E. Health and Environmental Impacts

Health and Environmental Impacts

Amy Danner
Center for Quality Growth and Regional Development
Georgia Institute of Technology

Atlanta BeltLine Decision Support Tool Strategic Planning Session, Georgia Tech, : Atlanta, Georgia   October 16, 2008

© 2008 by CQGRD. All rights reserved.
Please cite Georgia Institute of Technology and the Center for Quality Growth and Regional Development whenever portions are reproduced.

What is Health?

World Health Organization (WHO) Constitution- 1948
Health is “... a state of complete physical, social and mental well-being, and not merely the absence of disease or infirmity.”

Ottawa Charter for Health Promotion- 1986
Expanded the definition to include the ability of an individual or group “to identify and to realize aspirations, to satisfy needs, and to change or cope with the environment.”
What is a Health Impact Assessment?

A Health Impact Assessment (HIA) is:

“a combination of procedures, methods, and tools by which a policy, program, or project may be judged as to its potential effects on the health of a population, and the distribution of those effects within the population.”

3 types of HIAs:

- Proactive HIAs- before project or policy
- Retrospective HIAs- after project or policy
- Concurrent HIAs- occurring simultaneously with projects

HIAs consider:

- social and environmental justice issues,
- adopt a multidisciplinary and participatory process, and
- use both qualitative and quantitative evidence in the process.

What is a Health Impact Assessment?

Steps of an HIA Process:

1. Screening- should we conduct an HIA?
2. Scoping- planning for the HIA
3. Risk assessment- implementation of the HIA
4. Dissemination- circulates the results
5. Monitoring and evaluation- review of the HIA process
E. Health and Environmental Impacts

The BeltLine represents a massive 25-year construction project, including the creation of parks, trails, transit, 50,000 housing units, and 13 million square feet of other new construction.

Because of this construction, the BeltLine may create several areas where people are living within 200 meters of high-volume corridors.

Potential Health Implications:
- Increased mortality and morbidity rates from cardiovascular and respiratory illnesses
- Increased risk for lung cancer
- Short- and long-term non-cancer health effects such as bronchitis and asthma
E. Health and Environmental Impacts

Air Quality

2030 High Volume Road Segments With the BeltLine

2030 High Volume Road Segments Without the BeltLine

Proposed Land Uses around High Volume Road Segments

<table>
<thead>
<tr>
<th>Proposed Land Uses</th>
<th>Total Acres of Residential Parcels in 200m Buffer</th>
<th>Potential Development Density (Housing Units/Acre)</th>
<th>Potential Affected Living Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hulsey Rail Yard</td>
<td>52.50</td>
<td>7.65</td>
<td>402</td>
</tr>
<tr>
<td>Inman Rail Yard</td>
<td>37.36</td>
<td>8.78</td>
<td>328</td>
</tr>
<tr>
<td>I-20 West</td>
<td>68.30</td>
<td>12.15</td>
<td>830</td>
</tr>
<tr>
<td>I-75/85 South</td>
<td>25.00</td>
<td>12.15</td>
<td>304</td>
</tr>
<tr>
<td>Total</td>
<td>183.16</td>
<td></td>
<td>1,864</td>
</tr>
</tbody>
</table>
E. Health and Environmental Impacts

Access to Greenspace

**Equity**

The BeltLine creates parks, trails, and transit equally distributed by race and income; 11,000 people will have access to a park for the first time.

**Potential Health Implications:**
- Better access to employment opportunities, services, healthy foods, and recreational facilities

Access to Greenspace

**Physical Activity**

The BeltLine will create 1,300 acres of parks, 33 miles of trails, $4 million in streetscape and intersection improvements, and an extension of the transit system.

**Potential Health Implications:**
- Reduced premature death and risk of developing diabetes, high blood pressure, and colon cancer
- Reduced feelings of depression/anxiety
- Helps control weight
E. Health and Environmental Impacts

Access to Greenspace

Park Access in the Study Area

Access and Connectivity

Access to Greenspace in the Hospital HIA Study Area
E. Health and Environmental Impacts

Example of Walkability Audit Questions

1. **Environment**
   - 1. Does the segment have:
      - Housing: Single Family Detached
      - Housing: Multi-Family
      - Housing: Mobile Home
      - Office/Institutional
      - Retail/Cafe/Commercial
      - Industrial
      - Vacant/Under development
      - Recreational

2. **Slope**
   - Flat
   - Slight hill
   - Steep hill

3. **Segment interaction**
   - Segment has a 3-way intersection
   - Segment has a 4-way intersection
   - Segment has other intersection
   - Segment dead ends but path continues
   - Segment dead ends
   - Segment has no intersections

**Access and Connectivity**

The roadway, although in good condition, was extremely wide and somewhat curvy throughout this segment. Although sidewalks mimicked the street orientation with no buffer in between the two, sidewalks were often scattered with debris and dust and were essentially the same height as the roadway.

Along parts of the segment, there are times that the sidewalk height is even with the roadway height, creating essentially a continuous curb cut, with no separation between pedestrians and automobiles.

Examples of poor pedestrian conditions: although shady and separated from the street, these sidewalks are raised and broken and are narrow.
### E. Health and Environmental Impacts

#### Walkability Audit Recommendations

<table>
<thead>
<tr>
<th>Key Findings</th>
<th>Recommendations</th>
<th>Relationships</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traffic</td>
<td>Access</td>
<td>Community</td>
</tr>
<tr>
<td>Improving and increasing barriers between pedestrian and automotive traffic along high-volume corridors, such as Peachtree Street.</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Make improvements to the pedestrian environment, which could include:</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Improve the quality of the sidewalk;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ensure sidewalk width is adequate for two adults walking side by side;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increase the number of crosswalks;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increase and maintain lighting for pedestrians;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Add pedestrian signals to existing intersections;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Narrow or design streets;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increase number of traffic islands;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Add and upgrade medians;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improve pedestrian signalization;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Add crossing islands, and;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Add or upgrade landscaping.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identify areas where residents want to reach by bicycle and install bicycle-friendly facilities (such as bicycle racks, bike lanes, etc.).</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Increase pedestrian education to include:</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Work with residents to make pedestrians more aware;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conduct outreach within the community to make residents familiar with new walking and bicycle options in the community.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Latent Demand Score (LDS) Analysis

Results of the Bicycle LDS

![Latent Demand Score Analysis](attachment:image.png)
E. Health and Environmental Impacts

Decatur Bicycle Network

The final Decatur Bicycle Network

Decatur Community Transportation Plan

Community Transportation Plan
City of Decatur, Georgia

Decatur Bicycle Network

THANK YOU!

Center for Quality Growth and Regional Development
Georgia Institute of Technology | Atlanta, Georgia
www.cqgrd.gatech.edu