

Place and Health: Preventable Hospitalizations for Adults in the Central Valley of California

Researchers:

- Emanuel Alcala, MA, Central Valley Health Policy Institute, California State University, Fresno, Fresno, CA
- Lauren Lessard, MPH, PhD Candidate , Central Valley Health Policy Institute, California State University, Fresno, Fresno, CA
- John Capitman, PhD , Department of Public Health, Central Valley Health Policy Institute, California State University, Fresno, Fresno, CA

Background

Rates of hospitalization for preventable conditions measure the burden of disease that could be avoided with increased access to preventive care. There is ongoing debate about how other community level social and environmental factors influence these admissions.

Methods

Analysis was conducted using the 2009-2011 California Office of Statewide Health Planning and Development (OSHPD) discharge databases, for 8 Central Valley counties. A summary preventable hospitalization score was created based on the AHRQ prevention quality indicators. US Census and other data were used to incorporate zip-code level factors including racial composition and median income. Hierarchical generalized linear models were used to analyze variance in preventable conditions across neighborhoods in the Central Valley.

Results

Average rate of preventable disease hospitalizations is 28/10,000 in in populations over 55 years of age. After controlling for individual-level factors including gender, race/ethnicity, and age 78% of variance in hospital admissions existed between zip codes. White adults are significantly more likely to be hospitalized than their Non-white counterparts. Neighborhood median income was significantly associated with a decrease in mean event rates and accounted for 60% of the variance in hospital admissions between zip codes. Neighborhoods with high levels of income significantly attenuated the relationship between whites and hospitalization rates.

Conclusions

Understanding the geographic distribution of disease and impact of community level factors is essential to expanding access to care and preventive resources to improve health outcomes.