

Part I

SECTION 1

What is health impact assessment?

Overview

This section provides a basic introduction to health impact assessment (HIA), both as a concept and as a tool.

Working through this section will help you to:

- *define HIA*
- *identify the main types of HIA*
- *identify the main types of appraisal that can be undertaken*
- *recognise the distinguishing characteristics of HIA.*

1.1 Defining health impact assessment

There are several definitions of health impact assessment (HIA) in the literature. A definition quoted widely is that used by the team at the Canadian Institute of Advanced Research (CIAR):

“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” (1).

This definition was developed in a context of promoting the development of “healthy” public policy, a concept championed by the World Health Organization (WHO) in its Health for All framework. This concept encompasses the idea that policies which have a major impact on health are not limited to the provision of healthcare, and public health services, but will include, for instance, those on education, employment, housing, transport, and agriculture. Promoting healthy public policy therefore requires the prospective appraisal of these “non-health” policies.

The definition published in the Gothenburg Consensus Paper by the WHO Regional Office for Europe differs only slightly from that of CIAR (see words in bold):

*“a combination of procedures or methods by which a **policy, program or project** may be judged as to the effects it may have on the health of a population.” (2)*

In this definition, the scope of HIA has been broadened to include projects, and the word “proposed” has been omitted to allow for the inclusion of all types of HIA ie: including concurrent and retrospective HIA (*see Section 1.2*).

It is important to note the explicit use of the word “**judged**” in these and other definitions, which underlines the importance of the need to apply judgement throughout the process of HIA.

Signpost

- For the definition of HIA developed by the group at the Liverpool Public Health Observatory, *see Case-Study 8.4.1*.

1.1.1 **Factors affecting health and well-being: the determinants of health**

It is now generally accepted that the health and well-being of individuals and populations are affected by social, economic, and environmental factors, as well as biological factors, such as age and sex, which can be referred to as fixed. In *Our Healthier Nation: A Contract for Health*, the Government highlighted a range of factors that affect health (*see Inset 1.A*). Factors affecting health are often referred to as the determinants of health.

1.1.2 Participants in the identification of effects on health

The terms used to refer to the various participants in a health impact assessment are listed below.

- **Stakeholders:**
anyone involved in or affected by a proposal
(see Section 1.5.1, Inset 1.H, and Section 2.3, Inset 2.I)
- **Key informants:**
people whose roles or standing in the community result in them having knowledge or information of relevance to the proposal and its outcomes
- **Specialists:**
professionals/academics who have specialist knowledge in relation to the HIA on a particular proposal; may be referred to in general as stakeholders
- **Assessors:**
those responsible for leading the appraisal of health impacts, for report writing, and for framing the recommendations about modifications to the proposal; may be specialists appointed from within an organisation/partnership or specialists commissioned from a centre with expertise in HIA; accountable to the steering or management group
- **Steering/Management group:**
those responsible for overseeing the HIA, and appointing the assessors, whether internal or external; may or may not be the decision-makers responsible for taking decisions on the recommendations about modifications to the proposal after appraisal of health impacts
- **Decision-makers:**
those responsible for taking decisions on the recommendations about modifications to the proposal after appraisal of health impacts; may or may not be the steering or management group for the HIA

1.2 Types of health impact assessment

There are three types of HIA:

- **Prospective** – conducted before the implementation of a proposal;
- **Retrospective** – conducted some time after a proposal has been implemented;
- **Concurrent** – conducted during the implementation of a proposal.

1.2.1 Prospective health impact assessment

In prospective HIA, the **potential** health impacts of a proposed policy, programme or project are assessed.

The aim in assessing potential health impacts is to create an opportunity to change or modify a proposal **before** implementation in such a way as to maximise the beneficial effects and to minimise any harmful effects on the health of a population, and/or particular population sub-groups. Thus, prospective HIA can be a way to optimise health gain.

The accuracy of predictions made during a prospective HIA will in part be determined by:

- the strength of the evidence available relating to the health effects or impacts associated with various health determinants;
- stakeholders' and/or assessors' previous experience of HIA in similar situations and/or circumstances.

1.2.1.1 Timing of a prospective HIA

The timing of a prospective HIA is critical. It needs to be undertaken during the planning and development of a proposal, at a stage when the nature and content are clear but it is still possible to make modifications to minimise any harmful effects and maximise any beneficial effects of implementation.

Signposts

- For an HIA tool that can be applied during the planning of a proposal to identify impacts on various groups in the population who are already disadvantaged (time required 30 minutes), *see Case-Study 8.1.1*.
- For a discussion of the timing for conducting prospective HIAs, *see Case-study 8.3.4 and Case-study 8.4.2*.

1.2.2 Retrospective health impact assessment

In retrospective HIA, health impacts that have arisen **after** the implementation of a policy, programme or project are assessed.

The aims in assessing the **apparent** health impacts of specific proposals retrospectively are:

- to inform the development of future policies, programmes and projects;
- to increase understanding of the health impacts of implementing similar policies, programmes and projects;
- to enlarge the evidence base for future prospective HIAs.

The accuracy of attribution of various impacts to the proposal made during a retrospective HIA will in part be determined by:

- the strength of the evidence available relating to the health effects or impacts associated with various health determinants;
- knowledge of health status before implementation – that is, the quality and extent of the data and information available with which it is possible to define health status before implementation of the proposal to provide a comparison or baseline for health status after implementation.

1.2.3 Concurrent health impact assessment

In concurrent HIA, the health impacts of a policy, programme or project are assessed **during** implementation because their nature may not be known or well characterised.

The aims in assessing health impacts concurrently with proposal implementation are:

- to provide the capacity to act promptly to mitigate any negative effects should they arise;
- to monitor the accuracy of predictions about potential health impacts made prospectively.

Signpost

- For an example of a concurrent HIA, following an initial rapid HIA, *see Case-study 8.5.2*.

1.3 Types of appraisal during health impact assessment

There are five core steps in the process of health impact assessment - screening, scoping, appraisal, decision-making, and monitoring and evaluation (*see Section 2*). Appraisal is the central step in the process, and is described in detail in *Section 2.3*.

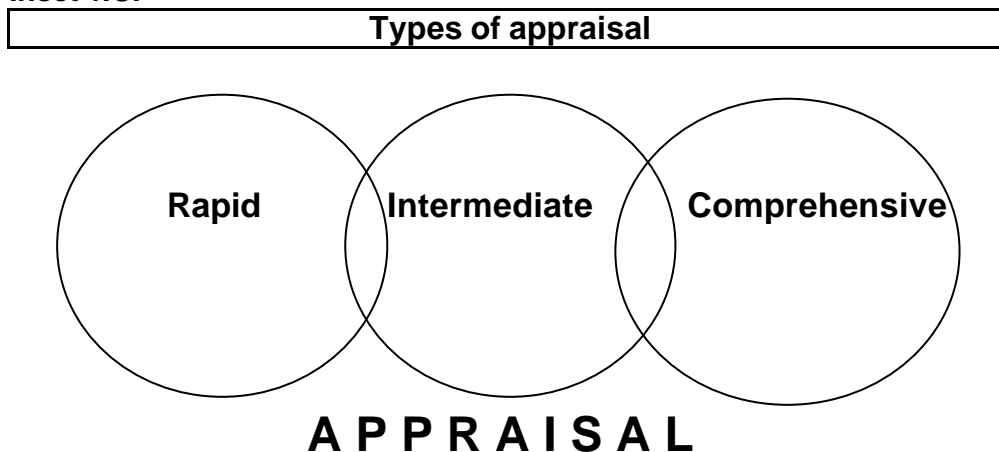
For HIA on any kind of proposal (policy, programme or project), there are three main types of appraisal:

- **Rapid appraisal;**
- **Comprehensive appraisal;**
- **Intermediate appraisal.**

As may be evident from the terms used, these three types of appraisal are categorised partly on the basis of the length of time it takes to complete the appraisal step. The other factor in categorisation is the procedures or methods used during appraisal. At the time of writing, there is no national or international consensus on the exact use of these terms.

The difficulty in using the length of time as a defining criterion is that individual practitioners differ in the amount of time they allocate to the different types of appraisal. In practice, these categories overlap (*see Inset 1.C*). For instance, one practitioner will call an appraisal rapid whereas another will call it intermediate; similarly, an appraisal termed intermediate by one is called comprehensive by another. This inconsistency in the use of these terms can be confusing, especially for those new to HIA. You may notice such inconsistencies as you access the various case-studies presented in *Section 8*. This source of confusion may be resolved as HIA evolves as a methodology.

Inset 1.C:



For HIA conducted on policies, the main type of appraisal is a review.

It is important to be aware that some practitioners in HIA may refer to the types of appraisal described in this section using different terms; in the description that follows, any alternative terminology is listed as relevant.

The type of appraisal it is appropriate to undertake will be determined during screening (*see Section 2.1*).

1.3.1 Rapid appraisal

Alternative terminology

- **rapid health impact appraisal** - WHO Regional Office for Europe (2);
- **health impact rapid appraisal** - the *Merseyside Guidelines for health impact assessment* (4) (see Section 1.3.1.1)

Rapid appraisal comprises a systematic investigation of health impacts undertaken in a short space of time. This represents the general understanding of the term. However, there is a more specific use of the term, derived from a technique developed by the WHO for consultation with communities in the developing world. This rapid appraisal technique applied to HIA involves ‘a participatory stakeholder workshop’ followed by report writing (see *Inset 1.D*). This particular framework for rapid appraisal is followed in the *Merseyside Guidelines for health impact assessment* (4)

A rapid appraisal (whether the term is used specifically or generally) is based on:

- the knowledge and perceptions of stakeholders, and assessors;
- the evidence base, and experience gained from previous HIAs undertaken on similar proposals.

1.3.1.1 Length of time for rapid appraisal

In the *Merseyside Guidelines for health impact assessment* (4), the authors recommend conducting a stakeholder workshop (time allocation: 3 hours), followed by report writing (time allocation: 4 hours).

Signposts

- For examples of rapid appraisal, see *Case-study 8.4.1 and Case-Study 8.5.2*.
- For a discussion of rapid appraisal as an entry point to HIA, see *Section 5.3.1*.

Inset 1.D:

Features of rapid appraisal within health impact assessment that has been derived from the WHO technique
<p>SCOPING – Step 2 of HIA (see Section 2.2)</p> <ul style="list-style-type: none"> • All relevant stakeholders identified during scoping, the preceding step of HIA (because there is no opportunity to include others during appraisal) • Impact assessor(s) likely to be appointed from among the specialists already employed in an organisation, or the various agencies in a partnership • Impacts on health of particular concern, and the determinants through which they act, highlighted, especially if they affect any vulnerable groups in the population (especially as time for appraisal is limited) <p>APPRAISAL – Step 3 of HIA (see Section 2.3)</p> <ul style="list-style-type: none"> • Information on the proposal being appraised, a basic profile of the affected population, and the health impacts of particular concern circulated to all stakeholders <i>prior</i> to the workshop; if a particular model of HIA is being used, relevant information/proformas should also be sent • Health impacts identified and characterised within a participatory stakeholder workshop • Opportunity for interrogation of published evidence/experience base, and grey literature* limited, therefore, evidence/experience available constrained by extent of knowledge of assessor(s) and other stakeholders • Depending on the evidence/experience base available to assessor(s), recommendations about modifications to the proposal may tend to be broad <p>* Grey literature is unpublished material that is available, e.g. reports written for an organisation or partnership</p>

1.3.2 Comprehensive appraisal

Alternative terminology

- *health impact analysis* - WHO Regional Office for Europe (2)

Comprehensive appraisal comprises a systematic investigation of health impacts undertaken over an extended period of time, using several different methods to consult stakeholders and acquire *new* information relevant to the assessment (*see Inset 1.E*).

A comprehensive appraisal is based on:

- the perceptions, knowledge and experience of stakeholders, and one or more assessors who are specialists;
- a review of the available evidence by the assessors;
- a review of previous HIAs on similar proposals by the assessors;
- the collection and analysis of *new data* by the assessors.

1.3.2.1. Length of time for comprehensive appraisal

In the *Merseyside Guidelines for health impact assessment* (4), the authors propose that one specialist assessor, under the supervision of a public health specialist, can undertake a comprehensive appraisal in 4-6 months.

Signpost

- For an example of a comprehensive HIA, *see Case-study 8.4.7*.

Inset 1.E:

Features of comprehensive appraisal within health impact assessment
<p>SCOPING – Step 2 of HIA (<i>see Section 2.2</i>)</p> <ul style="list-style-type: none"> • Key stakeholders identified during scoping, the preceding step of HIA, but possible to add to stakeholders during appraisal • Impact assessors appointed either from specialists already employed in organisation or various agencies of partnership, or through process of commissioning external assessor(s) • Impacts on health of particular concern, and the determinants through which they act, identified, especially if they affect any vulnerable groups in the population <p>APPRAISAL – Step 3 of HIA (<i>see Section 2.3</i>)</p> <ul style="list-style-type: none"> • Comprehensive proposal analysis • In-depth profile of population affected compiled from various sources of data • Health impacts identified and characterised using several different methods other than a participatory stakeholder workshop • Opportunity for interrogation of evidence base by extensive literature searches • Opportunity for identification of grey literature • Opportunity for interrogation of experience base by extensive literature searches, and networking among colleagues and other practitioners of HIA • Recommendations about the proposal tend to be specific, and opportunity available for outlining different options as appropriate

1.3.3 Intermediate appraisal

Intermediate appraisal comprises an investigation of health impacts undertaken over a reasonable period of time, using more than one method to consult stakeholders and obtain information relevant to the assessment.

The appraisal is based on:

- the perceptions, knowledge and experience of stakeholders, and one or more assessors who are specialists;
- a review of the available evidence by the assessors;
- a review of previous HIAs on similar proposals by the assessors;
- for some assessments, the collection of new data.

Signpost

- For an example of an intermediate appraisal, *see Case-study 8.4.2*.

1.3.4 Policy review

Alternative terminology

- *health impact review* - WHO Regional Office for Europe (2)

A policy review comprises the estimation of the significant health impacts associated with either a broad policy area, or a cluster of policies, programmes or projects. The appraisal is based on:

- a review of the available evidence;
- a review of the analyses of similar policies, programmes or projects;
- the opinions and/or informed assessments of specialist assessors.

1.3.4.1 Length of time for policy review

In the *Merseyside Guidelines for health impact assessment* (4), the authors describe a **health impact policy audit**, which they recommend should take a health policy officer 1-2 hours to complete.

Signposts

- For an example of a review of a cluster of services and projects, *see Case-study 5.3.2*.
- For a list of health impact assessment policy audit questions, *see Case-study 8.3.1*, (heading 9.3).

1.4 Levels of application of health impact assessment

As can be seen from the definitions of health impact assessment in *Section 1.1*, it can be applied at several different levels (*see Inset 1.F*) i.e. at the level of a:

- **Policy;**
- **Programme;**
- **Project.**

1.4.1 Policy

Additional terminology

- *strategic HIA*

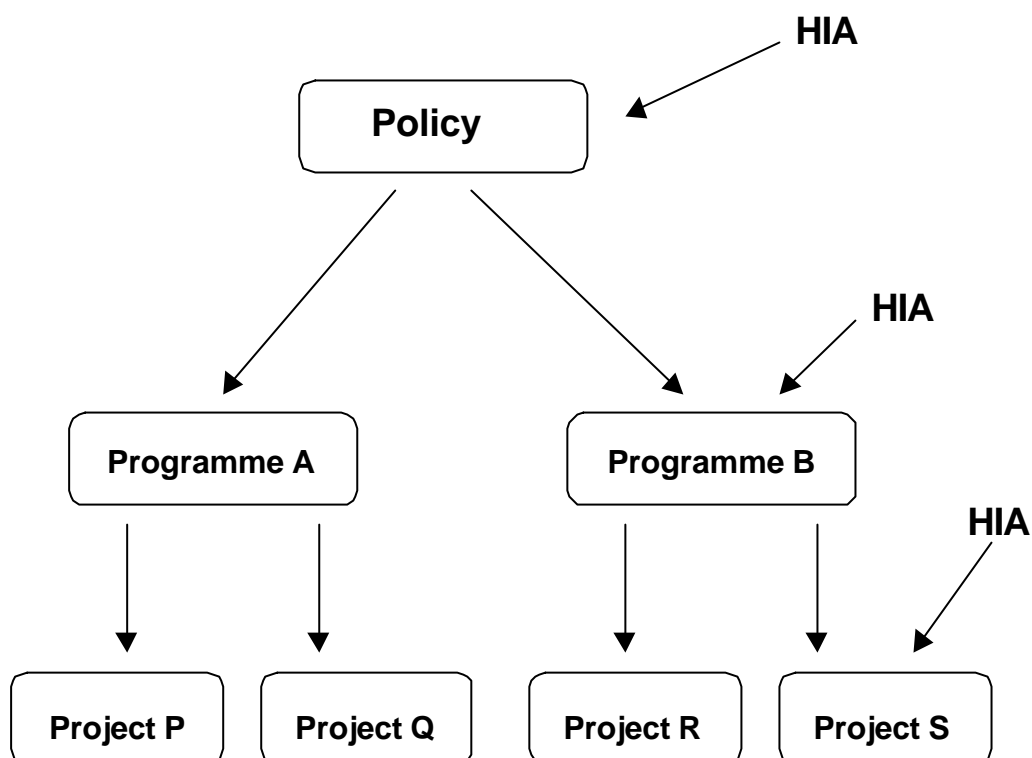
It is vital that HIA is applied during policy development. The aims of applying HIA at this level are:

- to ensure that health concerns are integrated into the development of policy options;
- to obtain a perspective on the potential cumulative, and global, health effects of a policy, which it may not be possible to ascertain fully at later stages, particularly when the proposal is implemented at a project level.

It is also particularly important to apply HIA to those policies that may not be implemented through programmes or projects, e.g. taxation of various forms.

Inset 1.F:

Application of health impact assessment at different levels



Policy:
The way in which government (central or local), a sector or organisation seeks to achieve the objectives it has set.

Programme (or plan):
A series of related activities that give effect to policy.

Project:
A component of a programme – a discrete activity, often at a specific location.

The application of HIA at a policy level provides the following outputs:

- the opportunity to eradicate the source of potential problems before they arise, and which might become acute at other levels of implementation;
- an understanding of the health impacts of policy implementation;
- a framework in which specific programmes and projects can be assessed.

Signpost

- For an example of HIA applied to European single market legislation, see *Case-study 8.2.1*.

1.4.2 Programme and project

Additional terminology

- *tactical HIA*

It may not always be possible to appraise all the potential health impacts of a policy at a strategic level because some of them may be determined by the specific nature of the programme or project through which the policy is implemented. This is why it is important to carry out health impact assessment at the level of a programme or a project. A good example of the need for HIA at the level of a programme or project is the large-scale regeneration programmes/projects being undertaken in various cities around the UK. In addition, as many programmes are targeted on particular communities or groups in the community who may be vulnerable, disadvantaged or marginalised, they can be very different in nature although stemming from similar policy directions. Moreover, projects are usually designed to implement programme objectives in the context of local needs and circumstances, which can vary greatly.

The increasing focus and specificity of a proposal at the level of a programme or project will have an influence on:

- the exact nature of the potential health impacts identified and characterised;
- the nature of the recommendations made to maximise any beneficial effects and minimise any harmful effects on health for a particular community or in a specific set of local circumstances.

1.5 Distinguishing characteristics of health impact assessment

The distinguishing characteristics of HIA are described in *Inset 1.G*. When conducting HIA, it is important to ensure that the design of the assessment includes these characteristics. Of those characteristics listed, one of the most important is the participation of stakeholders. (see Section 1.5.1 for further discussion.)

Inset 1.G:

Distinguishing characteristics of health impact assessment

Multidisciplinary:

as the potential health impacts of a policy, programme or project can be wide-ranging, HIA requires input from specialists belonging to many disciplines, e.g. public health, social sciences, epidemiology, toxicology, policy analysis, and environmental sciences

Intersectoral:

as many of the potential impacts of a proposal will arise from the broader determinants of health (as opposed to health services provision), HIA requires input from professionals working in different sectors, e.g. health, local government, business, voluntary, and education

Participatory:

the process of HIA involves **all** relevant stakeholders, including the community

Use of more than one method:

a range of different methods is used during HIA to identify and appraise the impacts

Use of quantitative and qualitative evidence:

during appraisal, a combination of quantitative and qualitative (or non-quantitative) evidence is used to assess the potential health impacts of a proposal; it is vital to use both types of evidence to provide decision-makers with: (i) a scientific basis to inform their decision; (ii) an exploration of the opinions, experience and expectations of the people affected by the proposal

Focus on health inequalities:

particular attention is paid during HIA to the potential health impacts on vulnerable, marginalised or disadvantaged groups to ensure that: (i) they do not suffer from the implementation of the proposal; (ii) they experience health gain as a result of the implementation of an enhanced proposal following HIA

1.5.1 Stakeholder involvement

1.5.1.1. What is a stakeholder?

In *Developing health impact assessment in Wales* (5), stakeholders are described as including:

"those who are concerned with, or will be affected, by the proposal ..."

However, there are several definitions of a stakeholder in the literature as shown in *Inset 1.H*.

Inset 1.H:

Examples of the definition of a stakeholder in the literature
<p>From <i>'Developing health impact assessment in Wales'</i> (5)</p> <p><i>"those who are concerned with, or will be affected by the proposal..."</i></p> <p>In the Merseyside Guidelines for health impact assessment (4), a stakeholder is defined as:</p> <p><i>"people who are involved in the project or will be directly affected by it".</i></p> <p>This definition is widely used, however, it does not allow for those indirectly affected by the project to be involved, e.g. neighbouring communities, which may be relevant in some cases.</p> <p>Birley (6) has defined a stakeholder as:</p> <p><i>"... anyone who may be affected by the implementation of a policy or project".</i></p> <p>This definition is wide and therefore would encompass those excluded under the first, but this potential for inclusion may not be feasible or pragmatic during some HIAs.</p>

1.5.1.2 Who are the stakeholders?

The exact composition of a stakeholder group for HIA will depend on:

- the nature of the proposal being assessed;
- the catchment area for the proposal;
- the communities affected, by either the proposed gain or its concomitant harm.

A generic list of the potential stakeholders who could be involved in an HIA is shown in *Inset 2.I*.

Every attempt should be made to ensure that the stakeholder group for each HIA is representative of all those involved with or affected by the proposal.

Signposts

- For a list of stakeholders involved in the HIA of a Local Transport Plan, see *Case-study 8.3.2*.
- For a list of potential stakeholders identified for involvement in the HIA of a Local Transport Plan, see *Case-study 8.3.4*.

1.5.1.3 Importance of stakeholder involvement in HIA

It is difficult to overemphasise the importance of the role of stakeholders in health impact assessment. The participation of stakeholders will improve:

- the quality of the assessment - participation by a range of stakeholders will ensure that the potential health impacts identified and characterised will be comprehensive and reflect local experience;
- the quality of the final decision - local needs and concerns will have been brought into consideration;
- the quality of democratic processes in relation to service provision;
- the transparency of the process by opening its underlying values and precepts to public scrutiny.

1.5.1.4 Community participation in HIA

The communities affected by the proposal are key stakeholders in the process of health impact assessment. However, it is worth bearing in mind that the term “community” can be used in a variety of ways (7); it may refer to:

- residents in a specific **geographical area**;
- people who share a **common characteristic**, e.g. ethnic origin, age or sex;
- people who share a **common interest or need**, e.g. carers;
- people united by a **single main attribute**, e.g. cyclists;
- **everyone**.

All these uses of the word “community” may be relevant when undertaking an HIA, and should be considered when identifying stakeholders.

In addition, it is important to be aware that,

“In modern societies, especially highly urban societies, individuals rarely belong to a single distinct community but maintain membership of a range of communities based on variables such as geography, occupation, social contact, values, leisure interests and other important features of their lives.” (8).

Community participation can vary in nature, as shown in the pyramid originated from community development work undertaken in Newcastle upon Tyne (*see Inset 1.I*): the higher the level in the pyramid, the greater the degree of responsibility, management and control the community has over any initiatives undertaken.

Inset 1.I:



When designing a health impact assessment, it can be helpful to think of community participation in terms of the basic models of community development (*see Inset 1.J*). At present, health impact assessments in the UK roughly comply with the characteristics of

Model 3, with the exception that the community rarely leads the HIA. Certain of the health impact assessments undertaken may fall under Model 2 (*see, for example, Case-Study 8.5.2*) especially during the introduction and initial use of HIA within an organisation or partnership.

Signpost

- An example of a community-based HIA model is listed as Project 4 in the Register of HIAs in Wales (*see Section 7.3 for details of how to access this register*).

Inset 1.J:

Models of community development <i>[Source: Ref.7]</i>
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	Model 1: TOP DOWN	Model 2: INTERMEDIATE	Model 3: BOTTOM UP
Initiator(s)	<ul style="list-style-type: none"> • The State 	<ul style="list-style-type: none"> • Professionals whose job is to encourage collaboration 	<ul style="list-style-type: none"> • The community
Nature of the aim(s)	<ul style="list-style-type: none"> • To improve the quality of people's lives 	<ul style="list-style-type: none"> • Generally altruistic or paternalistic 	<ul style="list-style-type: none"> • Representative of the community's views and interests; the focus is that of self-help
Anticipated outcomes	<ul style="list-style-type: none"> • To deliver more effective services • To draw on the community's own resources • To complement the official provision of services 	<ul style="list-style-type: none"> • To enrich people's lives • To improve the conditions in which people live 	<ul style="list-style-type: none"> • To enrich people's lives • To improve the conditions in which people live through community participation

References – Section 1

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4. Scott-Samuel, A., Birley, M. and Ardern, K. (1998) *The Merseyside Guidelines for health impact assessment*. Merseyside health impact assessment Steering Group, Liverpool Public Health Observatory.
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7. Luck, M. and Jesson, J. (1996) *Evaluation of community health development*. Community Health UK.
8. Hawe, P., Degeling, D. and Hall, J. (1995) *Evaluating health promotion: a health worker's guide*. MacLennan and Petty, London.

Review questions – Section 1

- Think about the work of your organisation/partnership in relation to the determinants of health shown in *Inset 1.A*. Which of these factors are you able to influence or control during the implementation of your policies, programmes and projects?
- Within your own organisation/partnership, in what circumstances might you undertake health impact assessment? In these circumstances, would the type of assessment most useful to you be prospective, retrospective or concurrent? Why do you hold this view?
- In the circumstances that you've just been thinking about, would you carry out a rapid, intermediate or comprehensive appraisal during HIA? What benefits would you look for from that decision?
- At what level in your organisation/partnership should HIA be applied—at the level of policy, programme or project? What are your initial reasons for taking this view, and how might you explore the implications with colleagues? Under what circumstances might your view change?
- What are your needs for the appraisal of policies, programmes and projects? Do the distinguishing characteristics of HIA meet or match some of your needs?
- Does your organisation/partnership have a culture of stakeholder involvement? Can you bring some of this experience to HIA? How easily do you learn from others?
- Does your organisation/partnership have a culture of community participation? What methods might be suitable for use during HIA? How might you develop this capacity further?