

Abstract

Defining place in health studies has been a crux for researchers as the definition of neighborhood is often regarded as adaptable to study needs and/or the preferences of the researcher. Health researchers commonly rely on measures of neighborhood that default to any number of predefined spatial administrative units, providing a relatively quick and cost-effective means to accessing and categorizing population data within a geographic area of interest. This approach to inferring population statistics assumes that median values for variables are relatively evenly disbursed across specific geographic areas of varying sizes.

This thesis explores how research outcomes may be affected by the choice of geographic reporting zones. The primary research goal of this study was to compare geographic reporting zones within the State of Arizona and to determine how the choice of neighborhood would influence the resulting values for three commonly utilized social determinants of health; median household income, numbers of children and the elderly, and the percent Native American population. This study used administrative boundaries at the county, census tract, and census block group levels from the 2000 Decennial Census and examined if and what variation occurred within the resulting outcomes for differing reporting zones within the State of Arizona.

The results of this thesis demonstrate that outcomes cannot be generalized across administrative units, that spatial aggregation will affect final outcomes, and that the choice of spatial reporting zone may produce widely different estimates for the same variable within a given geographic area. This thesis provides the foundation for future work investigating how choice of neighborhood can affect outcomes for small area studies and sets the framework for exploring what effects neighborhood definition might have on estimates of social determinants of health when proximity buffers are applied.