Integrating Health into Environmental Impact Assessment

~ a briefing report for directors and heads of planning and public health ~
1. Introduction

The aim of this briefing report is to show directors and heads of planning and public health how they can ensure that new developments fully take into account the positive and negative health impacts for residents and local communities by:

1. providing planning and public health professionals with a good understanding and appreciation of the value of health impact assessment (HIA) in identifying the actual and potential positive and negative health effects of policies, plans, programmes, projects, and developments;

2. showing planning and public health professionals a mechanism by which they can ask developers to provide a HIA as well as an environmental impact assessment (EIA) for a proposed development – an integrated environmental and health impact assessment (iEHIA); and

3. enabling planning and public health professionals to commission integrated environmental and health impact assessments and critically evaluate the strengths and limitations of the resulting reports.

Integrating health into EIA is now part of:

- directors and heads of planning and local authorities’ new public health and shared priorities obligations to create healthier, safer, stronger and more sustainable communities under the Local Government Act (2000); and
- directors of public health and primary care trusts’ public health duties to ensure urban and rural developments create healthier, less inequitable and more cohesive communities and environments (Choosing Health White Paper and Wanless I and II).

This briefing report is made up of two sections:

Section 1 looks at health impact assessment, environmental impact assessment and integrated environmental and health impact assessment (iEHIA):

- Chapter 2 describes the background, philosophy and methodology of health impact assessment.
- Chapter 3 describes the background, philosophy and methodology of environmental impact assessment.
- Chapter 4 shows why and how health should be integrated into environmental impact assessment.

Section 2 looks at four important themes that need to be thought through when undertaking an iEHIA:

- Chapter 5 examines the issue of having insufficient and contradictory evidence and how this should be managed.
- Chapter 6 examines the value of stakeholder involvement and engagement in impact assessment.
- Chapter 7 examines how to commission and scrutinise an integrated environmental and health impact assessment.
- Chapter 8 examines the wider contextual factors that have a significant influence on the integrated environmental and health impact assessment process.
2. Health Impact Assessment

"Go to the people, live among them
Build on what they know, but of the best practitioners
When their task is accomplished, their work is done
The people all remark, we have done this ourselves"

_The New Public Health by John Ashton_

2.1 What it is
Health impact assessment (HIA) is a relatively new impact assessment methodology. Its roots lie in environmental impact assessment and the healthy public policy movement. Legislation in the UK requires an environmental impact assessment (EIA) to be commissioned as part of the planning process and lays down what areas must be covered in an EIA. EIAs focus largely on key physical environmental factors such as plants and wildlife, air quality, noise, hydrology and archaeology. In contrast, HIA is currently commissioned voluntarily. The methodology is not prescribed but informed by international best practice and the focus is determined by the nature of the policy, plan, programme, project, development or service (called a “development” throughout the rest of this document) which is being assessed. Boxes 1 and 2 at the end of this chapter describe the international context of HIA.

The widely accepted Gothenberg consensus definition of health impact assessment is:

“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.”

_WHO European Centre for Health Policy (1999)_

HIA is the key systematic approach to identifying the health impacts of proposed and implemented policies, plans, programmes, projects and services (developments) within a democratic, equitable, sustainable and ethical framework, so that negative health impacts are reduced and positive health impacts increased (within a given population). It uses a range of structured and evaluated sources of evidence that includes public and other stakeholders’ perceptions and experiences as well as public health, epidemiological, toxicological and medical knowledges.

Other impact assessment approaches include social impact assessment, environmental health impact assessment, technology assessment, strategic environment assessment, sustainability appraisal and health impact analysis. There are also newer forms of impact assessment such as equalities impact assessment, regulatory impact assessment and integrated impact assessment. It is not within the scope of this reader to discuss the similarities and differences of the different approaches in more detail.
There are several key points to note in the definition given above, many of which have a counterpart in EIA:

- HIA draws on many different techniques and sources of evidence;
- HIA looks at the potential effects of a development i.e. it tends to be carried out while the development is at the design or draft stage;
- HIA identifies the potential for positive and negative effects;
- HIA is concerned with the distribution of effects within a population as different groups are likely to be affected in different ways, and therefore looks at how health and other social inequalities might be exacerbated by the proposed project, service, programme, policy or development.

In order to examine the ways in which the proposed project, service, programme, policy or development may be expected to affect the health of particular populations it is important to have a clear understanding of:

- the context within which the development is proposed, and
- the aims and objectives of the development.

HIA tends to draw on knowledge and information which already exists about a proposed development and the communities that are likely to be affected i.e. it tends not to undertake specific new research on health impacts during the assessment.

As with other forms of impact assessment, including EIA, HIA identifies the potential for unintended side-effects and suggests ways to avoid negative impacts. It is important to appraise a development and examine the ways in which it might affect people’s health and also to consider mitigation and enhancement measures. Mitigation measures help to reduce the negative health effects and enhancement measures aim to increase the positive health effects of a given development.

HIA also contributes to the putting together of a monitoring and evaluation strategy for a proposed development. This can ensure that the negative health effects are indeed reduced and the positive effects increased for any given project, service, programme, policy or development. It can also enable stakeholders to develop their own milestones and indicators for evaluating the health positives and negatives of an development once it is in operation (Cave, Curtis et al, 2001).
2.2 Why do it

HIA is undertaken because it can help to deliver better and improved policies, plans, programmes, projects, developments and services (developments). The approach can be used:

- as a health risk appraisal tool that can help predict the potential negative and positive health consequences of developments; and
- as a project management tool that can help to structure the development and implementation of a development by bringing key stakeholders together; and
- as an evaluation tool to monitor the achievement of stated objectives, outputs and outcomes of a development.

2.3 What it doesn’t do

At the moment it does not give numerical estimates of the negative and positive health impacts. There is no approach at present that allows us to do this accurately.

This is because:

- many of the effects on an individual’s or community’s health are not easily measurable,
- many health effects are indirect and take many years to manifest themselves,
- the methodology to collect quantifiable health impact evidence and make judgements based upon it is currently not well developed, and finally
- there is argument about the tendency for quantifiable estimates developed for HIAs to give a false sense of reassurance and precision on what are a range of complex interactions between a range of social, cultural, economic, political, environmental and personal determinants of health.

2.4 How is it done

In 2000 Erica Ison wrote a Resource for HIA (Ison, 2000) and she identified six models or approaches to doing HIAs. These are:

Merseyside  British Columbia  
Kirklees Metropolitan Council  Swedish County Council  
Bielefeld  East London

They are named after the areas and countries where they were first developed and used.

They are different in that some provide a broad, quick and simple way of thinking through health impacts while others have structured and precise steps by which health impacts are identified and assessed in detail.
They are similar in that they have five core procedural steps (see our HIA Planning, Appraising and Reporting Toolkit for more details):

Screening:
In this step policies, plans, programmes, projects, developments and services (developments) are systematically assessed to see whether a HIA needs to be done on them. A quick assessment is made on their potential to impact on a community’s health. A HIA may not need to be done either because the development has very little impact on health or the health impacts are well known and the mechanisms to reduce them are already in place. Screening helps ensure that time, effort and resources are targeted appropriately. The type of HIA that needs to be undertaken is also determined at this stage.

Scoping:
In this step the ‘terms of reference’ for the HIA are set i.e. what aspects will be considered, what areas and groups might need particular focus, what will be excluded from the HIA and how the HIA process will be managed.

Appraisal:
In this step a systematic review of the potential impacts is undertaken and evidence for these impacts collected. An assessment of the likely impacts, the size and significance of the effects and the groups that are likely to be most affected is carried out and described in detail.

Monitoring & Evaluation:
In this step ways of monitoring the potential health losses (effects of the negative impacts) and health gains (effects of the positive impacts) as well as mechanisms to evaluate the development as a whole are developed. The HIA is also evaluated to assess the accuracy and appropriateness of the health predictions and recommendations made.

Recommendations:
In this step a report, called a health impact statement, is written and recommendations made on the best way forward including options to reduce the potential negative health impacts (mitigation measures) and increase the potential positive impacts (enhancement measures).

2.5 When is it done
HIAs can be done on policies, plans, programmes, projects, developments and services.

They can be done at the:

- **beginning** during the development or pre-development stage.
- **middle** during the implementation stage.
- **end** at the operation or closure stage to look back and evaluate.
In HIA terminology:

**Prospective HIA** mean the impact assessment starts as early as possible at the design or draft stage of a development and recommendations are made on how to maximise the positive and minimise the negative impacts of the design or draft.

**Concurrent HIA** means the impact assessment starts when the development is underway and makes recommendations to the planning and delivery team about how the implementation and operation phase can be modified to reduce the negative and enhance the positive health effects.

**Retrospective HIA** means the impact assessment is carried out when the intervention is complete. It is too late for this development to be changed but lessons can be learnt about how other similar developments should be designed and implemented.

Some researchers and practitioners suggest that concurrent impact assessment is really monitoring, retrospective impact assessment is closer to evaluation and that the only true kind of health impact assessment is prospective (Morgan, 2001).

You can also do quick and broad-brush ones and longer and more detailed ones. In HIA terminology you can do a **rapid**, **intermediate** or **comprehensive** HIA.

**The most important thing to do is to choose a model and approach that makes sense to you and get going.**

**Key questions to consider when planning a health impact assessment are:**

- does the impact assessment look at the intended outcomes or unanticipated effects of the development?
- how can or should the public be part of or involved in the process?
- do other people, groups and organisations agree or disagree about the nature and significance of the health impacts?

There is a lot of activity in health impact assessment around the world including in Canada, Australia, New Zealand, Netherlands, Germany, Thailand, and the USA.
3. Environmental Impact Assessment

"The environment is everything which isn’t me."

Albert Einstein

3.1 What is it

EIA is the longest established form of impact assessment, having been carried out around the world for the last 25-30 years and being part of the regulatory systems of Europe, North America and Australia. There is gathering momentum to see public concerns and adequate community participation being integrated within the process framework. In the UK 2,500 EIAs have taken place over the last ten years and this trend is set to increase. National policies set the context within which local planning authorities approve projects. Though the public and EIAs, via the environmental statement report, are formally involved at the planning permission stage there is no formal legislated mechanism by which communities are proactively integrated into either the project-level EIA process or more strategic environmental assessment (SEA) policy levels (Wathern 1995; Harrop and Nixon 1999). The simplest definition of EIA is that it is “an assessment of the impact of a planned activity on the environment” United Nations Economic Commission for Europe (1991)

3.2 Why do it

EIA is undertaken because it is a statutory requirement or because the planning authority has specifically asked for one. Its aim like HIA is to help to deliver better and improved developments. Its main use is as an appraisal tool that can help forecast the potential negative and positive environmental consequences of developments.

3.3 What it doesn’t do

The deficiencies of EIAs are that they

- are weak in identifying and evaluating health and social impacts;
- have little recognition of the contributions that understanding community perceptions of risk and of involving local communities could have on the EIA process;
- have poor involvement of the public and other interest groups before the submission of the environmental statement;
- generate an increasingly combative planning process with developers, planners, communities and NGO groups tending to be at odds with each other;
- do not adequately address the alternatives to a proposed development;
- lack a strategic dimension with many EIAs not taking into account the combined or cumulative effect of other similar developments in a locality or region.
fail to address a development's impact on global climate, have little focus on the development's long term sustainability and make little attempt to deal with issues of equity in the distribution of risk burdens within affected communities.

(Radcliffe and Edward-Jones 1995; Wathern 1995; WHO Healthy Cities Project 1997)

3.4 How is it done
HIAs have been based on EIAs and hence the EIA and HIA process are similar. EIAs also have the five core steps of:

1. Screening
2. Scoping
3. Appraisal
4. Preparation of the environmental statement
5. Submission and consultation on environmental statement, plus
6. Recommendations incorporated into development design

(Harrop and Nixon 1999, BMA 1998)

EIA is tends to use a largely quantitative approach with models and estimates of the likely impact on key environmental factors in a number of specific categories. These categories are:

- Policy context
- Socio-economic
- Traffic and access
- Noise and vibration
- Air quality
- Landscape and visual effects
- Contamination and ground conditions
- Hydrology and water resources
- Wind
- Sunshine and daylight
- Archaeology and built heritage
- Waste and waste management
- Ecology

3.5 When is it done
The majority of EIAs are done at the planning permission stage when the developer approaches the planning authority to gain outline planning consent for the development. Further more detailed EIAs are undertaken when the detailed design proposals are presented to the planning authority.
4. Integrating Health into Environmental Impact Assessment

“The whole is greater than the sum of the parts.”

Anon

4.1 What it is

There are three broad approaches to integrating HIAs into EIAs. The first is to undertake an EIA and HIA concurrently or consecutively and have separate impact statements from two separate sets of consultants. The second is to have a combined team of two sets of consultants with both teams feeding into and commenting on both the EIA and HIA aspects to create an integrated environmental and health impact statement. The third is to have a single set of consultants who have both EIA and HIA skills to produce an integrated environmental and health impact statement.

There is value in each approach and sometimes a planning authority or health agency may ask for an independent HIA that is separate from the EIA for its own use. However, the second and third approaches provide the best opportunities for influencing members and local communities and the greatest scope for modifying the proposals to enhance environmental and health benefits whilst reducing environmental and health disbenefits.

There are an increasing number of local authorities and primary care trusts who are asking for a separate HIA or an integrated EIA and HIA (usually with an environmental consultancy teaming up with a health consultancy to produce a joint proposal).

4.2 Why do it

Integrating HIA into EIA balances out the weaknesses of each approach to create a more robust assessment of the environmental and health impacts of a proposed development on a locality and its residents. EIA uses a narrower biomedical definition of health and only uses physical death and injury as the cut off between what is positive and negative health impacts. HIA on the other hand uses a broader social definition of health that includes perceived wellbeing and the psychosocial mental health impacts as well as physical death and injury impacts.

The EIA’s structure and orientation towards quantitative analysis is balanced by the HIA’s less structured, more flexible and qualitative approach.
A further strength of HIA is that it is more likely to ensure that residents feel that their concerns have been listened to and adequately addressed using an approach that is sensitive to their perspectives and experiences.

4.3 What it doesn’t do

It won’t guarantee that all the potential impacts of the proposed development are identified or that there will be no disagreement between stakeholders however it will identify the most important and significant environmental and health impacts and reduce the conflict and misunderstandings between stakeholders.

4.4 How is it done

The approach is simple. Directors of Planning and Public Health must ask developers to undertake an integrated environmental and health impact assessment (iEHIA) or a separate HIA and EIA and both should be involved in the scoping of the key environmental and health aspects that the developer and their consultants should investigate.

The process for EIAs and HIAs is broadly similar and increasingly both EIA and HIA practitioners are learning about each other’s approaches and their value in the planning process so that they can work with each other.

It will be up to the consultant team to ensure that differences of judgement are worked through so that the whole team signs up to the implications of the environmental and health impacts identified.

Finally, in comparison to the cost of all commercial developments the costs of an integrated environmental and health impact assessment are small. Even when compared to the cost of an EIA alone the benefits and value of doing a HIA as well outweigh the increased cost for the developer.

The key steps for doing a iEHIA are:

1. Ask the developer to undertake an integrated environmental and health impact assessment.
2. Develop the tender specification jointly with the developer – the structure and contents of an EIA are well established and HIA can work within the same process framework.
3. Think through what kind of consultation you want the integrated environmental and health impact assessment team to undertake.
4. Will you want the team to make recommendations or simply state the positives and negatives and outline a range of options for mitigation and enhancement.
5. Are there any specific environmental and health concerns that have already been identified that you want the team to cover.
6. Ideally, there should be an integrated environmental and health impact assessment steering group to oversee and advise on the integrated environmental and health impact assessment so that key stakeholders are on-board and the final report has wide credibility and legitimacy.
4. Integrating HIA into EIA

7. Take references from previous clients to assess the quality of the team’s work and look at previous impact assessments that they have done. The key question to get an answer to is did the consultant do what was asked to a sufficiently high quality and do you like the work that they produced.

4.5 When is it done

Like EIAs integrated environmental and health impact assessments are done at the planning permission stage.

4.5 What do the chapters of a iEHIA look like

The overall chapter framework is similar and in line with the legal requirements for an environmental impact assessment report-statement.

An iEHIA differs from an EIA in that there is: a specific chapter on health, health inequalities and the methodology used to assess health impacts; each chapter has a specific health impacts section dealing with the positive and negative health effects of the development; each chapter has specific recommendations to mitigate (reduce) the negative health effects and enhance (increase) the positive health effects of the development; and the health impacts section of each chapter link to a more detailed health impact appraisal matrix provided in the appendix section.

The list below shows the similarities and differences in content between an EIA (contents shown in green) and the additional elements included in iEHIA (additional content shown in purple):

- Policy context + health policy context
- Socio-economic + health status of local population
- Health, inequalities and HIA methodology
- Traffic and access + health effects of traffic and access
- Noise and vibration + health effects of noise and vibration
- Air quality + health effects of air quality
- Landscape and visual effects + health effects of landscape and visual effects
- Contamination and ground conditions + health effects of contamination and ground conditions
- Hydrology and water resources + health effects of hydrology and water resources
- Wind + health effects of wind
- Sunshine and daylight + health effects of sunshine and daylight
- Archaeology and built heritage + health effects of archaeology
- Waste and waste management + health effects of waste and waste management
- Ecology + health effects of ecology
Case Study 1 – Development Options Assessment, Westbourne Green Triangle, London

In 2002-03 Westminster City Council commissioned an integrated environmental and health impact assessment from external consultants Arup and BCA. Arup undertook the environmental impact assessment aspects and BCA undertook the health impact assessment aspects. The integrated environmental and health impact assessment examined two development options when compared to a do-nothing option for a piece of land owned by the Council which currently had a set of council offices on it as well as some leisure facilities that were used by a range of young people aged 11-21 years. The two development options considered by the integrated environmental and health impact assessment team were the building of a new larger set of council offices with parking facilities for waste disposal lorries and the building of a new city academy school.

Residents of the area had considerable anger and mistrust towards the Council and were strongly opposed to any development being undertaken on the site. They felt that the Council had neglected them and needed to address the concerns they had about their homes before the Council considered a new development in the area. They had also had bad experiences of previous construction in the area which had disregarded noise and work-time limits that had disrupted resident’s lives and their quality of life.

The HIA team undertook consultation with local residents, visited them in their own homes and incorporated their comments into the health sections of the final report.

The consultant team initially thought of providing a stand-alone separate EIA and HIA report. They then considered a stand-alone health chapter. In the end the team agreed that each chapter should have a health section and health perspective incorporated into it.

The final report was well received by both the Council and residents. Residents disagreed with the consultant team’s conclusions but felt that they had been listened to, that the process had been transparent and that the reasoning used to arrive at the conclusions was legitimate. The integrated environmental and health impact assessment also served to bring the Council and local residents closer together and reduced residents’ sense of neglect and isolation from the Council by providing a means of addressing in a small way the power-inequality gap felt by local residents about their ability to influence their locality.
Case Study 2 — Housing Development, Shotley Peninsula, Suffolk

In 2004, Central Suffolk Primary Care Trust with the knowledge of the local planning authority asked a developer to undertake a health impact assessment of a proposed housing development. The local authority had already asked the developer to undertake an environmental impact assessment and put together a sustainability appraisal statement.

However these did not address the specific health concerns of local residents on the Peninsula or examine the impact on health services of a 30-50% increase in the number of residents on the Peninsula.

The HIA team only undertook consultations with local health providers because of time constraints and the availability of existing written responses from local residents about the proposed development.

The final HIA statement examined the implications for local health services, the key options and their strengths and weaknesses as well as the incorporation of local perspectives and knowledge about the health impacts of the proposed development.

Residents were particularly concerned about the traffic implications of the additional families coming to live on the Peninsula when considering that there was only one main road off the Peninsula with no possibility of upgrading or widening it.

The HIA confirmed the majority of conclusions provided by the EIA and Sustainability Appraisal with regards to traffic and the need to mitigate the potential impacts through road calming and pedestrian safety measures.

The planning process is still ongoing but the feedback from the commissioners has been that the HIA provided additional value and insights in making the decision on this development.
5. Dealing with Uncertainty: insufficient and contradictory evidence

"When one admits that nothing is certain one must, I think, also add that some things are more nearly certain than others."

Bertrand Russell

5.1 Dealing with lack of evidence and uncertainty of impacts

The key thing to remember is that evidence should be evaluated systematically and the criteria used for its evaluation be explicitly stated i.e. clear reasons should be given as to why some types of evidence have been included and others excluded. There are a number of ways that quantitative and qualitative evidence can be evaluated. These are discussed in this chapter, which shows how quantitative and qualitative perspectives use broadly similar criteria to evaluate and assess the quality of evidence. However it is worth noting that these criteria are quite difficult to apply and use with the range of evidence available to health and environmental impact assessment.

Being systematic and thorough in gathering evidence is crucial but there are still many areas where we have little, weak or no evidence for environmental and health impacts and the mechanisms by which these impacts occur.

In these situations the question arises as to how to decide and make recommendations when there is little reliable and robust evidence on the actual and potential health impacts of policies, plans, programmes, projects, developments and services (developments).

The answer is to use both professional and lay experiential knowledges to help us to contextualise the evidence from research studies, routine data sources and elsewhere. The views, perspectives and experiences of local professionals and local residents can be used as another source of evidence as suggested at the end of Chapter 4.

The next two sections of this chapter show the value of integrating professional and lay experiential knowledges in helping to create better developments as well as a philosophical perspective that provides a robust and scientific approach to systematically incorporating lay evidence alongside other types of quantitative and qualitative evidence.
5.2 Value of experiential knowledge

The experiential knowledge of lay people can be both important and valuable in assessing the potential health effects of developments. The two case studies below demonstrate the value and validity of the experiential knowledge of lay publics.

Herbicide 2,4,5-T controversy in the UK

The scientific Pesticides Advisory Committee in its recommendations on the potential negative health effects of herbicide use implicitly used an idealised model of the ‘social’ world where the toxicology lab and its controls were taken to be a direct and accurate reflection of real world conditions of pesticide usage. Furthermore, the Committee assumed that conditions of manufacture and transport would be consistent with its social model where there were no accidents, errors in manufacturing or mistakes in correct usage.

Hence, they dismissed labour union arguments that the herbicide caused health problems because in practice farmers and farm workers, because of the inconvenience of protective equipment and clothing, did not to follow the usage instructions. So while farm and forestry workers did not have detailed scientific knowledge about pesticides they had empirical experiential knowledge of pesticides, their use and the side-effects of use. In the end, after much debate, the Committee qualified their recommendations with the words “…pure 2,4,5-T offers no hazards to users nor to the general public…provided that the product is used as directed” (Wynne, 1989: 285. Italics in original).

Chernobyl radiation and sheep farmers in the UK

When the UK government realised that radiation from Chernobyl was falling on grazing land in Wales, scientists were dispatched to analyse the impact of this on the grass, the sheep eating this grass and the potential human health implications of eating meat from these sheep.

Government scientists using general models of radiation uptake by plants and animals assumed that the radiation would decay and disperse in a matter of weeks. However, farmers who observed the work of these scientists were sceptical because they felt that the scientists were not taking into account local and contextual information about the type of soil, vegetation and climate. The farmers raised these concerns but the scientists dismissed them as irrelevant assuming that they had the more reliable knowledge. It was only when the radiation did not decay and disperse but seemed to be concentrating that the scientists became more open-minded and followed up the issues raised by the farmers.

In both the above examples, each group felt that they had the better knowledge but only from a perspective outside of both sets of groups can it be seen that each perspective was partial and had usefulness within a certain domain where it had been tried and tested. It would have been of great value if both sets of knowledges had been integrated from the beginning. This integration would have occurred sooner if both sides had been willing to understand the rationality and legitimacy of each other’s perspectives and worldviews (Wynne, 1996).
5.3 Post-normal science

The post-normal science perspective (paradigm) argues that there are three levels of uncertainty: technical, methodological and epistemological, see Figure 6.1.

Technical uncertainty is about inexactness and can be managed through the use of statistics and normal science.

Methodological uncertainty is about unreliability and occurs in more complex situations such as those found in medicine, engineering and professional consultancy where expert judgement is used to overcome the uncertainty.

Epistemological uncertainty is about a ‘true’ lack of knowledge where we are ignorant of our ignorance (Funtowicz and Ravetz, 1992).

Figure 6.1 Diagram of the three levels of uncertainty as described by Funtowicz and Ravetz

This approach argues that for complex societal issues there is a need for an ‘extended peer community’ made up of all the affected and interested stakeholders – whether they have scientific qualifications or not – who assess and examine the issues as well as develop a range of ‘extended evidence’ that includes anecdotal and experiential knowledge as well as scientific evidence to make a societally, culturally and scientifically acceptable decision.
In HIA (and we would argue in any other impact assessment) what is important is to be explicit about whose perspective and views are being used, whose views have not been collected or excluded and how this relates to the individuals and groups who are likely to be affected by any actual or proposed policy, plan, programme, project, development or service.
6. Stakeholder Involvement

“Consult: to seek the opinion or advice of another; to take counsel; to deliberate together; to confer.”

die.net

“Consult: to seek approval for a course of action already decided upon!”

Ambrose Bierce

6.1 Why stakeholder involvement?

Firstly, involving stakeholders is a crucial part of a health impact assessment and its ethos of equity, democracy, accountability and sustainability. Secondly, as discussed in Chapter 5, only by talking to the individuals and groups who are or are likely to be affected by a development will we get a rounded picture of the actual and potential impacts on health and wellbeing. Thirdly, actively listening to and involving the people who are likely to be affected by a development is much more likely to generate acceptance and support for a development and reduce actual and potential conflict, distrust and anger.

There are five key reasons why we would want to get stakeholders involved in a HIA:

- to elicit the likes and dislikes of local people and others about a development;
- residents both existing and new will face the direct positive and negative health consequences of the development;
- residents and other stakeholders have valuable experiential knowledge that they have built up over the years about the locality in which they live and work and the impacts of past developments;
- not adequately and appropriately addressing resident’s concerns can and does lead to residents experiencing social and psychological distress; and
- allowing residents and others to have a voice and influence in community processes and thereby reducing the sense of social exclusion, democratic deficit and inequity.

Central to the development of any stakeholder involvement and participation strategy – including that within an EIA, HIA or iEHIA - is the need to be clear about why stakeholder involvement is being sought and how these stakeholders’ views and perspectives will be incorporated into any resulting assessment report, policy, plan, programme, project, development or service.

6.2 Levels of stakeholder involvement

Sherry Arnstein’s ‘Ladder of Participation’ (Arnstein, 1969) is an internationally influential framework for understanding and classifying approaches to public participation. At the bottom of her scale, participation is simply non- or contrived participation where the aim is to appear to be involving and consulting a wide range of stakeholders. At the other end is citizen power-sharing where communities and residents have varying degrees of control and influence throughout the whole process of developing a policy, plan, programme,
project, development or service. In-between there is tokenistic power-sharing where participation is at best simply informing local people about a course of action or listening to them without making an explicit commitment to use their views and at worst an attempt to keep residents quiet.

**Figure 6.1 Diagram of Sherry Arnstein’s ‘Ladder of Participation’**

Greater and more genuine stakeholder involvement

**Degrees of citizen power-sharing**
- Citizen Control
- Delegated Power
- Partnership

**Degrees of tokenistic power-sharing**
- Placation
- Consultation
- Informing

**Non-participation (contrived participation)**
- Therapy
- Manipulation

It is therefore critical to work out and be explicit with stakeholders and the community about the level at which you are involving them so that there is no misunderstanding about the level of influence and power-sharing that will be taking place. There are times when involvement is about informing or listening to other people’s views whilst being explicit about being unable to make a commitment to incorporate those views and other times when there is a two-way partnership and considerable power-sharing and influence being given to the views, perspectives and judgements of all those being involved in the HIA or development.

**6.3 Approaches to stakeholder involvement**

There are a range of methods of involving stakeholders including:

1. **Public/community meetings**
   These tend to be the easiest to set up but the hardest to manage. Public meetings involve organising a venue and meeting time that is accessible and convenient for all relevant stakeholders. Having a meeting agenda agreed to by key stakeholders beforehand along with allocated times for speakers and a Chair who will be firm with hecklers is crucial to running a good public meeting.
2. **Street interviews**
   These are informal interviews conducted in busy areas such as community centres, social clubs, shopping centres and other venues where key stakeholders may be found. They tend to be held standing up and follow a structured approach using a standard set of questions.

3. **Survey questionnaires**
   These tend to be sent out by post with a couple of reminders for people who do not return the questionnaire by a set time. Questionnaires sent out to named individuals tend to have a higher response rate than those that are mailed to a general person such as ‘The Occupier’. Even named questionnaires tend to have a low response rate. A response rate of over 10% for unnamed and 30% for named questionnaires is considered very good.

4. **Focus groups**
   This is where key stakeholders are brought together in small groups usually between six and twelve people to discuss an issue or concern in depth. They require considerable preparation and a facilitator and note-taker.

5. **Key informant interviews**
   These are one-to-one interviews with key professionals and community representatives, e.g. community centre coordinator, Chair of a local residents’ association, and usually last an hour with a single interviewer tape-recording the interview and then typing it up later.

6. **Community involvement/consultation groups**
   These are more long term ‘focus groups’ where key stakeholders are asked to form a consultation group that will feed in its views during the design, implementation and operation of an development usually over a period of months and years.

7. **Citizen panels/juries**
   These are similar to consultation groups but tend to be formed around specific national or local themes of concern e.g. genetically modified crops, human embryo research, etc. and involve a representative sample of people from an area, region or society to enable a representative view to be gained.

The best approach is to use a range of methods and then see which ones work and follow these up. This is because what works in one community today may not work in other communities or in the same community a few years later.
7. Commissioning and Scrutinising an Integrated Environmental and Health Impact Assessment

“Consultant: a specialist who gives expert advice or information.” Collins English Dictionary

“Consultant: someone who borrows your watch, tells you the time and then charges you for the privilege.” The Times

7.1 Commissioning

Environmental and health impact assessments (EIAs and HIAs) are commissioned for a range of different reasons and this tends to lead to different ways in which they are taken forward.

An integrated environmental and health impact assessment can be commissioned because:

- it is part of a legal duty,
- it is seen as good practice,
- it is seen as a way of providing information to help with designing and developing a policy, plan, programme, project, development or service (development),
- it is a way of bringing key stakeholders together to discuss a development,
- it is seen to help build trust among other stakeholders, especially communities, by showing that their concerns are being taken seriously,
- it is seen as providing credible evidence in legal settings, for example, planning enquiries and other judicial hearings,
- a mixture of the above.

It is important to be clear and explicit about why an EIA, HIA or integrated environmental and health impact assessment (iEHIA) are being commissioned so that external consultants have a clear understanding of what they are required to do. It will also help later when the report and its recommendations are being judged by others to see how well these objectives have been met.

The key questions to ask in framing any proposed impact assessment include:

- What is the purpose of the impact assessment?
- How will the findings be used – will they guide design, assist implementation, reduce negative effects and/or improve the positive health effects of a development?

Setting up an iEHIA steering or working group that either advises on or project manages the iEHIA can be a useful way to ensure that all stakeholders understand and are clear about the scope and limits of the iEHIA. Creating a group like this with all the key stakeholders represented ensures that the findings and recommendations of both the HIA and the EIA are credible and used to inform the design and
implementation of the development being assessed. However, steering groups need a lot of time and resources to set up and maintain and so are difficult to do well when time is short and resources lacking.

For external consultant-practitioners, references from previous clients are very useful in assessing the quality of their work but the best way is to review actual copies of previous HIA statements that they have produced as this will provide a more detailed insight into whether their approach meets your needs and expectations.

As for costs, a good rule of thumb is that, a rapid HIA is likely to cost between £5-10,000, an intermediate HIA requiring a community consultation between £15-20,000 and a comprehensive HIA with a wide stakeholder consultation between £20-30,000.

Clear lines of supervision and communication between external consultants are vital. A clear integrated environmental and health impact assessment workplan and timetable can ensure that both the HIA and EIA components run to deadline and within budget.

Getting other colleagues or another HIA practitioner to critically review the final iEHIA statement can throw up errors of fact, especially about local context issues, as well as identify where judgements might be seen as unjustified because they are based on weak, controversial or little evidence.

Finally, a good understanding of the strengths and limitations of EIAs and HIAs will ensure that commissioners are realistic about what they can deliver and achieve and what they cannot.

### 7.2 Scrutinising

The issues considered in commissioning an iEHIA are also pertinent for scrutinising and evaluating an integrated environmental and health impact assessment statement.

Key questions to ask are:

- **What is the scope of the iEHIA and the definitions of environment and health used?**
- **Was the methodology used appropriate, explicit and logical?**
- **What evidence and sources of evidence were included and excluded and was the justification given explicit, reasonable and appropriate?**
- **Was there any stakeholder involvement, if so were a range of stakeholders consulted and was the justification for having or not having stakeholder involvement explicit, reasonable and appropriate?**
- **Was the appraisal of impacts systematic and the reasons for judging the significance and extent of the positive and negative health effects explicit, appropriate and justified?**
- **Do the recommendations, including mitigation and enhancement measures, follow on from the key issues emerging from the appraisal?**
- **Is the report as a whole clear, coherent and understandable?**
- **Does the iEHIA statement achieve the integrated environmental and health impact assessment's aims and objectives?**
8. The Wider Context: political, economic and social factors

“Life’s what happens to you when your busy making other plans.”
John Lennon

9.1 Why the wider context?
Integrated environmental and health impact assessments (iEHIA) and statements are not developed in a vacuum. All iEHIAs are set within particular social, cultural and political contexts. There are social, political, economic and historical factors that can play a big part in whether a health impact assessment gets commissioned and implemented and, in turn, whether a development lead to improvements in the environment and health of local communities.

There are five important factors that can influence how, and to what extent, the findings of an iEHIA statement influence a given development. These are: influential stakeholders, the complexity of the proposed development, the diversity of stakeholders involved, the degree of clarity about what the development is aiming to achieve and the wider socio-cultural and political environment. These are considered in a little more detail below.

9.2 Influential stakeholders
Professional groups, politicians and businesses are powerful and organised stakeholders who can and do have an important influence on whether developments go ahead. It is therefore vital for these groups to be involved in the integrated environmental and health impact assessment process so that there is consensus and support for the recommendations that arise from an integrated environmental and health impact assessment statement.

One of the main methods for identifying key stakeholders is stakeholder analysis or mapping. This involves the creation of a grid (see Figure 9.1) where stakeholders are placed by a researcher, policy analyst, HIA practitioner or local stakeholder in relation to the power they are judged to have in influencing a development and the importance that the development has for that stakeholder group.

In the example below, seven local residents were asked which stakeholders they thought had the most power and influence (measured on the horizontal axis) and how important it was to each of these stakeholders (measured on the vertical axis). Residents felt that though the development was equally important to them, the developer and the local council they were much less influential. In contrast, the stakeholder map created by professional stakeholders from the council and the developer (not shown)
showed that they thought that residents had an equal if not greater influence on the planning and implementation of the local development.

Figure 9.1: Stakeholder mapping by local residents for a local development
(figures in brackets give the number of residents who placed the stakeholder in that category – 7 residents undertook this exercise)

A. HIGH importance / LOW influence
- Residents (7)
- Residents’ Association (7)
- Local Shops & Businesses (7)
- SCA (6)
- FoE/ Greenpeace (4)
- Environmental Health Dept (3)

B. HIGH importance / HIGH influence
- Developer (6)
- Planning Dept (5)
- EIA Consultants (paid by council) (5)
- Councillors (4)
- NLWA (4)
- PH Dept (3)
- EIA Consultants (paid by developer) (3)

C. LOW importance / LOW influence
- School of Community Health (2)

D. LOW importance/ HIGH influence
- Local newspaper (4)
- GLA (3)
- Judiciary (3)

9.4 Diversity of stakeholders that need to be involved
Involving a range of stakeholders is important but it also needs to be recognised that there will be a range and diversity of views within a stakeholder group, e.g. amongst health professionals as well as between health professionals and local residents. This diversity itself will create differing expectations, perspectives, desires, priorities and so on which can lead to conflict and opposition. This is one of the reasons why these stakeholders and their views need to be incorporated into any development (including the integrated environmental and health impact assessment itself) so that as many voices as possible are included in the assessment, design and implementation process.

9.3 Complexity of proposed development
The more radical and complex the design and implementation of a development the more difficult and more easily disrupted it is likely to be. Here again, support by as many stakeholders as possible as well as a phased and monitored approach to design and implementation are crucial.
9.5 Lack of clarity about the development

Lack of a clear vision and rationale for the proposed development can be a significant stumbling block to achieving real and lasting improvements. It is therefore better to have a small number of clear and achievable objectives and a realistic vision than unrealistic, vague and over-ambitious objectives.

9.6 Changing social, cultural, political, and economic environment

New social, cultural, political and economic issues in the wider society and local community need to be incorporated into the assessment process. This is one of the strengths of the HIA in contrast to the EIA approach in that it provides a considerable degree of flexibility and adaptability to changing needs and circumstances.

These wider contextual factors include recessions, local and national elections, changes in local employment, demographic changes e.g. new communities entering the area, or cultural ideas endorsed by celebrities who can influence community lifestyles and life choices. All of these are difficult to capture at a single point in time.
9. Conclusion

“The journey of a thousand miles begins with a single step”
Chinese proverb

This reader has explored a number of key aspects of health impact assessment in relation to environmental impact assessment including what it is, why it’s done, how it’s done, when it’s used and how it should be commissioned.

Health impact assessment is a flexible methodology for understanding the varying health impacts both positive and negative, that policies, plans, programmes, projects, developments and services (developments) can have on the individuals and communities that they are targeted at as well as on those that are not the specific targets of the development in question.

Health impact assessment is a relatively new approach that is still evolving and there are different ways of doing it depending on the particular development, the local context, the perspective of the assessor and the time and resources available. HIA’s roots are in EIA and therefore it follows a broadly similar framework and process to EIA and its practitioners can and are able to work with each other to create an integrated environmental and health impact assessment statement.

Integrating HIA into the EIA process helps to ensure that positive and negative environmental and health impacts are identified and that mitigation and enhancement measures are developed and implemented.

Directors of Planning and Public Health must ask developers to undertake an IEHIA or a separate HIA and EIA and ensure that the findings are incorporated into a development so that it provides the greatest benefits and the fewest costs to the local environment and to local communities. In comparison to the total costs of a development the costs of an integrated environmental and health impact assessment or an EIA and HIA are small.

Properly integrating EIA and HIA is about more than simply carrying out an EIA and HIA at the same time as there are important issues that need to be thought through to create a wholly integrated environmental and health impact assessment. We hope this manual has given you enough knowledge and understanding to enable you to undertake and commission your own integrated environmental and health impact assessments. We hope that we have given you the springboard to start your own integrated environmental and health impact assessment adventure and journey…

Good luck and bon voyage!


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References

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About the Author

Salim’s background is in Medicine, Environmental Epidemiology, Public Health Policy and Community Development. He has a degree in Medicine (MBChB) from the University of Leicester, a Master of Science (MSc) in Environmental Epidemiology and a Doctor of Philosophy (PhD) in Public Health and Policy from the London School of Hygiene & Tropical Medicine (University of London).

He has taught at the London School of Hygiene & Tropical Medicine on environmental health, statistics and epidemiology.

He has broad experience of environmental and public health consultancy and has expertise in public perceptions of environmental and health risks and impact assessments including their development and application in a range of organisations.

He has also worked in the voluntary sector leading, managing and fundraising for a range of community centres delivering a variety of community-based services including advice and guidance, training and education, social welfare and cultural diversity and enhancement in socially-excluded and deprived areas of Lancashire and London.

He is, and has been for the last six years, a non-executive director of the West Middlesex University Hospital where he has chaired the clinical governance committee, is lead trustee for an innovative west London cancer information and support centre ‘The Mulberry Centre’ and a member of the human resources and remuneration committee and the clinical effectiveness and standards committee. He has been a member and Chair of the NHS Hounslow District Research Ethics Committee and Co-chaired the successful merger of the Hounslow District and Hillingdon Research Ethics Committee.

Salim is a Fellow of the Royal Institute of Public Health and a member of the International Association of Impact Assessment, the Society for Risk Analysis and the European Association for the Study of Science and Technology.

About Living Knowledge

We are an environmental and public health consultancy working at the interface between risk, health and the environment.

We use a public and community-centred approach that emphasises the need to enhance and develop meaningful, sustainable and trusting relationships between communities, voluntary organisations, public institutions and private businesses.

Our approach blends qualitative and quantitative methods to create risk, health and environmental communication and management solutions that help build long-term, fruitful and beneficial partnerships between individuals, communities and organisations.

We provide consultancy, training and research services on risk, health and environmental issues from the siting of mobile phone transmitter masts and waste disposal facilities to public concerns over the triple MMR vaccine and genetically modified crops.

We have worked on health impact assessments for Suffolk PCT, London Development Agency, Tower Hamlets PCT, Bedford Borough Council and Westminster City Council.

We have contributed to the development of models on integrated impact assessment (London Health Commission), on integrating health and equalities impact assessment (Greenwich Borough Council), a short HIA tool for Newport Council to aid the development of their Health & Social Care Strategy and the Seahorse IA Planning, Appraising and Reporting Toolkit.

We have also developed and delivered 1 and 2 day HIA training programmes for Tower Hamlets PCT, Newport Council, the Isle of Wight Children’s Fund and Kingston PCT.
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