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

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 and 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 ($\beta=-0.34; 95\%CI: -0.62, -0.07$)

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