

# What role can regional economics play in addressing health questions?

The interesection of the environment and health

Mouhcine Guettabi

Institute of Social and Economic Research  
University of Alaska Anchorage

2/16/2015

# Outline

- 1 General Overview
  - Why does space matter?
  - Some obvious yet necessary reminders
  - Obesity
  - How can we disentangle this relationship?
- 2 Alaska's Health Challenges
- 3 Summary

# Outline

- 1 **General Overview**
  - Why does space matter?
    - Some obvious yet necessary reminders
    - Obesity
    - How can we disentangle this relationship?
- 2 Alaska's Health Challenges
- 3 Summary

## Basic Definition

Although significant improvements in the overall health of the population in the United States have been realized over the last four decades, these improvements **have not been realized by all segments of the population.**

In general, improvements in overall population health can be attributed to the combined effect of **improved living standards, advancements in medical care and treatment, improved access to medical care resources, and increased awareness about health risks in the general population.**

## Regional Economics

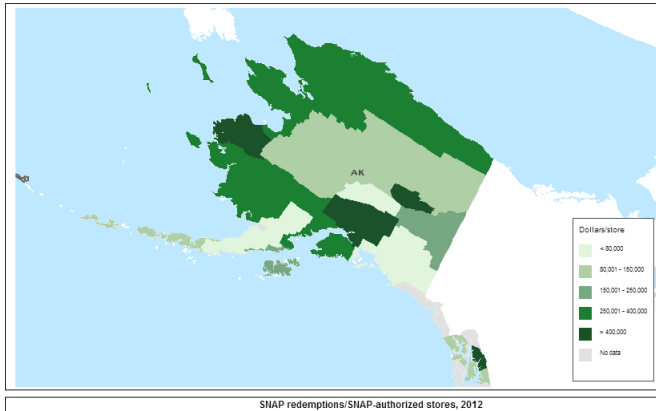
The basic question of regional economics is why does economic activity take place where it does?

- In addressing questions about why businesses and people choose to locate where they do, and why some places thrive and others don't, we look at the influences of policy and rules, spatial dimensions of cost and utility decisions, and the importance of social and professional networks.
- Income determination is also an important area of study, (primarily in the US), looking at how economic growth is distributed and the role of growth in improving household well-being.

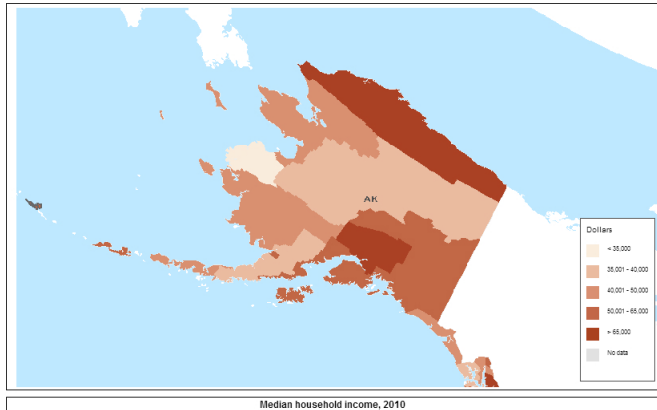
# Outline

- 1 **General Overview**
  - Why does space matter?
  - **Some obvious yet necessary reminders**
  - Obesity
  - How can we disentangle this relationship?
- 2 Alaska's Health Challenges
- 3 Summary

# Supplemental Nutrition Assistance Program



# Median Household Income





# How can Economics help?

## Why do we care?

"Economics surely does not provide a romantic vision of life. But the widespread poverty, misery, and crises in many parts of the world, much of it unnecessary, are strong reminders that understanding economic and social laws can make an enormous contribution to the welfare of people".

Gary Becker in his 1992 Nobel banquet speech.

# Geography and Health

Geographic variations in health care are responsible for a substantial component of the observed racial disparity in care, since **socioeconomically disadvantaged individuals** are disproportionately located in parts of the country that have low-quality hospitals and providers.

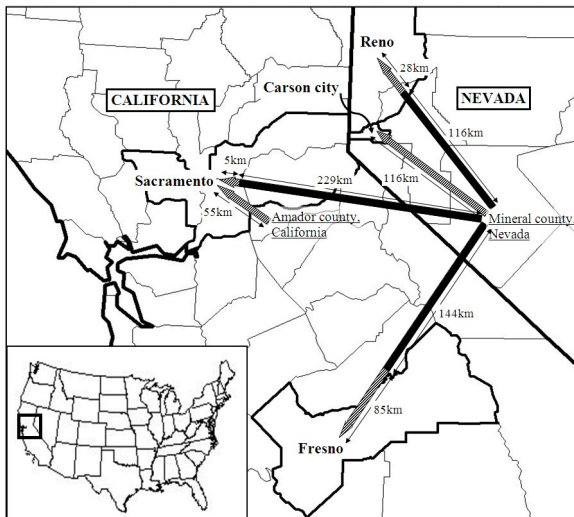
## Distance and Health

One of the most important geographic features that may affect health status and health outcomes and which may contribute to disparities is distance to health care. The effects of distance on access to health care services has been a subject of research for some time

## Access to Care

- Access to health care services in rural versus urban areas has been explored by health services researchers for decades. Rural residents are, on average, poorer, older, and, for those under age 65, less insured than persons living in urban areas (American College of Physicians 1995; Hartley, Quam, and Lurie 1994; Braden and Beauregard 1994; Schur and Franco 1999).

# Urban Hierarchy

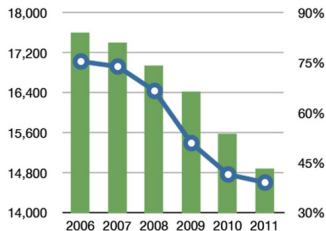


# Policy evaluation

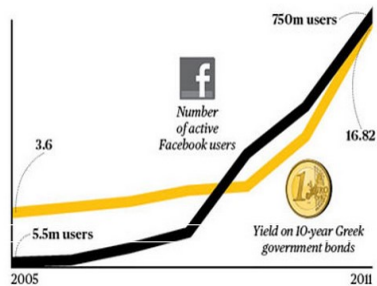
- Programs might appear potentially promising before implementation yet fail to generate **expected impacts or benefits**.
- **The obvious need for policy evaluation is to inform policymakers on what works and what does not. Specifically, the changes in the outcome of interest that are attributable to a particular project or intervention.**

# Some Silliness

Internet Explorer vs Murder Rate



▶ Murders in US    ■ Internet Explorer Market Share

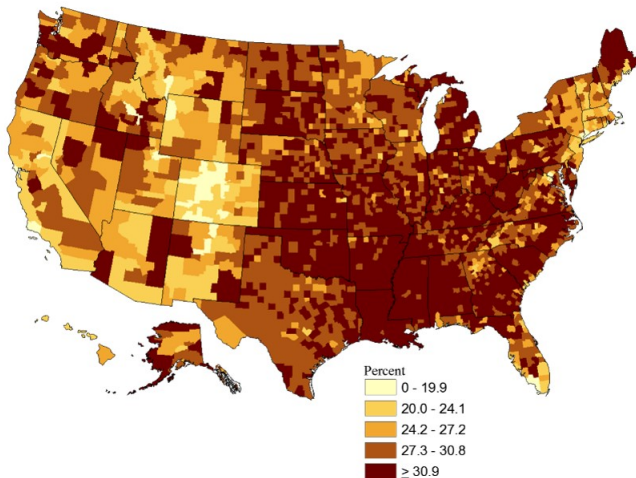


# Outline

- 1 **General Overview**
  - Why does space matter?
  - Some obvious yet necessary reminders
  - **Obesity**
  - How can we disentangle this relationship?
- 2 Alaska's Health Challenges
- 3 Summary



# Obesity Prevalence in 2011 by county



# Endogeneity in obesity and the environment

- Many of the idiosyncratic characteristics that affect obesity may also affect neighborhood choices. For instance, someone with an idiosyncratic distaste for walking is **both more likely to be obese and to prefer living where one can easily get around by car**. For such individuals obesity is correlated with, but not caused by, the choice to live in a sprawling neighborhood.
- That is, we may observe more obesity in sprawling neighborhoods because individuals who have a propensity to be obese choose to live in these neighborhoods. If such self-selection is important we can observe higher rates of obesity in sprawling neighborhoods even if there is no causal relationship between sprawl and obesity.

## Endogeneity in obesity and the environment

- Many of the idiosyncratic characteristics that affect obesity may also affect neighborhood choices. For instance, someone with an idiosyncratic distaste for walking is **both more likely to be obese and to prefer living where one can easily get around by car**. For such individuals obesity is correlated with, but not caused by, the choice to live in a sprawling neighborhood.
- That is, we may observe more obesity in sprawling neighborhoods because individuals who have a propensity to be obese choose to live in these neighborhoods. If such self-selection is important we can observe higher rates of obesity in sprawling neighborhoods even if there is no causal relationship between sprawl and obesity.

# Outline

- 1 **General Overview**
  - Why does space matter?
  - Some obvious yet necessary reminders
  - Obesity
  - **How can we disentangle this relationship?**
- 2 Alaska's Health Challenges
- 3 Summary

# Variation

In a paper focusing on children, we found that children's weight is inversely related to density even after for endogeneity.

**What do we make of this?**

- Issues of self selection and simultaneity are very prevalent in health.
- Policies aiming to reduce disparities need to take SES and the environment into account.

# Variation

In a paper focusing on children, we found that children's weight is inversely related to density even after for endogeneity.

**What do we make of this?**

- Issues of self selection and simultaneity are very prevalent in health.
- Policies aiming to reduce disparities need to take SES and the environment into account.

## Broad Indicators

- Alaska has to compete for doctors and other health-care professionals.
- Small, isolated Alaska hospitals tend to have higher staffing levels per patient than facilities in other states.
- **Small markets:**  
Roughly half of all Alaskans live in Anchorage and nearby areas, but Alaska has hundreds of small communities and the small markets in those places mean providers can't take advantage of economies of scale and have limited competition.

# Summary

- Policies aimed at improving population health can at times lead to increased disparities.
- Place-based approaches are one promising strategy for improving health and wellbeing in local communities.

These approaches have been most simply described as stakeholders engaging in a collaborative process to address issues as they are experienced within a geographic space, be it a neighbourhood or community.



# Summary

- Policies aimed at improving population health can at times lead to increased disparities.
- Place-based approaches are one promising strategy for improving health and wellbeing in local communities.

These approaches have been most simply described as stakeholders engaging in a collaborative process to address issues as they are experienced within a geographic space, be it a neighbourhood or community.

Thank you

***Thank You***

Mouhcine Guettabi

Phone Number :907-786-5496  
email : [mguettabi@alaska.edu](mailto:mguettabi@alaska.edu)