



HumPAL

Humboldt Partnership for Active Living

*A project of the Natural Resources Services Division
of Redwood Community Action Agency*

Overview: San Francisco Department of Public Health
Health Impact Assessment Practitioner's Training

June 22-25, 2010

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www.humpal.org



Course Overview

- **4 Day Training**
- **International participation**
- **SFPHD Program on Health, Equity and Sustainability: <http://www.sfphes.org/>**

HumPAL
HUMAN POPULATION ACTION LEADERS

The Program on Health, Equity and Sustainability supports San Franciscans working together to advance urban health and social and environmental justice through ongoing integration of local government and community efforts and through valuing the needs, experiences, and knowledge of diverse San Francisco residents. We accomplish this by:

- *Initiating and facilitating dialogue and collaboration among public agencies and community organizations
- * Expanding public understanding of the relationships between the natural, built, and social environments and human health
- *Support local participation in public policy-making
- *Conducting and supporting local and regional research
- *Developing and evaluating new methods for interdisciplinary and inclusive involvement in public-policy
- * Documenting and communicating our strategies



HIA Defined

- The purpose of an HIA is to:
 - “Improve knowledge about the potential impact of a policy or programme, inform decision-makers and affected people, and facilitate adjustment of the proposed policy in order to mitigate the negative and maximize the positive impacts.”
 - Gothenburg Consensus Paper

Photo:
Jeannette Quinn



Note that there really isn't a 'standard' created for this process, and that each project ends up looking different. That's why EXCELLENT documentation of the entire HIA process is INCREDIBLY IMPORTANT



“Typical” HIA Process

Screening	Determine need for and value of an HIA
Scoping	Determine which health impacts to evaluate, methods for analysis, and work plan to complete the assessment
Appraisal	Judge magnitude and likelihood of potential health impacts and identify responsive design strategies
Reporting	Communicate results to stakeholders and decision-makers
Monitoring	Track effects of the HIA
Evaluating	Evaluate process through which the HIA was performed

Photo: Jeannette Quinn



Note that there really isn't a 'standard' created for this process, and that each project ends up looking different. That's why EXCELLENT documentation of the entire HIA process is INCREDIBLY IMPORTANT. Also, note the fundamental outcome of an HIA: a judgment. What is the standard for a 'good' judgment? Acceptability among peers and plausibility - like a jury or investigative reporter. And Rajiv's point at the training was that a good judgment looks at all levels of evidence in other fields than our own, at context specific information. The HIA training I attended was, really, about data - methods of collecting it, how it leads to recommendations of policy or mitigations of impacts of projects... so this presentation will focus quite a bit on those data tools. However, there's plenty more information from the training I can share in the future, and I've created an evaluation to ask for your input on what that info could be.

HIA Options



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Least Resources (‘Rapid’ or ‘Desktop’)	Review of available reports
	Literature review
	Analysis and mapping of existing data from the census, public agencies, etc
	Expert opinion
	Application of quantitative forecasting methods using existing studies
Most Resources (‘Health Impact Assessment’)	Interviews or focus groups
	New quantitative data collection and analysis



What can an HIA assess?

Development projects	Housing developments, mixed-use retail
Transportation plans	New transit stations, roadway expansions, new rail lines
Comprehensive or specific area plans	Guides for future development
Local, state, or national policies	Labor, education, incarceration, immigration



HIA as a 'collaborative' process

Why engage others?

- **The Public**
- **Policy-makers/Decision-makers**
- **Public health and other agencies/NGO's**

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The Public - relationship building, capacity for advocacy, empowerment

Policy-makers/Decision-makers - ensure that recommendations are realistic and account for practical, economic, and technical limitations

Public health and other agencies/NGO's - relationship-building, data, information, and resources



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Collaborating Roles

Scoping	Identify health issues to be studied. Prioritize research questions.
Assessment	Research existing conditions data. Conduct surveys, interviews, and focus groups. Interpret and ground truth data. Conduct data analysis.
Recommendations	Develop and prioritize alternatives or mitigation strategies. Identify strategies to ensure implementation of recommendations (e.g., collaboration with decision-maker to develop feasible measures; advocacy; media)
Reporting	Write, review, and edit final report. Develop a communication, media and advocacy plan to report findings to decision-makers.
Monitoring	Continue to hold decision-makers accountable for decision agreements and mitigations.
Evaluation	Honest feedback regarding process of conducting HIAs; 'lessons learned' to strengthen future projects.



Screening

- Establishing need for and value of HIA



Screening is a critical first step to ensure relevance of HIA

Defining the decision and its alternatives

Deciding who will be involved in the screening

Identifying potential connections among policies and projects and impacts on health

Determining whether impacts are likely to be positive, negative, or uncertain

Is the project controversial

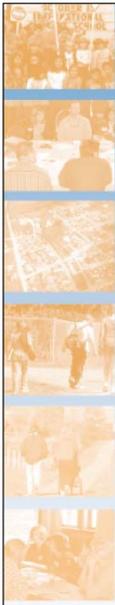
Understanding political context of a decision and 'openness' of decision making process

Evaluating alternate decisions based on screening criteria

Making a decision of whether to conduct an HIA

Notifying stakeholders and decision makers

Screening Checklist



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Screening Questions	Responses, Supporting Facts, Rational
Does the decision have the potential to affect, positively or negatively, environmental or social determinants of health? In what ways? What are the most important health concerns that could be addressed by an HIA?	
Who are the stakeholders and interest groups involved in the decision-making process? Do they seem to have the interest and the capacity to participate in an HIA? Would stakeholders use the HIA to inform or influence the decision making process? How?	
Other screening questions to consider:	
Is the decision-making process open to HIA and/or recommendations for changes to design, mitigations, and alternatives?	
Are there decision alternatives that are more or less advantageous to public health? Would one scenario affect vulnerable populations more than another?	
Have public health concerns about the health impacts of the decision been documented (even if these concerns have not explicitly been stated as a health concern)?	
Do research methods exist to analyze health impacts of concern associated with this decision?	
Is it feasible to analyze the health impacts of the decision in the decision-making time frame? What are some barriers to timely completion that you might anticipate?	
What additional information do you need to decide on the overall value of an HIA in this concern?	



Scoping

Creating an HIA Work plan & determining which impacts to evaluate



Decision alternatives

Potential health impacts and their pathways

Data, methods, and tools needed

Potential data gaps

Demographic, geographic and temporal boundaries

Process for determining significance of impacts

Timeframe and resources

Roles of researchers, experts, and stakeholders

Plan for external review, findings dissemination

Start Broad: most social decisions affect health indirectly through effects on social or environmental conditions

Initial scope should consider all factors that collectively influence health:

Physical and mental health outcomes

Behavioral factors

Neighborhood conditions

Public services

Environmental conditions

Economic and political factors

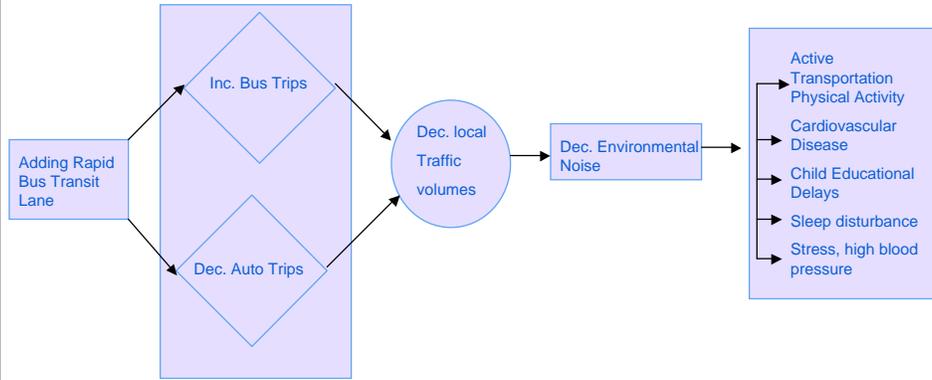
Scope should include data and methods to reveal inequities in conditions or impacts based on population characteristics including but not limited to: age, gender, income, place (disadvantaged locations), ethnicity



Scoping

Pathway Example: Adding a Bus Rapid Transit Line to a Highway...
What are the impacts?

Policy Decision Direct Impacts Mediating Impacts Environmental impacts Health Impacts





Data & Methods in HIA Analysis: An Overview

Assessment Objective

- A profile of baseline conditions including baseline health status and factors known or suspected to influence health
- An evaluation of potential health impacts including a judgment of their certainty and significance
- Management strategies for any identified adverse health impacts - in the form of decision alternatives, mitigation of specific impacts, or other related policy recommendations.

Types of Data



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- Existing Data
 - Empirical literature (epidemiological; 'analogies to nature')
 - Community expertise
 - Available collected social, economic, environmental and health measures
 - Regulatory standards and benchmarks. (Note that there are often published debates and scientific articles behind a regulation as to why they are regulated, and establishing a causal relationship)
 - Literature review
- New Data
 - Environmental measures (air quality, noise are environmental; perceptions are social)
 - Modeling
 - Surveys
 - Forecasting tools
 - Epidemiological studies



Community Expertise

Types of Data

- Residents
- Neighborhood organizations
- Medical practitioners
- Public officials
- Health agencies





Case Study: Humboldt HIA Data Collection

- Humboldt County Department of Public Works
- Humboldt County Community Development Services
- California Department of Forestry
- Humboldt State University
- UC Davis Agricultural Extension Service
- First Five Commission
- Area 1 Agency on Aging
- Jacoby Creek Land Trust
- Childcare Planning Council
- North Coast Unified Air Quality Management District
- North Coast Emergency Medical Services
- HumPAL
- RCAA
- Housing and Homeless Coalition
- Humboldt County Association of Governments
- Workforce Investment Board
- California Water Resources Board (North Coast Watershed Assessment Program)
- City of Arcata
- Eureka City Schools
- Assembly Member Patty Berg's Office
- Humboldt Del Norte County Medical Society
- Northcoast Environmental Center
- Fisheries Biologists
- Natural Resources Conservation Service Arcata Soil Survey
- PG&E
- Dept. of Health and Human Services
- Focus groups





Using Community Health Indicators in HIA

- Community health indicators provide a snapshot of: community risk and resiliency factors and population health and health determinants.

***Any one indicator doesn't tell the whole story



Known Public Health Impacts of the Built Environment

- Physical Activity
- Pedestrian Injuries
- Asthma and respiratory disease
- Obesity and chronic disease
- Crime and violence
- Social capital and cohesion
- Child psychosocial development
- Elder health and mobility
- Water quality and quantity
- Depression and isolation
- Health inequities



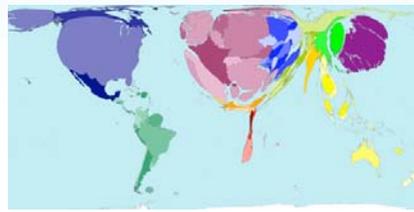
Spatial Analysis & Public Health

- Health Outcomes: ER visits, hospitalization rates
- Clinical/Physiological Signs: Diabetes, high blood pressure, asthma, etc
- Behavior factors: violence, alcohol use, stress
- Social/Environmental/Political Determinants: physical environment (where, proximate, adjacent?), social and economic factors
- Uses of Spatial data in HIA Framework
 - Baseline conditions
 - Inequities
 - Potential health impacts
 - Communications

Designing Healthy Communities: Spatial Assessment Tools



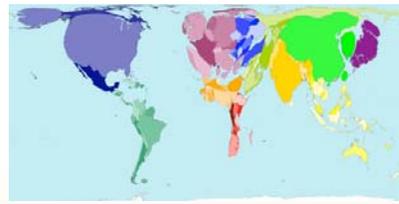
Total Births



Passenger Cars



HIV Prevalence



Ecological Footprint



Cool Tools

- HDMT [SFDPH ENCHIA, Humboldt GPU HIA]
- Food environments
- Complete neighborhoods
- PEQI/BEQI



http://www.sfphes.org/HIA_Tools_Neighborhood_Completeness.htm

http://www.sfphes.org/HIA_Tools_PEQI.htm

http://www.sfphes.org/HIA_Tools_Retail_Food_Availability.htm



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What if there is no threshold for significance in the data?

E.G.: Vehicle-Pedestrian Injury Collision Forecasting in San Francisco

Public Health considerations:

- Motor vehicle crashes are the leading cause of death for Americans 3-34 years of age
- Increasing rates of disease by sedentary lifestyles
- Over 50% of ped. Injuries occur at non-intersection locations
- Traffic volumes and speeds are strongest predictors of pedestrian injury collisions



Vehicle-Pedestrian Injury Collision Forecasting

Intersection, Individual-Oriented Pedestrian Safety Approach

Asks: What intersections have high numbers or rates of collisions? What pedestrian or driver behaviors precede collisions, and how can we make them change their behavior?

Analytic Approaches:

- Intersection-oriented - focus on engineering of specific intersections
 - Individual-oriented - cause ascribed to pedestrian and driver behaviors
- Mapping shows that for any one intersection, each has a low % of total collisions



Vehicle-Pedestrian Injury Collision Forecasting

Environmental, Area-Level Oriented Pedestrian Safety Approach

Asks: what are environmental factors that predict vehicle-pedestrian injury collisions, and how do they inform environmental interventions that make places safer for people to walk

Analytic Approaches:

- Area-level focus
- Key environmental determinants of collisions include:
 - Traffic volumes
 - Traffic speed
 - Pedestrian activity
- Automobiles are a necessary component cause
- Vehicle-pedestrian injuries and fatalities are preventable. There is no acceptable 'risk of walking'
- What is the threshold for injury? For death? When is it significant?



http://www.sfpbes.org/HIA_Tools_Neighborhood_Completeness.htm

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Vehicle-Pedestrian Injury Collision Forecasting

Environmental, Area-Level Oriented Pedestrian Safety Approach

Resulting Interventions:
Address factors that impact traffic volumes, speeds, and street network design and implementation (e.g., number of lanes, one vs.. two-way streets, truck routes)

Implications:
Area-level and environmental factors that impact the volume of traffic and people are considered
Traffic's role in deaths and injuries to pedestrians acknowledged
Potential to inform transportation and land use planning that addresses pedestrian needs



http://www.sfpbes.org/HIA_Tools_Neighborhood_Completeness.htm

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Vehicle-Pedestrian Injury Collision Forecasting

Note:

Area-level vs.. intersection-level approaches:
The intention is not for this forecasting model to replace intersection and other targeted approaches to identify locations with existing high rates of pedestrian injuries. Rather, the model is intended as a prevention-oriented complement to the existing approaches.



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Developing Health-Responsive Management Strategies and Policy Design and Implementation

Health Impact management strategies in HIA may...

- Offer available design changes, mitigations
- Involve monitoring of implementation outcomes
- Suggest improved communication with stakeholders
- Suggest actions on 'causes' unrelated to the decision at hand

Health Impact management strategies in HIA are not...

- Unrelated to impact assessment findings
- Conclusions about the health value of a policy
- A position on the policy or project decision
- Communication messages and strategy



Case Study: Roadway Air Pollution Hotspots & Development Restrictions

- CARB Recommended Guideline: don't build 'sensitive uses' within 500 ft of busy roadways.
- SFDPH Recommended Mitigation: require building relocation, engineering, or ventilation system filtration if within 500 ft of busy roadways and modeled level of particulate matter higher than local standard.
- How SFDPH Developed the Recommendation:
 - Quantified health impacts
 - Developed a threshold for action
 - Id'd of effective building design practices
 - Consultation with design and ventilation professionals
 - Collaboration with planners and building inspectors
- Criteria for Recommended Mitigations to Consider:
 - Specific and actionable
 - Experience-based and effective
 - Enforceable and can monitor
 - Feasibility (good to think about but not always appropriate criteria)
 - Technically
 - Fiscally
 - Politically
 - Prioritized
 - Multi-objective
 - No negative consequences



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Reporting & Communication

- Reporting process
- Communication process & tips

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Reporting: includes a summary of findings, transparency, thoroughness (meaning discuss available scientific evidence, describe the data source and analytic methods, health rationale, characterize the health impacts, and list corresponding recommendations for the policy, program, or project alternatives, design, or mitigations); include recommendations based on scientific evidence; and should encourage comments, just like any other public process. SO - it's very important to create space for that in the HIA planning process. How will the team address comments to the HIA?

Communication: There are many ways to communicate the findings of an HIA, and these are informed by the body conducting the HIA and what the outcomes are that the team hopes for. For instance: a summary of key findings, letters to the appropriate agency, holding a press conference, providing public testimonials, publicizing in peer reviewed journals, creating a final report, and creating media-friendly 'fact sheets' that can be given out and also assist in the communication of the findings to the community groups you work with. The key is putting the final recommendations into clear, succinct messages that describe the overall magnitude of health benefits; benefit to most vulnerable populations; the feasibility of solutions; and address the perceived public concern.



Monitoring & Evaluation

- Monitoring: track the effects of the HIA
- Evaluation: evaluating the HIA process

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Monitoring Planning begins at the start of the HIA Process: understand which impacts will be monitored over time, who will be responsible, ensure you have relevant baseline information for anything you want to monitor, have a process in place for full disclosure of monitoring results, come up with triggers for action (when an indicator reaches a 'danger zone'), and understand resources available to monitor.

Rajiv Quote: Accountability is the question in any assessment. Regulators are charged with an impossible task: protect our health, but we hate regulation. However, institutions have accountability built into the regulations!

Evaluation: have an evaluation plan in place at the start of the HIA process. How do we want to learn from this process? How do we know what we did had value, worth? Types of questions one might ask of those involved in an HIA process: what resources were used? What evidence was used, and how did it inform the development of recommendations? How were health inequities assessed? How were recommendations formulated, and what factors influenced this decision-making process? How were decision-makers involved? Were they? What was the communication methodology for the HIA results? Were they effective? And what did those involved in the process think about it?



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Future Topics

- Tools mentioned here
- In depth review of case studies
- Others



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