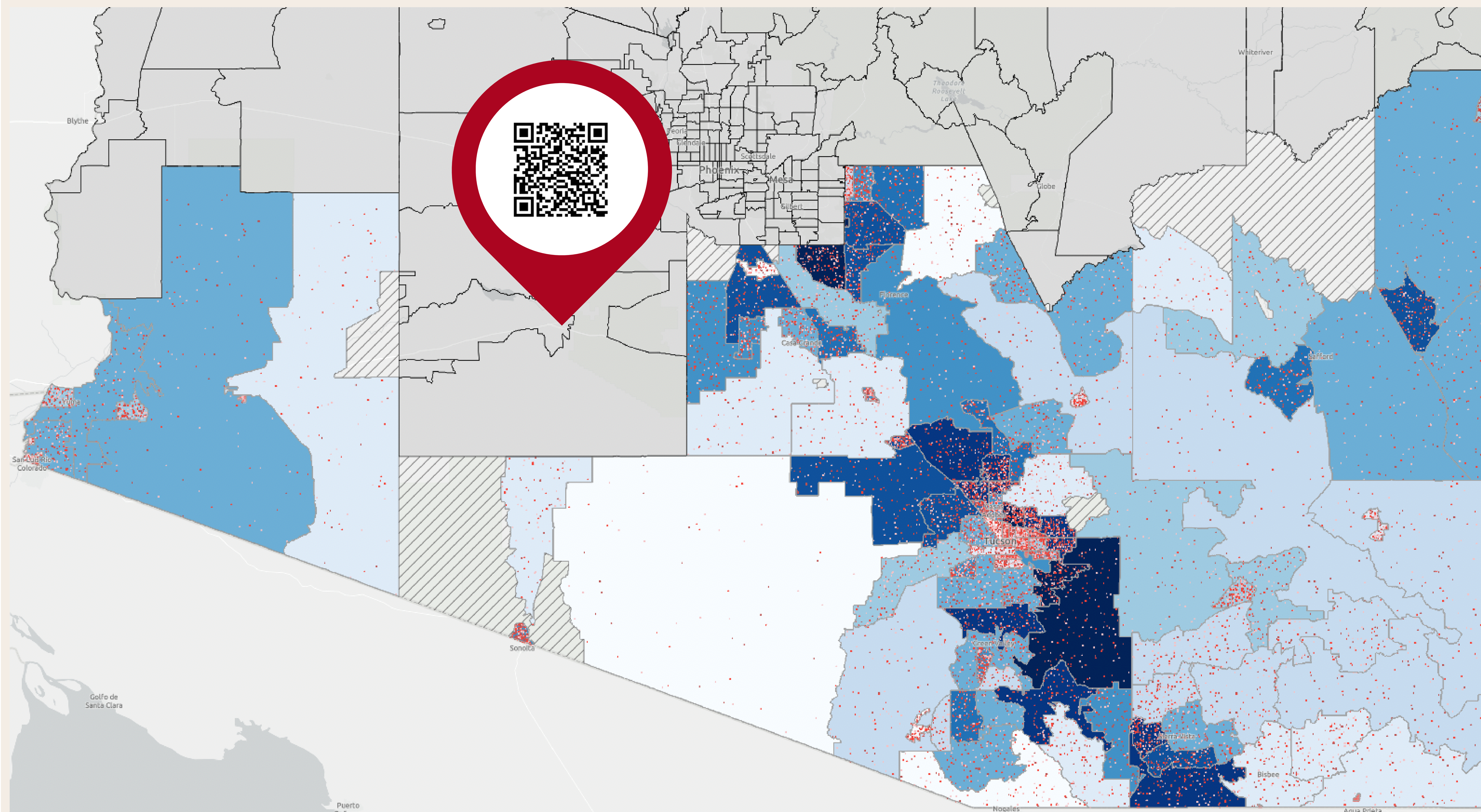
- **Obesity** ( $\beta=-0.20$ ; 95%CI: -0.35, -0.06)
- **Low fruit and vegetable intake** ( $\beta=-0.35$ ; 95%CI: -0.51, -0.19)
- **Physical inactivity** ( $\beta=-0.32$ ; 95%CI: -0.48, -0.16)
- **Smoking** ( $\beta=-0.34$ ; 95%CI: -0.62, -0.07)



THE UNIVERSITY OF ARIZONA  
**College of Nursing**



# People engage in more health protective behaviors when they live in **connected communities.**



**C3 Clustering in Southern Arizona by Zip Code:** Scan the QR code to view an interactive web-map  
Dark blue represents higher C3 values; light blue represents lower C3 values; red dots represent health behaviors

## COMMUNITY CONNECTEDNESS CLASSIFICATION AND ASSOCIATION WITH HEALTH BEHAVIORS IN SOUTHERN ARIZONA: A GEOSPATIAL ANALYSIS

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