



# HEALTH IMPACT ASSESSMENTS

## A TOOL TO ASSESS AND MITIGATE THE EFFECTS OF POLICY DECISIONS ON PUBLIC HEALTH

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**H**ow does a policymaker determine the effect a particular policy could have on the public's health? Legislation that addresses health and health care, transportation planning, land use, air and water pollution, economic policy can affect public health. With any major government-funded project, the environmental effects are well documented through environmental assessments (EA) and environmental impact statements (EIS).

Legislators in California, Connecticut, Maryland, Massachusetts, Minnesota, Missouri, Tennessee, Washington and Wyoming have begun to consider the issue. The public health implications of decisions made by policymakers, public health officials, community planners, transportation directors and other officials often are substantial. Legislators in these states are beginning to link the health effects to funding appropriated or decisions made by state officials. This objective analysis—a health impact assessment—can provide information about the effects of a project on public health.

**Health impact assessments** (HIA) are "...a combination of procedures, methods, and tools by which a policy, program, or project may be judged as to its potential effects on the health of a population, and the distribution of those effects within the population."<sup>1</sup> These assessments can objectively evaluate the potential health effects of a project or policy before it is built or implemented. They can provide recommendations that increase positive health results and minimize adverse ones. Perhaps most important, the assessments include health as an interest for consideration in public policy.

Although it resembles an environmental impact statement, a health impact assessment has a different goal. Its purpose is to present policymakers with a set of evidence-based recommendations about the potential health effects of a proposal or project. A health impact assessment offers a systematic, comprehensive approach to assess health issues associated with a program or project. It follows environmental impact statement procedures and methods to assess potential health effects and develop recommendations to protect and promote health.

An environmental assessment or, if warranted, an environmental impact statement, provides policymakers and the public with evidence of the environmental affects of a government action, based on a procedural review and scientific analysis of the project. Under federal law,<sup>2</sup> this procedure is mandatory for any project that involves federal funding; 15 states<sup>3</sup> and three territories have adopted similar policies. Although federal law (and, by following this law, the states) emphasizes the need to assess the effects of a project or policy on the public's health, health assessments have been, until recently, secondary to environmental effects. At least in this country, neither the environmental assessment nor the environmental impact statement usually addresses health.<sup>4</sup>

A pure health impact assessment focuses on human health and overall or specific factors that affect it, including physical, economic, social and cultural aspects. The assessment can review the extent of a policy's effect on a community, ensuring that vulnerable populations are not adversely affected. It can provide policymakers with an unbiased assessment based on the evidence, looks for possible problems, and offers a set of recommendations that promote health benefits and minimize health risks. It can gauge health benefits, to evaluate whether specific actions result in improved health. An assessment can determine,

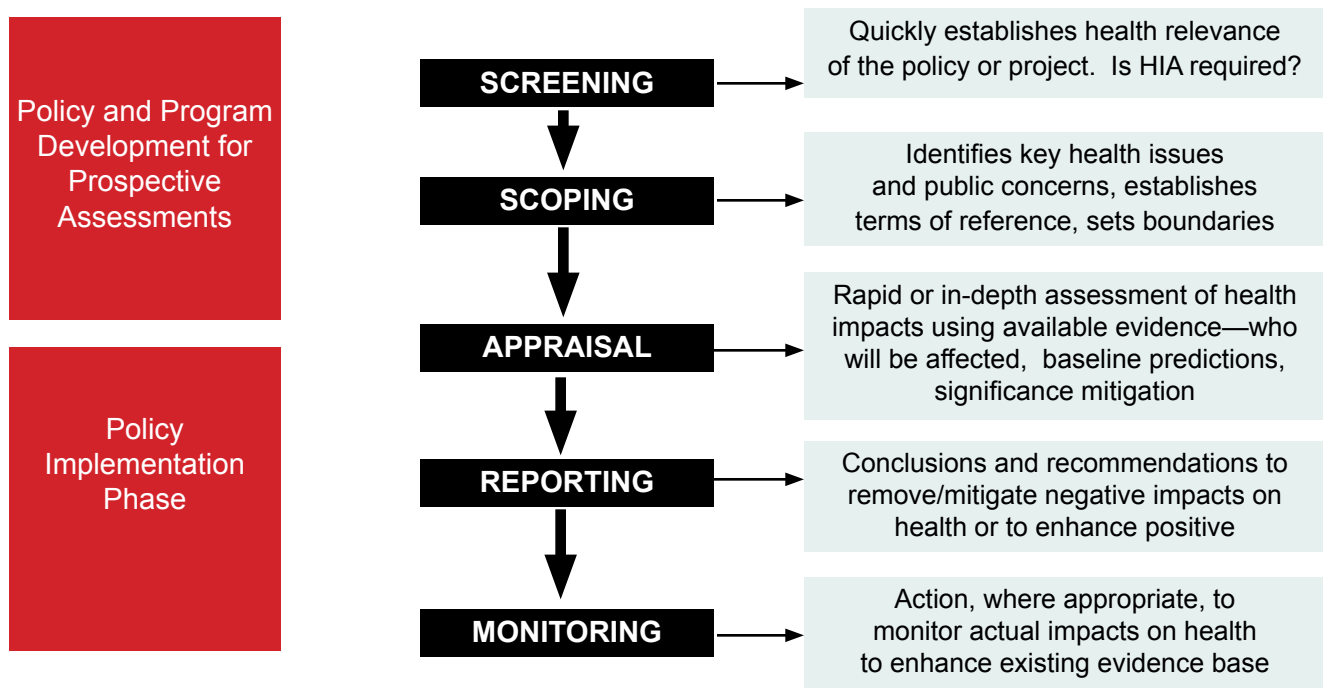
before initiation of a transportation project, for example, if the project will adversely affect public health. The intent of a health impact assessment is not to make decisions, however; rather, it is designed to provide decision makers with clear, transparent information about public health.

U.S. policymakers have routinely performed health assessments to guide decisions, either voluntarily or under the auspices of an environmental impact statement. One example of such an assessment is efforts by transportation planners to determine the number of vehicle crashes or pedestrian injuries. Another example is to collect data on the potential for respiratory illness or lung disease in a local community when siting a coal-fired power plant or other facility. Estimates on the extent of environmental impacts, such as excess discharges into water or air pollution, also offer insights into the potential effect on health.

A health impact assessment usually consists of six major steps.

1. **Screening** to identify projects or policies for which a health impact assessment would be useful.
2. **Scoping to determine:**
  - the proposals at stake;
  - the likely health effects, and which need further assessment; and
  - those involved with the policymaking (legislators, agency officials, researchers).
3. **Assessing risks and benefits** to identify who may be affected and how they may be affected.
4. **Developing recommendations** by suggesting changes to a proposal to promote positive or mitigate adverse health effects.
5. **Reporting** the results to decision makers).
6. **Evaluating and monitoring** to determine the effect of the health impact assessment on the decision process.<sup>5</sup>

**Figure 1. Steps in a Health Impact Assessment**



**Source:** Health Impact Assessment, World Health Organization.<sup>6</sup>

## State Legislatures and Health Impact Assessments

Although health impact assessments have not been mandated in the United States as they are in the European Union and other countries, state legislators have used them—or aspects of them—to gauge the potential effects of a policy on health or to gain insight on the health of certain populations. A health impact assessment cannot be applied to or used in most situations, but in certain instances state policymakers have found such data useful, if not necessary, to form public policy.

Health impact assessments offer a new tool for policymakers to examine the social, economic and environmental aspects of health. They are not risk assessments, not do they indicate whether a project will meet or exceed an environmental standard. Some uses of health impact assessments are discussed below.

### *Comprehensive Health Impact Assessments*

California and Maryland introduced legislation to integrate the concept of health impact assessments into state policy, although the legislation did not pass.

#### *California Healthy Places Act*

The [California Healthy Places Act](#)<sup>7</sup> directed the state Department of Public Health to provide guidance, technical assistance and grants to local public health agencies and community organizations to ensure that health concerns are addressed in transportation and land-use planning decisions. Since city and regional planning agencies in California do not account for health impacts in their decisions, this law would provide guidance and support to gather the evidence necessary to consider potential health effects of decisions about growth and development and would help planners and local officials make decisions that support healthy living. It would also provide grants of \$1.6 million annually to local governments to perform health impact assessments. The bill passed the Assembly but stalled in the Senate. The sponsor remains committed to the legislation and plans to reintroduce it.

#### *Maryland Healthy Places Act*

In 2007, Maryland introduced the [Healthy Places Act](#),<sup>8</sup> which funded a pilot program within the Department of Health and Mental Hygiene to facilitate state and local health officials' involvement in community planning and land-use decisions and to identify potential health concerns. The bill also would have 1) provided for an investigation of any health concerns identified in an environmental impact statement, and 2) provided funding to state and local governments to evaluate the effectiveness of remediation to the physical or social environment on public health and social and economic development. Although the bill passed both houses, the legislature adjourned before the bill could be passed.

### *Focus on Health Outcomes*

Health consequences and determinants of health—such as asthma, obesity, physical inactivity, injuries and social equity—can be gauged by using a health impact assessment. This assessment offers tools with which policymakers can identify health concerns, determine the seriousness of the problem, and assess the risks and benefits to devise an appropriate response to address health needs.

#### *Minnesota Workers' Lung Health Study*

The Minnesota Legislature was concerned about several miners who developed mesothelioma, a rare lung cancer often associated with asbestos. The state Department of Health admitted it had no evidence about why the miners are affected with mesothelioma, although cases are increasing.

In response, the Legislature appropriated \$4.9 million to the University of Minnesota for a “comprehensive science and evidenced-based study of worker’s lung health.” [House Bill 3569](#)<sup>9</sup> requires the university to study potential causes of this

cancer in the mine workers and to examine their family histories to gain more information about causes of this disease. Following the study, the university is to offer recommendations to limit the risk of contracting the disease and to offer the state agency and legislators evidence about why Minnesota miners are affected.

### *[Tennessee Asthma Assessment](#)*

To counter the rapid increase in childhood asthma, Tennessee adopted a comprehensive state plan to reduce asthma and asthma-related illness in the state. The plan includes promoting school action plans for individual children who have asthma and for schoolchildren overall.<sup>10</sup>

Legislators directed the state Department of Health to study the prevalence and severity of asthma in the state and to analyze patterns to improve health care quality and results. Local education and health agencies must devise school asthma plans and protocols for medical emergencies due to asthma complications.

## *Disadvantaged Populations*

Addressing inequalities and improving health is a goal for every state government, and health impact assessments can be used to identify disadvantaged communities. Health disparities are driven by all areas of public policy, and a health impact assessment considers all sectors. It provides the opportunity to discuss with minority communities the government actions that affect them and to gain a sense of the economic needs that can limit access to health care. A health impact assessment ensures that proposals do not inadvertently worsen health or reinforce inequalities. Recommendations can specifically target improvement of health, particularly for vulnerable groups.

### *[Maryland's Office of Minority Health and Health Disparities](#)*<sup>11</sup>

In 2004, the Maryland legislature created an office within the Department of Health and Mental Hygiene to develop a statewide plan to systematically address minority health disparities in the state. Although it does not specifically mandate a health impact assessment, the law requires the department to identify measures to reduce health care disparities and to identify and review health promotion and disease prevention strategies for the leading health causes of death and disability among minority populations.

### *[Washington's Health Impact Assessments](#)*

To address health disparities in communities of color and among women, the Legislature introduced [Senate Bill 6195](#)<sup>12</sup> in 2006 to create a statewide policy to implement health impact assessments. The assessments would measure and address social factors that lead to disparities. They also would identify contributing health factors that can broadly affect improved statutes, health literacy, physical activity and nutrition.

The measure would have required the state Board of Health to perform a health impact assessment for any policy a legislator believed would significantly affect health disparities. The bill was not enacted.

## *Assessing the Effectiveness of Policies*

State health impact assessments can offer legislators insight into how policies, procedures or programs affect public health. An assessment can tell whether or how well a program is meeting its intended goals or if it should be revised to better meet public demand.

### *[California Health Families, Healthy Workplaces Act of 2008](#)*<sup>13</sup>

A bill introduced in California would guarantee all workers in the state paid sick leave, providing one hour of paid leave for every 30 hours worked. While the bill was under consideration, its sponsor requested a health impact assessment be performed to determine the potential health benefits (or adverse health effects) the bill might have.

Using current data from the state Work and Health Survey, peer-reviewed research and personal interviews, the assessment concluded that “...guaranteed paid sick days would help reduce the spread of flu; protect the public from diseases carried by sick workers in restaurants and in long-term facilities; prevent hunger and homelessness among sick low-income workers; and enable workers to stay at home when they are sick or when they need to care for a sick dependent.<sup>14</sup>” Although the bill failed to pass, the analysis answered several questions for lawmakers.

#### *Colorado Leadville Mine Drainage Tunnel Assessment*

The historic mining town of Leadville, Colo., has a system to drain water from the many mines in the area and to keep the toxic mine water from polluting public water systems and the Arkansas River. Because Leadville is a Superfund site, the U.S. Environmental Protection Agency is responsible for treating the water before it drains into the river. The EPA proposed to drill a tunnel and reroute the water to a federal facility.

The state legislature adopted [House Bill 08-1396](#),<sup>15</sup> which uses state funds to assess whether the EPA proposal could potentially contaminate the public water source. The assessment will include the short- and long-term legal, technical and physical impediments that may affect public health and the safety and health of the Arkansas River. Although technically the assessment is an environmental risk analysis, the information can help link any public health outbreaks to contaminated drinking water.

#### *Hawaii Depleted Uranium Monitoring*

Another environmental risk analysis with public health implications occurred in Hawaii. The U.S. Army, which uses uranium munitions in training exercises on Oahu and the island of Hawaii, is required to monitor any release of depleted uranium munitions. The state Department of Health also has responsibilities in regard to release of any radiation from depleted uranium munitions.

Because the Legislature wanted extra assurance that the Army and the Department of Health were meeting their obligations, it sought to assess whether any radiation was being released and, if so, to what extent. The purpose of [House Bill 2076](#)<sup>16</sup> was to require the Department of Health to set up air sampling stations to monitor any radiation leaks from these munitions, determine danger to the public from the munitions, and to report its findings to the Legislature. The bill, however, failed to pass in 2008.

### *Transportation Projects*

State government efforts to build or rebuild the transportation infrastructure offer prime opportunities to conduct health assessments to determine the potential effects to health that communities and other specified populations may face if a project is funded. Roadways, highways, bridges, rail lines and pedestrian walkways affect public health in communities; a health impact assessment can identify these effects before a project begins.

#### *Washington State Route 520 Bridge Project*

The State Route 520 bridge across Lake Washington is 42 years old and in need of replacement. Because federal transportation funds are involved, an environmental impact statement was prepared that took into account the environmental effects of replacing the bridge. Because the Legislature feared that the interests of and potential health effects on adjacent Seattle residents and the University of Washington were not being adequately addressed, it sought legislation to ensure that these needs and concerns were addressed.

The law requires, among other things, that the planning office fund a health impact assessment to calculate the project's effect on air quality, carbon emissions and other public health issues and incorporate the recommendations of the assessment into the project. The Legislature also required that assessment and community outreach be conducted by the Puget Sound clean air agency and King County public health agency.<sup>17</sup>

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