

# Use of Health Impact Assessment in the United States: 27 Case Studies, 1999-2007

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# A Vision of Health Impact Assessment

- Community planners and zoning boards will request information on potential health consequences of projects and policies as part of their decision-making process
- Local health officers will have a tool to facilitate their involvement in community planning and land use decisions that impact health

# Health Impact Assessment Definition

- Collection of procedures and tools by which projects, policies, and programs can be evaluated based on their potential effects on the health of a population, and the distribution of those effects within the population

Gothenburg consensus statement, 1999

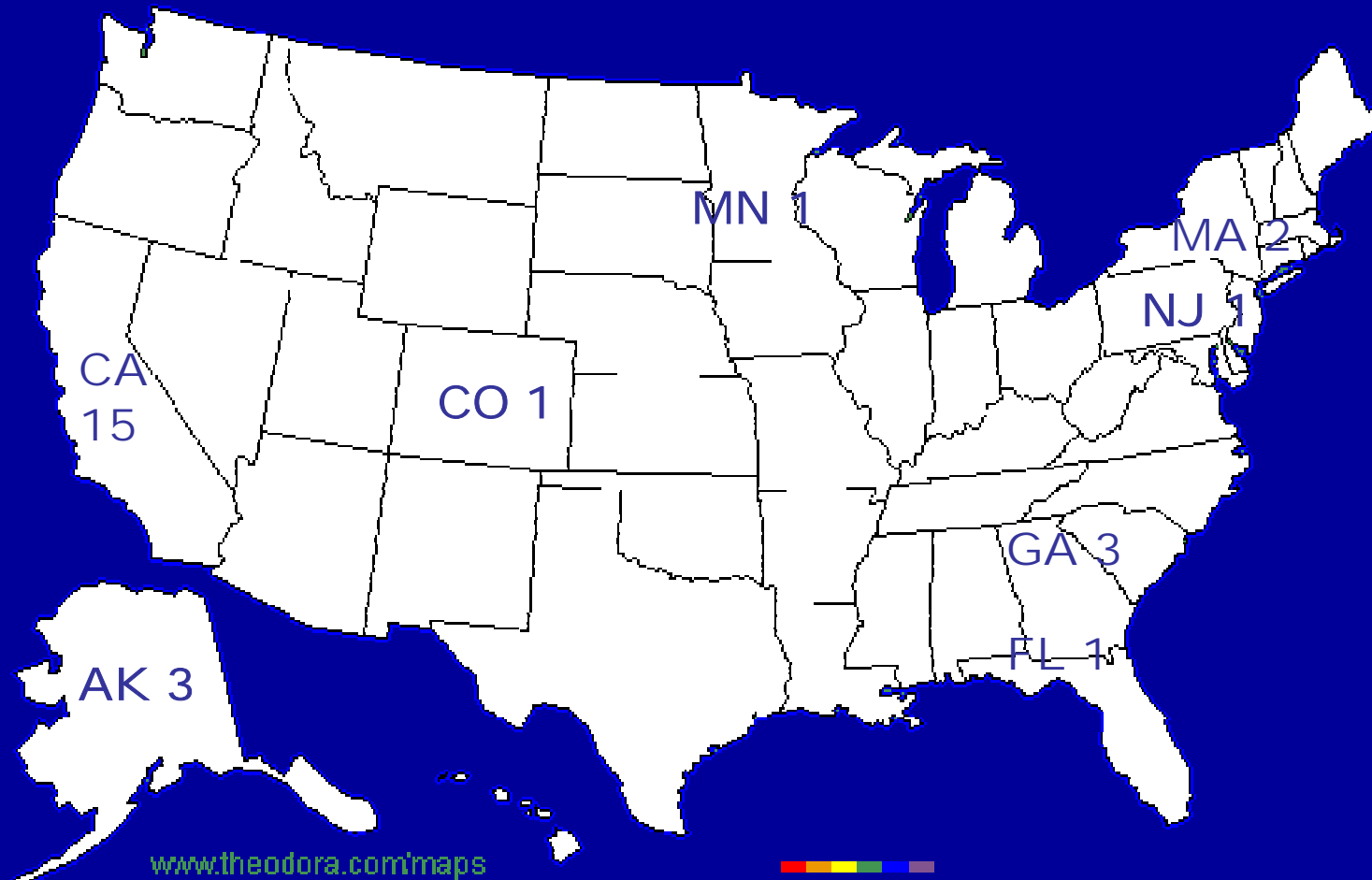
# Steps in Conducting an HIA

- Screening
  - Identify projects/policies for which HIA useful
- Scoping
  - Identify which health impacts to include
- Risk assessment
  - Identify how many and which people may be affected
  - Assess how they may be affected
- Recommendations
  - Identify changes to promote health or mitigate harm
- Reporting of results to decision-makers
- Evaluation of impact of HIA on decision process

# Methods for Identifying Completed HIAs in the U.S.

- Networking among small group of HIA investigators who have been involved in most HIAs done in United States
- Requested completed HIAs on HIA-USA listserve; updated September 2007
- Literature search on Medline, Google Scholar, and other databases
- List of HIAs identified may be incomplete

# Location of 27 Completed HIAs in United States, 1999-2007



# HIAs of Projects (N=13)

1. Housing redevelopment: Trinity Plaza CA
2. Housing redevelopment: Rincon Hill CA
3. Mixed-use redevelopment: Executive Park CA
4. Senior housing: Jack London Gateway CA
5. Transit Village: MacArthur BART station CA
6. Transit-related greenway: Alameda County CA
7. Urban redevelopment: Oak to Ninth CA
8. Urban redevelopment: Commerce City CO
9. Corridor redevelopment: Buford Highway GA
10. Corridor redevelopment: Lowry Avenue MN
11. Transit, parks and trails: Atlanta Beltline GA
12. Coal-fired power plant: Taylor County FL
13. Farmers market revitalization: Trenton NJ

# HIAs of Policies (N=14)

1. Local planning: Eastern neighborhoods CA
2. Area plan and rezoning: Eastern neighborhoods CA
3. After-school programs: Statewide CA
4. Walk-to-school programs: Sacramento CA
5. Public housing flooring policy: San Francisco CA
6. Living wage ordinance: San Francisco CA
7. Living wage ordinance: Los Angeles CA
8. Community transportation plan: Decatur GA
9. Low income rent subsidies: Statewide MA
10. Low income home energy subsidies: Statewide MA
11. Oil and gas leasing: Outer continental shelf AK
12. Oil and gas leasing: Chukchi Sea AK
13. Oil and gas leasing: National Petroleum Reserve AK
14. Federal farm bill: National



# Decision-Making Organization for Project or Policy

City council; planning commission	N=17
State legislature	N= 3
US federal agency	N= 3
US Congress	N= 1
Non-profit organization	N= 1
Local cooperative	N= 1
State Dept. of Transportation	N= 1

# Organization that Conducts HIA

Academic group; CDC	N = 12
Local health department	N = 9
Private consultants	N = 3
Tribal council	N = 3

# Funder of HIA

Robert Wood Johnson Foundation	N = 7
Health department - internal staff	N = 7
Volunteer; multiple sources	N = 5
University fellowship	N = 3
Centers for Disease Control	N = 2
Health department - external contract	N = 2
The California Endowment	N = 1

# Scoping: Health Determinants Considered in 27 HIAs in U.S.

- Physical activity and obesity
- Housing adequacy and affordability
- Pedestrian injuries
- Air quality, asthma, other respiratory diseases
- Parks and greenspace
- Income adequacy; housing; social equity
- Diet, nutrition, food safety, food insecurity
- Adolescent risk behaviors – alcohol, drugs, sex
- Noise
- Mental health
- Social capital, community severance
- Access to jobs, stores, schools, recreation

# Population Affected by Project or Policy in 27 HIAs in U.S.

Small area within city	N = 13
City or county-wide	N = 7
Statewide	N = 6
National	N = 1

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## Primary impact on:

Persons with low income	N = 17
Children/adolescents	N = 2
Whole population	N = 6

# Community Involvement in Conduct of 27 HIAs in U.S.

- Community input involved in conduct of 20 of 27 HIAs
- Barriers to community involvement in HIAs include lack of time or resources, human subjects research, or federal management restrictions

# Conduct of 27 HIAs in U.S.

- **Screening**
  - Some targeted to create change, others more academic
- **Scoping**
  - Generally clearly described
- **Risk assessment**
  - Various quantitative and qualitative methods
- **Recommendations**
  - Most made recommendations, actionable ones best
- **Reporting**
  - Most on web, a few published; public testimony
- **Evaluation**
  - Relatively little conducted

# Quantitative and Qualitative Health Indicators in 27 HIAs in U.S.

- Quantitative
  - Physical activity
  - Pedestrian injuries
  - Mortality
  - Impact of particulate matter in air
  - Crime
  - Parks and greenspace
- Qualitative
  - Academic performance
  - Income adequacy; social equity
  - Diet, nutrition, food safety, food insecurity
  - Adolescent risk behaviors – alcohol, drugs, sex
  - Noise
  - Mental health; stress
  - Social capital, community severance
  - Access to jobs, stores, schools, recreation
  - Housing adequacy and affordability



# Key Results in 27 HIAs in U.S.

- Most identified improvements needed to mitigate adverse health impacts
  - Redevelopment projects that lacked affordable housing; rental voucher program
- A few encouraged projects or policies that would be health-promoting as designed
  - Walk-to-school program; Beltline transit project
- One concluded that proposed program would fail to reach its intended target population
  - After-school programs

# Impact of HIA on Subsequent Decisions in 27 HIAs in U.S.

- Documentable impacts were evident for some HIAs
  - Plan improvements to increase pedestrian safety
  - Change in redevelopment plans to provide 1:1 housing replacement for affected families
  - Noise mitigation measures required
  - Living wage ordinance adopted
  - Urban road corridor plans improved
- Most HIAs raised awareness of health issues for some audiences

# Types of HIA Effectiveness

	Decisions modified due to HIA <b>YES</b>	<b>NO</b>
Health issues adequately acknowledged <b>YES</b>	<b>Direct effectiveness:</b> Changes made or project stopped because of HIA	<b>General effectiveness:</b> HIA acknowledged but changes not made; health awareness raised
<b>NO</b>	<b>Opportunistic effectiveness:</b> Health-promoting choice made anyway	<b>No effectiveness:</b> HIA ignored

Wismar M, et al. Effectiveness of HIA. WHO, 2007

# HIA Level of Complexity

- Qualitative – describe direction but not magnitude of predicted results
  - Easy to predict; hard to use in cost/benefit models
  - Example: Build a sidewalk and people will walk more
- Quantitative – describe direction and magnitude of predicted results
  - Difficult to obtain data; useful for cost/benefit models
  - Hypothetical example: Build a sidewalk and 300 people who live within 200 yards of location will walk an average of 15 extra minutes per day

# Cooper River Bridge Charleston, South Carolina

- If you build a walkway on a major bridge, how many pedestrians and bicyclists will use it?



# Walkway on Cooper River Bridge, Charleston, South Carolina



# Conclusions

- Use of HIA growing in U.S. with 27 HIAs completed and dozens more initiated
- Some HIAs conducted within context of Environmental Impact Assessment process
- Ongoing demand for HIA training materials and workshops
- Feasibility of developing more quantitative results
- Database of completed HIAs and other resources being developed at UCLA

**Health Impact Assessments  
can help guide community  
design and land use choices  
to promote human health**



**[www.ph.ucla.edu/hs/health-impact/](http://www.ph.ucla.edu/hs/health-impact/)  
[www.cdc.gov/healthyplaces](http://www.cdc.gov/healthyplaces)**