HIA: a tool for promoting HiAP

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Outline of Presentation

- Why HIA?
- History of HIA in MN
- HIA methodology—the six steps
- Two examples of using HIA for HiAPs
What is health?

Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.

Source: World Health Organization (WHO)

This definition has not been amended since 1948
Something is wrong
2000 Avg Life Expectancy and Healthcare Spending

http://ucatlas.ucsc.edu/spend.php
Health status is determined by: 30% by genetics; only 10% by health care; but 60% by social & environmental conditions, and behavior.

Health in All Policies (HIAP) is a collaborative approach that integrates and articulates health considerations into policy making and programming across sectors, and at all levels, to improve the health of all communities and people.

HIAP requires public health practitioners to collaborate with other sectors to define and achieve mutually beneficial goals.
Health Impact Assessment (HIA)

Definition: A systematic process that uses an array of data sources and analytic methods and considers input from stakeholders to determine the potential effects of a proposed policy, plan, program, or project on the health of a population and the distribution of those effects within the population. HIA provides recommendations on monitoring and managing those effects.

Why perform an HIA?

- Provide information on potential harms and benefits before decisions are made
- Increase transparency in decision-making
- Support inclusive and democratic decision-making
- Foster ongoing community engagement/empowerment—providing a voice
- Provide information related to trade-offs of policies/projects and alternatives

*There are many ways to insert health into decision-making. HIA is one way.*
Values of Health Impact Assessment

HIA aims to advance the values of

- democracy
- equity
- sustainable development
- the ethical use of evidence
- a comprehensive approach to health

209 HIAs as of 12/27/2012 (does not include all HIAs in progress), Human Impact Partners

Source: Health Impact Project
http://www.healthimpactproject.org/
Healthy Corridor for All: Evaluating Health Impacts of New Land Use Development along the Central Corridor

http://www.isaiah-mn.org/Issues/HealthyCorridorforAll.htm

HOPE VI to HOPE SF: San Francisco Public Housing Redevelopment: A Health Impact Assessment

http://www.humanimpact.org/doc-lib/finish/7/96

Estimation of Health Benefits From a Local Living Wage Ordinance

# The History of HIA in Minnesota

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>Lowry Corridor HIA</td>
<td>Design for Health, based at the University of Minnesota, assisted 19 cities and counties in incorporating health in plans, guidelines, and ordinances.</td>
</tr>
<tr>
<td>2007</td>
<td>Bloomington Alternative Transportation Plan HIA</td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td>Columbia Heights Pedestrian and Bicycle Plan HIA</td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>Healthy Communities Act brought to state legislature</td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>St. Louis Park Comprehensive Plan HIA</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>Bottineau Transitway HIA</td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>Above the Falls HIA</td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>Divine Mercy Development HIA</td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>Small Area Plan for Gary and New Duluth HIA</td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>Winona County Comprehensive Plan HIA</td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>School Integration Strategies in MN HIA</td>
<td></td>
</tr>
</tbody>
</table>
### Types of HIAs

Upstream Public Health, Portland, OR  
Modified from Harris et al, 2007. Health impact assessment: A practical guide, Centre for Health Equity, Training, Research and Evaluation (CHETRE), Part of the UNSW Research Centre for Primary Health Care and Equity, UNSW  
http://www.hiaconnect.edu.au/hia_a_practical_guide.htm

<table>
<thead>
<tr>
<th>Type</th>
<th>Desk Based</th>
<th>Rapid</th>
<th>Intermediate</th>
<th>Comprehensive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time &amp; Staff</td>
<td>2-6 weeks, 1 full time person</td>
<td>6-12 weeks, 1 full time person</td>
<td>12 weeks – 6 mo’s, 1 full time person +</td>
<td>6 – 12 mo’s, 1 full time person +</td>
</tr>
<tr>
<td>Health Impacts Review</td>
<td>Broad overview</td>
<td>More detailed overview</td>
<td>Thorough assessment of select pathways</td>
<td>Comprehensive assessment</td>
</tr>
<tr>
<td>Use</td>
<td>Time &amp; resources limited</td>
<td>Time &amp; resources limited</td>
<td>Requires significant time &amp; resources</td>
<td>Requires significant time &amp; resources</td>
</tr>
<tr>
<td>Methods</td>
<td>Collect &amp; analyze accessible data</td>
<td>Collect &amp; analyze existing data with limited expert input</td>
<td>Collect &amp; analyze existing data, gather qualitative data from stakeholders</td>
<td>Collect &amp; analyze data from multiple sources (qualitative and quantitative)</td>
</tr>
</tbody>
</table>

Fewer impacts ➞ More impacts
Six Steps of HIA

1. **Screening** - to determine if an HIA is useful for a specific project or policy

2. **Scoping** - identify which health effects to consider

3. **Assessment** - determine which people may be affected and how they may be affected

4. **Recommendations** - suggest changes to proposal to promote positive or mitigate adverse health effects

5. **Reporting** - present the results to decision-makers

6. **Monitoring and evaluating** - determine the affect of the HIA on the decision process
Step 1: Screening

What is HIA Screening?

The Screening process helps determine if:

- ... the HIA is feasible
  - Is there sufficient information about the decision?
  - Is there available resources/data to conduct the HIA?

- ... the HIA can be done in a timely manner
  - Can the HIA fit within the decision-making time frame?

- ... the HIA would add value to the decision making process
  - Is health already at the table?
  - Will the proposed project benefit from an HIA and promote health and influence positive change to the community?
Screening: When not to do an HIA

- No added value
  - Chula Vista Plan to Improve Walkability
    - Plan was already considering health
    - Health advocates involved in design
    - Resources better focused elsewhere

- No influence on decision
  - Milwaukee Zoo Interchange Project
    - Time: insufficient time to complete HIA for drafts
    - Stakeholders: DOT was not open to considering health (recommendations seen as another obstacle or more red tape)

## Concerns about HIA

<table>
<thead>
<tr>
<th>Concern</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIA is costly</td>
<td>Not as costly as treatment of health impacts in the long run</td>
</tr>
<tr>
<td>HIA is time-consuming and will slow decision-making process</td>
<td>Conducting the HIA early will bring issues to the front of the decision-making process, potentially speeding approval processes, and preventing costly litigation that delays projects</td>
</tr>
<tr>
<td>HIA will stop economic development</td>
<td>The role of HIA is to identify mitigations and recommendations, not to say “don’t do that”</td>
</tr>
<tr>
<td>HIA is not scientific</td>
<td>Role of HIA is to pull together disparate pieces of the best available evidence to make a broad statement about impacts</td>
</tr>
</tbody>
</table>

How to start the screening process:

1. Define the decision
   - What is being proposed?
   - What is the timeline for the decision?

Can the HIA be ready here?
HIA Screening: Screening Criteria

- Evaluate the program, plan, or policy based on screening criteria (including will the program have a significant impact on health or potential for unequally distributed impacts?)

- Utilize a screening worksheet or checklist
  - Many checklists
  - Use the one most suited to your project
Step 2: Scoping

Two Main Goals:

1. Create the plan for the HIA
2. Determine health indicators to be assessed

Source: Ann Forsyth & Carissa Schively Slotterback
Scoping: Create the Plan for the HIA

Determine:

- Team responsible for conducting the HIA
- Group who will oversee the HIA process
- Engaging stakeholders
Scoping: Create the Plan for the HIA

How should stakeholders and the affected communities be involved?

- Advisory Committee
- Steering Committee
- Technical Committee
- Public meetings
- Small group discussions
- Focus groups
Determining Health Indicators

**Scoping:**
- Examine the range of possible health issues
- Discuss pathways
- Come to agreement on priority health issues
- Determine research questions, data sources & methods

*scoping flows into assessment
*data sources & methods-discussed in assessment
Possible causal pathways between a housing policy change and adverse health outcomes:

- Introduction of market-related rents for state housing
  - Higher rents
  - Reduced disposable income
  - Overcrowding
  - Stress

- Housing insecurity
  - Stress
  - Poorer mental health

- Increase in people living in substandard housing
  - Increase in people living in damp and cold conditions
  - Increase in respiratory disease eg, asthma, bronchitis

- Reduced access to health care
  - Poorer health

- Increase in infectious disease eg, meningococcal disease
  - Poorer mental health

Scoping: Research questions

Research question:
- Does the current housing stock provide for the housing needs of current residents?

Health indicators:
- Percentage of affordable units?
- Percentage of people living below the poverty line?
- Percentage of residents that are paying more than 30% of their income on housing?
Prioritize

Which health concerns will be included in the scope of the HIA?

Duluth’s HIA:

Accessibility & Safety

Physical Activity

Livability

Pollution

Food Access
Step 3: Assessment

Main goals:

1. Profile existing/baseline conditions of affected populations

2. Assess anticipated health effects of decisions
Assessment

Gathering data

- Existing population demographic data and health statistics (e.g., census data, BRFSS, etc.)
- Literature review: research studies in peer-reviewed journals, grey literature (agency reports/studies), systematic reviews (the Community Guide), other HIA reports on similar topic
- Qualitative & quantitative data (e.g., focus groups, key informant interviews, walkability studies)
- Maps (e.g., population characteristics, brownfields, schools, grocery stores, green spaces, etc.)
Assessment: ATF HIA Baseline Data
Assessment: Mixing it all together

- Review baseline data
- Review scientific studies and literature
- Review causal pathways
- Review testimony and community input
- Review expert opinion, etc.
## Summary of Potential Health Impacts

<table>
<thead>
<tr>
<th>Health Outcome/ Determinant</th>
<th>Direction</th>
<th>Likelihood of Impact</th>
<th>Distribution of Impact</th>
<th>Quality of Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazardous Gas and Particulate Emissions</td>
<td>▼</td>
<td>Possible</td>
<td>Dairy workers and residents living closest to site and manure application will be impacted the most</td>
<td>**</td>
</tr>
<tr>
<td>Nuisance Odors</td>
<td>▼</td>
<td>Likely</td>
<td>Residents living closest to site and manure application will be impacted the most</td>
<td>***</td>
</tr>
<tr>
<td>Groundwater Quality</td>
<td>▼</td>
<td>Possible</td>
<td>Residents near site with poorly constructed or shallow wells</td>
<td>*</td>
</tr>
<tr>
<td>Surface water Quality</td>
<td>▼▲</td>
<td>Possible</td>
<td>Recreational users of waterways, fish, wildlife</td>
<td>*</td>
</tr>
<tr>
<td>Economic Impact</td>
<td>▼▲</td>
<td>Likely</td>
<td>Local economy, property owners, local businesses and farmers</td>
<td>**</td>
</tr>
<tr>
<td>Traffic</td>
<td>▼</td>
<td>Likely</td>
<td>Motorists near intersection of HWY 14 and Scharine Rd.</td>
<td>***</td>
</tr>
<tr>
<td>Noise</td>
<td>▼</td>
<td>Likely</td>
<td>Residents in close proximity to site</td>
<td>***</td>
</tr>
<tr>
<td>Visual Impact</td>
<td>▼▲</td>
<td>Likely</td>
<td>Motorists on HWY 14 and Scharine Rd area residents</td>
<td>*</td>
</tr>
<tr>
<td>Insect Borne Disease</td>
<td>▼</td>
<td>Possible</td>
<td>Residents in close proximity to site</td>
<td>***</td>
</tr>
</tbody>
</table>

▼ = Negative impact  
▲ = Positive impact  
▼▲ = Both positive and negative impacts are possible

Literature Association – strength of studies associating health impact to large animal operations.  
*** Many strong studies  
** Few good studies  
* No clear studies, but consistent with public health principles

From Rock Prairie Dairy Rapid Health Impact Assessment May 2011 by Rock County Health Department, WI
Assessment

Validity of the Judgment

- Key: Transparency
- Explain the evidence
- Acknowledge assumptions and limitations
- Try not to make generalizations
Step 4: Recommendations

Use results from assessment to develop recommendations and mitigations to address any negative health impacts and maximize health benefits.

Recommendations -- alternative ways to design a project, plan, or policy including its location or timing to benefit health.

Mitigations -- management strategies to lessen anticipated adverse health effects of a decision.
Step 5: Reporting

► Reporting is the primary means the recommendations are made to decision makers

► Consider audience and purpose to determine type of report:
  
  ➤ Formal comprehensive HIA report of process and findings for technical stakeholders and HIA practitioners
  
  ➤ Succinct summary for effective communication with decision-makers and the public
Step 6: Monitoring & Evaluation

- Monitor whether the recommendations were received and used to modify/change the policy
- Has the policy, program or plan been implemented with the recommendations?
  - If so, monitor impacts of the recommendations on health
- Evaluate the HIA process
  - What worked?
  - What could have been done better?
Review: HIA Steps

1. **Screening** - to determine if an HIA is useful for a specific project or policy

2. **Scoping** - identify which health effects to consider

3. **Assessment** - determine which people may be affected and how they may be affected

4. **Recommendations** - suggest changes to proposal to promote positive or mitigate adverse health effects

5. **Reporting** - present the results to decision-makers

6. **Monitoring & Evaluating** - determine the affect of the HIA on the decision process
Bill 2800 (HB 2800), the Farm to School and School Garden legislation, as introduced in January of 2011:

1. allocate $19.6 million in state funds, equivalent to 15 cents per lunch and 7 cents per breakfast, to reimburse schools for purchasing Oregon food products, and

2. provide $3 million in competitive education grants to support food, garden and agriculture activities, up to 150 school teaching gardens each fiscal year.

Screening/Scoping: Health Determinants

1. Employment
2. Diet & Nutrition
3. Farm to School & School Garden Education
4. Environmental Health
5. Social Capital
Assessment

- Literature review
- Secondary data analysis (food insecurity, school meal eligibility, school nutrition services, unemployment)
- Economic analysis
- Interviews, committee feedback, community forums

Figure 1.2 Cucumber harvest from Seven Oaks Middle School in Lebanon, Oregon

[Image of children holding cucumbers in a field]

Sources and text from: http://www.upstreampublichealth.org/sites/default/files/F2SHIA_FINAL.pdf
Figure 4.1 Employment health determinant pathway
Oregon’s unemployment rate was 10.5% in December 2010, higher than the national average of 9%.

The recession hurt Oregon’s farms: almost 2/3 of farms reported net losses. Small & mid-sized farms especially were struggling to compete.

Unemployed are up to twice as likely to die earlier than others of the same age and sex.

The meal reimbursement program could create jobs and stimulate economic growth.
### Conclusions

All pictures and text from: [http://www.upstreampublichealth.org/sites/default/files/F2SHIA_FINAL.pdf](http://www.upstreampublichealth.org/sites/default/files/F2SHIA_FINAL.pdf)

#### Health Outcome or Health Determinant

<table>
<thead>
<tr>
<th>Employment Impacts</th>
<th>Magnitude of Impact w/ HIA Recs.</th>
<th>Distribution</th>
<th>Quality of Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health &amp; life expectancy</td>
<td>▲▲▲▲</td>
<td>Farm sector and related jobs</td>
<td>****</td>
</tr>
<tr>
<td>Job creation</td>
<td>▲▲▲</td>
<td>~270 new jobs</td>
<td>****</td>
</tr>
<tr>
<td>Oregon product demand</td>
<td>▲▲▲▲</td>
<td>100 — 197 School Districts⁴</td>
<td>****</td>
</tr>
<tr>
<td>Workers’ ability to pay bills</td>
<td>▲▲▲</td>
<td>~270 new jobs</td>
<td>****</td>
</tr>
<tr>
<td>Economic activity</td>
<td>▲▲▲▲</td>
<td>3.16 economic multiplier</td>
<td>****</td>
</tr>
</tbody>
</table>

*LEGEND*

- ▲▲▲▲ Strong impact on many
- ▲▲▲▲ Strong impact for few or small impact on many
- ▲▲▲ Moderate impact on medium number or strong impact on few
- ▲▲ Small impact on few
- ▲ No effect

- ▲▲▲▲ 10+ strong studies
- ▲▲▲ 5 -10 strong studies or data analysis
- ▲▲ 5 or more studies of weak and moderate quality or studies have mixed results
- ▲ <5 studies and claim consistent with public health principles

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**Note:**

- Employment Impacts: The magnitude and quality of evidence for employment impacts are high, indicating significant benefits to health and economic outcomes.

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**Legend Explanation:**

- **▲▲▲▲** Strong impact on many
- **▲▲▲▲** Strong impact for few or small impact on many
- **▲▲▲** Moderate impact on medium number or strong impact on few
- **▲▲** Small impact on few
- **▲** No effect

- **▲▲▲▲ 10+ strong studies**
- **▲▲▲ 5 - 10 strong studies or data analysis**
- **▲▲ 5 or more studies of weak and moderate quality or studies have mixed results**
- **▲ <5 studies and claim consistent with public health principles**
Assessment: Farm to School & School Garden Education

Figure 4.13 Farm to School and school garden education health determinant pathway

References and text from: http://www.upstreampublichealth.org/sites/default/files/F2SHIA_FINAL.pdf
Current Conditions/Assessment

- Current Oregon learning standards do not require children to learn where food comes from or how it is made.
- Cafeterias are not connected to classroom curriculum.
- 1 in 4 Oregon adolescents are overweight or obese.
- 58% of 11th graders eat three or less servings of fruits and vegetables a day.
- Research on F2S & SG programs report that children choose more fruits and vegetables - leading to potential increases in consumption.
- Studies show that children who spend time in the garden learn better, get physical activity and behave better in the classroom.

Res and text from: http://www.upstreampublichealth.org/sites/default/files/F2SHIA_FINAL.pdf
## Conclusions

### Farm to School and School Garden Education Impacts

<table>
<thead>
<tr>
<th></th>
<th>Impact Level</th>
<th>Description</th>
<th>Children Impacted</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gardening education</td>
<td>▲▲▲▲̂</td>
<td>~15,000 new children³</td>
<td></td>
<td>****</td>
</tr>
<tr>
<td>Child fruit &amp; vegetable</td>
<td>▲▲+</td>
<td>561,698 school children¹</td>
<td></td>
<td>****</td>
</tr>
<tr>
<td>consumption</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agriculture &amp; nutrition</td>
<td>▲▲+</td>
<td>~15,000 new children³</td>
<td></td>
<td>***</td>
</tr>
<tr>
<td>education</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child nutrition knowledge</td>
<td>▲▲+</td>
<td>~15,000 new children³</td>
<td></td>
<td>***</td>
</tr>
<tr>
<td>Nutrition staff knowledge</td>
<td>▲▲</td>
<td>100—197 School Districts</td>
<td></td>
<td>**</td>
</tr>
<tr>
<td>Child achievement</td>
<td>▲▲</td>
<td>~15,000 new children³</td>
<td></td>
<td>*</td>
</tr>
<tr>
<td>Child self-efficacy</td>
<td>▲▲</td>
<td>~15,000 new children³</td>
<td></td>
<td>*</td>
</tr>
<tr>
<td>Child physical activity</td>
<td>▲▲</td>
<td>~15,000 new children³</td>
<td></td>
<td>*</td>
</tr>
</tbody>
</table>

**Legend**
- ▲▲▲▲̂: Strong impact on many
- ▲▲▲: Strong impact for few or small impact on many
- ▲▲: Moderate impact on medium number or strong impact on few
- ▲: Small impact on few
- None: No effect
- ****: 10+ strong studies
- ***: 5-10 strong studies or data analysis
- **: 5 or more studies of weak and moderate quality or studies have mixed results
- +: <5 studies and claim consistent with public health principles

References and text from: http://www.upstreampublichealth.org/sites/default/files/F2SHIA_FINAL.pdf
Recommendations

- Amend HB 2800 to specify that schools can only get reimbursed for foods produced/processed in OR.

- Food, Agriculture and Garden education grants will be preferentially given to school districts serving:
  - a low-income student population
  - schools with a racially diverse student population
  - schools in rural or urban areas with limited food access

- Support schools developing multiple-component programs, having at least one element in each of the following categories: Education, Promotion, Procurement and Community Involvement.

All pictures and text from: http://www.upstreampublichealth.org/sites/default/files/F2SHIA_FINAL.pdf
Performed HIA on the Divine Mercy Development Environmental Assessment Worksheet (EAW)

Developed final report making recommendations to the Environmental Quality Board (EQB):

1. Revise EAW for CC & public health
2. Include additional guidance & resources in the EAW Guidelines
3. *Use EAW to screen for HIA*

Final recommendations presented to EQB
HIA funding, org & conferences

✦ Two *major* national funders
  ✦ Centers for Disease Control & Prevention (CDC) (directly funds grantees; ASTHO-HIAs, training, TA)
  ✦ Health Impact Project (PEW and RWJF)
  ✦ MN: BCBS Foundation!

✦ SOPHIA (Society of Practitioners of HIA):
  http://www.hiasociety.org/

✦ Two conferences:
  ✦ HIA of the Americas Workshop (March Oakland, CA)
  ✦ National Health Impact Assessment Meeting (September 24 & 25, WDC)


Promoting Equity through the Practice of Health Impact Assessment: http://www.policylink.org/atf/cf/%7B97c6d565-bb43-406d-a6d5-eca3bfb35af0%7D/PROMOTINGEQUITYHIA_FINAL.PDF
Resources: HIA Websites

- http://www.health.state.mn.us/divs/hia/
- http://www.cdc.gov/healthyplaces/hia.htm
- http://www.who.int/hia/en/
- http://www.hiaguide.org/
- http://www.healthimpactproject.org/hia
- http://www.designforhealth.net/resources/healthimpact.html
- http://www.thehdmt.org/
MN HIA Coalition

- Promote the appropriate use of HIA.
- Share information, tools, best practices and lessons learned (*especially what works and what doesn’t*) from HIAs.
- Collaborate on and coordinate (when applicable) HIA-related activities.
- Seek and vet future projects for HIA funding opportunities.
- Promote/systematize policies, legislation and funding for HIAs and Health in All Policies.
- Seek funding from MN foundations and other organizations to support MN HIAs.
- Develop a strategic plan/workplan to accomplish goals.
Thank you

Kristin Raab, MLA, MPH
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651-201-4893

And more...

*MDH HIA Training in September
*MDH online training at:
http://cc.readytalk.com/play?id=8gl70b
*Online Training:
http://advance.captus.com/Planning/hia2

http://www.health.state.mn.us/divs/hia/