Pros and Cons of Health Impact Assessment

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Core assertion underlying health impact assessment

Energy policy

Food systems

Affordable housing

Housing quality

Transportation

Recreational opportunities

Access to greenspace

Labor standards

The Determinants of Health (1992) Dahlgren and Whitehead

Education Policy

Economic Policy

Tax Policy

Social inclusion

Civic participation

Corruption & transparency

Peace & security

Gender relations

Many of the greatest opportunities for improving the public's health involve addressing "the upstream determinants of health" outside the traditional purview of health care systems and public health agencies.

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Health impact assessment (HIA) aims to

- Provide a focused mechanism for bringing attention to these upstream determinants of health as they are affected by public policy decisions
- Suggest alternatives to maximize the potential benefits and minimize potential harm, especially when public health considerations are not already a major consideration.

Definition

Health Impact Assessment is

… a tool for systematically evaluating, synthesizing, and communicating information about potential health impacts for more informed decision-making.

Key questions asked in HIA

- What are the potential health impacts?
- Who is affected?
- How significant are the potential health impacts?
- Are these impacts likely to worsen existing health disparities?
- What can be done to minimize potential harm and maximize potential benefits?

Components of an HIA report

Health Impact Assessment (HIA) vs. Environmental Impact Assessment (EIA)

NEPA-EIAs and state-level equivalents:

- Triggered by proposed action directly affecting the physical environment;
- Consider determinants of health (e.g. air quality) but generally not human health outcomes (i.e. disease rates, mortality);
- Limited by common practice (and sometimes agency guidelines) to consideration of a few health conditions: e.g. cancer, asthma (sometimes), not coronary heart disease.

HIAs:

- Focus primarily on populations, less on place;
- May consider long, complex causal chains linking health outcomes to proposed action;
- Consider potentially harmful as well as potentially beneficial effects;
- Do not exclude from analysis any potentially significant health effect;
- Lack mandates, thus provide a relatively weak basis for legal recourse

Inputs and outputs for different levels of HIA

Mini health impact assessment

(suggested default)

- "Desk top" exercise
- Relies on available, "off the shelf" information
- Minimum quantification of impacts
- Limited consultation—select stakeholders only

Standard health impact assessment

(usual practice)

- Limited literature search, usually nonsystematic
- Mostly reliant on routine data
- Quantification of impacts
- Stakeholder participation w/o rigorous sampling

Maxi health impact assessment

(policy evaluation)

- Extensive literature search
- Secondary analysis of existing data + Collection of new data
- Extensive quantification and sensitivity analysis
- Full participation of stakeholders—validated qualitative techniques with robust sampling methods
- Evaluation of HIA process and policy impacts, may include control comparisons.

Jayne Parry, and Andrew Stevens BMJ 2001;323:11771182

Knowledge ≠ Policy Impact

Differing Perspectives in EIA and HIA

Category of Effects in EIA	Physical Environmental Effects in EIAs	Health or Social Outcomes Considered in HIA
Transportation Systems	Automobile Level-of-Service Vehicle Trips	Walkability → Physical activity Trips → mobility & social interaction
Air Quality	Air emissions "Excess" cancer rates	Asthma and heart disease
Noise	Noise levels (weighted average of day-night noise levels (L_{dn})	Sleep disruption, CHD, hypertension, heart attacks, impaired learning, stress levels
Housing	Number of housing units, Displacement	Health related trade-offs made in response to a lack of affordable housing, homelessness
Recreational resources	Availability of recreational resources	Physical activity influenced by recreational amenities, social, aesthetic and safety factors that support utilization

Approaches to integrating HIA into EIA

1. Prior Study: HIA is conducted prior to EIA, HIA findings used in the EIA;
2. HIA is conducted parallel to EIA, both processes mutually informing each other;
3. HIA is a separate section of the EIA;
4. Stakeholder involvement brings expanded analysis of potential health impacts in the EIA (HIA might not be mentioned), e.g. through participation in the scoping analysis;
5. Public Health agency involved as a cooperating agency;
6. Public Health agency and other health advocates provide health-related analysis through review of the draft EIA.

Elements and Phases of HIA

Screening

When is an HIA worthwhile?

Not every proposed policy or project is a good candidate for HIA

- **Feasibility**
  - Available information (affected population, footprint of alternatives, distribution of effects)
  - Time
  - Organization resources
  - Partners
- **Cost** of conducting the HIA
- **Value** (Is an HIA needed? Does it have the potential to change decisions?)

Screening

Determining internal capacity to conduct an HIA

- **Time:** When does the HIA need to be completed?
- **Issues:** What are the health-related issues that need to be addressed?
- **Available evidence:** What kinds and level of evidence are needed to for a sound, credible HIA that adds value to the policy-making process?
- **Resource needs:** Will the HIA require extensive time or resources (e.g. complex quantitative modeling, original data collection, or extensive public engagement)? What are the costs of these?
- **Internal resources:** How many staff FTEs (full-time equivalents) need to be devoted to the HIA and for how long?
- **External resources:** What external expertise is needed? To what extent can this expertise be provided without direct expense? What

Screening

Determining the value of an HIA

- **Significance**: The significance of potential health impacts;
- **Information gaps addressed:** The degree to which the HIA can fill information gaps and clarify uncertainties;
- **Collaboration**: The institutional value of improving inter-sectoral collaboration between public health and other agencies;
- **Community voices:** The value of bringing under-recognized community concerns into the policy process;
- **Timing:** Timeliness of information from the HIA;
- **Receptivity:** Potential political receptivity and responsiveness.

Screening

Reasons to not conduct an HIA

Value

Impact

Feasibility

Significance

1. Decision-makers & stakeholders already understand the potential health consequences of the proposed project;
2. The decision to approve the policy is already a foregone conclusion. The HIA will not make a difference;
3. The decision is imminent with insufficient time for sound, credible analysis;
4. Limited staff resources could be more effectively spent on more directly acting on other more pressing public health issues;
5. Available evidence does not suggest any significant impacts. Unlikely impacts may have been suggested but linkages are based on assumptions and conjecture;
6. A proposed policy/project not specified or clearly defined;
7. Stakeholders want an HIA to report on health problems in their community (better addressed by epidemiological studies or community health surveys)

Scoping

Objectives

- Design and plan the HIA;
- Decide what's in, what's out and what's most important;
- Decide how to focus and frame the HIA so that it resonates with potential audiences and their concerns;
- Select appropriate methods;
- Anticip

To ensure that the HIA addresses all relevant issues and to increase its utility for decision-makers, it is important to consult a wide range of technical experts and stakeholders in the scoping phase.

Scoping

Scoping Questions: What?

1. What are the aims and objectives of the health impact assessment?
2. What community concerns have been raised about the proposed policy/project?
3. Are there any relevant relationships to statutory requirements (e.g., resource consent processes, gender analysis, requirements for consultation, legislative impact statements)?
4. What will be the extent and boundaries of the HIA?
5. What is to be included and excluded?
6. What are the boundaries in terms of timing and location?
7. When will the assessment be done?
8. How much time will it take?
9. What is the geographic scope of the HIA?
10. What is the temporal scope (i.e. analytic time horizon) of the HIA?

Scoping Questions: Who?

1. Who will conduct the HIA?
2. What stakeholders are involved in assessing the policy?
3. Who are the key people to consult with as part of the HIA? (Think systematically about whom it is important to involve).

Scoping

Scoping Questions: How?

1. What is the budget and sources of funding for the HIA and any associated work?
2. What methods could be used in the HIA?
3. Can an assessment plan be drafted to set out the key milestones and timeframe of the HIA?
4. What goals and objects will be used for evaluating the HIA?

Scoping

1. Clearly define proposed project/policy & alternatives

- Proposed project or policy
- Alternatives, including no action
- Modifications sought by stakeholders
- Tie-in projects or plans
- Mitigation measures to prevent harm to public's health or environment
- Measures to maximize potential health benefits

Scoping

2. Identify health-related impacts

- Usual suspects: Air, water, noise
- Lost opportunities: e.g. recreation
- Social change and economic changes
- Migration

Geographic scope and time horizon?

Scoping

3. Specify tentative linkages in a logic framework

Scoping

Need to consider not just *What* but also *Who*

Scoping

4. Identify affected populations and impacts of concern

Population	Impacts of Concern
Residents living in the Wilshire Corridor, especially those near proposed subway/rail stations	•Housing •Land-use, social cohesion, safety, economics •Travel-related •Air pollution, noise from both construction and operations
Workers, students and other commuters	•Travel-related, including safety •Construction-related impacts (e.g. noise and air pollution)
Current transit users	•Travel-related, including safety
Individuals traveling into/through the project area to access services	•Access to health and social services
Business and property owners	•Economic •Housing •Land-use •Other impacts similar to residents'
Construction workers (subway)	•Air pollution •Economic •Noise •Worksite accidents

Scoping

5. Select methods that fit the questions being asked

1. **Identifying health effects** (e.g. What are the potential health effects of a proposal to change the distribution formula for sales tax revenue?)

2. **Assessing magnitude of health effects and their significance** (e.g. Will expansion of after-school funding yield significant health benefits?)

3. **Evaluating the distribution of costs/benefits to assess equity** (e.g. Are the health benefits and risks of a proposed farmers' market distributed equitably? What is the effect on existing disparities?)

4. **Assessing current policies in order to establish a baseline and identify policy opportunities** (e.g. What are the health effects of current agricultural subsidies?)

5. **Weighing economic costs/benefits in relation to health effects** (e.g. What elements of school design most cost-effectively encourage physical activity?)

Methods/Tools

1. Literature Review
2. Checklists
3. Focus groups
4. Key informant interviews
5. Expansion of existing models from other sectors (e.g. economic, environmental & transportation models)
6. Custom spreadsheet-based effect models

Scoping

6. Step-by-step plan to get it done

- Stakeholder engagement plan
- Data analysis plan
- Workplan (e.g. Gantt Chart)
- Budget

Workplan

Data Analysis Plan

Bottom-line: Making a Difference

1. We assume that more information will influence decisions, but does it?
2. Information on public health effects may be considered extraneous by decision-makers in other sectors.
3. We may appear to be biased, just another advocacy group.
4. HIA is based on scientific/technical information, but this might not be the kind of information that most influences decision-makers. *(see George Lakoff's work on "Frames")*

Health-related Community Concerns raised in 2007

Potential Health Risks and Pathways

Air-borne	Noise	Open Space/Greenspace & Resources for Physical Activity	Geologic Event	Traffic	Water Borne
• Smoke • Odors/smells • Dust & effects of mitigation • Asthma • Cancer	• Headaches • Stress • Loss of Sleep	• Thresholds of significance, ex. Potential biological resources impact • Biological survey • Health • Wildlife • Landscape	• Soil contamination • Hill & geologic stability • Seismic stability • Water erosion • Ground movement	• Pedestrian safety • Ease of transportation	• Urban Runoff • Cancer