

# AN INTRODUCTION TO HEALTH IMPACT ASSESSMENT



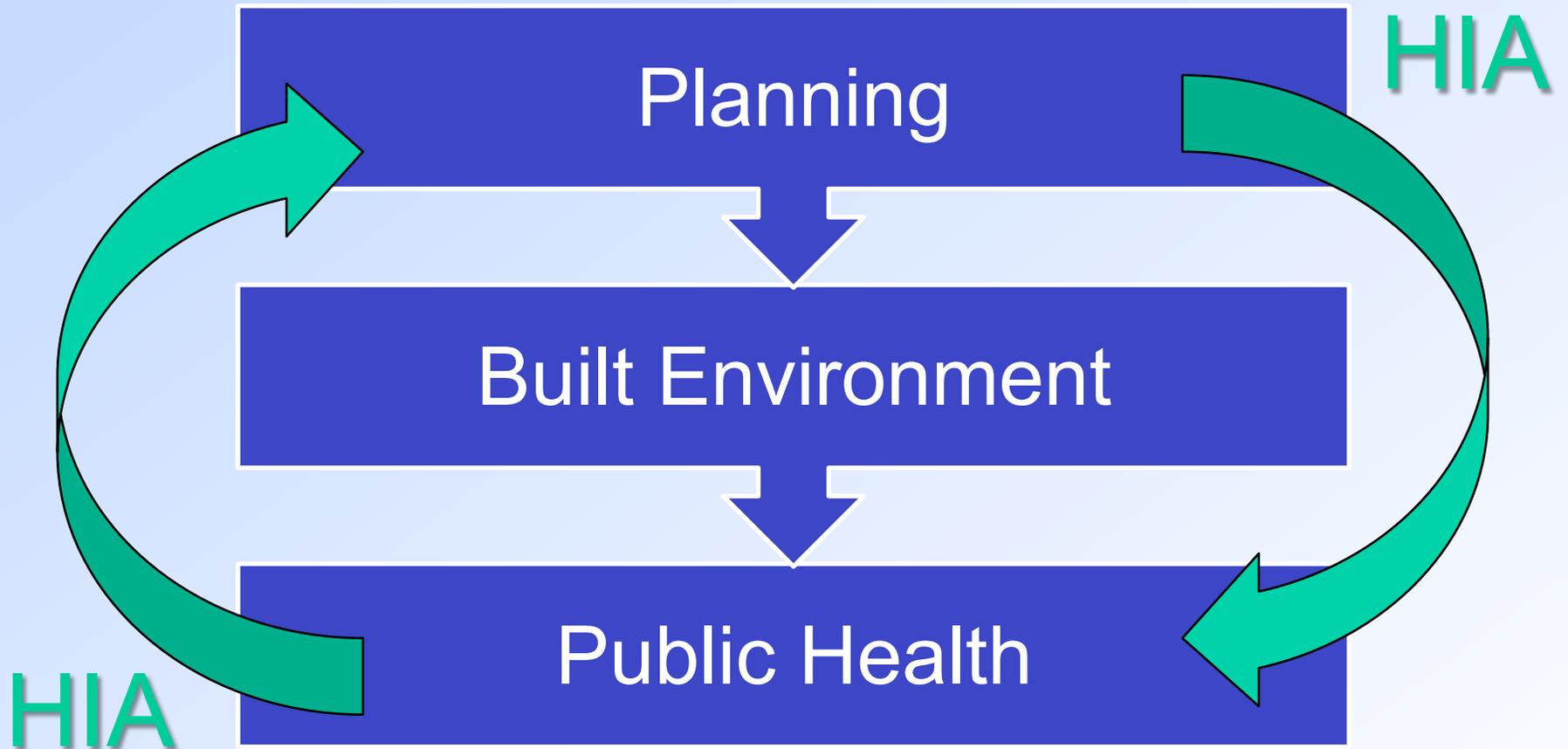
# Definition

Health Impact Assessment has been defined in various ways, but essentially it is:

**A structured process that uses scientific data, professional expertise, and stakeholder input to identify and evaluate public health consequences of proposals and suggests actions that could be taken to minimize adverse health impacts and optimize beneficial ones**

Source: "Improving Health in the United States: The Role of Health Impact Assessments" by the National Research Council, September 2011

# Planning and Public Health



# Planning and Public Health

Planning + Public Health

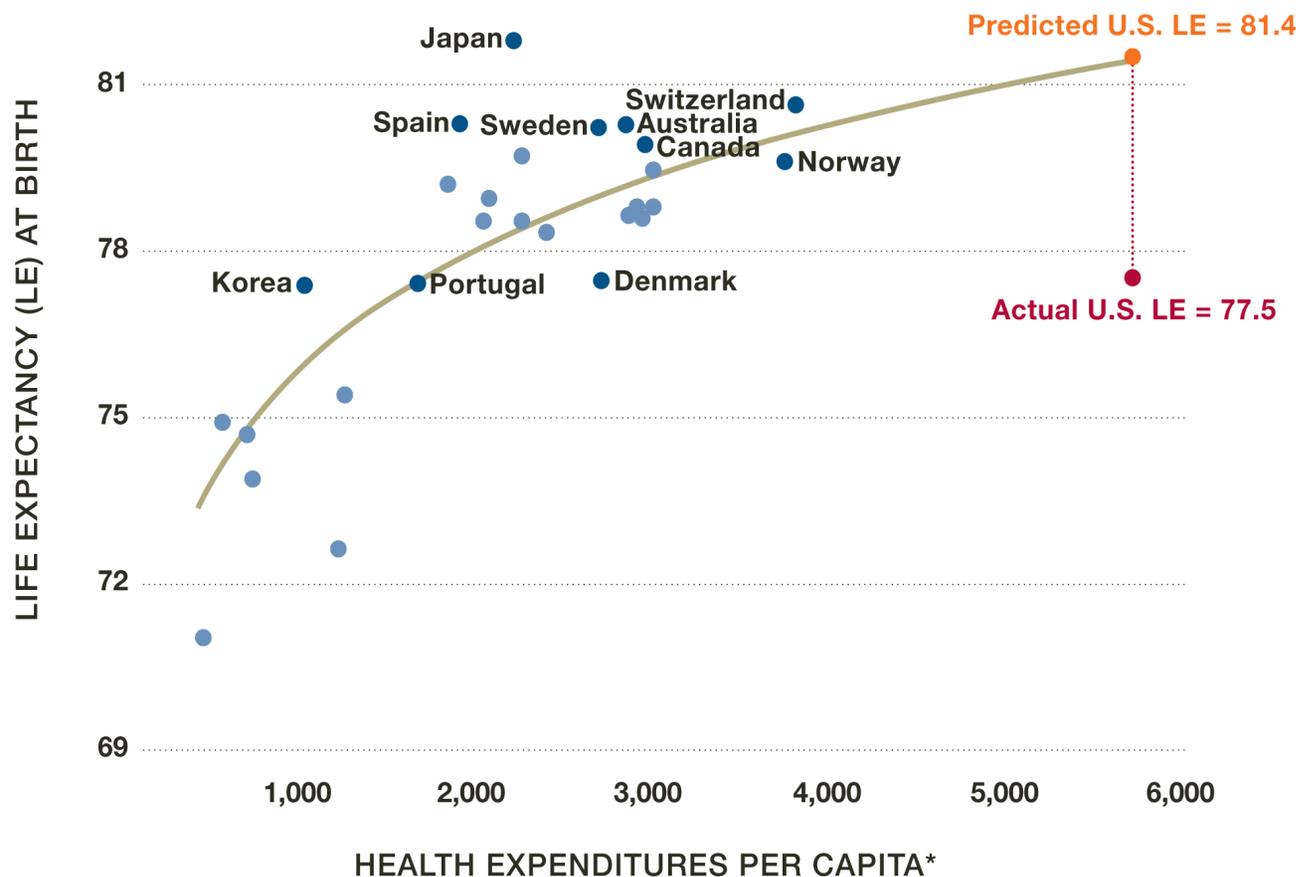
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graph TD; A[Planning + Public Health] --> B[Healthy Communities]; B --> C[Healthier Population];
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Healthy Communities

Healthier Population

# America Is Not Getting Good Value for Its Health Dollar

The U.S. spends more money per person on health than any other country, but our lives are shorter—by nearly four years—than expected based on health expenditures.



Prepared for the Robert Wood Johnson Foundation by the Center on Social Disparities in Health at the University of California, San Francisco.

Sources: OECD Health Data 2007.

Does not include countries with populations smaller than 500,000. Data are for 2003.

\*Per capita health expenditures in 2003 U.S. dollars, purchasing power parity

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[www.commissiononhealth.org](http://www.commissiononhealth.org)

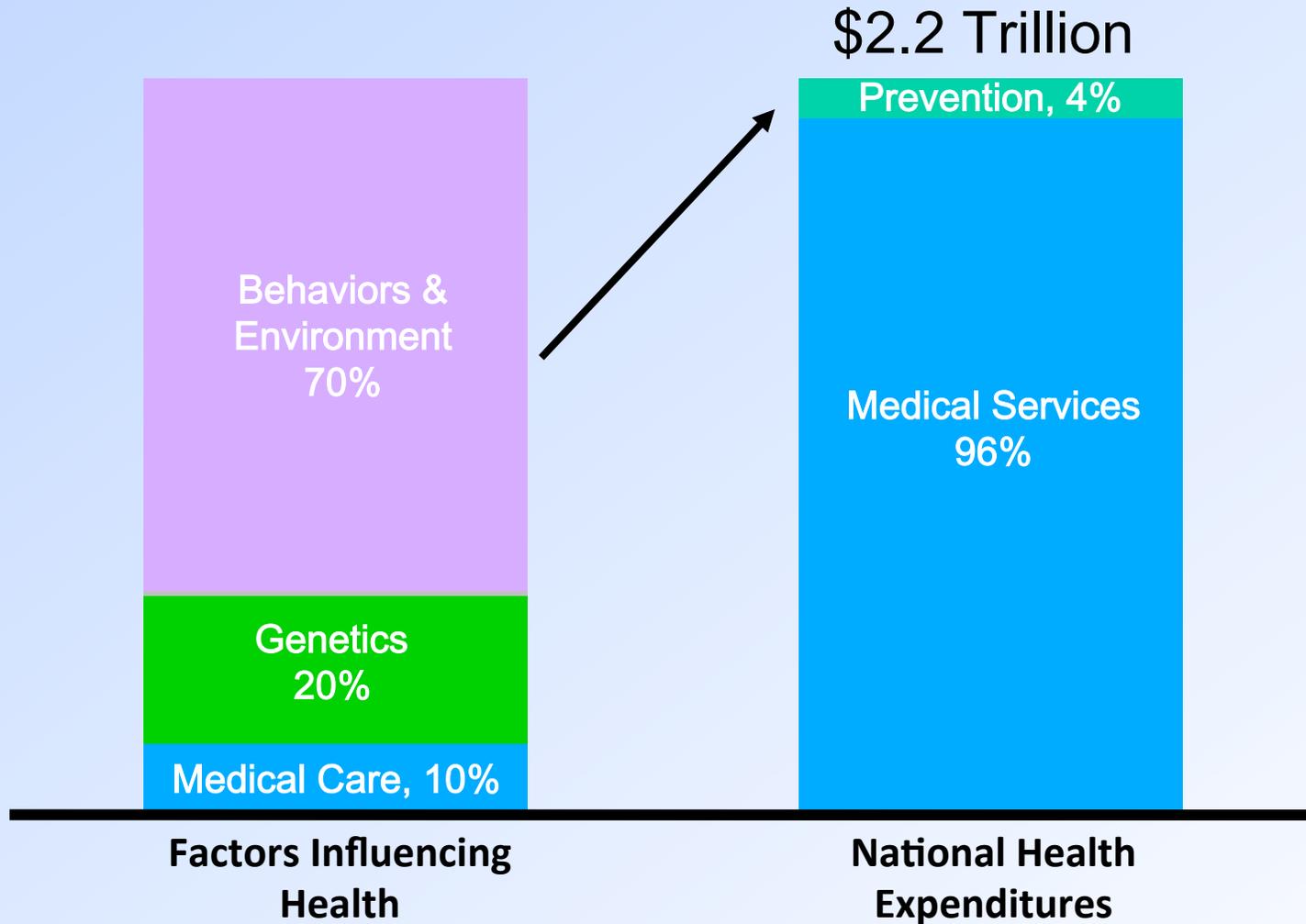
# Chronic Disease and Risk Factors

- 7 out of 10 deaths in the U.S. are from chronic diseases such as heart disease, cancer and stroke
- These chronic diseases are primarily related to four risk behaviors
  - lack of physical activity
  - poor nutrition
  - tobacco use
  - excessive alcohol consumption



Source: <http://www.cdc.gov/chronicdisease/overview/index.htm>

# Current Health Care Spending



*SOURCE: Centers for Disease Control and Prevention, Blue Sky Initiative, University of California at San Francisco, Institute of the Future, 2000*



**“Get more exercise”...**

Source: Wernham, A. Health Impact Project. [http://www.healthimpactproject.org/resources#presentations\\_webinars](http://www.healthimpactproject.org/resources#presentations_webinars)

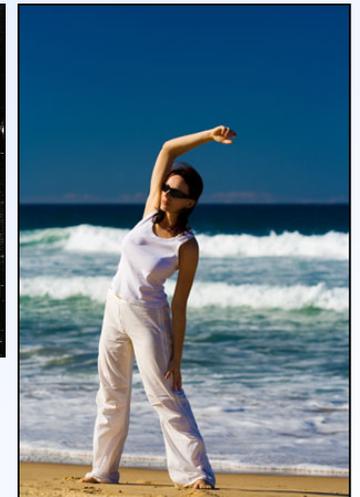
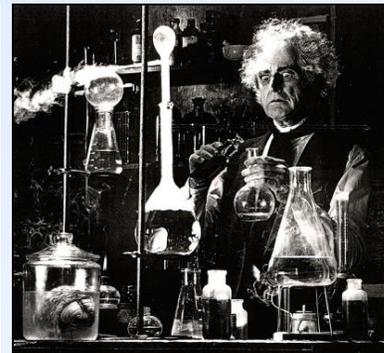
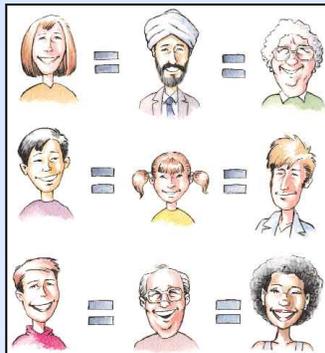
# What HIA is not . . . What HIA is

- HIA is not used before a policy, program, or project has even been considered.
  - It's not used to make the case for why a policy, program or project should be proposed.
- HIA is not used after a policy, program, or project has been completed.
  - It's not an assessment to understand the impacts of a program or policy once it has been implemented.
- HIA is used during a time when a proposed policy, program, or project is under active consideration.
  - It's the sweet spot – it's proactive!

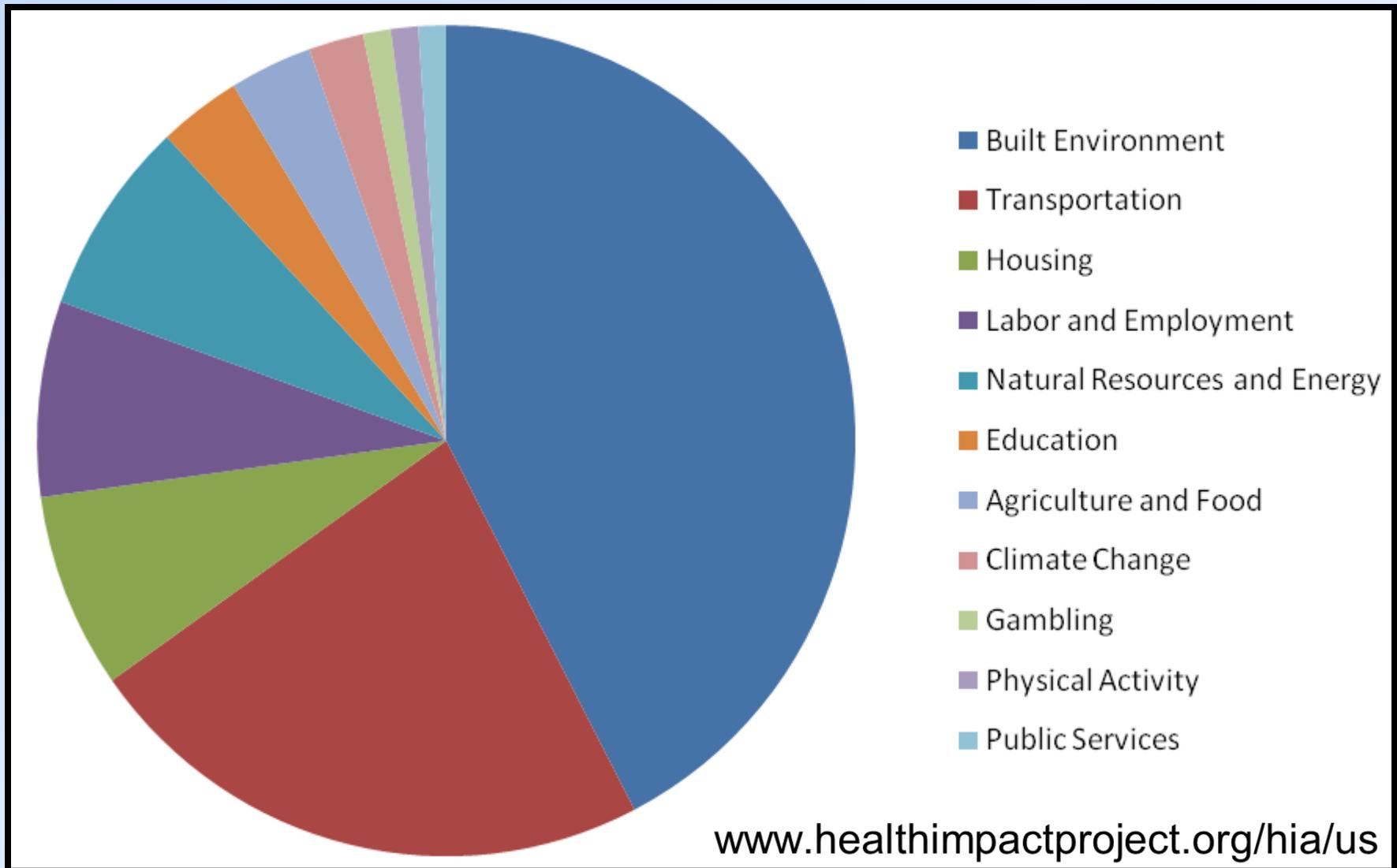


# What Values Underpin an HIA?

- Democracy
- Equity
- Sustainable Development
- Scientific & Robust Practice
- Holistic Approach to Health

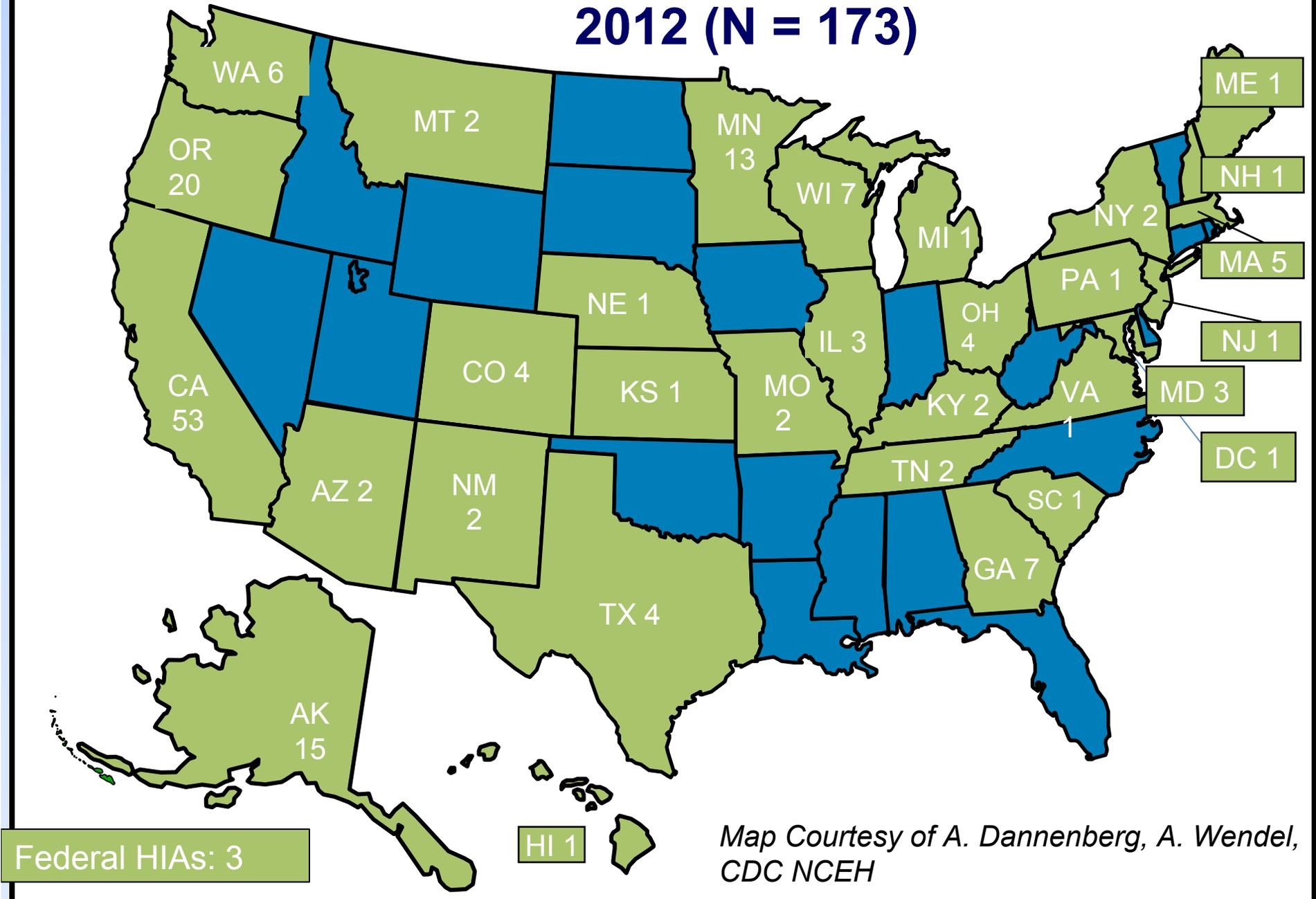


# HIA in the United States: Sectors and Topics



[www.healthimpactproject.org/hia/us](http://www.healthimpactproject.org/hia/us)

# Completed HIA and In Progress HIAs 2012 (N = 173)



Map Courtesy of A. Dannenberg, A. Wendel, CDC NCEH

# National Trends in HIA

- The field of HIA is growing exponentially
  - In 2008 there were 27 completed HIAs
  - In 2012 there are over 200 completed or in-progress HIAs
- HIA can, and has been, applied to a wide range of topics



# Steps in Completing an HIA

## 1. Screening

- is HIA feasible and likely to add value

## 2. Scoping

- what are the important health effects, affected populations, available evidence, etc

## 3. Assessment

- analyze baseline conditions and the pathways through which health can be affected

## 4. Recommendations

- provide recommendations to decision-makers

## 5. Reporting

- disseminate the report to the public, stakeholders, solicit input

## 6. Evaluation

- assess impact of HIA on final decisions and health outcomes



# Business Case for HIA

- Risk management
- Lower business costs
- Healthy workforce
- Corporate social responsibility

*“Companies should use health impact assessments with a simple goal in mind: to leave communities healthier than when they found them. A mine cannot be successful without a healthy local workforce and the support of the community in which it operates.”*

- International Council on Mining and Metals, 2010

# Safe Routes to School HIA

- Sacramento was selected because:
  - Program already in-place, which facilitates determination of project and population parameters
  - Program staff interested in cooperating with research team
  - Minimal seasonality
  - Ethnically-mixed, modest income population



# Risk Assessment – Expected Outcomes on Physical Activity

- 39% of students are expected to walk after the intervention (64% increase)
- Avg. of 15 min/day additional walking
- 7% increase in percent of kids active at least 30 min/day



# Risk Assessment – Expected Outcomes for BMI

	Change in average BMI due to increase in pa		Number of students in sub-group
	Change in hours * (change in BMI/ hrs. pa/day)		
	Participants	All students	
Average all elem.	-.004	-.001	3870
Average all middle	-.015	-.002	2130
Average all males	-.009	-.001	3170
Average all females	-.020	-.003	2830
Average all overweight	-.053	-.08	1873
Total	-.014	-.002	6000

\* estimates from Berkey et al, 2003

# Traffic-related injury

- Walk-to-school programs can actually decrease pedestrian injury rates:
  - No injuries reported in first two years of Marin County program
  - Orange County program reported a decrease in injury rates
- Estimating changes pedestrian injury rates not feasible for small numbers/small areas



# Air pollution: Expected Impacts

- Walk-to-school programs may increase or decrease exposure to air pollution depending on
  - Current mode
    - Exposure to several pollutants 50-400x times higher inside diesel school buses than outside (Sabin, Behrentz, Winer et al., 2003)
  - Inhalation rates
  - Duration of trip
  - Traffic density along walking routes
  - Time and season
- Marginal increase or decrease is probably small relative to PA-related impacts

# Violence and Crime Prevention

- Parents cite “stranger abduction” as one of the top reasons they don’t want them walking to school
- SR2S programs can increase neighborhood safety and reduce violence through increased civic participation, parental involvement and eyes on the street



# Implications of Case Study

- Walk-to-school programs are important, but only part of the solution of childhood obesity
- HIA can either temper expectations, provide justification for termination, or provide strong support for programs/policies



# HIA Practitioners: What is “Success?”

- “Brought health concerns into the discussion; decision-makers now routinely thinking about health”
- “Addressed community concerns”
- “HIA recommendations were 100% adopted into the growth plan”
- “Influenced the final design of the project”
- “Educated decision-maker about how a policy that seemed to have nothing to do with health, actually has health consequences”
- “Culture change: planning department is now routinely considering health”
- “Health is now a part of the EIS process”
- “New partnerships between health and other agencies”
- “Built a strong coalition of stakeholders who are now active in the planning process”