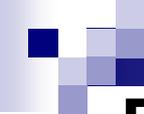


Health and Residential Location

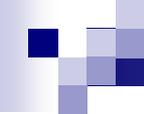
Janet Currie

Columbia University and
NBER



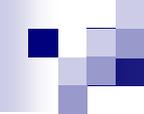
Residents of Poor Neighborhoods are in Worse Health than others on Average

- But is the effect causal?
- There are many possible mechanisms for location to affect health.
- But residents of poor neighborhoods also have other characteristics (such as poverty) that are known to influence health.



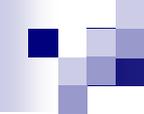
Neighborhoods may effect:

1. The disease environment (less important in the U.S. today than formerly)
2. Socioeconomic status
3. Pollution exposure
4. Characteristics of the built environment
5. Choice of peers/network effects
6. Exposure to crime and stress



2. Residential Location and SES

- Poverty itself is related to negative health outcomes.
- Do poor neighborhoods *cause* poverty?
 - e.g. MTO experiment. “Treatment” families from housing projects moved to better neighborhoods, but did not improve educational or economic outcomes.

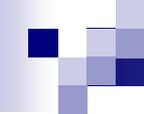


But there may be long-term effects:

- Currie and Moretti (2003) find that the opening of a college nearby increased maternal education which in turn increased birth weight of their children.
- Currie and Moretti (2007) find that compared to their own sisters, mothers born in low income zip codes were more likely to be low birth weight.

3. Residential Location and Pollution

- Poor (and minority) neighborhoods are more polluted on average.
- But does pollution at levels below current regulatory thresholds pose health risks?
 - Lead poses risks at very low levels, but the fraction of children exposed to levels above the threshold has fallen steeply (8.6% in 88/91 vs. 2.2% in 99/00).



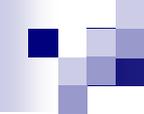
A series of studies implicate auto exhaust

- Currie and Neidell (2005) find that variations in CO and PM10 within zip codes in CA were associated with increases in infant mortality.
- Currie et al. (2008) find that higher levels of CO increase school absences in TX.
- Currie et al. (2008b) find that higher levels of CO reduce birthweight and gestation in NJ.
- Cars are the major source of CO, especially in urban areas.

4. The Built Environment

Opportunity for Exercise? But suburbs are worse! (low density, lack of sidewalks encourage driving). In urban areas problem may be low quality of amenities (e.g. broken sidewalks, dangerous parks).

MTO suggested that moving people to lower poverty neighborhoods lowered obesity. Not clear why (more exercise, access to healthy food, change in social norms?)

- 
- Injuries are the leading cause of death among children and young adults.
 - Unintentional injuries among children fell 47% between 1980 and 1998.
 - One factor may be increased local regulation (e.g. mandatory fall bars on windows, fences around pools).
 - But causes of declines in injuries are not well understood.

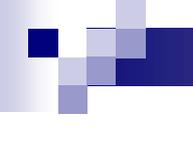


5. Network Effects

- People may be influenced in their health behaviors by what they see around them.
- OR, people facing the same constraints may tend to make the same choices.
- E.g. women with similar ethnic backgrounds make similar choices regarding use of Medicaid prenatal care, but this seems to be due to common constraints (Aizer and Currie, 2004).

6. Crime and Stress

- Intentional injuries are a leading cause of death especially among groups such as young black men.
- Fear of crime limits activities (Levy et al. forthcoming find that 60% of residents of a Boston housing project forbade children to play outside).
- Participants of MTO were largely motivated by fear of crime. MTO led to reductions in fear and anxiety in the treated group.

- 
- Besides crime, other features of urban life can cause stress. Several studies examine noise.
 - Bronzaft and McCarthy (1975) find that children on the quiet side of a school near a railway track performed significantly better.
 - Evans et al. (1998) find a significant effects of an airport opening on children's stress levels (relative to control children in an unaffected neighborhood).



Conclusions:

- Because people choose their neighborhoods, it can be difficult to identify causal effects of residential location.
- MTO suggests moving poor people to better neighborhoods can improve health (esp. mental health) but mechanisms not well understood.
- Crime and pollution (especially from motor vehicle exhaust) may be two aspects of neighborhoods that currently have the most harmful effects on health.