

# Institutionalizing policy-level health impact assessment in Europe: is coupling health impact assessment with strategic environmental assessment the next step forward?

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**Abstract** European Union (EU) Member States are interested in using health impact assessment (HIA) as a means of safeguarding their obligations to protect human health under the 1997 Treaty of Amsterdam. However, several have encountered difficulties institutionalizing HIA with the policy-making process. As a consequence, the World Health Organization (WHO) Regional Office for Europe has suggested coupling HIA with strategic environmental assessment (SEA). Traditionally, the incorporation of HIA into other forms of impact assessment has been resisted, for fear of losing its focus on health issues to environmental concerns, and compromising its social model of health with the introduction of biophysical indicators. But can these fears be substantiated? In this paper, we investigate the grounds for such concerns by reviewing the relevant policy documents and departmental guidelines of four non-European countries that have considered the use of integrated assessment. We found that the case for associating HIA with SEA in Europe is strong, and offers potential solutions to problems of screening, theoretical framework, causal pathways and ready entry to the policy process. Coupling HIA with SEA may thus be the next step forward in a longer journey towards institutionalizing HIA as an independent policy-linked device.

**Keywords** Outcome assessment (Health care); Risk assessment; Environmental health; Public policy; Decision making, Organizational; Strategic planning; European Union; Australia; Canada; New Zealand; United States (*source: MeSH, NLM*).

**Mots clés** Evaluation résultats (Santé); Evaluation risque; Hygiène environnement; Politique gouvernementale; Prise décision institutionnelle; Planification stratégique; Communauté économique européenne; Australie; Canada; Nouvelle-Zélande; Etats-Unis (*source: MeSH, INSERM*).

**Palabras clave** Evaluación de resultado (Atención de salud); Medición de riesgo; Salud ambiental; Política social; Toma de decisiones (Administración); Planificación estratégica; Unión Europea; Australia; Canadá; Nueva Zelandia; Estados Unidos (*fuentes: DeCS, BIREME*).

Arabic

Bulletin of the World Health Organization 2005;83:472-477.

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## Introduction

The aim of health impact assessment (HIA) is to assist policy-makers and other decision-makers to formulate “healthier” decisions and thus maximize population health gain and, where possible, reduce health inequalities. In 1999, the WHO Regional Office for Europe published the Gothenburg Consensus Paper (GCP), establishing a general framework for HIA based upon a social model of health and the values of democracy, equity and sustainability (1). HIA can be undertaken at the project, programme, and national or even supra-national policy level. Much early experience with HIA focused on project-level activity. Throughout Europe, however, HIA is now regarded as a key means for measuring the impacts of policy on health determinants and fulfilling European Union (EU) treaty obligations (2). In 1997, the Treaty of Amsterdam declared that community policies and activities in all sectors, not only in

health, should ensure “a high level of human health protection” (3). In June 2000, the European Commission issued its health strategy, which announced that public health measures should address the social determinants of health, “notably harmful factors linked to lifestyle ... single market, consumer protection, social protection, employment and the environment” (4).

Sweden and the Netherlands were the first EU Member States to experiment with policy-linked HIA. In the Netherlands, HIA was the responsibility of the Department for Intersectoral Policy, an office within the Netherlands School of Public Health, which screened national government policy for health impacts (5). In Sweden, the county councils (which manage local schools, social care, the environment and care of the elderly) and local authorities (which administer regional development, public transport and public health) were given responsibility for conducting HIA (6). However, both encountered serious difficulties. In the Netherlands, decision-makers

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Ref. No. 03-009399

(Submitted: 4 November 2003 – Final revised version received: 19 April 2004 – Accepted: 7 May 2004)

found it “impossible to get clear-cut answers” from HIA (5). In Sweden, one-third of all government proposals were referred for in-depth HIA (7). In both countries, HIA did not perform well in a competitive, dynamic, and often opportunistic, policy-making environment (8–10). Currently, WHO is working to redress the deficiencies of HIA by promoting dialogue among academics and policy-makers (11, 12), and has mooted the option of institutionalizing HIA as part of strategic environment assessment (13, 14).

### What is strategic environmental assessment?

Strategic environmental assessment (SEA) is an evaluation of the environmental effects of a policy, which determines the scope of any subsequent environmental impact assessments (EIA) and the extent of public participation (14). Whereas EIA focuses at the level of individual projects, SEA takes a strategic overview of broad high-level decisions that decide the action — i.e. the projects — required to develop and implement policy. Thus, SEA is undertaken in the early stages of the policy-making process. The Espoo Convention (1991) requires the Members of the European Community to conduct EIA on major projects likely to have cross-boundary effects (15). More recently, the Convention adopted a protocol on SEA. In May 2003, at the fifth Ministerial Conference “Environment for Europe” in Kiev, 36 countries signed a Protocol for Strategic Environmental Assessment, requiring them to assess the environmental consequences of major programmes and policies likely to have cross-boundary effects (16, 17). SEA and EIA are triggered by biophysical rather than “social” concerns, and thus have traditionally focused on a “narrow” model of health. Incorporating HIA into SEA would offer increased scope for the consideration of the determinants of health and well-being in policy-making. And, given that HIA lacks both a ready place in the policy process and serviceable methods for screening policies, SEA may also provide a convenient, widely-accepted, and well-understood framework into which policy-linked HIA can fit (13, 18). However, the incorporation of HIA into other forms of assessment has traditionally been resisted for fear of losing its focus on health issues to environmental concerns, and of compromising its social model of health with the introduction of biophysical indicators. But are these fears substantiated?

### Methods

We review the institutionalization of HIA in four non-European countries — Australia, Canada, New Zealand and the United States of America (USA) — that are all liberal industrialized democracies based on federal governmental structures (except New Zealand). Specifically, we were interested in how, and at what level, non-European governments direct decision-making through the HIA process. Thus, we limited our analysis to relevant policy documents and departmental guidelines, discussing examples of individual projects only in so far as they shed light on the application of HIA to policy. Using materials collected from individual departments, government libraries, departmental web sites and the wider academic literature, we asked: did these countries institutionalize HIA as an independent policy-linked process, or did they couple it with other forms of impact assessment? And where HIA has been linked with other forms of impact assessment, how was this done, and at what level — policy or project — was its conduct legislated?

Moreover, were problems relating to screening, causal pathways and access to the policy process addressed? Was the social model of health sacrificed to one based on biophysical determinants?

## Results

### HIA and other forms of assessment in four non-European countries

#### Canada

In Canada, attempts to institutionalize HIA as an independent policy device proved unsuccessful in one province (19). In 1994, the British Columbia Office of Health Promotion published *Health impact assessment toolkit* — designed for policy analysts in the different ministries — and *Health impact assessment guidelines* to assist the institutionalization of HIA at regional and community levels (20, 21). However, in 1998 the Ministry of Health conducted a complete review of the guidelines and, finding no evidence that they had been effective, recommended that they be shelved (22). Thus, Health Canada — a federal department that provides leadership on health policy — is pursuing a greater relationship between the health and environmental sectors, arguing that without a health assessment component, EIA is badly poised to take advantage of health issues that relate to sustainable economic development (23).

In Canada, HIA has been institutionalized as part of EIA at the level of individual projects. In 1997, Health Canada's *Environmental assessment and human health* report advised that an institutionalized “stand-alone” HIA would be unlikely to gain acceptance in the current economic climate (24). Today, Health Canada argues that HIA should be included within project-level EIA “because decision-makers require information on economic issues, health and environmental effects concurrently” (23). Consistent with the needs of decision-makers, the priority should be on “translating concepts and principles into cost-effective practice, rather than developing new frameworks or procedures” (24). Conducting HIA as part of EIA provides the health sector with a sufficient, immediate and well-established point of access to the decision-making process. Introduced through the 1973 Environment Assessment and Review Process (EARP), EIA is well ensconced at all levels of Canadian government (25). Today, local governments, indigenous communities, private sector development companies, and even the mining industry, have incorporated EIA into their decision-making procedures. However, Health Canada is also attempting to institutionalize currently accepted “social” definitions of health, which include effects on psychological health and well-being, so that individual assessments are not limited to consideration to effects on physical health (24).

#### USA

In the USA, little is heard of HIA (26). However, if we look more closely at social policy in the USA, we discover the process of social impact assessment (SIA); although SIA measures “social change” rather than the health impacts of policy, it locates environmental impacts in a wider social context, and thus plays a role that is broadly similar to that of HIA within EIA. In the USA, SIA is conducted as part of EIA at the level of individual projects because the SIA process has its origins in federal environmental legislation (27). Under the 1970 National Environmental Policy Act (NEPA), federal agencies assess the impacts of specific developments on the social and physical environment. SIA was developed in response to NEPA's demands for credible economic and social impact components for EIA (28).

In the 1970s, multiple models of SIA arose. Assessors drew on a range of techniques derived from regional economics, demography, sociology, and public finance (28). By the mid-1980s, SIA meant different things to different assessors, and the process could find little favour with decision-makers (29). By the late 1980s, SIA was no longer influencing decision-making, and lacked public, judicial, and federal government support (30). Critics argued that the field needed to develop better indicators and a more substantial empirical basis from which to predict the consequences and outcomes associated with the indicators. In May 1994, an Inter-organizational Committee for the Guidelines and Principles of Social Impact Assessment (IOC) published a report designed to assist agencies and private interests in fulfilling their obligations under NEPA (31). The IOC adopted a multidisciplinary approach, arguing that methodological choices must reflect “available time and funds”, and embrace both expert and community concerns (32). SIA should employ a multidisciplinary team: social scientists, cultural anthropologists, sociologists, and cultural geographers; track changes across indicators that reflected fundamental community characteristics, and employ a combination of objective, subjective and ethical assessment techniques (32, 33). Eventually, the principles developed in the report received the endorsement of NEPA, and were adopted as part of the Agency’s “fact sheet”, which sketched a preferred outline of the SIA process (34).

### Australia

In 1992, the National Health and Medical Research Council (NHMRC), a national research body tasked with raising the standard of public health in Australia, advocated the inclusion of HIA within EIA (35). In 1994, the NHMRC published the *National framework for health and environmental impact assessment*, which outlined a formal model for the conduct of EIA and HIA. The two initiatives brought about the conduct of HIA as part of EIA, at the level of individual projects and proposals, in both the State and Commonwealth governments. In 1996, following a review of its public health legislation, the Tasmanian Government, consistent with the NHMRC guidelines, introduced the *Environmental Management and Pollution Control Act* (EMPCA) (36), which subjected all activities currently requiring an EIA to the additional test of HIA. In 2001, the Commonwealth Government’s *Health impact assessment guidelines* (HIAG) formally incorporated HIA into the existing process of EIA (37). Under the HIAG, protecting public health implied providing for the assessment factors that might damage human health, rather than specific determinants, which could originate from either a lack of or unsustainable development, consumption patterns, urban settlements and the interaction of human lifestyles (37). Also significant is the fact that the Commonwealth Government’s 1999 *Environment Protection and Biodiversity Conservation Act* (EPBC) launched a new set of direct triggers based on the environmental importance of the development that allowed the federal government to decide whether, and at what stage, impact assessment would be required (38). The Act allowed the Commonwealth Government to select from a range of assessment options, and also permitted states and territories to conduct their own EIA and receive federal government accreditation. Thus, under EPBC a single assessment process could satisfy both State and Commonwealth EIA requirements (39).

### New Zealand

In New Zealand, health impacts became part of the EIA process as a consequence of the 1991 *Resource Management Act* (RMA) (40). The RMA awards responsibility for EIA approvals to district councils, which are required to prepare regional plans for the management of development. Under RMA, EIA is conducted using the paradigm of environmental health, through which the health and safety of the community are regarded as integral to the environment. Initially, the Ministry of the Environment envisaged establishing national standards for bio-physical “bottom lines” for the measurement of environmental health (41). However, in the mid-1990s, critics suggested that the RMA should ensure a more integrated approach to impact assessment by considering effects on the social environment, e.g. social and economic impacts (42). In 1995, the New Zealand Public Health Commission published its *Guide to health impact assessment* (GHIA), which provided guidance for considering the impacts of developments on the health of communities within the broader framework of EIA. The GHIA advocated a collaborative approach to HIA between resource management and health agencies, and encouraged regional authorities to incorporate provisions for HIA into policies and strategies requiring environmental assessment (42).

In 2000, the publication of *The New Zealand health strategy* offered HIA a new role, distinct from the process of EIA, arguing that improvements in population health and reductions health inequalities required intersectoral collaboration and more focus on determinants of health (43). The *Health Strategy* associated population health with social determinants — income, education, employment, housing — recommending that the Department encourage healthy public policy in other sectors by identifying the impacts of initiatives on these determinants. In New Zealand, HIA has a clear role in formulating of departmental policy: “The health sector can encourage and support action in other sectors, including identifying and advising on the health impact of policies and trends occurring there” (43). Currently, New Zealand is expanding the evidence base for linking policy and health inequalities, with a view to institutionalizing HIA as an independent process (44).

### Discussion

Today, the United States, Canada and Australia direct decision-making through HIA at the level of individual projects, in which health impacts are considered as part of the EIA process. New Zealand is currently experimenting with policy-linked HIA; but, likewise, closely associates population and environmental health. The experience of non-European countries suggests that the EU may have something to gain by associating HIA with SEA. If HIA is to develop as an independent assessment device at the level of individual projects, it seems unreasonable to expect that it could function successfully as an independent device at the arguably more complex level of policy-making. Moreover, with non-European countries, and indeed many EU Member States, already considering health impacts as part of EIA at the level of individual projects, it might be more prudent to also consider health impacts within an environmental structure at the level of policy-making. Thus, SEA, as a device that lifts the consideration of environmental impacts from the project to policy-making level, might facilitate the conduct of HIA and at a level higher than that of individual projects; and perhaps, prepare the way for an independent policy-linked device in the future.

SEA also offers HIA a chance to refine mechanisms for screening and identifying causal pathways between policy and health impacts. For example, in Australia, Canada, and New Zealand, practical experience of project-level HIA within EIA fashioned a gradual refinement of screening mechanisms, and there is no reason why an association of HIA and SEA might not accomplish the same ends at the policy-making level. Indeed, by coupling HIA with EIA, and expanding the concept of environmental health, non-European countries established a workable criterion for triggering HIA. In Australia, for example, the EPBC refined the screening process of previous legislation, introducing a criterion of direct environment triggers that determined the involvement of the federal government. In New Zealand, the introduction of the RMA saw local councils gain a greater role in the conduct of EIA, and in Canada, the provinces gradually endorsed the federal *Environmental Assessment and Review Process*. In Europe, expanding the notion of environmental effects to include health effects at the policy-making level could be used to trigger HIA under the criterion already established for SEA. Herein, some compromises are necessary; a HIA would not necessarily occur unless a trigger for the EIA or SEA was activated. While some may argue that relying on biophysical triggers policies will allow policies to escape assessment, this presupposes that HIA is regularly and competently conducted at present. The case is quite the opposite. Today, HIAs are triggered in a haphazard fashion — an interested academic department, a political requirement, community pressure etc. Thus, by coupling HIA with SEA or EIA, we gain a formal mechanism for triggering assessments.

Associating HIA with EIA also assisted non-European countries to establish methods for identifying causal pathways. In the USA, SIA lacked a common methodological perspective for over 20 years, and its credibility with decision-makers suffered as a result. However, with the endorsement of NEPA, analysts in the field developed common principles that integrated its many dimensions. Through its association with EIA, and the practical requirement for its conduct under the 1970 NEPA legislation, SIA developed a common theoretical framework. Likewise, in Australia, the federal government anticipates that HIA's methods will develop through its association with

EIA. Thus, in Europe, if policy-makers doubt HIA's capacity to trace credible links between policy and health impacts, HIA may benefit from a closer association with SEA. Indeed, the SEA protocol might function in a similar manner to the NEPA legislation, wherein a formal legislated protocol forced decision-makers and academics to find a consensus on appropriate procedures for best practice. Ultimately, associating HIA with SEA would not preclude an eventual move of HIA from under the umbrella of SEA. New Zealand is currently investigating the feasibility of establishing HIA as an independent policy-linked process by expanding the evidence base for linking policy and health inequalities.

Finally, the experience of non-European countries suggests that the coupling of HIA with SEA would not necessarily give pre-eminence to the biophysical model of health. Canada and the USA have preserved a determinants-based model of health and social change within the framework of project-level EIA. Similarly, the New Zealand approach to HIA was initially biophysical, but was reviewed as a consequence of outside pressure and health department guidance. Although it could be argued that the current pressure to extract HIA from EIA in New Zealand implies that the social model of public health is incompatible with the biophysical nature of EIA, the examples of Canada and the USA suggest that the decision to base HIA on social or biophysical determinants is relative to government priorities.

## Conclusion

If HIA is to be institutionalized within the European decision-making process, the case for associating it with SEA is strong. Through an association with SEA, HIA could be developed and refined at the policy-making level. Moreover, incorporating HIA within EIA does not imply a loss of focus on health issues and the adoption of a biophysical model of health. Coupling HIA with other forms of SEA may even be the next step forward for HIA in a longer journey towards the institutionalization of HIA as an independent policy-linked device. ■

**Competing interests:** none declared.

## Résumé

### Intégration de l'évaluation d'impact sanitaire dans les processus de décision politique en Europe : la prochaine étape consistera-t-elle à coupler l'évaluation d'impact sanitaire et l'évaluation environnementale stratégique ?

Les États Membres de l'Union européenne (UE) s'intéressent à l'utilisation de l'évaluation d'impact sanitaire (EIS) comme moyen de préserver leurs obligations relatives à la protection de la santé humaine au titre du Traité d'Amsterdam de 1997. Cependant, plusieurs d'entre eux ont rencontré des difficultés pour intégrer l'EIS dans les processus décisionnels. En conséquence, le Bureau régional pour l'Europe de l'Organisation mondiale de la santé (OMS) a suggéré de coupler l'EIS avec l'évaluation environnementale stratégique (EES). Jusqu'à présent, l'incorporation de l'EIS à d'autres formes d'évaluation d'impact se heurtait à des résistances, motivées par la crainte que cette évaluation cesse d'être centrée sur les questions sanitaires pour se réorienter vers des préoccupations environnementales et que le modèle social de santé qui la sous-tend ne soit remis en cause

par l'introduction d'indicateurs biophysiques. Ces craintes sont-elles toutefois justifiées ? Le présent article analyse les raisons de ces préoccupations à partir des documents d'orientation pertinents et des recommandations ministérielles de quatre pays n'appartenant pas à l'Union européenne, qui ont envisagé d'utiliser une évaluation intégrée. Il constate qu'il existe des arguments puissants en faveur de l'intégration de l'EIS et de l'EES en Europe et que cette association pourrait apporter des solutions aux problèmes de détection des conséquences sanitaires, de cadre théorique, d'enchaînement de causalité et de facilité d'introduction dans les processus de décision politique. Le couplage de l'EIS avec l'EES pourrait ainsi être considéré comme l'étape suivante dans le long cheminement vers l'officialisation de l'EIS en tant que dispositif indépendant participant à la prise de décision.

## Resumen

**Institucionalización de la evaluación del impacto sanitario en la acción normativa en Europa: ¿podría ser la combinación de esa evaluación y de la evaluación ambiental estratégica el próximo paso adelante?**

Los Estados Miembros de la Unión Europea (UE) están interesados en emplear la evaluación del impacto sanitario (EIA) para cumplir su función de proteger la salud humana conforme al Tratado de Amsterdam de 1997. Sin embargo, varios de ellos han tropezado con dificultades a la hora de institucionalizar la EIA en el marco del proceso de formulación de políticas. En consecuencia, la Oficina Regional para Europa de la Organización Mundial de la Salud (OMS) ha sugerido que la EIA se vincule a la evaluación ambiental estratégica (EAE). Tradicionalmente la incorporación de la EIA a otras formas de evaluación del impacto ha encontrado resistencia, por temor a que las inquietudes medioambientales desviarán el interés de los temas sanitarios, y a que la introducción de indicadores biofísicos pusiera en peligro su modelo social de

salud. Ahora bien, ¿están fundamentados tales temores? A fin de investigar si hay razones que justifiquen esa preocupación, en este artículo examinamos los documentos de política y las directrices ministeriales pertinentes de cuatro países no europeos que han optado por la evaluación integrada. Nuestra conclusión es que hay muchas razones para asociar la EIA a la EAE en Europa, y que eso ofrece posibles soluciones para los problemas de cribado, un marco teórico, vías causales y una fácil integración en el proceso de formulación y adopción de políticas. Así pues, vincular la EIA y la EAE podría ser el próximo paso adelante en el camino hacia la institucionalización de la EIA como instrumento independiente vinculado a las políticas.

## Arabic

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