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

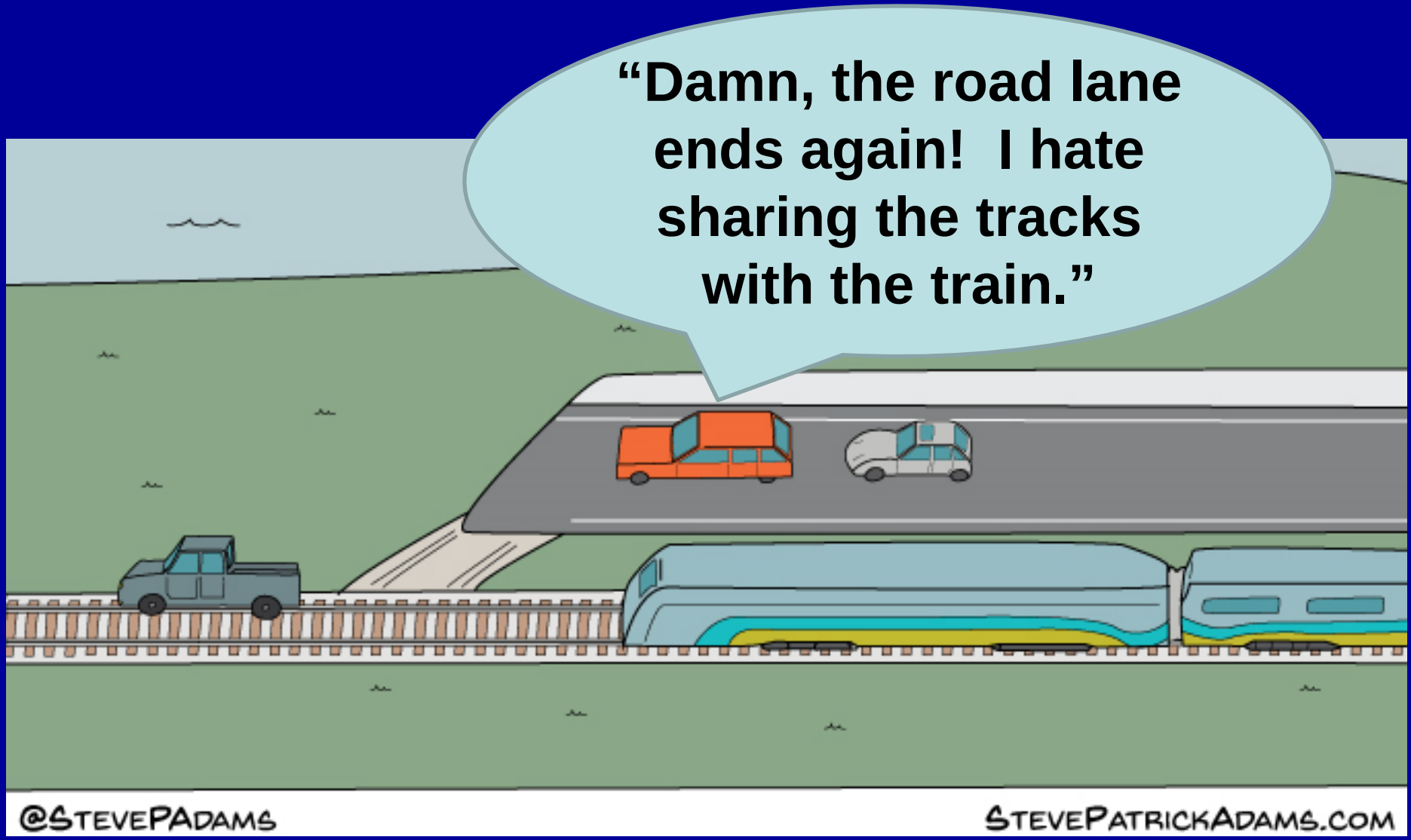
A Vision of Health Impact Assessment

- 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



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

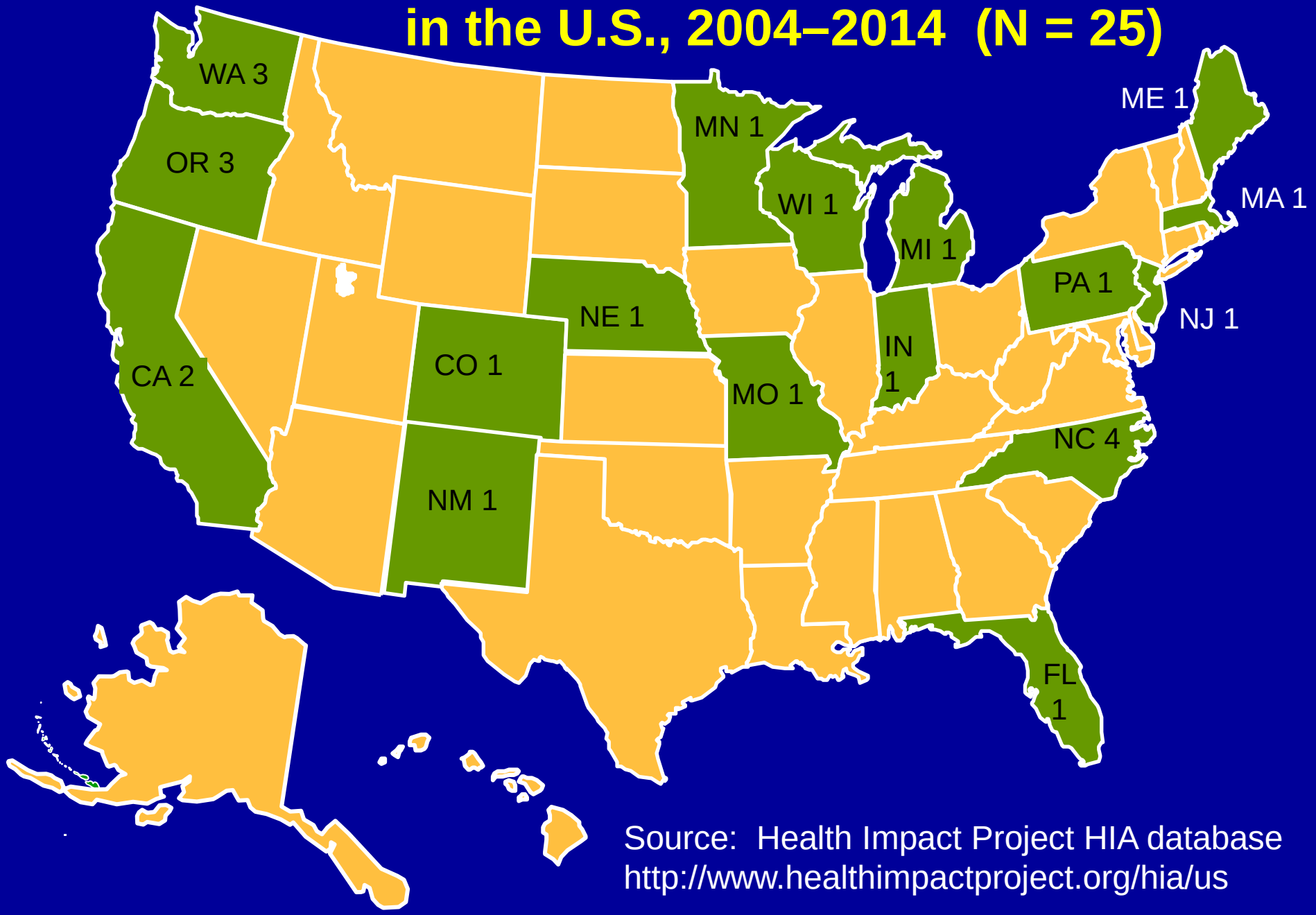
Methods (continued)

- 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

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

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

HIA title	Location	Lead group	Year
Sacramento Safe Routes to School Program	Sacramento CA	UCLA; CDC	2004
Transportation Policy Recommendations in the Eugene Climate and Energy Action Plan	Eugene OR	Upstream Public Health	2010
Washington County Pedestrian and Bicycle Facility Design and active transportation policies	Washington County OR	Washington County Health and Human Services	2012
Independence Bike Lane and impact of local complete streets policy	Independence MO	Independence Health Dept.	2012
Zoning for Walkable Mixed-Use Neighborhoods	Omaha NE	Douglas County Health Dept.	2012
Complete Streets in Daytona Beach	Daytona Beach FL	Florida Dept. of Health	2013
Safe Routes to School HIA of Skiles Test and Crestview Elementary Schools	Indianapolis IN	Indiana Univ. Center for Health Policy	2013

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

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

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-

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

***Transportation Research Record*, 2014; 2452: 71–80**

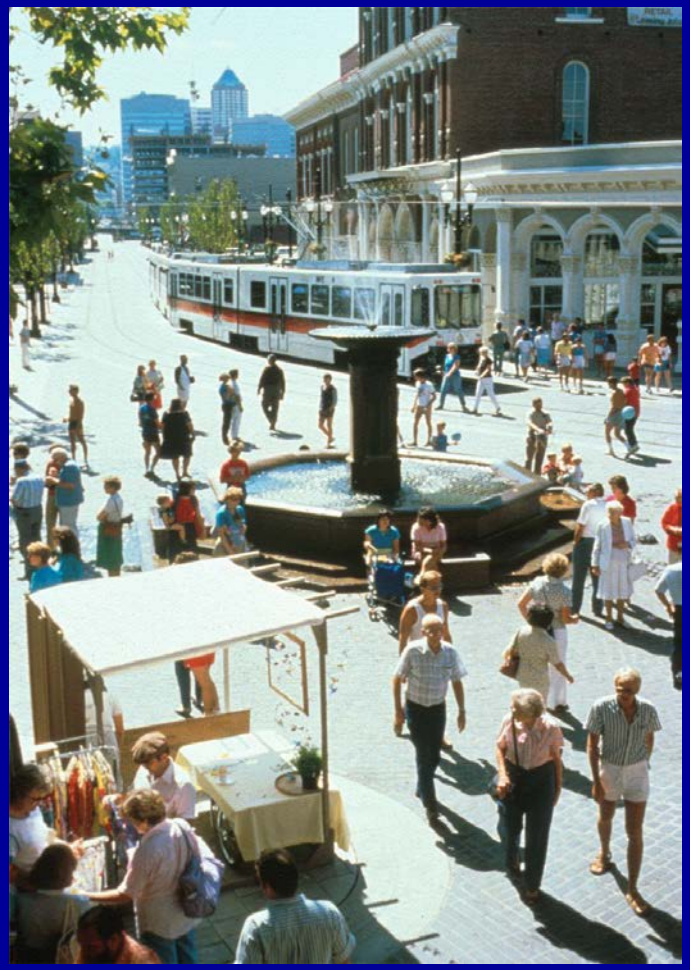
Reviews 73 transportation-related HIAs, 2004-2013

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



www.trbhealth.org
www.healthimpactproject.org
www.cdc.gov/healthyplaces