

The Influence of Positive Community Factors on Childhood Asthma Prevalence

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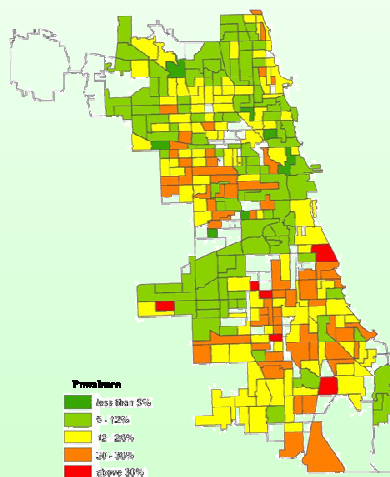
Background: United States

- Over 9 million children in the U.S. have asthma
- Racial Disparities are on the rise
 - Black children disproportionately affected

Background: Chicago

- Average childhood asthma rate is 13%
 - 12% for White children
 - 20% for Black children
- Asthma rates vary widely by neighborhood from 0% to 44%
 - Black neighborhoods range from 4%-44%
 - White neighborhoods range from 2%-30%

Childhood asthma variability in Chicago:



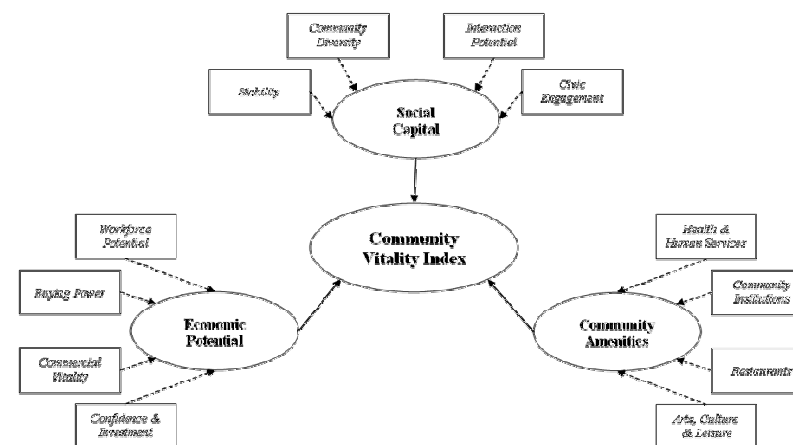
Objective

- Determine the impact of positive community factors on childhood asthma and the variability in asthma rates by neighborhoods

Methods

- Obtained data from the Chicago Initiative to Raise Asthma Health Equity (CHIRAH) asthma screening survey
 - 50,000 Chicago school children (2003-2005)
- Sample was geocoded into 287 Chicago neighborhoods following the Human Development in Chicago Neighborhoods guidelines
- Bi-variant and multi-level logistic regression analyses were conducted
- Positive community factors used in analyses were obtained from the Metro Chicago Information Center's Community Vitality Index

Positive community factors used in analyses:



Results: Social Capital

- Associated with low asthma rates:
 - More civic engagement
- Associated with high asthma rates:
 - Higher interaction potential
 - More stability

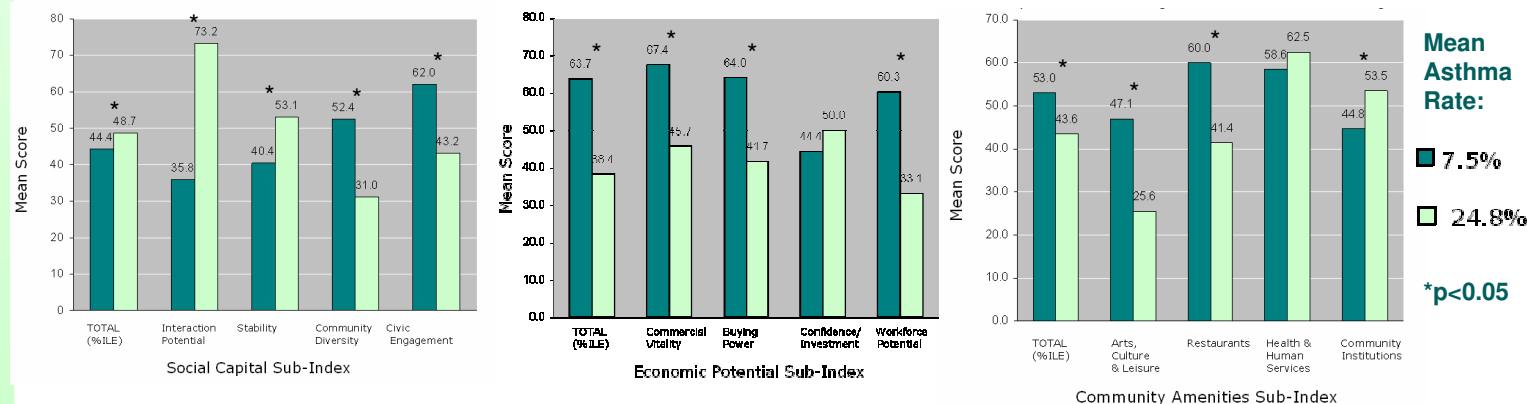
Results: Economic Potential

- Associated with low asthma rates:
 - More businesses
- Associated with high asthma rates:
 - Larger aggregate income
 - Higher educational attainment
 - Higher employment rates

Results: Community Amenities

- Associated with low asthma rates:
 - More restaurants & entertainment
- Associated with high asthma rates:
 - More community institutions

Positive community factors in neighborhoods with low and high asthma prevalence:



Conclusions

- Positive community factors have a strong impact on childhood asthma prevalence in Chicago
- A deeper understanding of this impact may lend insight into interventions to reduce childhood asthma

Questions? Please contact:

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