

Box w1 Definitions of Health impact assessment (HIA)

Health impact assessment was defined by Scott-Samuel as:

“the estimation of the effects of a specified action on the health of a defined population.”

(12) ^(p704)

and by the British Medical Association as:

“a methodology which enables the identification, prediction and evaluation of the likely changes in health risk, both positive and negative, (single or collective), of a policy programme, plan or development action on a defined population. These changes may be direct and immediate or indirect and delayed.” (13) ^(p39)

Ratner *et al* defined HIA as:

“any combination of procedures or methods by which a proposed policy or program may be judged as to the effect(s) it may have on the health of a population.” (14) ^(p68)

This was used by the World Health Organization Europe Region but modified to include consideration of inequalities, the definition of HIA becoming:

*“any combination of procedures or methods by which a proposed policy or program may be judged as to the effect(s) it may have on the health of a population **and the distribution of those effects within the population.**”*(15)

This definition was expanded upon by the WHO HIA e-mail network to continue: *“HIA should preferably be started at the very beginning of a policy making process as an integral part of this process. Within HIA:*

- *evidence about the relationships between a proposed policy and the health of a population are considered;*
- *the opinions, experience and expectations of those who may be affected by a proposed policy decision are taken into account.”*

More recently, the WHO stated that HIA gives added value by providing a structured framework to map the full range of health consequences of any proposal, whether negative or positive. (11)

Box w2 Details of the search strategy for the systematic literature review, inclusion and exclusion criteria, and the results of the search

Search strategy

Until recently, there have been few papers on health impact assessment published in peer-reviewed journals. (20) A free text search in PubMed in August 2004January 2008 (HIA is not a Medical Subject Heading (MeSH) term) found 8,33713,336 citations including the words “health” and “impact” and “assessment”: 3,2225,139 in the title and/or abstract and 144 in the title only, of which 67 134 were about health impact assessment. They were assessed by title and abstract and, where necessary, by review of the full paper. Twelve52 were examples of HIA; 25 41 were background information or encouragement to conduct HIA; 19 discussed methodological issues; a further eight 19 discussed both background and methodology; and three papers described a specific framework for HIA. By starting with a paper about methodological issues in HIA (16), 499 related articles were found, of which 41 were actually about health impact assessment (seven examples of HIA, 17 background information or encouragement to conduct HIA, 12 methodological issues, and four papers describing a specific framework for HIA). Repeating that process using a paper providing a framework for conducting HIA(21) identified 277 papers, yielding five additional papers on health impact assessment (one HIA, two background papers, and two further frameworks).

Most work on HIA has been published only as grey literature, so can be difficult to identify and obtain (16). A search for “Health impact assessment” (exact phrase) on the internet in August 2004January 2008 (searching worldwide in any language, with

no time restriction) using Google.com found 23,90092,600 hits, reducing to 12,00014,200 when at least one of “guidelines”, “guidance”, “toolkit”, “methodology”, or “method” was included in the search criteria. To exclude journal articles already found through the Medline search, the exclusion criterion ‘without “bulletin” or “journal”’ was added, which found 7,7871,120 hits, of which 811 21 were displayed (the rest being very similar URLs).

Inclusion criteria

- HIA frameworks that gave sufficiently detailed advice for someone with, or with access to people with, the necessary skills to conduct or organize a health impact assessment on a proposal in any field
- Publication in peer-reviewed or gray literature
- Frameworks titled health impact assessment or environmental health impact assessment were included, such as the Canadian Handbook for HIA²³, although it was focused solely on environmental assessment.

Exclusion criteria

- Resources that aimed to increase the consideration of health within environmental assessments were generally excluded.
- Topic-specific resources and those aimed at increasing the consideration of health in other impact assessments were excluded.

Results of the search

The Medline search found two frameworks (in three papers) (21) (23) 24) providing sufficient guidance for conducting generic HIA. Searching the internet, attending

conferences, consulting 'an electronic network of HIA academics and practitionersexperts' and searching citations identified an additional 25 resources. Some short guides introduced concepts in HIA but gave too little information to be a guide to conducting an actual HIA (eg (25)).

Despite the burgeoning of academic interest in HIA over the past few years and of publications in the scientific literature, the lack of a thesaurus tag for HIA hinders specific searching for relevant peer-reviewed papers. This may explain why there has been no previous systematic review of HIA frameworks, only of actual HIAs (26). One of the authors (JM) has requested that the USA National Library for Medicine adds health impact assessment as a formal MeSH term. This would aid searching the literature in the future, although new terms are not added to existing resources.

Inclusion/exclusion criteria were difficult to apply to resources that incorporated health within EIA, as there was a continuum between those that aimed to increase the consideration of health within a formal EIA and those that were labeled as EHIA. The pragmatic decision was made to include those that described themselves as health impact assessment, such as the Canadian Handbook for HIA (22), although it was focused solely on environmental assessment.

The following section has been moved to be on an initial worksheet in the Excel file of the web tables

Detailed results of the literature review

The terms '*brief*', '*intermediate*' and '*comprehensive*' have been used in the Web Tables w1, w2, and w3 to characterize each framework. These descriptions relate to the level of detail of information given and practical examples included in the documents, to indicate the extent to

which the document paints a sufficiently descriptive picture for the user to understand what actions are required.

- The term *brief* is used to describe a framework which outlines steps to be taken to conduct an HIA. It provides a practitioner unfamiliar with HIA with enough detail to understand the process and the elements which are important for HIA to be conducted according to the ethos the framework supports. Usually, further reading is needed to comprehend all practices inherent in conducting an HIA.
- The term *intermediate* is used to describe a framework which provides information on methods for undertaking HIA. Frameworks at this level of detail provide information on issues and procedures associated with HIA and go some way toward equipping a practitioner to go about conducting an HIA.
- The term *comprehensive* describes an HIA framework which provides detailed instructions for all possible processes within each stage of HIA, giving practical examples and tools and/or direction to resources which would permit an HIA to be conducted without reference to additional sources of guidance.

These adjectives refer neither to the length of the publication (although the depth of information and length of document are often similar), nor to the duration or extent of the actual HIA process planned.

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The 4 web tables (in the Excel file) then follow this page, followed by the References.

(We could put references cited in the boxes at the end of each box, to make them self-contained if you prefer, but as some are cited either in the main text or in the tables, we felt putting them all at the end was preferable)

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References (as numbered in the main paper)

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- w1 12 Scott-Samuel A. Health impact assessment. An idea whose time has come. *BMJ*. 1996;313:183-184.
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- w7 16 Joffe M, Mindell J. A framework for the evidence base to support health impact assessment. *J Epidemiol Community Health*. 2002;56:132-138.
- w6 20 Mindell JS. *Quantification of the health impacts of air pollution reduction in Kensington & Chelsea and Westminster*. Imperial College of Science, Technology and Medicine, University of London, 2002.
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