Use of Health Impact Assessment in Projects, Policies, and Plans to Promote Active Transportation

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How Does Transportation Affect Health?

- Physical activity and obesity
- Air pollution and asthma
- Motor vehicle crashes and pedestrian injuries
- Other impacts
  - Noise
  - Water quality
  - Climate change
  - Mental health
  - Social capital
  - Environmental justice
Health Impact Assessment

• A tool to increase partnerships and communication between public health professionals and transportation planners and other decision-makers
Health Impact Assessment
Definition

• HIA is a systematic process that uses an array of data sources and analytic methods and considers input from stakeholders to determine the potential effects of a proposed policy, plan, program, or project on the health of a population and the distribution of those effects within the population. HIA provides recommendations on monitoring and managing those effects.

National Academies Committee on HIA, 2011
A Vision of Health Impact Assessment

- Transportation planners and elected officials will request information on potential health consequences of projects and policies as part of their decision-making process.

- Local health officials will have a tool to facilitate their involvement in transportation planning decisions that impact health.

- Public health will be at the table.

- Better decisions will be made.
Why Use HIA for Active Transportation Projects, Policies, and Plans?

• Proposed active transportation projects, policies, and plans are generally favorable to health in their initial design

• Recommendations from HIAs of such proposals can strengthen their potential health benefits and minimize negative impacts
If Roads Were Like Bike Lanes

“Damn, the road lane ends again! I hate sharing the tracks with the train.”
Purpose

• To document the characteristics and usefulness of HIAs of projects, policies, and plans that focus on active transportation
Methods

• Identified HIAs related to active transportation on the master list of HIAs completed in the U.S. as compiled by the Health Impact Project

• List of HIAs identified may be incomplete

• http://www.healthimpactproject.org/hia/us
Methods (continued)

- **Included**: HIAs of projects, policies, and plans that focused on active transportation
- **Excluded**: HIAs where active transportation was not central to the purpose of the proposal, such as those for highways, corridor redevelopments, and transit systems
Results

• 25 HIAs related to active transportation identified
• Conducted in 17 states between 2004 and 2014
• Most conducted by public health professionals, with various levels of collaboration with transportation agencies
Completed Active Transportation-Related HIAs in the U.S., 2004–2014 (N = 25)

Source: Health Impact Project HIA database
http://www.healthimpactproject.org/hia/us
Collaboration on HIA with Transportation Agencies Varies

- **High collaboration** such as: HIA invited by DOT; HIA funded by DOT; frequent meetings; shared data; DOT listed as co-author of HIA report; transportation planner involved in HIA

- **Low collaboration** such as: little or no mention of DOT in HIA report; DOT representative on advisory committee but not otherwise mentioned; no invitation or funding from DOT
Results (continued)

- 7 HIAs addressed projects such as walking and biking paths, greenways, and bicycle lanes
- 7 HIAs addressed policies including complete streets, safe routes to school, and walking and bicycling
- 11 HIAs addressed pedestrian and bicycling plans
# Active Transportation HIAs: Projects

<table>
<thead>
<tr>
<th>HIA title</th>
<th>Location</th>
<th>Lead group</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>East Bay Greenway walking and biking paths</td>
<td>Alameda County CA</td>
<td>Human Impact Partners</td>
<td>2007</td>
</tr>
<tr>
<td>Xcel Energy Corridor Trail; Bloomington Alternative Transportation Plan</td>
<td>Bloomington MN</td>
<td>City of Bloomington MN</td>
<td>2008</td>
</tr>
<tr>
<td>University District Pedestrian/Bicycle Bridge</td>
<td>Spokane WA</td>
<td>City of Spokane, Spokane Regional Health District</td>
<td>2011</td>
</tr>
<tr>
<td>Ice Age Trail Expansion</td>
<td>Marquette County WI</td>
<td>Marquette County Health Dept.</td>
<td>2011</td>
</tr>
<tr>
<td>Quequechan River Rail Trail Phase 2</td>
<td>Fall River MA</td>
<td>Metropolitan Area Planning Council</td>
<td>2012</td>
</tr>
<tr>
<td>Spring Garden Street Greenway</td>
<td>Philadelphia PA</td>
<td>Univ. of Pennsylvania graduate students</td>
<td>2012</td>
</tr>
<tr>
<td>Glendale Riverwalk Development Active Transportation</td>
<td>Glendale CO</td>
<td>Tri-County Health Dept.</td>
<td>2012</td>
</tr>
</tbody>
</table>
Project: East Bay Greenway HIA

• Proposed Greenway included 12 miles of pedestrian and bicycling trails under the elevated BART transit tracks from East Oakland to Hayward, California

• Greenway would connect neighborhoods to jobs, schools, and public transit

• HIA completed by Human Impact Partners in 2007
Project: East Bay Greenway HIA

• HIA found the project could benefit the health of residents nearby
  – Increase physical activity
  – Build social cohesion
  – Encourage people to drive less
  – Create a landscaped, natural space

• Main obstacles to positive health outcomes relate to safety from motor vehicles and from crime
Project: East Bay Greenway HIA

• Many HIA recommendations were included in the project’s final plan
  – Incorporating Crime Prevention through Environmental Design principles into Greenway design
  – Improving road and railroad crossings
  – Calming traffic on nearby arterials
  – Developing an Urban Greenway Rangers Program
• Project broke ground in October 2013
## Active Transportation HIAs: Policies

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<th>Lead group</th>
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<tbody>
<tr>
<td>Sacramento Safe Routes to School Program</td>
<td>Sacramento CA</td>
<td>UCLA; CDC</td>
<td>2004</td>
</tr>
<tr>
<td>Washington County Pedestrian and Bicycle Facility Design and active transportation policies</td>
<td>Washington County OR</td>
<td>Washington County Health and Human Services</td>
<td>2012</td>
</tr>
<tr>
<td>Independence Bike Lane and impact of local complete streets policy</td>
<td>Independence MO</td>
<td>Independence Health Dept.</td>
<td>2012</td>
</tr>
<tr>
<td>Zoning for Walkable Mixed-Use Neighborhoods</td>
<td>Omaha NE</td>
<td>Douglas County Health Dept.</td>
<td>2012</td>
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<tr>
<td>Complete Streets in Daytona Beach</td>
<td>Daytona Beach FL</td>
<td>Florida Dept. of Health</td>
<td>2013</td>
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<tr>
<td>Safe Routes to School HIA of Skiles Test and Crestview Elementary Schools</td>
<td>Indianapolis IN</td>
<td>Indiana Univ. Center for Health Policy</td>
<td>2013</td>
</tr>
</tbody>
</table>
Policy: Safe Routes to School HIA

- Completed by the Indiana University Department of Public Health in 2013
- Examined whether Safe Routes to School program would offer health benefits for children in Binford community in Indianapolis
- Focused on children’s physical activity, asthma, social cohesion, and personal safety
Policy: Safe Routes to School HIA

• Found the SRTS program would likely increase community connectivity, social cohesion, and perceived safety, and decrease asthma incidence

• Found many students either attended schools outside of the community or lived too far away to walk or bike to community schools
Policy: Safe Routes to School

HIA

- Recommendations included
  - Gathering health-related data on children
  - Counting children walking and biking to school
  - Tailoring grants towards improving sidewalks near schools
  - Sponsoring walk and bike to school days

- HIA contributed to successfully obtaining a grant for local Safe Routes to School development and creating walk to school days
## Active Transportation HIAs: Plans

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<tr>
<td>Spokane Downtown Plan Update: Pedestrian Strategy</td>
<td>Spokane WA</td>
<td>City of Spokane, Spokane Regional Health District</td>
<td>2009</td>
</tr>
<tr>
<td>Clark County Bicycle and Pedestrian Master Plan</td>
<td>Clark County WA</td>
<td>Clark County Public Health</td>
<td>2010</td>
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<tr>
<td>Aberdeen Pedestrian Transportation Plan</td>
<td>Aberdeen NC</td>
<td>Univ. of North Carolina</td>
<td>2011</td>
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<tr>
<td>Haywood County Comprehensive Bicycle Plan</td>
<td>Haywood County NC</td>
<td>BicycleHaywoodNC; Haywood County Recreation &amp; Parks Dept.</td>
<td>2011</td>
</tr>
<tr>
<td>Pedestrian and Bicyclist Safety Action Plan including street level improvements</td>
<td>Bernalillo County NM</td>
<td>Place Matters Team</td>
<td>2012</td>
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<tr>
<td>Non-Motorized Transportation Improvements</td>
<td>East Lansing MI</td>
<td>Michigan Dept. of Community Health</td>
<td>2012</td>
</tr>
<tr>
<td>School Based Wellness &amp; Walkability in North Wasco County School District 21</td>
<td>North Wasco County OR</td>
<td>North Central Oregon Public Health District</td>
<td>2012</td>
</tr>
<tr>
<td>Androscoggin Greenway Plan</td>
<td>Topsham ME</td>
<td>Maine Network of Healthy Communities</td>
<td>2012</td>
</tr>
<tr>
<td>Robbinsville Pedestrian Connectivity Plan</td>
<td>Robbinsville NC</td>
<td>Kostelec Planning</td>
<td>2013</td>
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<tr>
<td>Davidson Walks and Rolls: Active Transportation Master Plan</td>
<td>Davidson NC</td>
<td>Davidson Design for Life</td>
<td>2013</td>
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<tr>
<td>Middlesex Greenway Use and Access Plan</td>
<td>Middlesex County NJ</td>
<td>New Jersey Health Impact Collaborative</td>
<td>2014</td>
</tr>
</tbody>
</table>
Plan: Clark County Bicycle and Pedestrian Master Plan HIA

- Completed by the Clark County (WA) health department in 2011
- Explored potential health impacts including physical activity, access to healthy food, equity, and safety
- Found the plan would likely improve health and reduce disparities
Plan: Clark County Bicycle and Pedestrian Master Plan HIA

• Recommendations included
  – setting measurable health-based targets
  – prioritizing policies that increase connectivity, land-use mix and residential density
  – increasing access to healthy food
  – including health and equity in project evaluation criteria
  – increasing safety measures
Plan: Clark County Bicycle and Pedestrian Master Plan HIA

• Formal impact evaluation conducted in 2011
  – 8 of 11 major recommendations had been fully adopted in the final plan
  – 3 of 11 had been partially adopted in the final plan
• In 2012, Clark County Public Health received Active Living Research’s Translating Research to Policy Award for this HIA
Case Study: Atlanta BeltLine HIA

- Multibillion-dollar transit, trail, parks, and redevelopment project that is transforming a 22-mile loop of mostly abandoned railroad right-of-way
- HIA initiated by a Georgia Tech planning professor who had frequent contact with local transportation officials before, during, and after the HIA
Case Study: Atlanta BeltLine HIA

• HIA accomplishments
  – Incorporated health issues into advisory committee’s Decision Support Tool that guides BeltLine decisions
  – Instigated early construction of trails and parks
  – Included public health professionals on project advisory committees and decision-making boards
  – Generated more resources for project
  – Raised awareness about health issues among decision-makers and stakeholders

• Current status of 25 year project
  – Initial trails and parks have been constructed
  – Planning for the transit component is underway
Required Transportation HIAs: Massachusetts

- Massachusetts legislature adopted Healthy Transportation Compact in 2009
- Requires state agencies to “implement HIAs for use by planners, transportation administrators, public health administrators and developers”
- Details being worked out through collaboration between Dept. of Transportation and Dept. of Health
- Lessons from McGrath Highway pilot study are being used to draft decision criteria to guide HIAs in future state transportation projects
National Policy Statements that Encourage Use of HIA

Centers for Disease Control and Prevention
Recommendations for Improving Health through
Transportation Policy, 2011

“Encourage states and communities to consider health impacts as part of transportation planning. Health impact assessments and safety audits may be a useful tool to identify the impact of a new policy, program or major transportation project on community and individual health.”

www.cdc.gov/transportation
Challenges in Conducting Transportation-related HIAs

• Modeling – difficult to quantitate health impacts
• Resistance – experience of regulatory burden from EIAs
• Capacity - few staff trained to conduct HIAs
• Resources - who pays to conduct HIAs
• Evaluation – need to document value of HIA
Use of Health Impact Assessment for Transportation Planning

Importance of Transportation Agency Involvement in the Process

Andrew L. Dannenberg, Anna Ricklin, Catherine L. Ross, Michael Schwartz, Julie West, Steve White, and Megan L. Wier

A health impact assessment (HIA) is a tool that can be used to inform transportation planners of the potential health consequences of their decisions. Although dozens of transportation-related HIAs have been completed in the United States, the characteristics of these HIAs and the interactions between public health professionals and transportation decision makers in these HIAs have not been documented. A master list of completed HIAs was used to identify transportation-related HIAs. Seventy-three transportation-related HIAs have been completed in the United States. This master list was used to identify transportation-related HIAs. Seventy-three transportation-related HIAs have been completed in the United States.

Decisions made by transportation planners have substantial impacts on public health, but some important health impacts receive little attention in transportation planning processes. Road design has contributed to declining rates of motor vehicle-related fatalities in recent years, especially among motor vehicle occupants (1), but further road improvements in many parts of the country could provide a safer environment for pedestrians and cyclists. Impacts on regional...
Future Research

• To what extent are recommendations to promote active transportation from HIAs of corridor redevelopment, highway, and transit projects incorporated in final decisions?
Final Comments

• Use of HIA for transportation projects and policies growing in US, but not widespread
• Some HIAs conducted within context of EIA process
• Consider institutionalizing meetings between transportation and health departments
• Consider adding a public health professional to transportation agency staff
• TRB Health and Transportation Subcommittee