The Community Assessment Project

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March 6, 2012
SCEDDBO goals:

1) **Understand the biological, environmental, and social vulnerabilities that contribute to health disparities;**

2) **Incorporate innovative statistical analysis into children’s environmental health research, with a particular emphasis on spatial analysis;**

3) **Serve as a technical and educational resource in the area of children's health and health disparities; and**

4) **Translate our results for community groups, government officials, clinical care, and practice.**
The central mission of SC EDDBO is to determine how social, environmental, and host factors jointly contribute to health disparities.
Community Assessment Project

CAP motivated by:
1. Pronounced health disparities in Durham
2. Strong community interest in systematically assessing the built environment

CAP aims:
1. Survey features of the built environment for Durham residents
2. Elucidate the impact of the built environment on health outcomes
3. Build relationships with community members.
CAP Objectives

1. Build GPS-enabled technology for systematically measuring elements of the built environment

2. Design and implement a field data collection protocol

3. Construct and validate summary indices of built environment data

4. Assess longitudinal change in the community

5. Disseminate study results to community stakeholders, providing them with tools for advocacy

6. Develop and validate best practices for assessing the built environment
• 6-member team
• Daily community assessment
  • 57 variables –
    • Started with literature review
    • Community leader input
    • Variables representing community concerns
• Community assets
  • Religious institutions
  • Parks
  • Community centers
• GPS-enabled database used to record observations
2008 (dark blue)
- 17,000 tax parcels
- 29 neighborhoods

2011 (both blues)
- 30,700 parcels
- 2008 area + additional contiguous communities
- Longitudinal data for 17,000 parcels (dark blue area)
**Descriptors**
- Property type
  - Residential
  - Commercial
  - Community
  - Government
  - Faith
- Empty lot
- Parking lot
- Property status
  - Occupied
  - Unoccupied

**Conditions**
- Broken windows
- Boarded doors
- Holes in walls
- Roof damage
- Residential front entry type
- Residential front entry damage
- Peeling paint and area
- Fire damage
- Condemned
- Eviction notice
- Padlocked
- Residential driveway
- Residential cars on lawn
- Residential greenery
- Residential garden
- Residential no grass
- Fencing: damage, material, area enclosed
- Security bars
- Barbed wire
- No trespassing sign
- Beware of dog sign
- Security sign
- For sale sign
- For rent sign
- Dog
- Window AC unit
- Home repair
- New home construction

**Nuisances**
- Standing water
- Litter
- Garbage
- Broken glass
- Discarded furniture
- Discarded appliances
- Discarded tires
- Inoperable vehicle
- High weeds/grass
- Graffiti
- Other nuisance
<table>
<thead>
<tr>
<th>Structural Damage</th>
<th>Public Nuisances</th>
<th>Property Disorder</th>
<th>Security Measures</th>
<th>Amenities/Resources</th>
<th>Tenure</th>
<th>Vacancy</th>
<th>Crime</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boarded door</td>
<td>Cars on lawn</td>
<td>Composed measure of Structural Damage and Nuisances on Private Property</td>
<td>Security bars</td>
<td>Schools</td>
<td>Owner-occupied</td>
<td>Vacant commercial</td>
<td>Robberies</td>
</tr>
<tr>
<td>Holes in walls</td>
<td>No grass</td>
<td></td>
<td>Barbed wire</td>
<td>Libraries</td>
<td>Renter-occupied</td>
<td>Vacant residential</td>
<td>Homicide</td>
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<tr>
<td>Roof damage</td>
<td>Standing water</td>
<td></td>
<td>Sign: no trespassing</td>
<td>Faith institutions</td>
<td></td>
<td>Vacant empty lot</td>
<td>Assault</td>
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<tr>
<td>Chimney damage</td>
<td>Litter</td>
<td></td>
<td>Sign: beware of dog</td>
<td>Day care centers</td>
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<tr>
<td>Foundation damage</td>
<td>Garbage</td>
<td></td>
<td>Security sign</td>
<td>Health care providers</td>
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<tr>
<td>Entry damage</td>
<td>Broken glass</td>
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<td>Grocery stores</td>
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<tr>
<td>Door damage</td>
<td>Discarded furniture</td>
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<td>Parks</td>
<td></td>
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<tr>
<td>Peeling paint</td>
<td>Discarded appliances</td>
<td></td>
<td></td>
<td>Community Centers</td>
<td></td>
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<tr>
<td>Fire damage</td>
<td>Discarded tires</td>
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<td>Condemned</td>
<td>Inoperable vehicles</td>
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<tr>
<td>Broken Windows</td>
<td>High grass or weeds</td>
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</tbody>
</table>

**Neighborhood Health Indices**
Structural Damage

Incidence of Structural Damage Per Parcel
- 0
- 0.01 - 0.12
- 0.13 - 0.27
- 0.28 - 0.62
- > 0.63

CEHI Project Areas
Durham Tax Parcels
Nuisances
Property Disorder

Incidence of Property Disorder Per Parcel

- 0
- 0.01 - 0.31
- 0.32 - 0.60
- 0.61 - 1
- > 1.01

CEHI Project Areas
Durham Tax Parcels

Durham County Inset
Community Resources
Community Resources
Community Assessment Report

• Report to the community – 2008 with 2012 report soon to be issued
• Distributed to 800 key community stakeholders
• Community meetings

The Community Assessment Project
Durham, North Carolina
2008

• Publicly available interactive web application
• Data sharing with Office of Neighborhood Improvement Services (and others)
Community Engagement

Collaboration with community partners builds understanding and relationships at all stages.

- Tool development
- Data collection
- Dissemination of results - power of the data to inform local programs, initiatives, and strategies

The community provides **contextual meaning** for and **policy application** of the data.
Acknowledgements

- US Environmental Protection Agency (RD 83329301)
- Durham community members
- CEHI CAP field team led by John Post
- CEHI GIS analysts
**Primary Adjacency**

Blocks primarily adjacent to block X are all blocks sharing a line segment or vertex with block X.

**Primary + Secondary Adjacency**

Blocks secondarily adjacent to block X are all blocks sharing a line segment or vertex with all blocks primarily adjacent to block X.
Manmade physical features and conditions that define the local environment:

- Housing
- Commercial buildings
- Distribution of resources
- Infrastructure
- Urban design