

Health Impact Assessment:
A tool for mobilizing research and understanding
about the upstream determinants of health

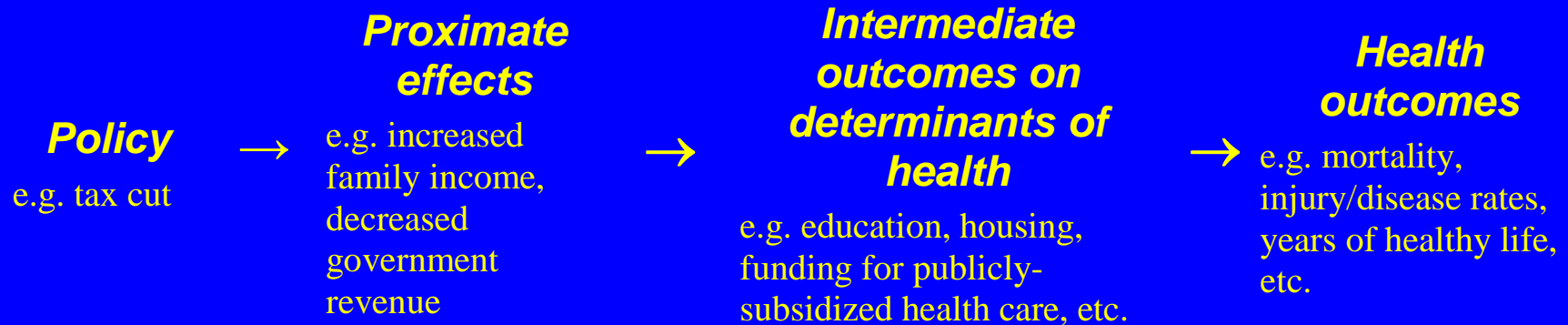
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Moving Upstream: Working Together to Improve
Community Health Conference
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Health impact assessment is

- ◆ Focused on public policy decisions and population health outcomes;
- ◆ Is a multidisciplinary process;
- ◆ Considers a wide range of evidence;
- ◆ Uses a structured framework;
- ◆ Based on a broad model of health.

The logic of HIA



What does a health impact assessment look like?

HIA as a product: 2-page policy brief

Summary of the Health Impact Assessment of The Los Angeles City Living Wage Ordinance

Partnership for Prevention/UCLA School of Public Health
Health Impact Assessment Project¹
March 11, 2003

Summary of the Ordinance

The Los Angeles City Living Wage Ordinance (hereafter the "Ordinance"), approved by the Los Angeles City Council in 1997, sets an annually adjusted minimum wage that city contractors must pay employees who are engaged in work on city service contracts or economic development grants. As of July 2002, the Ordinance mandates employers to

- 1) Pay workers covered by the Ordinance at least \$7.99/hour;
- 2) Contribute at least \$1.25 per hour worked toward covered employees' health insurance premiums or pay an additional \$1.25/hour if health insurance is not provided;
- 3) Provide covered workers with at least 12 paid days off each year.

The wage level, but not the health insurance allowance, is subject to annual cost-of-living increases. Approximately 10,000 workers are covered by the Ordinance.

Summary of health impacts

Both the wage and health insurance provisions of the Ordinance would benefit the health of covered workers, although providing health insurance has the potential to bring greater reductions in mortality, in a much more cost-effective manner, than increases in wages. Providing health insurance to all uninsured workers would cost one-tenth the amount needed in the form of wage increases to produce an equivalent reduction in mortality. The potential benefits of health insurance are, however, largely unrealized since the majority of employers elect to give covered employees additional wages instead of health insurance, leaving the proportion of workers with health insurance steady at the pre-Ordinance level of 40%.

Health impacts examined

Increased income and increased likelihood of health insurance are the major factors driving the Ordinance's impacts on health. For this analysis mortality was the primary measure of health impact. Other health impacts, such as disease and injury rates and hospitalizations, are examined qualitatively, but are not measured due to poor data.

The quantitative analysis did not consider impacts related to possible cuts in other public programs, nor macroeconomic effects, such as unemployment, worker displacement or inflation. In the case of program cuts, evidence from other research studies suggests that costs to the City would be passed on in part to contractors. Remaining costs to the City would be balanced by cut-backs in the City's managerial personnel without affecting services. In the case of macroeconomic effects, economic studies of this and similar ordinances suggest that the number of workers covered by the Ordinance is too small relative to the size of the region's economy and working population to have any significant effects.

Rationale behind the Ordinance

Reducing poverty and improving the living conditions of workers and their families are primary aims of the Ordinance. Support for Living Wage legislation comes primarily from labor unions and others concerned that the contracting out of municipal services has turned relatively well-paying municipal jobs into low-paying private sector jobs with minimal benefits. An implicit goal of the Ordinance is to curb the privatization of city services. Other municipal governments that have passed Living Wage ordinances include Baltimore, Detroit, Minneapolis, and San Jose. The State of Louisiana passed legislation prohibiting local governments from establishing Living Wage ordinances.

Direct effects

- Coverage of an estimated 10,000 workers in the Los Angeles area.
- Health insurance coverage largely unchanged, remaining steady at 40%.
- Average wage increases of \$0.78 per hour for insured workers and \$1.90 for uninsured workers (assuming pre-Ordinance wage levels similar to other low-income workers in the City of Los Angeles).
- On average no effects on unemployment, job displacement or inflation.

Health insurance coverage has not increased because:

- The mandated employer contribution of \$1.25 per hour for health insurance is not sufficient to cover the cost of health insurance.
 - Administrative costs make health insurance relatively more expensive than providing \$1.25 per hour in wages, particularly if an employer does not already offer health insurance to any employees.
- Compared to providing health insurance, opting to provide an additional \$1.25 per hour gives employers more flexibility to change or eliminate benefits when an employee is not working on projects covered by the Ordinance.

Key findings:

- **Increased income means reduced mortality.**
Increased income for workers is estimated to reduce mortality by an average of 1.4 deaths per year over the long-term. Additional reductions in mortality of equal or greater magnitude would be observed among workers' families.
- **Despite increased income, families of workers covered by the Ordinance would still have difficulty making ends meet.**
As a result of the Ordinance the gross income of a typical working family would increase from \$30,375 to \$34,857 per year, leaving them at 193% of the federal poverty level and far below the "basic needs budget" estimated for Los Angeles. After taxes their net gain from the Ordinance would be reduced to \$2,947 per year.
- **Health insurance for currently uninsured workers could substantially reduce long-term mortality.**
Insuring the estimated 60% of Living Wage workers who are uninsured would prevent about 6.4 deaths per year.
- **The aggregate cost-effectiveness of health insurance is far better than for additional wages.**
Prevention of one death among Living Wage workers would cost \$2.5 million in health insurance coverage or \$24.6 million in wages. When impacts on the health of family members are factored in the cost-effectiveness of wages is improved but is still less than that of health insurance.
- **Providing health insurance to an uninsured worker can reduce mortality risk more cost-effectively than increased wages.**
Health insurance for an uninsured worker at a cost of about \$1.50 per hour reduces mortality risk by the same amount as an additional \$8.84 per hour in wages.

Why examine health impacts?

The Ordinance aims to increase income and lower the number of uninsured, two factors clearly associated with health. Poorer people die sooner and have higher rates of disease. The absence of health insurance is also associated with negative health outcomes. The HIA is intended to give policymakers information about the Ordinance's effects on health, if any, and to inform debate about whether to amend it.

Limitations

This analysis is based on the best available data, but limited data meant that a number of key assumptions had to be made about existing conditions and the effects of health insurance and additional income. Among the most significant of these is the assumption that relatively short-term effects of narrowly circumscribed changes in income or health insurance can be inferred from long-term differences observed among groups with different levels of income and wealth. It also is noted that although mortality is the primary outcome assessed, improvements in other measures of health such as disease rates and quality of life can also be expected.

¹ The Health Impact Assessment Project is based at the UCLA School of Public Health. Project staff include: Jonathan Fielding, M.D., M.P.H., M.B.A., Principal Investigator; Gerald Kominski, Ph.D., Co-principal Investigator; Hal Morgenstern, Ph.D., Co-principal Investigator; Brian Cole, Program Manager; Riti Shimkhada and Sheng Wu, Research Assistants Supported through funding from the Robert Wood Johnson Foundation

What does a health impact assessment look like?

HIA as a product: 100+ page report

Sacramento Safe Routes to School Program HIA

Project MOVE Health Impact Assessment Project
CDC/UCLA School of Public Health
March 8, 2005

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- Table 3: Major components of air pollution produced by automobiles, trucks and buses
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What does a health impact assessment look like?

HIA as a product: interactive spreadsheet

Table 5: ESTIMATED EFFECTS OF WAGE INCREASE AND INSURANCE

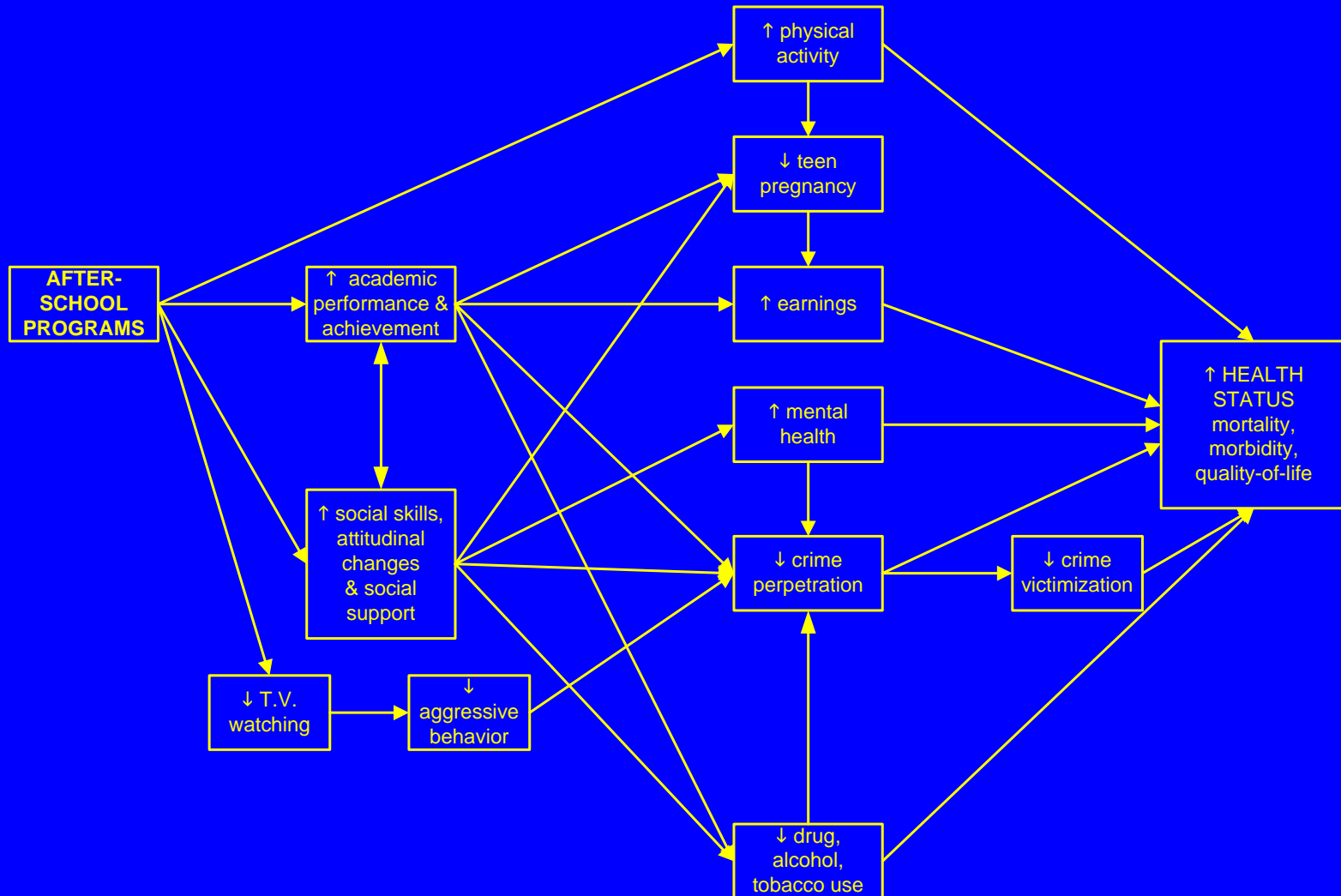
SCENARIO PARAMETERS:

Minimum wage to be paid	\$7.99	\$ in lieu of H.I. per hour	\$1.50	% uninsured to receive insurance	100%				
Previously earning	Previous insurance status	Change in hourly compensation	Total income change (including out-of-pocket H.I. premium costs incurred as a result of ordinance)	Insurance change	# in category	RR	Previous (baseline) mortality rate	New mortality rate ass. w/ changes	Change in # deaths/year
\$6.75	Uninsured	No change	No change	No change	0	1	0.0056	0.0056	0.00
		No change	-\$0.09	To be insured	0	0.770	0.0056	0.0043	0.00
		\$2.74	\$2.74	No change	0	0.953	0.0056	0.0053	0.00
		\$1.24	\$1.15	To be insured	3480	0.754	0.0056	0.0042	4.77
\$6.75	Insured	No change	No change	No change	0	1	0.0043	0.0043	0.00
		\$1.24	\$1.24	No change	2320	0.979	0.0043	0.0042	0.21
\$7.75	Uninsured	No change	No change	No change	0	1	0.0055	0.0055	0.00
		No change	-\$0.09	To be insured	0	0.770	0.0055	0.0042	0.00
		\$1.74	\$1.74	No change	0	0.970	0.0055	0.0053	0.00
		\$0.24	\$0.15	To be insured	1500	0.767	0.0055	0.0042	1.91
\$7.75	Insured	No change	No change	No change	0	1	0.0042	0.0042	0.00
		\$0.24	\$0.24	No change	1000	0.996	0.0042	0.0042	0.02
\$8.75	Uninsured	No change	No change	No change	0	1	0.0054	0.0054	0.00
		No change	-\$0.09	To be insured	1020	0.770	0.0054	0.0041	1.26
		\$1.50	\$1.50	No change	0	0.974	0.0054	0.0052	0.00
		\$0.00	-\$0.09	To be insured	0	0.770	0.0054	0.0041	0.00
\$8.75	Insured	No change	No change	No change	680	1	0.0041	0.0041	0.00
		\$0.00	\$0.00	No change	0	1	0.0041	0.0041	0.00
Total									8.16

What does a health impact assessment look like?

HIA as a product: Logic Framework

Pathways through which After-School Programs may impact health



What does a health impact assessment look like?

HIA as a process: Assessment Checklist

HIA Screening Checklist of Health Determinants (UCLA Health Impact Assessment Project, April 2002)	For all likely significant impacts		
	Potentially significant impact 1 no/unlikely 2 possible 3 likely	Are impacts likely to be measurable? 1 no/difficult 2 possibly 3 yes	Available data on impacts 1 minimal 2 fair 3 good
Biophysical environment			
Housing conditions			
Fire, building safety	1 2 3	1 2 3	1 2 3
Security	1 2 3	1 2 3	1 2 3
Sanitation	1 2 3	1 2 3	1 2 3
Indoor air quality (including radon)	1 2 3	1 2 3	1 2 3
Asbestos	1 2 3	1 2 3	1 2 3
Lead	1 2 3	1 2 3	1 2 3
Crowding	1 2 3	1 2 3	1 2 3
Affordability and access	1 2 3	1 2 3	1 2 3
Working conditions (includes psychosocial factors ¹)			
Structural safety (including fire, earthquake, etc)	1 2 3	1 2 3	1 2 3
Air quality	1 2 3	1 2 3	1 2 3
Toxins, biohazards	1 2 3	1 2 3	1 2 3
Work task safety	1 2 3	1 2 3	1 2 3
Ergonomics	1 2 3	1 2 3	1 2 3
Psychosocial (including stress)	1 2 3	1 2 3	1 2 3
School conditions (see Services – Education ²)	N/A	N/A	N/A
Water quality			
Drinking water quality	1 2 3	1 2 3	1 2 3
Water quality – waterways and recreational	1 2 3	1 2 3	1 2 3
Water availability/Access	1 2 3	1 2 3	1 2 3

What does a health impact assessment look like?

HIA as a process: Community forums

*Eastern Neighborhoods Community Impact Assessment Process
(San Francisco)*



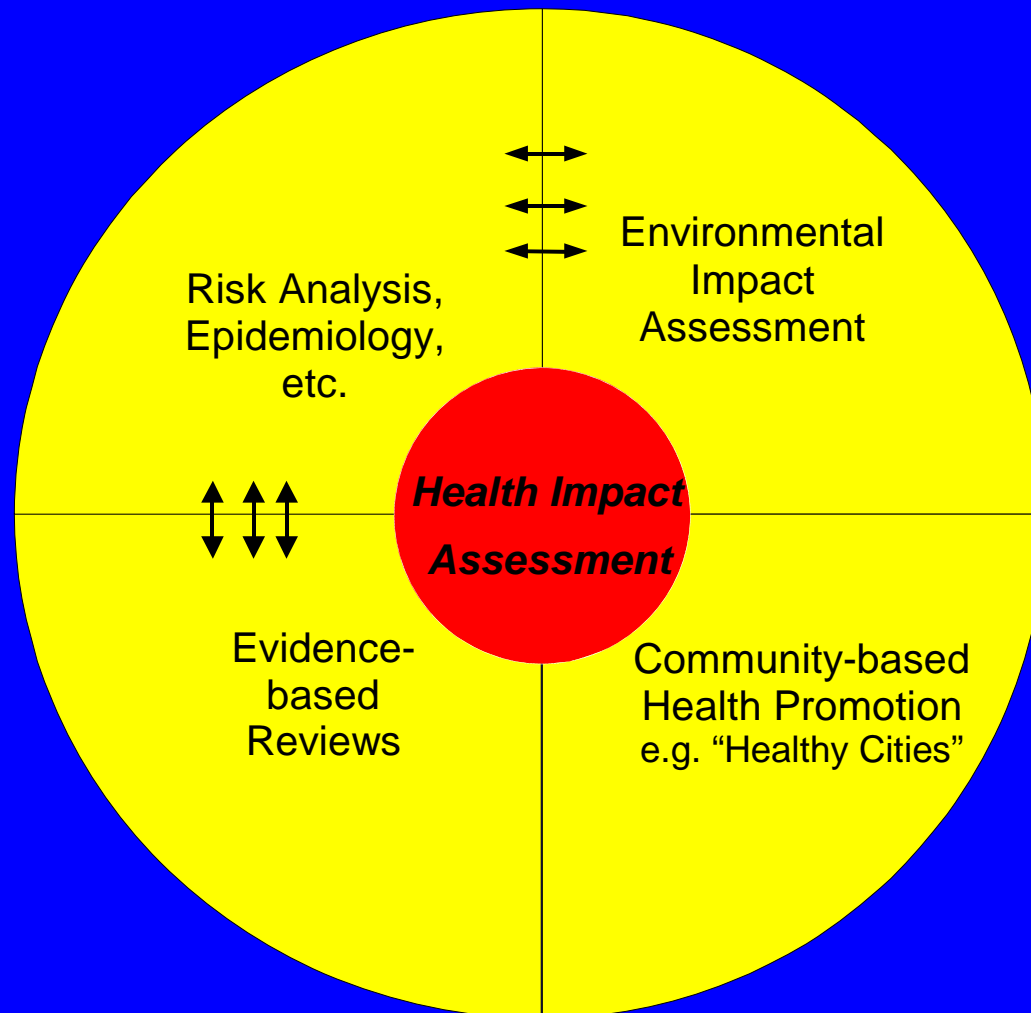
Why use HIA?

- ◆ Influence decision-makers;
- ◆ Highlight potentially significant health impacts;
- ◆ Assess how proposals will affect the most vulnerable;
- ◆ Facilitate inter-sectoral working and public participation;
- ◆ Promote sustainable development;
- ◆ Encourage a greater appreciation of public health in the policy-making process.

An HIA might ask...

1. What are the *potential health effects* of a proposal to change sales tax revenue?
2. Do state-funded after-school programs yield *significant* health benefits?
3. Are the health benefits and risks of a proposed project *distributed equitably* or in a way that minimizes current *disparities* in health risks and conditions?
4. What are the health consequences of the *current* set of agricultural subsidies?
5. What elements of school site design are most *cost-effective* in encouraging physical activity?

Disciplinary foundations of HIA



HIA Approaches

1. Quantitative/Analytic
 - ◆ Based on risk analysis and epidemiology
2. Participatory
 - ◆ Rooted in community health promotion, esp. “Healthy Cities”
 - ◆ Dominant HIA model in Sweden, UK
3. Procedural
 - ◆ Hybrid. Often linked to EIA
 - ◆ Being developed in Canada, Australia, NZ

Learning from Environmental Impact Assessment (EIA):

Lessons for HIA practice

EIA has provided avenue for public participation, **but...**

- ◆ Long, complex documents
- ◆ Process is time-consuming and expensive
- ◆ Often litigious process
- ◆ Tends to focus on projects, not policies
- ◆ Tends to stop short of considering health outcomes

A great idea, but...”

Critiques from Industry

“Are you going to do the same thing to health that’s been done to the environment” [with long, costly, litigious environmental impact statements]?

Anonymous environmental affairs officer for a public utility

A great idea, but...”

Critiques from Public Health

“Whether the public’s health will concretely benefit from implementation of HIA remains unknown...[it] could be a significant waste of money, time, and effort...evidence of impacts is only one of many factors affecting implementation of policies. HIA might be an impediment to action if an emphasis on “evidence based policy” ends up precluding informed analysis of policies....”

N Krieger, M Northridge, S Gruskin, M Quinn, D Kriebel, G Davey Smith, M Bassett, D H Rehkopf, C Miller, and the HIA “promise and pitfalls” conference group. “Assessing health impact assessment: multidisciplinary and international perspectives.” J Epidemiol Comm Health 57:659-662, 2003.

A great idea, but...”

Do we proceed? And, if so, how?

- ◆ Decisions will be made with or without HIA. Should they be made with or without available information about potential health impacts?
- ◆ Forthright about the limits;
- ◆ Learning from other types of analyses that project potential effects of policy actions
 - Risk analysis (environmental, safety, financial)
 - Cost-effectiveness analysis
 - Legislative budget analysis
 - Environmental impact analysis

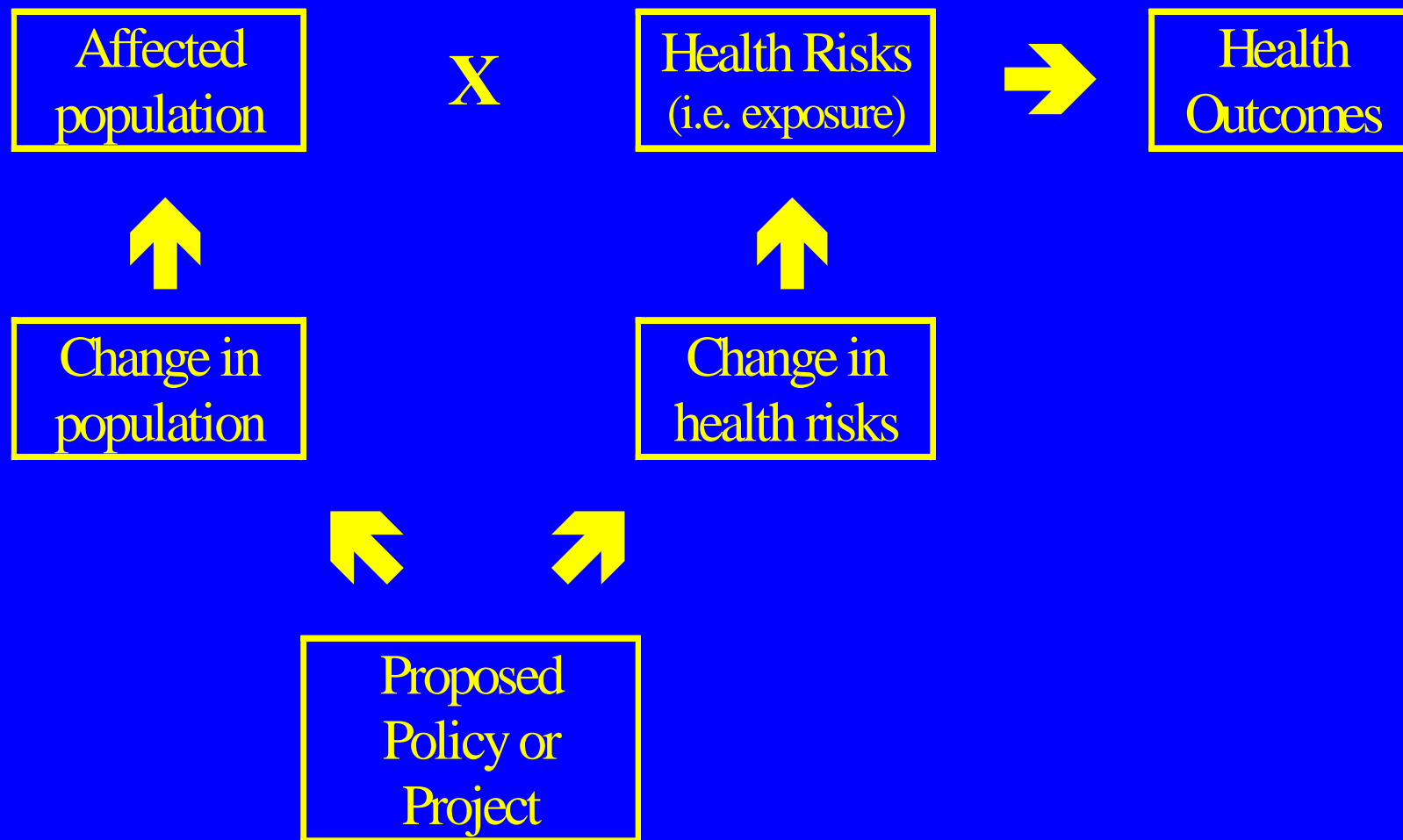
Steps in HIA

- ◆ Screening
 - » Determining if an HIA should occur
- ◆ Scoping
 - » Determining what to do and how to do it
- ◆ Impact assessment
 - » Determining health hazards and considering evidence of impact
- ◆ Reporting and review
 - » Producing a coherent, usable synthesis of findings from the analysis for target audiences (e.g. policy-makers)
- ◆ Evaluation and monitoring
 - » Determining whether the HIA has influenced the decision making process (and the subsequent proposal)
 - » Monitoring the implementation of the proposal to ensure that any recommendations that decision-makers agreed to actually occur

Means of HIA

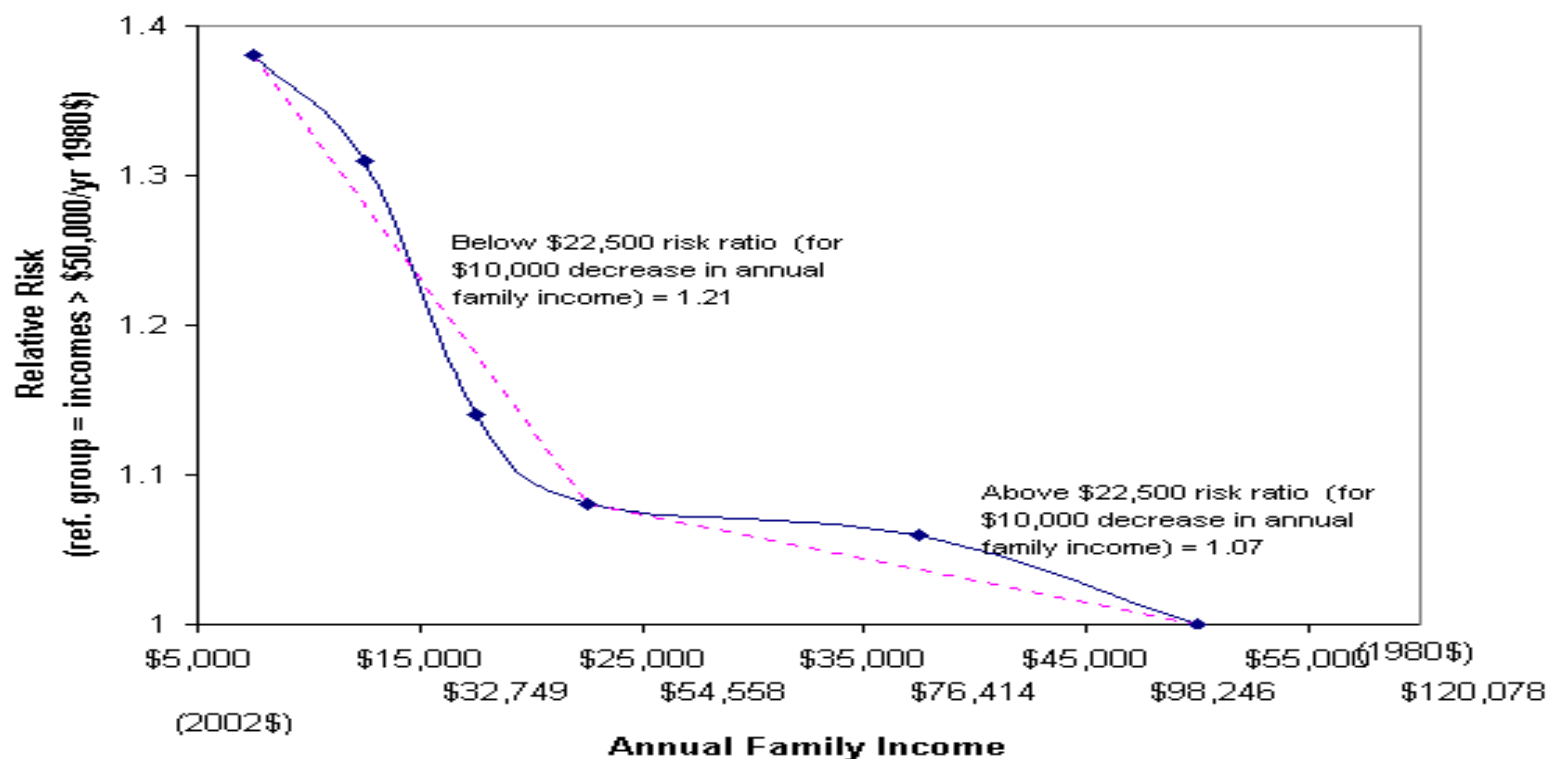
- ◆ Evaluation and synthesis of existing research
- ◆ Comparative data analysis
- ◆ Consultation with policy-makers, experts, stakeholders, etc.

Basic framework for HIA risk assessment



Bringing research to bear on policy

Effect of income on mortality (*Living Wage HIA*)



Bringing research to bear on policy

Effect of urban form on physical activity (*Buford HIA*)

Walking in two San Diego neighborhoods (Saelens et al, 2003)

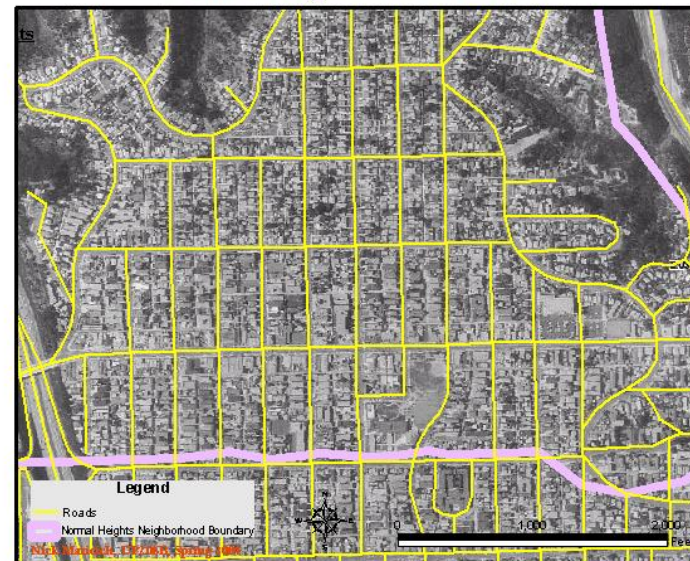
Clairemont Street Pattern



Avg LOS = B (2.0)

Avg min. walked/week = 65

Normal Heights: Street Pattern



Avg LOS = A- (1.4)

Avg min. walked/week = 138

Bringing research to bear on policy

Effect of urban form on physical activity (*Buford HIA*)

Increased walking based on improved walkability

Before



Avg LOS = D (4.1)

Avg min. walked/week = 51

After



Est'd LOS = B- (2.4)

Est'd min. walked/week = 62 -175

Growing HIA in the U.S.

Building capacity to address technical obstacles

- ◆ Repository/Clearinghouse
- ◆ Prototypes
- ◆ Short-cuts for local agencies
- ◆ Training and technical assistance

Growing HIA in the U.S.
Institutionalization

- ◆ Linking universities, health departments and existing legislative analysts offices
- ◆ Highlighting best practices
- ◆ Broad supporting policy (not mandates)