

Health Impact Assessments: Transportation Reform in Massachusetts

HIA and State-Level Policymaking

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I. Transportation Reform in Massachusetts

In June 2009 Governor Deval Patrick signed the Transportation Reform Law – M.G.L. Chapter 6C



The primary goal was to consolidate all transportation agencies in MA to reduce duplicate efforts and enhance transportation planning

II. Healthy Transportation Compact

- ∞ M.G.L Chapter 6C established the Healthy Transportation Compact composed of:
 - Secretary of Transportation (co-chair)
 - Secretary of Health and Human Services (co-chair)
 - Secretary of Energy and Environmental Affairs
 - Administrator of Transportation for Highways
 - Administrator of Transportation for Mass Transit
 - Commissioner of Public Health

- ∞ Under M.G.L. Chapter 6C, Section 33 the Healthy Transportation Compact is directed to:
 - (v) establish methods to implement the use of health impact assessments (HIAs) to determine the effect of transportation projects on public health and vulnerable populations; and
 - (x) institute a health impact assessment for use by planners, transportation administrators, public health administrators and developers.

II. Healthy Transportation Compact (cont.)

- ∞ Established Interagency Working Group including senior staff from the Massachusetts Department of Public Health Bureau of Environmental Health and Bureau of Community Health Access and Promotion, MassDOT, and Executive Office of Energy and Environmental Affairs
 - To develop a common understanding of HIAs across agencies
 - Provide greater clarity on what is involved in existing transportation planning process
 - Identify a transportation project that could benefit from early incorporation of HIA into decision making process

- ∞ MDPH was awarded funds from the Health Impact Project to conduct a transportation-related HIA and develop framework for developing methods to determine which types of transportation projects might benefit from an HIA

III. Background on “Grounding McGrath” Study



MDPH/BEH worked with MassDOT and other members of the interagency staff to identify a MassDOT transportation study to pilot the HIA: MassDOT’s “Grounding McGrath” Study in Somerville, MA

- MassDOT indicated that the size of the investment necessary to restore the highway provided an opportunity to evaluate the feasibility, benefits, impacts, and costs of removing at least a portion of the elevated structure on Route 28/McGrath Highway
- MassDOT’s existing study protocol lends uniquely to the HIA process by establishing a stakeholder working group composed of community representatives to evaluate alternatives

IV. Highlights of Findings of Pilot HIA

- ∞ The study area is one of the most densely populated communities in Massachusetts. There is a 12% higher rate of Somerville residents that were foreign born or have a language other than English spoken in the home compared to the state as a whole. The fact that significantly more children are currently obese compared to the statewide average indicates that alternatives that promote healthy behaviors are paramount.
- ∞ Based upon data reviewed for the GM HIA and the cumulative health impacts from multiple factors in the study area, the two optimal alternatives are the Boulevard Alternative and Boulevard with Inner Belt Connection Alternative because they offer the greatest opportunities for mobility and access.
- ∞ The fact that significantly more children are currently obese compared to the statewide average indicated that alternatives that promote healthy behaviors are paramount.
- ∞ Given that the study area is classified as an Environmental Justice community, it is critical that long-term plans that involve current residents are developed to ensure affordability of goods and services, stabilization of the cost of rental apartments, and employment opportunities are made available.

IV. Highlights of Findings of Pilot HIA (cont'd)

- ∞ Conducting an HIA in tandem with the first phase of a transportation planning study can provide good preliminary information on health impacts at an early stage of project development. However, a more detailed and precise assessment of health impacts and benefits of proposed alternatives would be possible at a later stage of project development.
- ∞ Existing health data resources, such as the MDPH Environmental Public Health Tracking portal, provide publicly available information on a variety of health outcomes and environmental data that can be readily incorporated into future assessments of existing health conditions and potential health impacts associated with transportation projects.

V. Contributions that the Pilot HIA Made to the Transportation Planning Process

- ∞ The HIA provided supplemental health data analyses to augment decision making for optimal transportation design in the “Grounding McGrath” Study and demonstrated that the HIA process does not impede progress of DOT study
 - ∞ Criteria used for evaluating alternative designs in the transportation planning study served as the indicators for assessing health in the pilot HIA
 - ∞ Readily-available health surveillance data were used to characterize baseline health conditions at the neighborhood level
 - ∞ Readily available tools allowed for a broad range of health outcomes associated with transportation planning to now be considered:
 - Air dispersion modeling provided environmental exposure information that is not typically assessed in transportation planning studies
 - SFDPH PEQI/BEQI tools assessed existing and proposed infrastructure changes
 - Existing environmental justice designations provided map to characterize vulnerable populations by census tract in the study area

V. Contributions that the Pilot HIA Made to the Transportation Planning Process (cont'd)

Pilot HIA:

1. Initiated the implementation of the HIA directives in Section 33 by fostering interagency collaboration to integrate HIA into transportation planning in MA
2. Piloted an HIA that demonstrated capacity to conduct HIAs and inform decisions in a transportation planning study in a timely manner
3. Identified readily-available datasets and tools to assess baseline health and environmental conditions and vulnerable populations
4. Demonstrated the benefits of HIAs to senior government officials and the public through outreach and education
5. Developed draft criteria for conducting HIAs for transportation planning to determine which types of transportation projects might benefit from an HIA
6. Integrated the use of HIA into other sectors: environmental regulatory process (e.g., MEPA), climate change adaptation planning

Possible Criteria for Incorporating HIA into Other Transportation Projects

Roadway Projects

- Traffic volumes significantly increase
- Highway expansion projects
- Projects that increase motor vehicle emissions to residents within 300m
- Changes that could result in mode shift (e.g. car to walking, biking, transit)
- Significant changes that could result in housing destruction or displacement of residents
- Changes in access to goods and services

Transit and Train Projects

- Significant increases or decreases in service
- New stations or stations to be decommissioned
- Any changes that could result in mode shift (e.g. between train, transit, walking, biking)
- New parking areas that may increase idling/PM exposure
- Significant changes that could result in housing destruction or displacement of residents
- Changes in access to goods and services

Airport Projects

- Significant increase in number of flights
- Addition of new runways
- Change in size, type of aircraft
- Change will result in additional traffic to airport
- Changes that will result in shorter distances from runways or taxiways to residents

Additional Thoughts for Targeting Transportation Projects Where HIAs Might Be Most Useful

- ∞ In addition to the criteria by transportation mode, some projects subject to the Massachusetts Environmental Policy Act (MEPA) might be considered:
 1. Any transportation project that will exceed MEPA (301 CMR 11.00) Review Thresholds, with particular regard to those Thresholds in the Transportation Category (301 CMR 11.03 (6))
 2. An HIA for any transportation project that has the potential to impact an Environmental Justice (EJ) population. The policy participation and enhanced analysis of impacts and mitigation under MEPA for projects that exceed thresholds for air, water, hazardous waste (other than remediation projects) or wastewater and sewage sludge treatment and disposal
- ∞ Also proposed using HIA as a decision support tool in climate change adaptation planning at the local level in MA

VII. Summary/Next Steps

- ∞ The HIA was an essential component of prioritizing alternative designs
- ∞ MDPH will provide input to the Healthy Transportation Compact to develop final criteria for determining which transportation projects might benefit from an HIA
- ∞ The Grounding McGrath HIA will now go thru the MEPA process. This will provide an opportunity to determine if HIAs facilitates that process
- ∞ Stakeholders are well informed about which issues need to be better addressed