

The following excerpt was prepared for the Grantmaker’s in Health Audio conference on February 25th, 2009 from the A Practitioners Guide for Health Impact Assessment (DRAFT) authored by Rajiv Bhatia, MD, MPH at the San Francisco Department of Public Health. February 2009. Please do not distribute or cite.

Introduction to Health Impact Assessment

What is Health Impact Assessment?

HIA is a systematic process to make evidence-based judgments on the health impacts of public decisions. In addition to predictive judgments, the defining characteristics of HIA include a broad definition of health and health determinants, application to policy-making in all public sectors, an explicit concern with vulnerable populations, and a commitment to transparency and inclusion. HIA aims to draw upon both professional expertise and local knowledge, use the best available analytic methods and tools, and involve and engages decision-makers and stakeholders. HIA considers impacts of decisions that both positive and negative, and HIA offers recommendations for design, mitigations, and alternatives, to ensure decisions protect and promote health.

Health Impact Assessment May Be Defined As A Combination Of Procedures, Methods And Tools That Systematically Judges The Potential, And Sometimes Unintended, Effects Of A Policy, Plan, Program Or Project On The Health Of A Population And The Distribution Of Those Effects Within The Population. HIA Identifies Appropriate Actions To Manage Those Effects.
(Definition adapted by the International Association of Impact Assessment from World Health Organization 1999)

Why Conduct Health Impact Assessment?

Intuitively, our health depends on the quality of and resources in our physical and social environments. In the World Health Organization urged policy-makers in sectors to “be aware of the health consequences of decisions and to accept their responsibilities for health” (WHO 1986)¹ Furthermore, the WHO called on makers to conduct health impact assessments of

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actions that affected the social, economic, and environmental conditions of people. Health Impact Assessment (HIA) is *one* tool that helps achieve this vision and broad social and institutional ownership and responsibility for population health.

Like the environmental impact assessment process, HIA presumes that decision-making process informed by the public's health concerns and analysis of health impacts, can lead to health-responsive actions. Overall, the practice of HIA can support healthy public decision-making in the following ways:

- **Identifying harms and benefits before decisions are made** Sound public policy requires information on potential health impacts, including information on both short- and long-term effects and health impacts on socially excluded or vulnerable populations. HIA findings and recommendations can inform and motivate beneficial and protective changes to the design of a project or policy. As health provides comprehensive lens on decisions, HIA can be a useful tool to examine and weigh trade-offs and identify opportunities for strategies that serve multiple aims.
- **Supporting community engagement and facilitating buy-in for decisions and implementation** Public health concerns are often prominent sources of controversy on public actions and HIA provides a way to address those concerns. An HIA can play an important role in legitimizing community voices through the consideration and assessment of their concerns. A transparent accounting of impacts along with mitigations can prevent project delays. Furthermore, because protecting health is a widely shared value, HIA may also identify

Steps in the HIA Process

1. **Screening** involves determining whether or not a HIA is warranted and feasible.
2. **Scoping** involves determining health issues for analysis, the temporal and spatial boundaries for analysis, research methods.
3. **Assessment** involves using data, expertise, and qualitative and quantitative research methods to judge the magnitude and likelihood of potential health impacts, their significance, and appropriate mitigations and design alternatives.
4. **Reporting** of the results of the HIA involves synthesizing the assessment and communicating the results. This can take many forms including written reports, comment letters, and public testimony.
5. **Monitoring** describes the process of tracking the effects of the decision and its implementation on health determinants and health status.

- areas of cooperation among opposing interests and common strategies that apply to diverse interest groups.
- **Protecting Equity and Justice** Environmental Justice is formally defined as the “...fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies” (California Government Code §65040.12). Children and the elderly represent other populations sensitive to health impacts. Understanding the distribution of health effects on vulnerable populations is necessary to fulfill the requirements of social justice.
 - **Planning health and public health service delivery** Because HIA can anticipate changes in future conditions important to health, it can be valuable in planning health and public health service delivery and interventions.
 - **Catalyzing social and institutional learning** A successful HIA identifies impacts, helps to fill knowledge gaps in decision-making, and influences design for a particular policy, project or plan. It also can serve as a tool for public and institutional learning. A HIA may lead to health promoting design recommendations or mitigations being incorporated proactively into subsequent plans and projects at the design and planning stage.

Where Does HIA fit into Decision-making in the United States today?

HIA is an emerging practice in the United States. Only a handful of HIAs have been conducted, addressing only a small fraction of the public policy decisions that could have health impacts. In some public decision-making settings, existing rules require health analysis. The scope of such analyses, however, is often narrower than that of HIA, and such rules do not apply to all institutional contexts in which HIA might be useful.

HIA and related forms of health impact analysis have occurred in several distinct public decision contexts in the United States. In some cases, HIA is initiated by a project proponent, decision-maker, or other stakeholder apart from any regulatory requirement. These stakeholder-initiated HIAs have been extremely diverse in terms of approach, scope of effects included, methods, and public engagement and responsiveness and have not conformed to a single vision of practice.

In other cases, HIA has been used to fulfill regulatory requirements for health effects analysis under NEPA or similar state laws. HIA is procedurally similar and complimentary to Environmental Impacts Assessments conducted under the National Environmental Policy Act (NEPA) and equivalent State statutes, and NEPA requires an Environmental Impact Statement (EIS) to include consideration and analysis of health effects of federal agency actions triggering requirements for an EIS. While NEPA; does not refer by name to "HIA" as a separate requirement *pe se*, and while the scope of health analysis in the EIS has been limited, when conducted within the context of an inter-disciplinary EIA, HIA is an appropriate way to meet statutory requirements for health effects analysis. Recent comment letters on draft EIAs by public health interests and examples of integrated health and environmental impact assessment suggest and demonstrate the utility of this approach (Bhatia & Wernham 2008)

The third context includes cases where there is a statutory requirement, regulation, or policy that requires an HIA or health effects analysis. There have been rare examples of legislation or policies requiring a HIA on a specific project, policy, or plan with a pre-defined scope of issues. For example, it is the current policy of the State of California Air Resources Board (CARB) to conduct limited health impact assessments on strategies within their plan to address global warming, and Washington State legislation required a limited HIA be conducted on the SR-520 Bridge HIA in Seattle. All federal environmental regulatory agencies also conduct some form of health impacts analysis either to set regulatory standards or to quantify regulatory benefits in cost-benefit analysis, and to varying degrees the process and methods used in these analyses are resemble HIA.

Overall, the practice of HIA is heterogeneous in the United States today. Practice does not appear to conform to any existing or established norms or standards and shares boundaries with other forms of predictive methodologies and decision analysis processes.

What are the steps and activities in the HIA Process?

The general procedural steps in HIA include screening, scoping, assessment, reporting, and monitoring (See Text Box above). While HIA benefits from following this systematic approach, HIA must also reflect the needs of its particular context particularly the interests of community members, stakeholders and decision-makers. The scope of HIA can and will vary with regard to the breadth of issues analyzed, the temporal and spatial dimensions of impact assessment, and the research methods employed. The opportunities for and participation of external stakeholder at each step of the HIA process will have a profound influence the focus and content of HIA.

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Excerpt from *Bhatia, R. A Practitioners Guide for Health Impact Assessment. 2009*

HIA has procedural steps similar to the practice of Environmental Impact Assessment (EIA) and has complimentary goals. Since the purpose of HIA is to inform decision-makers **before** they make decisions, like EIA, an HIA should be typically carried out prospectively before a decision is made. In contrast to EIA, HIA offers a more explicit focus on human health and a more explicit concern with inclusion and equity. As discussed in more detail below, HIA may be integrated within EIA to help achieve statutory requirements for an integrated analysis inclusive of health impacts.

Some observers and practitioners categorize the types of HIAs with regards to the characteristics of its scope (Cole 2007; IFC 2008). Typological distinctions include: rapid vs. comprehensive, and qualitative versus quantitative. While these are valid distinctions, in reality, the categories themselves are not mutually exclusive and the boundaries between categories are blurred. More important, these characteristics actually reflect normative choices made within a scoping process for a HIA. Given this, HIA may be better described as a spectrum of practice along several key dimensions outlined in the table below.

A Spectrum of HIA Practice

Focused on single health determinant or health outcome	Breadth ↔	Comprehensively considers all potential adverse and beneficial effects on health
Analysis scoped and conducted by a single expert or public institution	Participation ↔	Analysis scoped and conducted by community organization
Conducted independently	Integration ↔	Integrated within existing regulatory and non-regulatory assessment processes
Use of existing data and published research	Methods ↔	Collection and analysis of new data using multiple quantitative and qualitative methods

HIA should also be responsive to its underlying values. In 2006, the International Association of Impact Assessment outlined a set of values and principles for the practice. These include: Democracy; Equity; Sustainable Development; Ethical Use of Evidence; and Comprehensive approach to health (Quigley 2006). An appendix to this guide outlines a set of practice principles that can help ensure HIA is responsive to the above values.

Inclusive and meaningful public participation is a key goal of HIA important to the values of democracy and equity. Opportunities and needs for participation exist at each stage in the HIA process. Stakeholder involvement in the screening phase helps to target HIA resources and capacity to the most relevant and useful opportunities; involving stakeholders in scoping helps to ensure that the HIA addresses important community concerns; stakeholder review of the assessment findings, mitigations, and alternatives both helps to validate findings as well as translate them to the public decision-making process.

The Values of Health Impact Assessment (IAIA, 2006)

Democracy – emphasizing the right of people to participate in the formulation and decisions of proposals that affect their life, both directly and through elected decision makers. In adhering to this value, the HIA method should involve and engage the public, and inform and influence decision makers. A distinction should be made between those who take risks voluntarily and those who are exposed to risks involuntarily (World Health Organization, 2001).

Equity – emphasizing the desire to reduce inequity that results from avoidable differences in the health determinants and/or health status within and between different population groups. In adhering to this value, HIA should consider the distribution of health impacts across the population, paying specific attention to vulnerable groups³ and recommend ways to improve the proposed development for affected groups.

Sustainable development – emphasizing that development meets the needs of the present generation without compromising the ability of future generations to meet their own needs. In adhering to this value, the HIA method should judge short- and long-term impacts of a proposal and provide those judgments within a time frame to inform decision makers. Good health is the basis of resilience in the human communities that support development.

Ethical use of evidence – emphasizing that transparent and rigorous processes are used to synthesize and interpret the evidence, that the best available evidence from different disciplines and methodologies is utilized, that all evidence is valued, and that recommendations are developed impartially. In adhering to this value, the HIA method should use evidence to judge impacts and inform recommendations; it should not set out to support or refute any proposal, and it should be rigorous and transparent.

Comprehensive approach to health – emphasizing that physical, mental and social well-being is determined by a broad range of factors from all sectors of society (known as the wider determinants of health). In adhering to this value, the HIA method should be guided by the wider determinants of health.

What Health Issues does a Health Impact Assessment analyze?

The definition of health within the context of HIA is holistic, and so HIA considers a broad set of social and environmental determinants of health status. An ecological framework for health is necessary because most public decisions affect health indirectly through their effects on social, economic, or environmental conditions. Thus, the impacts analyzed within HIA can include physical and mental health outcomes like mortality and disability, but also behavioral factors, and family, neighborhood, public services, environmental conditions, and economic and political factors. While HIA may include analysis of a broad array of issues may, issues and analysis must contribute to understanding explicit causal pathways linking the decision at hand and health outcomes. The table below identifies examples of factors linked via evidence to human health.

Examples of the Types of Health Determinants and Outcomes That May be Considered in HIA

Fixed Individual Factors	Individual Health Behaviors	Public Services and Infrastructure	Environmental Conditions	Social, Economic, and Political Factors
Heredity	Diet	Education	Housing Adequacy	Poverty
Gender	Physical Activity	Public Transportation	Air, Soil and Water Quality	Inequality
Age	Addictions	Health Care	Community Noise	Social Cohesion & Inclusion
Existing Health conditions and Disabilities	Coping	Parks	Disease vectors	Political Participation
	Transportation	Community Centers		
		Economic Development		

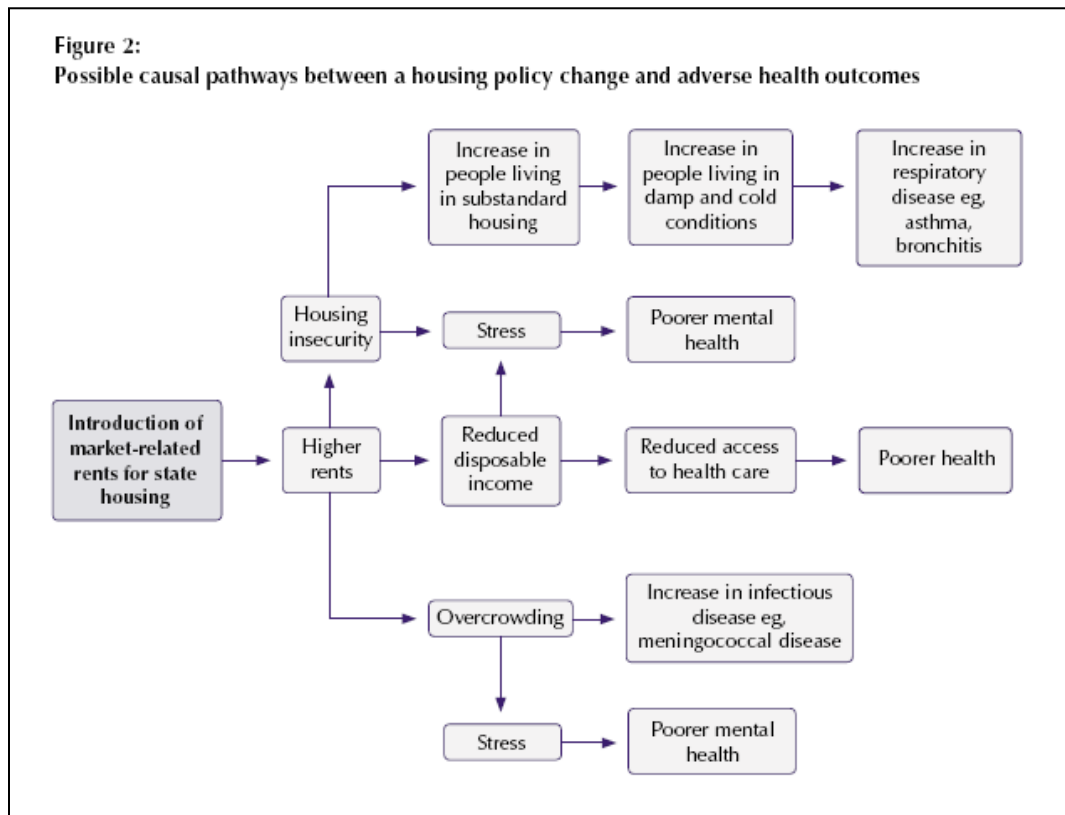
Conducting HIAs requires exploring often complex causal pathways among policy choices, health determinants and health outcomes. Traditional causal pathways in public health are often simple and intuitive: exposure to a person infected with the flu virus can lead to the flu. However, even this simple pathway ignores the role of contextual environmental factors and social conditions in transmission of communicable disease including social contact among households, workplaces and schools, environmental factors such as household crowding and social factors that affect the ability to avoid social contact, such as sick leave benefits.

Human health is a function of innumerable and simultaneous social, economic, political, and environmental factors. The affordability of housing is a social condition that can have wide-ranging impacts on human health through effects on housing conditions, household budgets, overcrowding, and psychosocial stress. Neighborhood conditions, including air quality, noise, traffic, and access to parks, schools, and transit are associated with heart disease, hypertension, asthma, bronchitis, stroke, diabetes, obesity, osteoporosis, depression, and some cancers (Ewing 2006). Health Impact

Living in a healthy place requires having adequate housing; secure and meaningful livelihood; access to schools, parks and public spaces; safety and freedom from violence; unpolluted air, soil, and water; and a society which promotes not only opportunity and innovation but also cooperation, trust, and equity.

Assessment helps to make such connections between social policy choices and health more explicit by revealing pathways involving social and environmental conditions.

Potential Health Impacts of Changes in Housing Rents (Source: Public Health Advisory Committee. 2004. A Guide to Health Impact Assessment: A Policy Tool for New Zealand)



How is HIA different from other forms of health assessments?

As discussed above, HIA is procedurally similar and complimentary to Environmental Impacts Assessments conducted under the National Environmental Policy Act (NEPA). HIA should also be distinguished from other forms of stand alone assessment or forecasting methodologies even though these other forms may be used within a HIA. For example, community health assessment both supports policy development and existing conditions analysis in HIA. Human health risk assessment is another specific analytic tool an analytic method used for predicting the health consequences of a specific exposure; HRA is not comprehensive but can be used to forecast effects of specific exposures within HIA. Collaborative planning and design to integrate health needs can also occur in the context of policy development independent of HIA.

What are the roles for Stakeholders in HIA?

Stakeholders include any individuals or groups with a known interest or perceived interest in the outcomes of a decision potentially subject to a HIA. Stakeholders may include sponsors of economic development projects, health providers, public health officials, government agencies responsible for policy implementation or enforcement, or those who are residents, employees, or employers in a place. Inclusive and meaningful participation of stakeholder helps the HIA process to identify relevant research questions, sources of data and information, and proposals for alternatives and mitigations.

While stakeholders may hold strong positions on decision outcomes, each type of stakeholder also has a unique contribution to make to HIA. Project proponents are likely to know the most about the implementation of a proposed project, for example, the need for environmental and human resources. Health providers bring essential information about the health status of community members and knowledge about particular health vulnerabilities. Public health or environmental agency officials may have data on existing environmental conditions relevant to health.

In public policy making residents of a place are often implied beneficiaries of a public decisions or economic development plan. Yet resident stakeholder may also be subject to adverse health impacts of projects, plans, and policies. Meaningful and inclusive public participation in the process can ensure that HIA address issues that are community priorities and that judgment about the significance of impacts and the relative priority of reflect community values.

In cases where experts or public institutions are directing or leading an HIA, the HIA process can include significant opportunities for participation community residents or organizations. For example, HIA practitioners may convene community residents to participate in the oversight of an HIA. In the assessment phase, practitioners may use focus groups to gain insight and knowledge from community members. Analysis within HIA can also involve participatory research. The table below provides some examples of possible community roles in various stages of the HIA process.

Stakeholders, such as affected community organizations, may also have the capacity to take a more direct leadership role in the organization and conduct of the HIA process. For example, the community organization could call for an HIA, organize a team to conduct HIA, conduct a public scoping process, and provide overall oversight and ownership of a process. In this case, experts would serve a community-led process in a range of subordinate roles including facilitation, research, data collection, analysis of impacts, and public testimony.

Stage of HIA	Example of Community Resident or Organization Involvement
Screening	<ul style="list-style-type: none"> ▪ Community stakeholders identify the need for a HIA and create a political demand for its conduct.
Scoping:	<ul style="list-style-type: none"> • Community stakeholders participate in or conduct scoping exercise to identify high priority community health issues and concerns
Assessment	<ul style="list-style-type: none"> • Staff conducts interviews and focus groups with community members and engaged stakeholders; • Community members organize a resident survey • Stakeholders interpret or “ground truth” project staff research;
Reporting	<ul style="list-style-type: none"> • Stakeholders interpret and prioritize findings and recommendations • Stakeholders report and communicate HIA findings to the media and to decision-makers
Monitoring:	<ul style="list-style-type: none"> • Stakeholders create a “watchdog” group and monitor decision outcomes and long term results

What are some of the important lessons from HIA practice so far?

Case studies in the United States demonstrate that HIA can foster a more inclusive, democratic, transparent, and informed policy-making process. In many cases, transparency about health impacts has helped to shape public decisions leading to the inclusion of design choices, alternatives, and mitigations that protect and promote health. A key lesson from effective HIAs is that the practice not only requires meaningful and scientifically grounded analysis of health impacts but also public engagement with the HIA process to support effective translation to the policy process. Some of the important lessons from HIA practice are listed below:

- ***Use a systematic approach*** The procedural steps of screening, scoping, assessment, reporting and monitoring provide an effective and tested approach for HIA. The systematic process can support rigorous and robust analysis yet is flexible enough to be adapted to the needs of context.

- ***Involve stakeholders at every stage*** Human health is a common concern of community residents, planners, public health. Stakeholder involvement can help identify uses for HIA; help identify potential impacts, research questions, data, and solutions; and help translate HIA findings to public dialogue. Stakeholders should also have the opportunity to critique the findings and conclusions in a HIA.

- ***Where possible integrate the HIA along with required processes for impact analysis*** Existing law requires public health analysis of environmental changes that have adverse impacts. Many environmental issues considered under the EIA process such as noise, air quality, and traffic safety, can benefit from methods and approaches used in HIA. If HIA occurs outside the regulatory impact assessment process, it should occur early enough in the process to influence design.

- ***Use the best available evidence*** Causal certainty is not a standard of evidence appropriate for prospective public-decision making and the absence of evidence does not predict the absence of impacts. Judgments in HIA should be made based on consideration of the best available evidence, acknowledging evidence gaps and uncertainty.

- ***Provide an objective analysis of issues.*** Policy decisions are typically politically contested and stakeholders have firm and fixed positions about the value or costs of a particular course of action. The HIA practitioner should strive to analyze health impacts unbiased by the outcome.