

Using the American community survey and geographic information systems to improve community health needs assessments

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Rationale for Action

The late Tip O'Neal once said that "All politics is local". The same is true for health, yet most health needs assessments tend to focus on large geographic areas (i.e. county or city level) that tend to mask disparities due to social, economic and environmental conditions at the community level. As part of class project, we set out to better analyze and identify health disparities at lower geographic units of analysis (census tract) in Kent County, MI using Geographic Information Systems (GIS) and the American Community Survey (ACS).

We examined the relationships between the socioeconomic factors and health outcomes to select ACS variables for analysis. These socioeconomic variables (poverty, single-parent households, education) often predict where health disparities are most likely to occur. Improved identification of areas likely to suffer from health disparities can lead to more appropriate and effective interventions.

For more information, see the project website
www.communityhealthscore.org



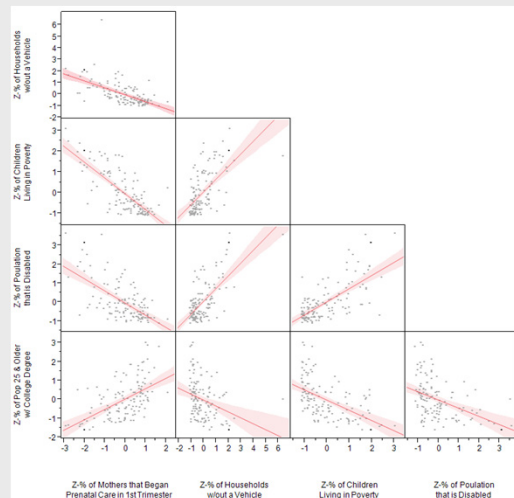
Social Determinants of Health

The health of a community is dependent on much more than merely the actual health care delivery system. Indeed, community health is a function of the social, economic, physical and environmental influences found there, also known as the social determinants of health. The U.S. Centers for Disease Control and Prevention defines this as the circumstances in which people are born, grow up, live, work, and age, as well as the systems put in place to deal with illness. These circumstances are in turn shaped by a wider set of forces: economics, social policies, and politics (Centers for Disease Control and Prevention, 2012)

We selected our measures or indicators, largely patterned after the *County Health Rankings & Roadmaps* program, created by the University of Wisconsin Population Health Institute. The indicators were chosen around three domains:

- access to care
- socioeconomic factors, and
- physical and environmental factors

Scatterplot Matrix of Selected Community Health Measures



Communities as Units of Analysis

The unit of analysis (e.g. the whom, what and level of geography of the study) must be driven to lower and more practical levels. Because children and their families often live within communities which are often the explicit targets of public health interventions, it is important to have a greater understanding of the individual communities that make up Kent County and their potential needs. Highly aggregated data are not suitable to examine the well-being at localized levels. States, Metropolitan Statistical Areas and counties are simply too large to gain an adequate understanding of community need. *Within* Kent County severe educational, demographic and income disparities – that impact community health. Our solution was to develop a series of weighted, composite measures mapped at the community level for each of Kent County's 128 census tracts. The full results are available in an interactive website with embedded community maps and analysis – www.communityhealthscore.org

**Select Demographic Characteristics:
Grand Rapids & Ada - Kent County, MI**

Indicator	Grand Rapids	Ada
Population	188,040	13,142
Median Household Income	\$38,731	\$103,526
Poverty Rate	25.5%	3.1%
Non-White Pop	35.6%	6.7%
Pop with Bachelor's Degree or Higher	18.4%	13.3%
Single Female Headed Households with Children	11.4%	4.2%

Source: US Census Bureau – American Fact Finder

Community Health Score

THE RANKINGS

The Community Health Score is a weighted, composite measure that provides a relative ranking system of the health of each of Kent County's 128 communities or Census tracts where 1 is the highest ranking and 128 is the lowest.

Use your mouse to click on any Census Tract for more detail about the community type and its rank.

Legend

