



***Health Impact Assessment: Steps
Towards Accountability to
Population Health***

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The Context for HIA in the United States

- Weak collective responsibility for health
 - Ideology of individual responsibility / ability
 - Interest-dominated politics
- Dominance of biomedical interventions
- Public health associated with medicine & safety net
- Environmental health focus on discrete physical agents (vs neighborhoods or systems)
- High degree of institutional and disciplinary fragmentation
- Performance measures = health status outcomes
- Delayed uptake of population health (e.g. healthy cities, social determinants) concepts and strategies
- No state authority or support for HIA



Substantial drivers for health effects analysis existing in policy and law



- State authority to protect health and welfare
- The National Environmental Health Policy Act (NEPA) requires federal actions to consider potentially significant direct, indirect and cumulative effects on the *human environment*
- Environmental Justice mandates agencies to identify and address disproportionately adverse environmental and health effects on low income and minority populations
- Regulatory Impact Assessment
- Rules for cost Benefit Analysis





**Cities have the capability of
providing something for
everyone only because and only
when they are created by
everybody.**

- Jane Jacobs

“Healthy Cities” in San Francisco: The Program on Health, Equity and Sustainability



THE MOST VIOLENT ELEMENT
IN SOCIETY IS IGNORANCE
-EMMA GOLDMAN

- Inter-disciplinary program established in Environmental Health
- Envisions a San Francisco “...where communities are engaged in democracy and committed to equality and diversity.”
- Focus Areas include Land Use Planning, Transportation Systems, Safe Housing, Quality Jobs, Workers’ Rights, and Food Resources
- Develops and applies context specific methods
- Social change targets include environmental conditions, policies, institutions, and laws
- Engages with public institutions, social movements, non-profit and for profit organizations



Health Impacts of a Living Wage (1999)

- Quantified the following Health and Social Benefits of a Living Wage
 - Life-expectancy
 - Graduation rates
 - Teenage childbearing
 - Depression'
 - Sick days
- HIA Outcomes
 - Support for local living wage laws
 - Public health could contribute analysis to social and economic policy



Community and Environmental Justice Challenges to Growth and Development in San Francisco

- Will development protect and improve environmental quality for existing residents?
- Can development leverage needed infrastructure for health and well being?
- Will development result in displacement or facilitate social inclusion and integration?
- How will equity and health be included in “sustainability?”



Infill Development & Residential Displacement Trinity Plaza, San Francisco (2003)

- Organized tenants argued that the demolition and redevelopment of 360 rent-controlled apartments to market rate housing would have adverse human impacts
- SFDPH comment on the scope of an EIA documented adverse health effects of on stress, social cohesion, and housing
- Outcomes:
 - City required alternative and study of housing impacts
 - Project alternative replaced rental housing
 - City level planning policy created demolition protections for private housing



Eastern Neighborhoods Community Health Impact Assessment

- Collaborative, consensus-based health impact assessment to analyze how growth and development impacts health in four SF neighborhoods
- Facilitated by SFDPH & Guided by a Community Council Comprised of >20 organizations and government stakeholders
- 18-month process culminated in the development of the “Healthy Development Measurement Tool”



Healthy Development Measurement Tool (HDMT) – A Bridge Between Health and Planning

- 1) Framework of Community health objectives
- 2) Community-level Health Indicators
- 3) Policy and Design Strategies
- 4) Development Targets
- 5) Public Health Evidence

Healthy Development Measurement Tool
A comprehensive evaluation metric to consider health needs in urban development

[Home](#) | [Introduction](#) | [Tool Instructions](#) | [The Tool](#) | [Application Resources](#) | [About ...](#)

Recent News

2008-05-27 HDMT Website and Data Revision Complete
We recently completed an extensive update to HDMT website content, including to indicators and data, development targets and checklist, and neighborhood profiles. In addition, we added a "Tool Instructions" section to the website to better explain how the HDMT can be applied. Thank you for your patience as we completed this update.

2008-05-27 Draft Evaluation of Eastern Neighborhoods Area Plans Released
The public draft of our evaluation of the Eastern Neighborhood Area Plans using the HDMT is now available. [Click here](#) to download the report "[Impacts on Community Health of Area Plans for the Mission, East SoMa, and Potrero Hill / Showplace Square: An Application of the Healthy Development Measurement Tool](#)".

For additional HDMT updates and changes, please visit [News Archives/Corrections and Errors](#).

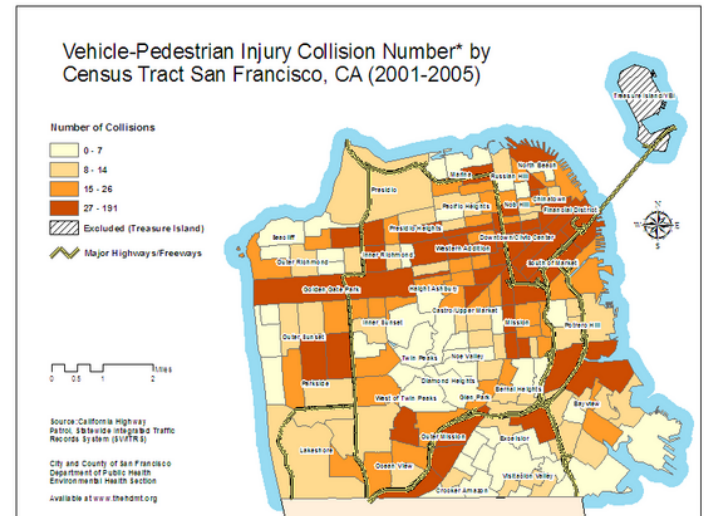
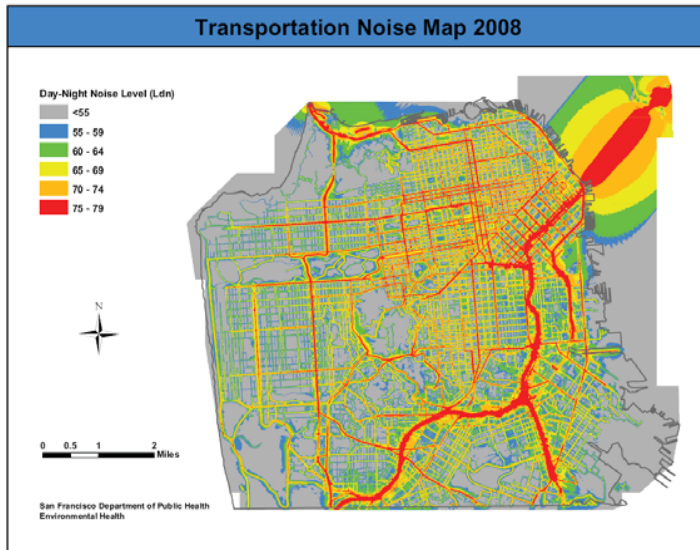
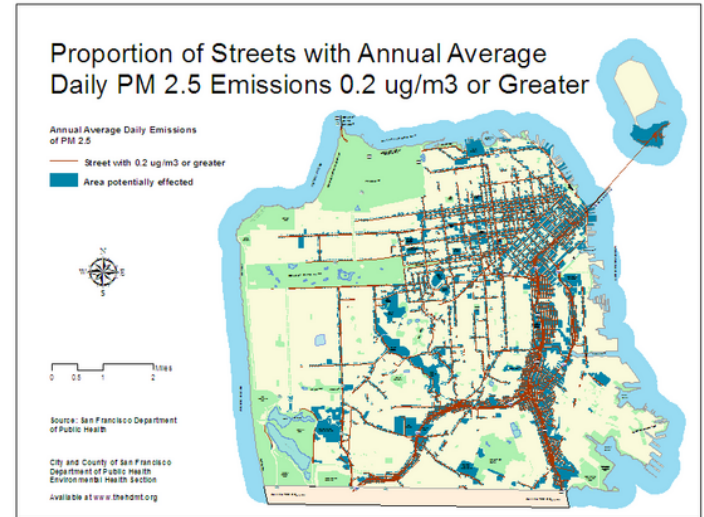


Get Started...	The Tool	Who We Are
<ul style="list-style-type: none"> Begin with an introduction or download a helpful presentation (PDF). Use the Tool. Look at community indicators. Check out SF neighborhood data. Access Tool resources. 	<p>The Healthy Development Measurement Tool is a comprehensive evaluation metric to consider health needs in urban development plans and projects.</p> <p>The HDMT explicitly connects public health to urban development planning in efforts to achieve a higher quality social and physical environment that advances health.</p>	<p>We're committed to assessing urban environmental conditions and responding to health inequities and environmental policy gaps using health impact assessment methods. We're the San Francisco Department of Public Health, Program on Health, Equity and Sustainability.</p> <p>Be sure to contact us with any questions or comments.</p>

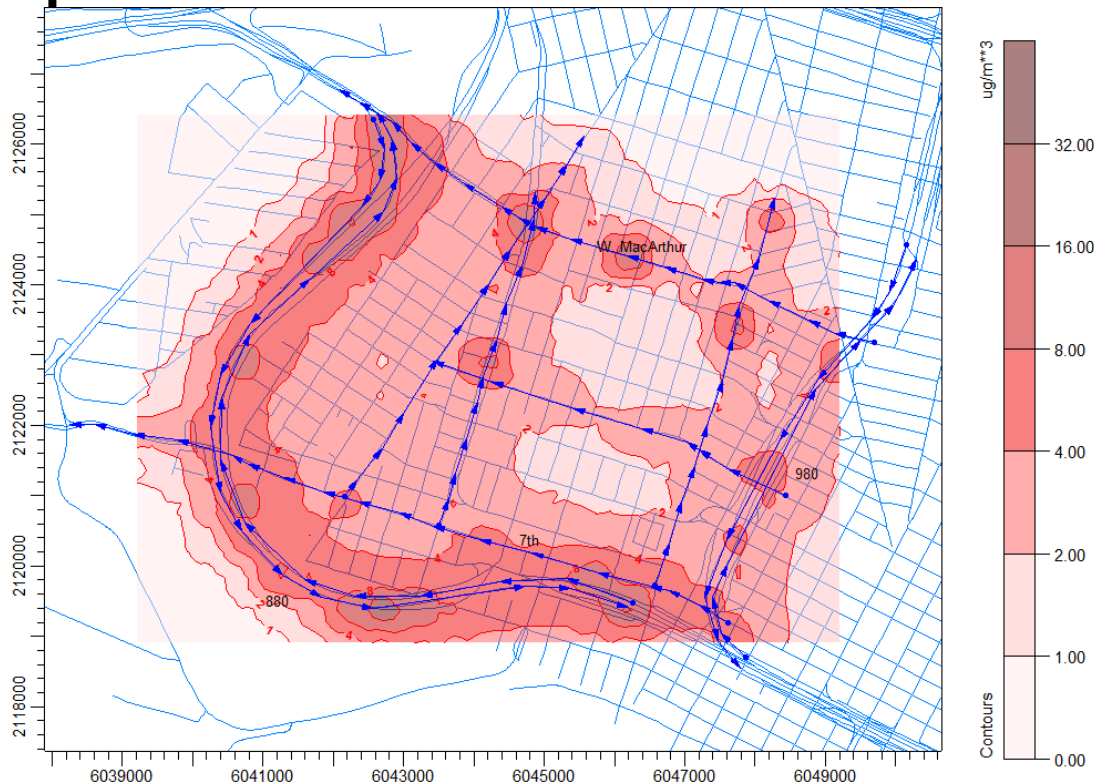


Cumulative impacts on roadway proximity from “smart growth” rezoning

Environmental health effects of roadway proximity include respiratory disease, lung development, sleep disturbance, stress, hypertension, and fatal traffic injuries.



Estimated PM_{2.5} Exposure and Health Impacts on West Oakland residents



Estimated deaths from PM 2.5 exposure

Including contributions from local traffic and surrounding freeways:

Approximately 4 deaths/year

$$\Delta y = y_0 (e^{\beta \Delta PM} - 1) \cdot \text{pop}$$

where:

Δy = changes in the incidence of a health endpoint corresponding to a particular change in PM

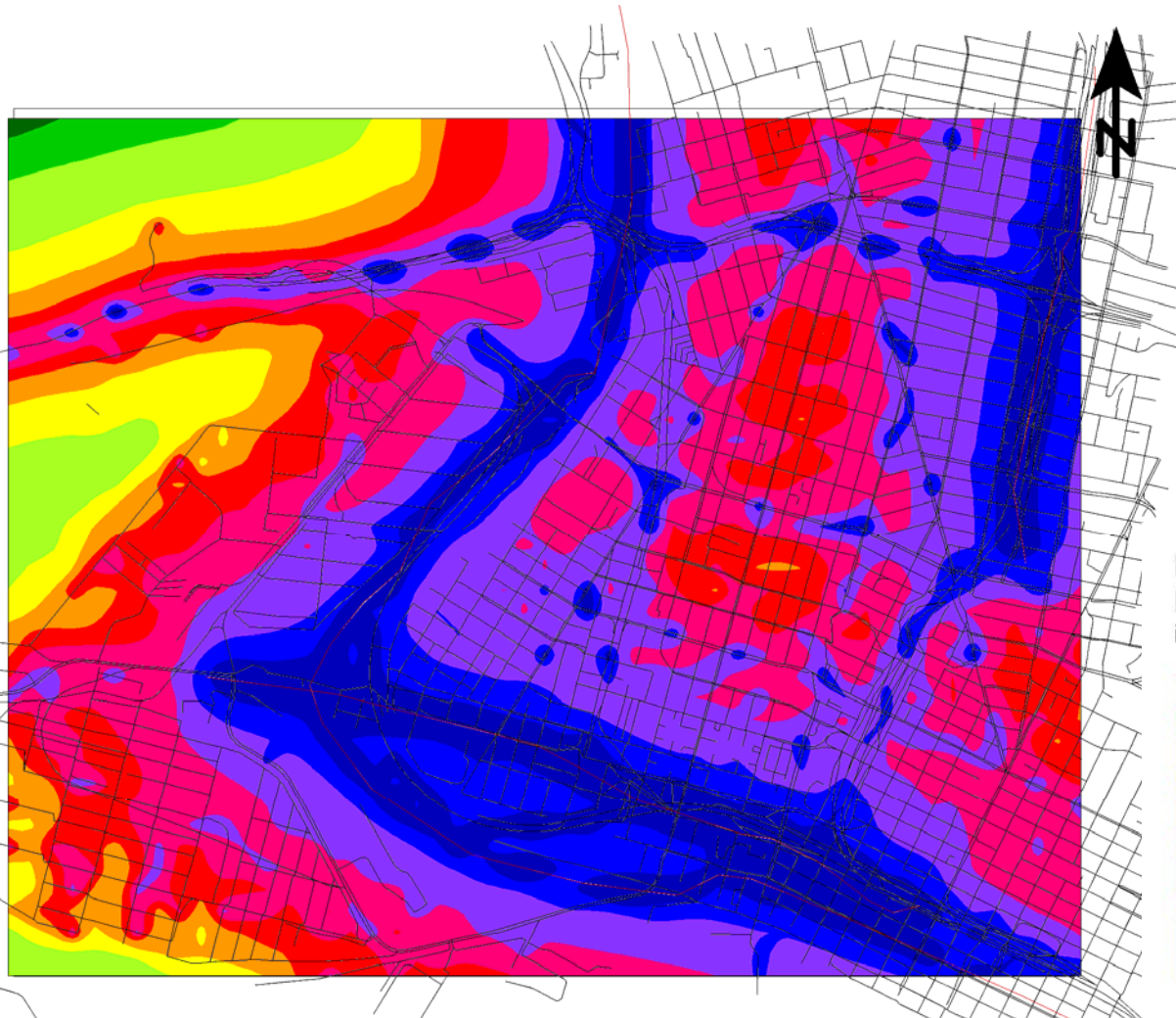
y_0 = baseline incidence rate per person

β = coefficient

ΔPM = change in PM concentration

pop = population of a particular group that a study considered

Estimated noise levels and health impacts from transportation sources



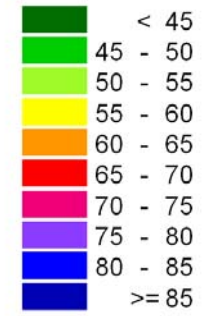
Sleep disturbed: 29%

High annoyance: 37%

Cognitive impairment:
(reading + recall) 29%

Myocardial infarction:
8 deaths/year

Noise levels
Lden
in dB(A)

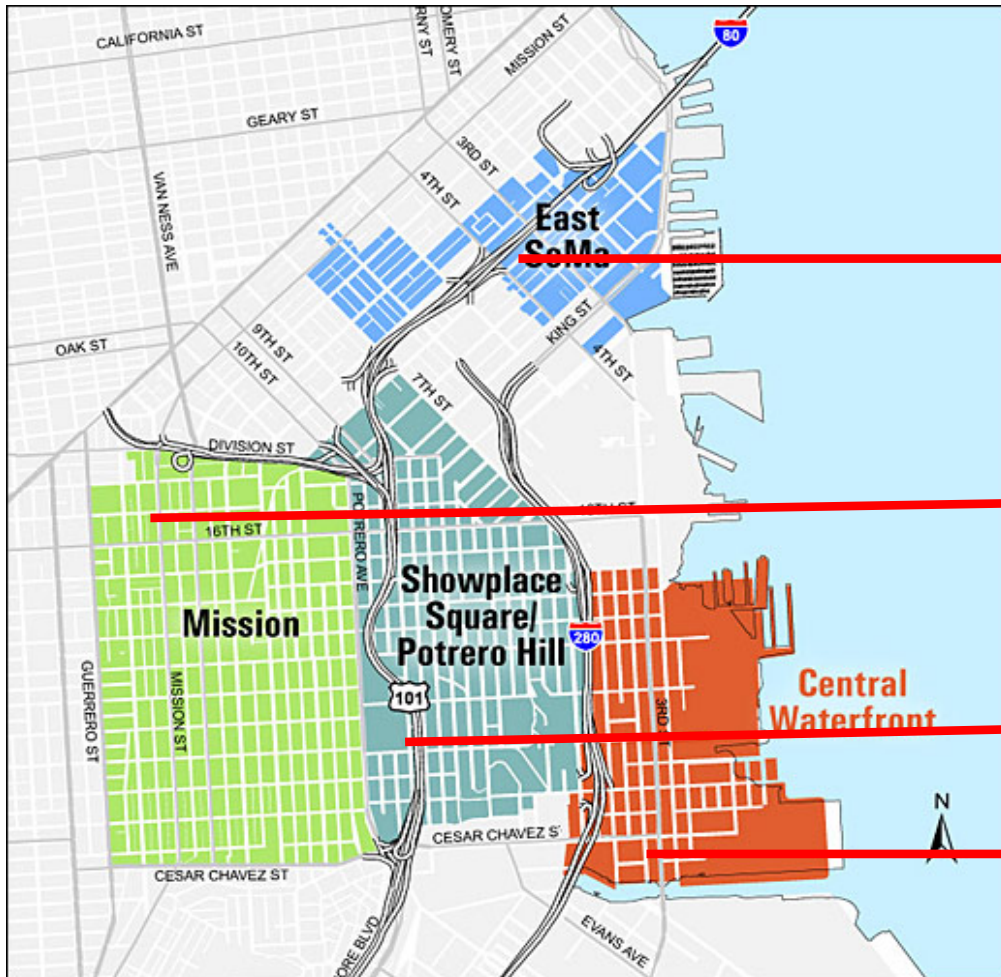


Area Level Regression Model of San Francisco Vehicle-Pedestrian Collision Injuries

- Traffic volume (+)
- Arterial streets (+)
 - w/o surface transit
- Neighborhood commercial zoning (+)
- Employees (+)
- Residents (+)
- Land area (-)
- Below poverty level (+)
- Age 65 and over (-)



Vehicle-Pedestrian Injury Collision Model: Eastern Neighborhoods Plans EIR Analysis



Predicted
**% change in
pedestrian injury
collisions** based
on estimated
**changes in
resident
population and
traffic volume.**





Political importance of integrating HIA & health analysis within EIA

- EIA legally requires health effects analysis of significant environmental change for a diverse set of public decisions
- Integration avoids duplication and redundancy and builds on existing data and analysis already contained in EIA
- Impact assessment and requirement for mitigation and alternatives can effect changes in projects
- Integration fosters cross-sector ownership of public health objectives





Integration of Health Impact Assessment into EIA: Progress in San Francisco

- Health department participates routinely in EIA as a “cooperating agency”
- Critiques consultant analysis and contributes new analysis as a co-author
- Collaboration has lead to new mitigations for respiratory health, noise exposure and pedestrian safety
- Still substantial resistances to expanding the scope of EIA





Complimentary strategies: New Laws as Health Cities Interventions

- San Francisco Sensitive Use Protections for Traffic Pollution Hot Spots (HC Article 38)
 - Identify Areas with Potential Conflicts through Roadway Exposure Zone Map
 - Establish an PM 2.5 based Action Level for Mitigation
 - Conduct Site Specific Air Quality Modeling
 - Mitigation via Building Design or Engineered



Observed Local impacts of HIA

- Changes public understanding of the causes of poor / good health
- Development of new policy agendas
- Composition of policy coalitions
- Changes to policy design
- Integration of health in cross-sector activities
- Accountability to EIA mandates for health analysis
- Capacity building for participation in urban governance by public health





Situating HIA in Healthy Urban Governance

- *Assessment and monitoring of health and health determinants*
- *Health impact assessments*
- *Health-protective laws & regulations*
- *Advocacy for healthy policy*
- *Technical support for NGOs*
- *Inter-sectoral planning and collaboration*





Growth of HIA in the San Francisco Bay

- Regional HIA Collaborative
 - San Francisco Department of Public Health
 - UC Berkeley
 - Human Impact Partners
- Activities
 - HIA practice
 - Academic instruction and professional training
 - Facilitation and mentorship
 - Technical tools, guidelines, and standards
 - State-level HIA legislation



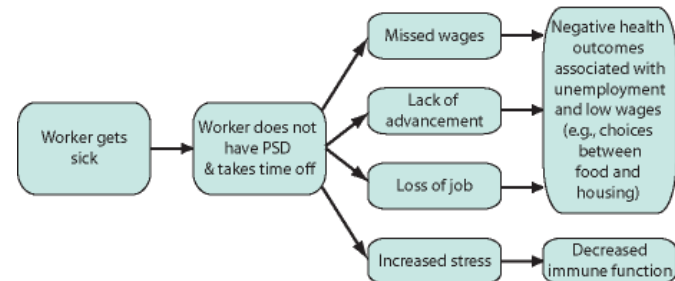
HIA of the Healthy Families, Healthy Workplaces Law (2008)

- Paid Sick Day mandate proposed in California Legislature
- Legislative sponsors requested HIA
- HIA found health benefits from
 - Taking leave from work to care for ill children and dependents.
 - Reduced community and workplace transmission of communicable disease
 - Protection of household budget
- Sponsors used HIA to develop a public health communication frame for the legislation
- Requests for replication nationwide

Scenario A: Sick worker with PSD takes time off



Scenario B: Sick worker without PSD takes time off





Legislation Supporting HIA: Federal and State Health Places Acts



The 2007 **California Healthy Places Act** charged the California Department of Public Health to provide guidance, technical assistance, and grants to local public health agencies and community organizations that want to evaluate land-use planning decisions to ensure that they create the optimum conditions for community health.





Recent National Developments in HIA in the US

- > 50 “HIAs”
 - Diverse practice styles and quality
- North American peer network
 - Practice standards
 - NEPA integrations barriers
- Growing philanthropic support
- Growing grass-roots support
- California state-level experimentation and guidance
- USEPA efforts to advance HIA in NEPA
- National Academies of Science Book





Current Challenges for HIA

- Lack of state support and resources for HIA practice
- Questions about the value and place of HIA – is it proven, where should it be done?
- Diverse practice quality – no standards
- Limited methodological tools for forecasting
- Public health discomfort with policy engagement – fear of the advocacy label
- Dominant issues – obesity, climate change
- Distinguishing HIA from other practices within and outside of public health





Deeper Lessons

- *Governments are not accountable to existing values, principles and laws intended to protect public health*
- *Public health institutions bear responsibility for their lack of engagement in urban governance*
- *Social movements / Civil Society Organizations need to demand and organize around the improvement of health*





California HIA Resources

Healthy Development Measurement Tool

○ www.TheHDMT.org

Health Impact Assessment Collaborative

○ www.HIAcollaborative.org

UC Los Angeles – HIA Clearinghouse

○ www.ph.ucla.edu/hs/hiaclic

