

DEPARTMENT OF HEALTH

Cost Benefit Analysis of Health Impact Assessment

Final Report

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Executive Summary

1. INTRODUCTION

The application of Health Impact Assessment (HIA) has grown significantly over the last decade with an increasing amount of healthcare resources being allocated to the activity. Faced with increasing demand for health care services, healthcare systems must ensure that resources are allocated to achieve the maximum health benefits. Wanless (2002) stressed the importance of this effective use of resources for the NHS. While the application of health impact assessment (HIA) has increased, there does not seem to have been a comparison of the costs and benefits involved in this process. For this reason, the Department of Health commissioned York Health Economics Consortium to undertake a cost benefit analysis of HIA, with particular regard to:

- Best practice in policy, programme and project decision making with particular reference to local strategic partnerships (LSPs);
- Indicators about when and what areas HIA should be used to maximise its impact and effectiveness, particularly in relation to addressing health inequalities;
- Investment made in HIA compared with the outcomes achieved in the form of recommendations to decision makers that were implemented;
- Benefits of carrying out HIA compared with incorporating health into other impact assessments (e.g. SEA);
- Recommendations about how HIA can be used most efficiently and effectively at LSP level.

This report will now be subject to further consideration and the Department of Health would welcome comments from practitioners and stakeholders involved in Health Impact Assessment.

2. METHODS

Both qualitative and quantitative methods were used to assess the costs and benefits of HIA. The methods were designed to evaluate:

- The process of conducting a HIA;
- The Impact of HIA;
- The Outcomes of HIA;
- And a cost-benefit analysis of HIA.

This cost benefit analysis studied a number of HIAs as they were being undertaken. A study group of HIAs were followed prospectively. A control group was identified and followed retrospectively.

Initially, recruitment to the study was dependent on satisfaction of a number of criteria (e.g. the type and scope of HIA, geographical location, subject etc). However, it became apparent during the study that many of the HIAs identified were not progressing according to their original schedule for a number of reasons. Consequently, HIAs were primarily considered for participation in the study if the completion of the HIA and the decision-making process were within the proposed timeframe of the cost benefit analysis. Fifteen HIAs were followed during the course of the project.

End-of-stage surveys were designed to extract information on the methods used in the HIA. The direct costs incurred in conducting the HIAs were captured using timesheets which were circulated to members of the HIA team and Steering Group on a weekly basis. The time input from stakeholders was estimated on the basis of the number attending the HIA event and the duration of the event.

Benefits of HIA were identified through interviews with decision makers and stakeholders. These two groups were asked to rank the value of the benefits from HIA relative to a number of hypothetical costed alternatives.

3. KEY FINDINGS

The study was able to address the evaluation of the costs and benefits of HIA and also identify some issues relating to best practice principles and recommendations about how HIA can be further developed in the NHS. However, due to difficulties in identifying a representative sample of HIAs, it was not possible to provide detailed guidance on what areas should be prioritised for HIA (e.g. policies or projects, transport or health etc). Nor was it possible to identify the benefits of undertaking HIA as an integrated process rather than as a standalone process, due to the limited number of integrated HIAs that were included in the study sample.

The key findings of the assessment are presented below.

Cost-benefit Analysis

Of the HIAs that were completed during the course of the study, the benefits outweighed the costs, suggesting that HIA is a cost effective use of NHS resources. However, caution should be taken in interpreting this finding, as the sample of HIAs considered within the study may not be representative due to the need for a pragmatic approach to sampling to fit in with the timeframe for completing the research.

Process Evaluation

An additional important finding from this cost benefit analysis was the identification of the practical challenges and difficulties encountered by organisations in planning and undertaking an HIA. Factors within and outside the control of the HIA team may influence the progress of the assessment. For example, capacity and capability within an organisation may inhibit the ability to undertake HIA. Similarly, changes in the scope or timeframe of the proposal, programme or plan which is being examined may have consequences for the HIA. While some HIAs in our sample experienced one or several of these factors, a number of commentators identified the non-statutory status of HIA as the root cause of many of these difficulties.

There seemed to be similarities in the HIA approaches adopted by the participating studies although often these fell short of best practice guidelines. Screening was mainly used to consider whether it was appropriate to undertake an HIA on an identified subject, and whether the necessary resources (in terms of both funding and staff) were available to conduct the assessment. This is contrary to the purpose of this stage in the HIA process outlined in many published guides, which view screening as being undertaken systematically on a number of potential subjects to identify the best candidates for HIA. There was also some variability in the scoping of HIAs.

For a small number of assessments, a literature review and/or stakeholder consultation was used to inform the scope of the HIA. However, the ability to undertake such activities may be influenced by a lack of available resources or time. Assessment of impacts typically

brought together data from a review of existing evidence (usually incorporating completed HIAs) with that obtained from a participatory event. The success of this event was influenced by those attending and their previous experience of HIA, and the facilitation.

Decision makers were typically members of the HIA Steering Group, which ensured that they were engaged with, and had ownership of, the HIA process. However, this involvement of decision makers may also give rise to potential conflicts of interest.

The area of monitoring and evaluation was yet another that seemed to be influenced by a lack of available resources, staff turnover, or the low priority of HIA. However, some HIAs did recommend indicators which could be used to monitor health impacts.

Impact Evaluation

The majority of HIAs that were completed within the timeframe of the study were found to have had a positive impact and influenced the decision making process by increasing the consideration given to health impacts. However, it was difficult to attribute changes in the planned projects or plans specifically to the HIA.

Outcome Evaluation

Given the duration of this study, it was not possible to determine whether the outcomes predicted by the HIA and the mitigating steps put in place to address them, were realised in practice. Longer term studies are recommended to address this point.

Integrating Impact Assessments

Only a small number of integrated assessments were identified in the study sample. A number of the participating HIAs were undertaken in parallel with strategic environmental assessments (SEAs). Discussions with the HIA teams and commentators suggest that there is potential to strengthen the health component of SEA by developing guidance on how health should be assessed, and ensuring that those responsible for undertaking the SEA have the necessary experience of, and knowledge to assess health and its wider determinants.

Recommendations

The recommendations of this study are as follows:

Guidance and Best Practice for undertaking HIA

- Guidance should be available to Primary Care Trusts, Strategic Health Authorities and Regional Public Health Groups, and to Regional Planning Bodies and Local Planning Authorities, which indicates how and when to undertake HIA. This guidance should be accompanied by a commitment for the practice of HIA from a national (e.g. Department of Health) or regional (e.g. Public Health Observatory) level. Where appropriate, Health Impact Assessment should be built into the performance management systems of organisations operating at a local level.
- A steering group comprising all relevant stakeholders should be considered early in development to ensure that stakeholders are fully committed to the assessment and understand the implications for their organisation.
- Further consideration should be given to ensuring that the terminology associated with HIA is clearly communicated to relevant bodies. Terms such as 'rapid' and 'comprehensive' assessments were frequently quoted as being misleading and the

individual stages of HIA (e.g. screening, scoping) were not necessarily understood. Any future guidance should address this issue.

- Information should be shared across individuals and organisations undertaking health and other forms of assessment through the publication of HIA reports and the use of a central network to facilitate discussions between HIA teams.

Methods

- Practitioners of HIA should be encouraged to pay more attention to the scoping and screening stages of the assessment. These have been shown to be vital to the success of EIA and HIA practitioners should ensure that appropriate resources are allocated to these early stages of an assessment.
- HIA practitioners should routinely incorporate consideration of health inequalities into the assessment process.
- Where available, quantitative data should be used in conjunction with qualitative data to assess the impacts on health. This will help to improve the acceptability of the findings of HIA.
- Mechanisms should be in place to monitor and evaluate HIAs to determine the impact on decision-making.
- As it may not always be possible for all identified stakeholders to participate in an HIA event, the HIA team should employ alternative methods to extract views from those stakeholders who are unable to attend. For example, a report of the event may be circulated to stakeholders to comment on.

Integration with Other Forms of Impact Assessment

- Further guidance is required on how the various types of impact assessment might be integrated to provide the maximum amount of information to decision makers whilst also minimising the burden of assessment. This can be addressed through either the establishment a statutory requirement to undertake HIA alongside other forms of impact assessment or ensuring that those forms of impact assessment that are required to consider health do so in a robust manner.
- Where health is integrated into other forms of impact assessment (for example, SEA or EIA) it would be beneficial to have guidance available for practitioners who may be unfamiliar with dealing with health impacts.
- Where HIA is integrated in other forms of impact assessment, caution needs to be exercised to ensure that the health impact is not 'watered down'.
- HIA should build on evidence from other forms of impact assessment, notably environmental impact assessments, to determine the impact on the determinants of health that may be affected by a policy or programme.

Capacity and Skills

- The capacity and skills to undertake HIA at a local level need to be strengthened. The Department of Health and other relevant bodies should look to implement appropriate support systems to ensure that there is sufficient capacity to enable HIA in appropriate situations.
- Training and education should be provided to healthcare professionals as well as other relevant organisations (such as local authorities). Consideration should be given to including HIA in the curriculum for relevant professions (e.g. planners).
- Efforts must be made to ensure that capacity and skills are embedded in organisations.

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This research relied almost entirely upon the study of HIAs as they were undertaken. We are indebted to those HIA teams that agreed to participate, without which this study would not have been possible.

Thanks are also due to the large number of HIA practitioners and experts in England, Northern Ireland, Scotland and Wales who, through interviews, made a substantial contribution to the study. Additional thanks go to Prof Mike Jones Lee for thoughts on the cost benefit analysis approach.

Section 1: Introduction

1.1 INTRODUCTION

Since its inception in the 1990s, the use of health impact assessment (HIA) in the UK has grown considerably. Alongside this a number of toolkits and guidelines have been developed to assist in the application of HIA. The popularity of HIA seems to be increasing despite the fact that it does not seem to have been the subject of any formal studies of its costs and benefits. A comparison of the costs and benefits of HIA is required to investigate whether the investment, in terms of time input and resources, justify the outcomes from HIA. Such a study would be in line with the Wanless Review which called for 'the effective use of resources', which maximises health outcomes given a certain level of resources.¹

The Department of Health (DH) commissioned York Health Economics Consortium (YHEC) to undertake a cost benefit analysis of HIA. The cost benefit study was originally scheduled to be completed by the end of the 2005/6 financial year and was extended to the end of June 2006.

The objectives of this analysis were to:

- Provide an evidence base of best practice in policy, programme and project decision making with particular reference to local strategic partnerships (LSPs);²
- Identify clear indicators about when and in what areas HIA should be used to maximise its impact and effectiveness, particularly in relation to addressing health inequalities;
- Assess the investment made in HIA compared with the outcomes achieved in the form of recommendations to decision makers that were implemented;
- Identify and evaluate the benefits of carrying out HIA compared with incorporating health into other impact assessments;
- Make recommendations about how HIA can be used most efficiently and effectively at LSP level.

The methods, findings and recommendations are outlined in the remainder of this summary report. A more detailed summary of the methods and findings has been prepared in a full study report made available to the Department of Health.

The remainder of this Section provides a brief summary of HIA, other forms of impact assessment and previous evaluations of such assessments.

¹ Wanless, D. Securing Our Future Health: Taking a Long-Term View: Final Report. Chapter 6. April 2002.

² An LSP is 'a single, non-statutory, multi-agency body, which matches local authority boundaries, and aims to bring together at a local level the different parts of the public, private, community and voluntary sectors' (see www.neighbourhood.gov.uk/page.asp?id=531, date accessed: 22 March 2006).

1.2 HEALTH IMPACT ASSESSMENT: AN OVERVIEW

Health is influenced by a wide range of determinants (economic, social, environmental, lifestyle, and individual factors). This goes beyond the biomedical definition of health and embraces the World Health Organization (WHO) definition which states explicitly that health is more than a mere absence of illness or disease.³

HIA draws on this social model of health and well-being and aims to ensure that the effects on such determinants of health are considered in the formulation of policies, programmes or projects both within and outside the health sector. Formally, the following definition has cited HIA as being:

- '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'.⁴

Although there is currently no statutory requirement to undertake HIA in the UK, this form of assessment has received support from national and international government organisations. Arguably, the strongest commitment to HIA in England was outlined in the 1999 white paper 'Saving Lives: Our Healthier Nation', which resolved to 'make health impact assessment a part of the routine practice of policy-making in Government'.⁵ This endorsement has been reinforced in the recent white paper, which recommended the use of HIA by Primary Care Trusts (PCTs) and local authorities in understanding the needs of local populations.⁶ The practice of HIA has also been recommended by the Health Select Committee and the EU.⁷

While the DH in England has not issued guidance relating to HIA, organisations in Scotland, Wales and regions within England have supported its development. The Public Health Institute of Scotland is responsible for the Scottish HIA Network, which keeps a register of HIAs and acts as a platform for practitioners to share their experiences. The Welsh Health Impact Assessment Support Unit (WHIASU) provides support and advice to those undertaking HIA⁸ whilst capacity building and training on HIA have been undertaken by the Institute of Public Health in Ireland. This variation throughout the UK has the potential to lead

³ The definition states that 'health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity'. World Health Organization (WHO), Preamble to the Constitution of the World Health Organization as adopted by the International Health Conference, New York, 19-22 June; signed on 22 July 1946 by the representatives of 61 States (Official Records of the World Health Organization, no. 2, p. 100) and entered into force on 7 April 1948.

⁴ European Centre for Health Policy. Health Impact Assessment: Main concepts and suggested approach. Gothenburg consensus paper. December 1999.

⁵ Department of Health. Saving Lives: Our Healthier Nation. July 1999.

⁶ HM Government and Department of Health. Our health, our care, our say: a new direction for community services. January 2006.

⁷ Select Committee, Health – Third report, May 2004. Byrne D, Enabling Good Health for all: A reflection process for a new EU Health strategy, July 2004.

⁸ The roles of the WHIASU, which is funded by the Welsh Assembly Government, are 'to support the development and effective use of the approach in Wales through building partnerships and collaborations with key statutory, voluntary, community and private organisations in Wales; to provide direct information and advice to those who are in the process of conducting HIAs; to contribute to the provision of new research, and provide access to existing evidence, that will inform and improve judgements about the potential impacts of policies, programmes and projects' (see www.wales.nhs.uk/sites3/page.cfm?orgid=522&pid=10089, date accessed: 4 March 2006).

to differences in the rate of adoption and use of HIA unless some concerted effort by the Departments of Health or other bodies, such as the Public Health Observatories ensures that education and best practice are actively disseminated. Variation in the level of interest and support for HIA from Public Health Observatories to date, appears to be leading to regional disparities in the adoption of the technique (e.g. more widespread support and adoption in Greater London and other areas with a support network).

HIA is also a core requirement for the voluntary registration of Public Health specialists in England and this does appear to be increasing the level of knowledge of HIA within the health service. Although its future is now uncertain, the HIA Gateway acted as a forum for those undertaking HIA to learn, and obtain evidence, from completed HIAs.⁹ Note: The HIA Gateway is currently being reviewed by the Department of Health to consider the best way of providing this resource and what it should cover.

1.2.1 The HIA Process

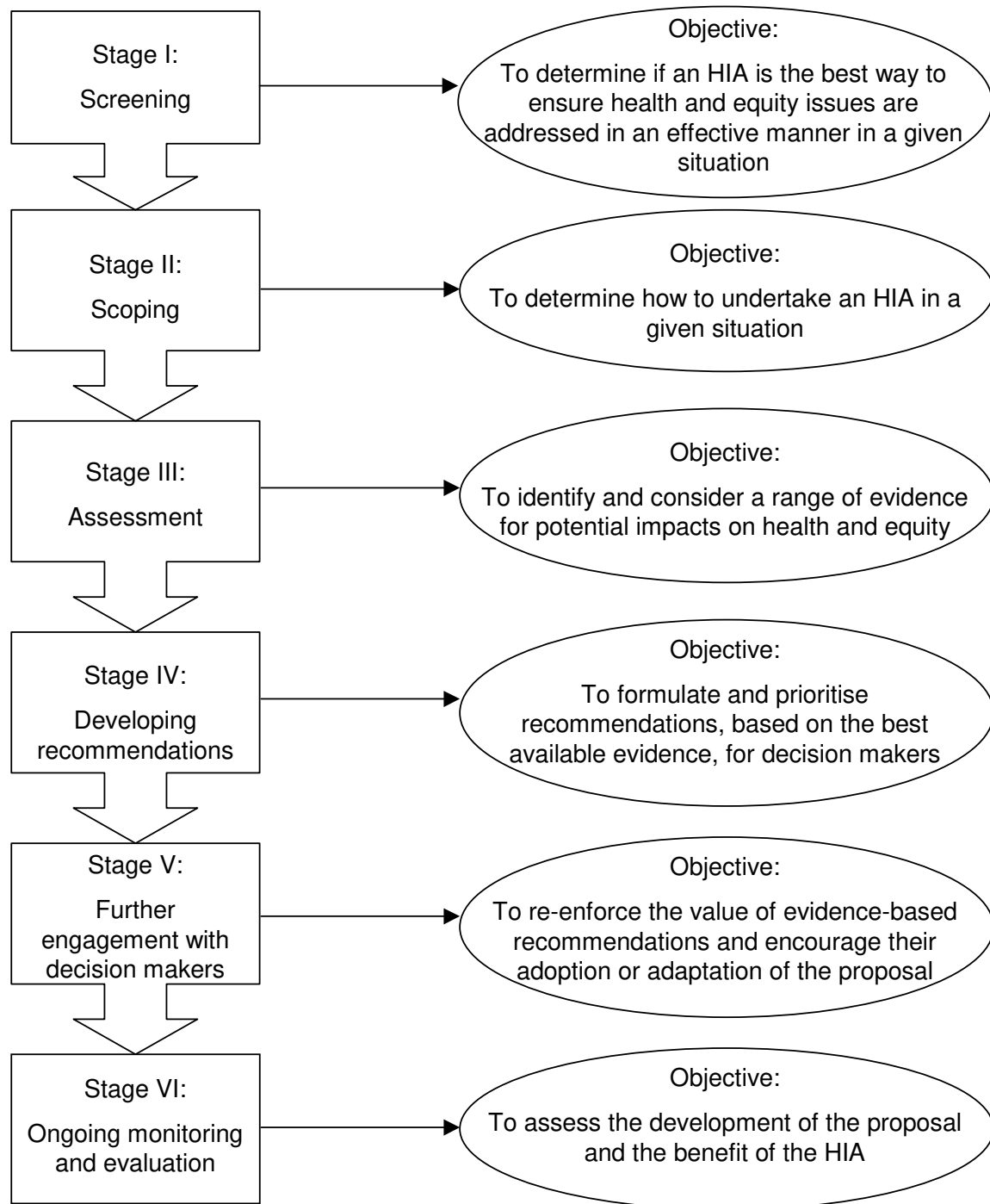
In the absence of central government guidance, there is no standardised methodology for an HIA. However, the HDA has identified a number of stages that are central to the process, which are similar to those involved in environmental impact assessment (EIA). These stages and their objectives are reported in Figure 1.1.

The first stage, screening, entails deciding whether it is appropriate to undertake an HIA. Therefore, at this screening stage, it is necessary to consider how likely it is that the proposed policy, programme or plan could affect health. To aid in this stage, a number of screening tools have been developed.¹⁰

⁹ The HIA Gateway was originally maintained by the Health Development Agency, which was subsequently subsumed as part of the National Institute for Health and Clinical Excellence (NICE). As of 1 April 2006, NICE will no longer support the HIA Gateway (see www.publichealth.nice.org.uk/page.aspx?o=HIAGateway, date accessed: 27 March 2006).

¹⁰ For example, see Ison E, Resource for Health Impact Assessment, Volume I: The Main Resource, October 2000.

Figure 1.1: HIA stages



Source: Adapted from HDA. Introducing health impact assessment (HIA): Informing the decision-making process. Edited by Taylor L and Blair-Stevens C. 2002.

HIA can take a number of forms. Assessments are often categorised as rapid or comprehensive, a definition which seems to be informed by the amount of time and resources allocated to the exercise. HIA may also be a standalone form of assessment or may be integrated with other forms of assessment.

1.2.2 Other Forms of Impact Assessment

HIA is only one of a number of impact assessments which are currently implemented in the UK and Europe.¹¹ While a review of other types of impact assessment is beyond the scope of this report, this Section briefly outlines a number of these impact assessments, which are particularly closely linked with HIA.

Table 1.1: Forms of impact assessment

Assessment type	Objective	Status
Environmental Impact Assessment (EIA)	Determine the environmental effects of a project, usually to inform planning decisions.	Statutory
Strategic Environmental Assessment (SEA)	Determine the environmental effects of a plan of programme.	Statutory
Sustainability Assessment (SA)	Determine the social, environmental and economic effects, usually of regional spatial strategies or developmental frameworks.	Statutory
Regulatory Impact Assessment (RIA)	Identify the likely impacts of a policy change and the range of options for implementing the policy.	Statutory

Each of the impact assessments is designed to address a different set of criteria, which may or may not capture the impact on health. For example, the British Medical Association (BMA, 1998) considers that EIA provides ‘a mechanism for effectively considering the relationships between proposed new developments and human and environmental health’. Although EIA must consider the impact on the population and human beings, there is currently no requirement in the UK for this form of impact assessment to specifically consider the effects on health. Furthermore, when the impact of environmental changes on health are considered it is usually in relation to meeting pre-determined minimum standard, for example, on air quality.

Whilst the SEA Directive requires consideration to be given to the likely effects on human health and the integration of HIA into SEA has been considered¹², there is currently no guidance on how these effects are to be identified and assessed.

The potential for integrating the different types of impact assessment is widely acknowledged however, in practice the degree of integration appears to be relatively limited. The sample of HIAs reviewed within this study did not find evidence of widespread integration and some of the potential causes of this are discussed in the later stages of this report.

¹¹ Bond et al. (2005) identified 38 different types of impact assessment (not including HIA). (See Bond A, Cashmore M, Cobb D, Lovell A, Taylor L. Evaluation in impact assessment areas other than HIA. National Institute for Health and Clinical Excellence. 2005.)

¹² World Health Organisation. Health impact assessment as part of strategic environmental assessment. Edited by Breeze C, Lock K. 2001.

Impact Assessment and Evaluation

Given the increasing trend for conducting HIAs¹³, it is vital to ensure that their effectiveness, in relation to the resources involved and the adoption of recommendations, is assessed.

A three-pronged approach has been proposed by many authors in the evaluation of HIA:

- Process evaluation – concentrates on the process of undertaking an HIA by examining what and how activities are undertaken and by whom;
- Impact evaluation – involves determining whether the recommendations of the HIA influenced the decision-making process;
- Outcome evaluation – assesses the accuracy of the predictions of the HIA for the health of the population.¹⁴

These principles have been adopted as part of this research, which aims to assess the costs and benefits of HIA. The methods used to undertake the research are highlighted in the following section.

¹³ Kemm J. HIA. Growth & Prospects. *Environmental Impact Assessment Review* 2005;25:691-692.

¹⁴ Parry and Stevens note that there has been variance in the focus of outcome evaluations with considerable attention given to the predictions of the HIA and comparatively less concentration on an assessment of whether those predictions exerted influence on the design for the policy. (See Parry J and Stevens A. Prospective health impact assessment: pitfalls, problems, and possible ways forward. *BMJ* 2001;323:1177-1182.

Section 2: Methods

2.1 INTRODUCTION

As discussed in Section 1.1, the objectives of this analysis were not only concerned with examining the costs and benefits of HIA, but also identifying examples of good practice. To achieve these objectives, the research team proposed to study a sample of HIAs (originally five) in detail as they were being undertaken. The research team proposed to also follow a comparator group, which would include HIAs to be studied on a retrospective basis.

The methods used to recruit and follow participating HIAs and a number of other research strands involved in this study are outlined in this Section.

2.2 SAMPLE SELECTION

A letter was drafted by the DH, outlining the purpose of the study and inviting forthcoming or recently started HIAs to participate in the research. This letter was sent to the following groups:

- HIA leads in regional government offices;
- Independent HIA practitioners;
- HIA contacts in PCTs and Public Health Observatories;
- Academic organisations;
- Contacts who responded to an initial letter sent by the DH in April 2004, which set out the intention to undertake this evaluation;
- The HIANET mailing list;
- DCLG circulated it to Local Strategic Partnerships through the Government Offices.

In addition, notices were also placed on the websites of the DH; the Association of Public Health Observatories; and the HDA's HIA Gateway. The research team also established contact with these organisations and individuals following the circulation of the original letter.

Respondents were asked for specific details of the proposed HIA project – such as, type of HIA and timeframe. Originally a number of criteria were agreed between the DH and the research team which were to be used in the selection of participating HIAs. These criteria reflected the proposal to study HIAs covering a broad range of characteristics. The following criteria were used to assess the eligibility of potential participants:

- Type of HIA – rapid or more detailed, integrated or standalone;
- Geographical location – north, south (excluding London), London;
- Level – local, regional;
- Spearhead PCT;

- Subject – policy, proposal, programme;
- Topic – health, transport, regeneration, development, environment;
- Health inequalities;
- DH priority areas;
- Academic links;
- Timeframe of HIA;
- Timeframe of proposal.

From the preliminary stages of the analysis, it became apparent that plans to undertake an HIA might not actually come to fruition.¹⁵ Consequently, the process for selecting appropriate HIAs was pragmatic and primarily driven by the proposed timeframe of the HIA to ensure that the assessment would be completed within the proposed timeframe of the cost benefit analysis (originally due for completion by April 2006).

In total, 16 HIAs were studied of which 15 were included in the analysis.¹⁶ Where possible, initial meetings were arranged between the HIA teams and the research team. A note explaining the purpose of, and methods used for, the cost benefit analysis was also circulated to participating HIAs.

During the study, the decision was made to follow a number of HIAs beyond the scheduled completion date of the study to ensure that an adequate sample of completed HIAs was captured in the study.

2.3 ANALYTICAL FRAMEWORK

The primary aim of this study was to identify and quantify the costs and benefits of HIA. As such, the study focused on process evaluation and impact evaluation. Whilst outcome evaluation was also of interest, determining the accuracy of the HIAs studied and their impact on public health requires a much longer period of follow-up to determine the true impact on determinants of health.

The methodologies used to undertake the evaluation are highlighted in the table overleaf.

¹⁵ The barriers encountered by HIAs are discussed in Section 4.

¹⁶ One of these HIAs was a pilot exercise involving a new assessment toolkit and, therefore, has not been studied in detail.

Table 2.1: Summary of methods used

	Data required	Method used
Process Evaluation	Identify the barriers to the development/progress of HIA	End-of-stage surveys with HIA leads Questionnaires provided to other stakeholders, including decision makers
	Identify the costs involved in undertaking HIA	Timesheets capturing resources allocated to HIA activities
Impact Evaluation	Identify the qualitative benefits of HIA	End-of-stage surveys with HIA leads Questionnaires provided to other stakeholders, including decision makers
	Value the perceived benefits of the HIA	Willingness to pay questionnaires with decision makers and other stakeholders
Outcome Evaluation	Value the impact of the HIA on public health	Impact captured qualitatively through interviews where possible.

The methods were geared towards identifying the costs and benefits of undertaking HIA in both qualitative and quantitative outcomes. Wherever possible, the costs and benefits were quantified in monetary terms. However, the challenges associated with quantifying both costs and benefits were recognised prior to starting the research and it is accepted that the valuation of benefits in particular is challenging. A willingness to pay approach was adopted although it is recognised that this methodology can be difficult to interpret for participants. Attempts were made to overcome this by providing alternative investment options that the participant could compare to their own perception of the benefits of HIA. Whilst this approach meant that it was possible to identify a monetary value for the benefits of HIA, it is accepted that this figure may not fully capture all of the qualitative benefits of HIA that are discussed above. As such, interviews were used to ensure that participants in the research had the opportunity to discuss the costs and benefits prior to quantification.

All participants in the study were assured that their comments along with the results of the valuation exercises would remain anonymised in reporting the findings of the research.

Section 3: Summary Findings of Cost Benefit Analysis

3.1 CHARACTERISTICS OF THE HIAs PARTICIPATING IN THE STUDY

The HIAs which participated in this study captured a broad range of characteristics. A summary table of the participating HIAs is presented overleaf.

Table 3.1: Summary of HIA's studied

Topic	Geographical Level	Type		HIA Team	Health Inequalities Explicitly Addressed
		Rapid/ Comprehensive	Integrated/ Stand-alone		
Economic development strategy	Regional	Rapid	Standalone	PHO team	No
Spatial planning/ Economic development strategy	Regional	Rapid	Integrated	External Consultants	No
Older peoples strategy	Regional	Rapid	Standalone	Internal/External collaboration	No
Health care delivery project	Local	Rapid	Standalone	PCT	No
Re-generation project	Local	Rapid	Standalone	PCT	No
Health care delivery project	Local	Rapid	Standalone	PCT	Yes
Health care delivery plan	Local/sub-regional	Rapid	Standalone	Internal/external collaboration	No
Healthcare delivery project	Local	Rapid	Standalone	PCT/Local authority	Yes
Winter heating project	Local	Comprehensive	Standalone	NHS & University collaboration	Yes
Health promotion project	National	Rapid	Standalone	Department of Health	Yes
Re-generation strategy	Local	Rapid	Standalone	PCT	Yes
Health/School-meal proposal	Local	Comprehensive	Standalone	Local authority	No
Transport strategy	Local	Rapid	Standalone	Service providers	No
Healthcare delivery project	Local	Rapid	Standalone	PCT	No
Child care project	Local	Rapid	Standalone	Rural health institute	No

The original intention of the research was to identify a representative sample of HIAs that would provide an overview of the various types of assessment, including examples of comprehensive and rapid assessments as well as standalone and integrated assessments. However, as the study progressed it became clear that a purposive approach to sampling would be required due to the relatively low numbers of HIAs that were ongoing and/or due to complete within the timeframe of the research. It also became clear that a number of HIAs were not progressing or would not complete within the timeframe of the study. These are included in the study findings although it has not been possible to capture the benefits of these assessments as they are yet to feed into any decision making process. The main reasons for HIAs not progressing as scheduled were a lack of funds/resources or delays in the decisions that the HIA was intended to inform.

Table 3.1 shows that rapid HIAs are over-represented relative to comprehensive assessments. This may not necessarily be a negative finding if we assume that the topics under review suit a rapid approach and that the rapid HIAs are undertaken in a rigorous manner. This may also suggest that rapid HIAs are easier to incorporate into the decision making process alongside other forms of impact assessment. However, the alternative hypothesis is that HIA teams are under-resourced and have insufficient time, skills and funding to undertake a more comprehensive approach to HIA. Whilst it is not possible to make a firm conclusion based on the sample of HIAs reviewed, it appears to be more likely that a rapid approach was adopted more frequently due to limited resources although this issue warrants further consideration.

The majority of the HIAs included in the study considered topics related to healthcare delivery. Whilst anecdotal feedback from HIA practitioners suggests that the majority of HIAs currently underway are focussed on healthcare topics, the over-representation in the sample may have been exaggerated due to the significant restructuring of primary care organisations that was underway throughout the study. A HDA review of HIAs on the Gateway in July 2004 showed that the highest number of completed HIAs (20) were on transport followed by regeneration (12).

There also appears to be an over-representation of standalone HIAs with only one fully integrated HIA being identified in the sample. Four regional HIAs were identified, along with one national HIA with the remainder focussed on local strategies.

Only a minority of the HIAs reviewed aimed to explicitly address health inequalities. Of those that did aim to address inequalities the majority were assessments of healthcare delivery strategies or plans. This would seem to suggest that health inequalities are low priority in the assessment of non-health care projects or strategies.

3.2 THE COSTS OF CONDUCTING HIA

The costs of conducting the HIAs are reported in the Table 3.2. overleaf. The table summarises the cost only for those HIAs that were completed within the study duration. It should be noted that whilst these HIAs are complete the decision making process into which they were feeding was not complete in all cases.

Table 3.2: Costs of HIAs that were completed within the study period

Topic	Geographical Level	Type		HIA Team	Costs
		Rapid/ Comprehensive	Integrated/ Stand-alone		
Economic development strategy	Regional	Rapid	Standalone	PHO team	£9,334
Spatial planning/ development strategy	Regional	Rapid	Integrated	External Consultants	£43,742
Older peoples strategy	Regional	Rapid	Standalone	Internal/External collaboration	£16,745
Health care delivery project	Local	Rapid	Standalone	PCT	£3,881
Healthcare delivery project	Local	Rapid	Standalone	PCT/Local authority	£10,960
Health promotion project	National	Rapid	Standalone	Department of Health	£1,694
Health/School-meal proposal	Local	Comprehensive	Standalone	Local authority	£9,905
Transport strategy	Local	Rapid	Standalone	Service providers	£1,261
Child care project	Local	Rapid	Standalone	Rural health institute	£5,000 (est)

Table 3.3: Stage of non-completing HIAs at the end of the study period

Topic	Geographical Level	Type		HIA Team	Stage at the end of study follow-up	Cost to date
		Rapid/ Comprehensive	Integrated/ Stand-alone			
Health care delivery project	Local	Rapid	Standalone	PCT	Assessment stage completed, recommendations made, no decision taken	£2,937
Regeneration project	Local	Rapid	Standalone	PCT	Scoping stage completed	£3,321
Health care delivery plan	Local/sub-regional	Rapid	Standalone	Internal/external collaboration	Assessment stage completed. Proposal out for consultation	£65,240
Winter heating project	Local	Comprehensive	Standalone	NHS & University collaboration	HIA has not begun, although screening has been undertaken	£1,160
Regeneration strategy	Local	Rapid	Integrated	PCT	Scoping stage completed	£2,790
Healthcare delivery project	Local	Rapid	Standalone	PCT	Assessment stage completed	£1,107

There are few obvious relationships between the cost of the HIA and other characteristics. The highest cost HIAs examined a healthcare re-configuration exercise, an older people's strategy and a regional development framework. The only common factor amongst these three assessments was the use of external consultants, suggesting that this increases the cost of the assessment exercise. However, this needs to be balanced by the additional benefits that consultants bring in terms of ensuring that the HIAs progress and have dedicated resources allocated to them. Feedback from the participating HIAs also suggests that the highest cost HIAs involved extensive consultation exercises with stakeholders.

The lowest cost HIAs, such as the HIA of health trainers, appeared to be desk-top exercises and involved minimal consultation with stakeholders.

It has not been possible to assess the proportion of the total development cost of a project or programme that is allocated to HIA. Evidence on EIA suggests that the proportion allocated to EIA is relatively low (typically 0.5% or less). Given the levels of investment in HIA reported above, these would seem to represent a fairly modest burden to commissioners.

There do not appear to be any systematic reasons for the non-completion of HIA. Those HIAs that did not complete within the duration of this research are reported in Table 3.3.

3.3 COMPARISON OF THE COSTS AND BENEFITS OF HIA

Where it was possible to quantify the benefits of HIA, participants reported a wide range of values. The use of the willingness to pay technique may be partly responsible for this as it is essentially asking stakeholders to value an assessment when they may have limited experience of commissioning such studies. However, a number of alternative investment options were provided to help frame the cost of HIA. The table overleaf reports the costs and benefits of each of the HIAs where it was possible to quantify the benefits.

Table 3.4: Costs of completed HIAs

Topic	Geographical Level	Type		HIA Team	Costs	Benefits
		Rapid/ Comprehensive	Integrated/ Stand-alone			
Economic development strategy	Regional	Rapid	Standalone	PHO team	£9,334	Three decision makers £5,000-£10,000 £30,000 >£100,000 Three Stakeholders £5,000-£10,000 £60,000 >£100,000
Older peoples strategy	Regional	Rapid	Standalone	Internal/External collaboration	£16,745	£50,000-£100,000
Healthcare delivery project	Local	Rapid	Standalone	PCT	£3,881	£12,000 - £15,000
Healthcare delivery strategy	Local	Rapid	Standalone	PCT/Local authority	£10,960	£15,000
Health promotion project	National	Rapid	Standalone	Department of Health	£1,694	Decision-maker & Commissioner of HIA £50,000
Child care project	Local	Rapid	Standalone	Rural health institute	£5,000 (est)	£5,000-£6,000

The table clearly shows that in all cases the benefits of the HIA were valued higher than the costs. However, the range of benefits reported differs significantly across the HIAs. It should also be noted that participants' responses may be informed by their knowledge of how much the HIA cost to undertake. Based on this small sample, there does not appear to be any correlation between the cost of the HIA or any other characteristics and the perceived benefits that are derived from the HIA. However, the findings do seem to suggest that the stakeholders involved in HIA generally found the assessment exercise to be a valuable use of resources.

3.4 IMPACT OF HIAs ON DECISION MAKING

It was only possible to identify the impact of the HIAs in those cases where the HIA was completed and the decision making process was well advanced or complete. In these cases, final stage interviews with the HIA teams and decision makers were undertaken.

In the case of the regional economic strategy, the HIA was felt to be useful, partly because the regional development agency was fully involved in the process and understood how the HIA could impact on the final decision making process. As such, the HIA was deemed to have had an impact on the strategy. However, as the strategy has yet to be implemented it remains to be seen whether the recommendations from the HIA will be implemented at a local level.

The HIA of the spatial planning/regeneration plan was also felt to be useful, although the planners have decided to take an integrated impact assessment approach. By doing so, multiple impacts have been aggregated for consideration in the decision making approach. As such, it is difficult to isolate any changes in the strategy resulting from the HIA.

In the case of the older people's strategy, the HIA was taken into consideration when revising the initial strategy. However, once again, it is difficult to attribute any changes in the draft strategy and the final strategy to the HIA alone.

The HIA of the national health promotion project was useful in informing decision making although it did not highlight many aspects of the scheme that had not already been identified, although the quantification of the impacts was useful. The process of undertaking a HIA was seen as being an appropriate aspect of due diligence in considering the development of the project.

The HIA on the development of a children's centre was found to be beneficial and the management board of the centre has accepted all the recommendations raised by the HIA and intend to implement them once the centre is fully operational.

For the other HIAs in the completed sample, it was possible to undertake final stage interviews with the HIA team, but where the decision making process was incomplete it was not possible to identify the impact of the HIA.

Section 4: Discussion of HIA Evaluation

The section below discusses some of the main points identified during the study and in analysing the findings. Challenges to HIA are highlighted along with some recommendations on how these challenges can be addressed.

4.1 HIA PROCESS EVALUATION

Through recruiting HIAs and monitoring participating assessments, this study has gained an insight into the challenges faced by HIA teams at each stage of the process. During this study, a number of interviewees suggested that there was a link between the lack of statutory or mandatory footing of HIA and these challenges. This is a clear difference to some of the forms of impact assessment and may explain the slower diffusion of HIA relative to other forms of impact assessment. This Section discusses these challenges in more detail.

4.1.1 Screening

The screening stage of HIA (and impact assessment more generally) is primarily concerned with the decision to undertake an assessment. According to the HDA, the screening stage is a 'selection process, where proposals are quickly assessed or 'screened' for their potential to affect the population's health' in a systematic way.¹⁷ This definition concurs with that proffered by the WHO which argues for screening on the basis that 'it is not possible to carry out an HIA on every project, policy or programme'.¹⁸ Consequently, screening is concerned with the following:

- Details of the proposal;
- Potential health effects (positive and negative) arising from the subject;
- Groups affected;
- Most appropriate assessment technique;
- Availability and capacity of resources (financial, time and staff).

The benefits of screening include:¹⁹

- Efficient use of scarce resources;
- Objective decision making;

¹⁷ Health Development Agency. Introducing health impact assessment (HIA): Informing the decision-making process. Edited by Taylor L, Blair-Stevens C. 2002.

¹⁸ World Health Organisation. The HIA Procedure. www.who.int/hia/tools/process/en/print.html, date accessed: 9 March 2006.

¹⁹ Adapted from HDA, Deciding if a health impact assessment is required (screening for HIA): Learning from practice bulletin, 2003.

- Engagement between the HIA team, decision makers and stakeholders from the outset;
- Better quality of HIAs if screening is undertaken systematically within an organisation and on a national basis;
- Revision of proposals.

4.1.1.1 Practice among participating HIAs

The definitions and arguments reported in the previous section for undertaking screening suggest that, ideally, it would be systematically used to consider all policies, programmes or projects. This is contrary to what was actually observed among participating HIAs. In fact, none of the HIAs applied screening to more than one potential subject simultaneously. In practice screening is not used as a decision tool to ascertain which subjects should be assessed. This may be because the number of potential subjects of HIA may be limited which means that assessment teams do not have to allocate scarce resources to one of several possible HIAs. Consequently, screening was focused on only one potential subject. Alternatively, it might be hypothesised that the lack of adequate statutory guidance on when and how HIA should be applied may mean that screening all potential HIA candidates is an overwhelming task.

The HIAs reviewed generally came about following discussions between the HIA team and decision makers, or on the instigation of the HIA team. Therefore, few HIAs went through a formal commissioning process. This finding may suggest that our sample is biased toward those HIAs undertaken by and within the health sector, and does not include those which go through a formal tendering process, such as those undertaken by HIA consultants. While screening tools were rarely explicitly used, the HIA teams admitted that their knowledge of these resources was implicitly used during this stage.

4.1.2 Scoping

If a decision is reached that an HIA should be undertaken, the next stage in the process is determining what should be done and how it should be done. In practice, there may be overlap between the screening and scoping stages. Specifically the scoping stage is useful for identifying the following:²⁰

- The members of the HIA team;
- The supervision and management of the HIA process;
- The scope of the HIA (the type and focus of the HIA).

The previously cited cost benefit analysis of EIA suggested that the lack of adequate scoping was one of the main reasons for delays in the progress of EIAs.

²⁰ While the scoping stage of the HIA process may also involve identifying the methods to be applied at assessment and subsequent stages, as well as identifying potential stakeholder involvement, these will be discussed in later Sections.

4.1.2.1 Members of HIA Team

The HIA team is the core team responsible for actually undertaking the assessment and managing it on a daily basis. From the sample participating in the cost benefit analysis, most of the members of the HIA teams (and certainly for the lead assessors) had experience of public health and previous experience of, and/or training in, HIA. The nature of the subject of the HIA also influenced the membership of the HIA team. For example, if the subject was outside the health sector, then the membership of the HIA team would be quite broad and may include health organisations as well as other external partners.

4.1.2.2 Supervision and Management of HIA Process

Almost all participating HIAs established Steering Groups (of which the HIA team was a subgroup) to supervise and oversee the HIA process. Again, the members of these Steering Groups generally reflected the nature of the subject of the HIA. If HIA is to influence or inform the decision-making process, then it is necessary for the assessment team to establish links with decision makers. Indeed, in a number of HIAs that were studied, decision makers were members of the HIA Steering Group. This continuous engagement throughout the HIA process meant that decision makers were aware of the health impacts as they arose. While this achieved a sense of ownership for decision makers, the potential drawback of such involvement is the potential conflict that may arise between those who were involved in the development of the subject of the HIA, and those who were assessing it. In one case, the decision maker distanced themselves from the development of HIA recommendations, while in another instance, skilled chairing of the Steering Group was deemed to have been essential in maintaining the independence of the HIA process.

Supervision of the progress of the HIA was then monitored through meetings and informal contact with the Steering Group. One HIA adopted PRINCE 2 – a project management tool. A number of HIAs prepared a proposal at the start of the process, which contained a project plan and a timetable outlining key dates.

4.1.2.3 Type of HIA

The different types of HIA range from rapid to comprehensive assessments. Typically, the distinction between rapid and comprehensive assessments is based on the timeframe within which the HIA is undertaken – for example, rapid assessments may be carried out over a number of days or weeks, while comprehensive assessments are conducted over a longer time period.²¹ In addition, the activities performed may differ with rapid assessment drawing primarily on secondary sources of data (e.g. previously completed HIAs) and comprehensive assessments undertaking a review of the evidence and possibly generating additional information through consultation or further analysis. Discussions with participating HIA teams and practitioners suggested that the terminology used to classify HIAs may be potentially misleading because rapid assessments may be comprehensive. This would

²¹ Others have used 'mini', 'standard', or 'maxi' to describe the types of HIA (see Kemm J, Parry J. The development of HIA. Chapter in Health Impact Assessment. Edited by Kemm J, Parry J, Palmer S. 2005).

indicate distinguishing between HIAs based on the methods adopted (e.g. relying on secondary data sources compared to primary data sources) may be more appropriate.

The majority of HIAs in this sample were deemed to be rapid assessments, with a smaller number of more detailed assessments. The type of HIA undertaken was generally dictated either by the topic under review or by pragmatic factors such as the amount of time and/or resources available for the assessment. The more detailed assessments did tend to be on strategies (such as regional economic strategies) which have the potential to impact on a large population. The majority of the rapid reviews were on local projects or plans although one of the rapid reviews assessed was on a national policy with a potentially large impact on population health. The availability of resources, together with the scale of the HIA, also influenced the decision to employ external consultants to undertake all or part of the assessment. Some of the HIA teams argued that there was a lack of financial resources to employ external consultants. Similarly, in some cases, the scale of the HIA was too small to require external input. For other teams, external consultants were employed due to the lack of resources in-house. Further arguments for employing external consultants are to satisfy a gap in expertise among the members of the HIA team or to provide a degree of independence to the findings.

Few HIA teams formally allocated resources or funding (where this was explicitly available) to the various stages of the HIA process. However, HIA teams were generally aware of the resources required for each stage.

4.1.3 Assessment

The assessment stage is associated with identifying and considering a range of evidence for potential effects on health. The assessment stage is a key phase of the HIA process and is dependent on the previous stages. Indeed, both the screening and scoping stages will influence the techniques employed to undertake the assessment. The key elements of the assessment involve:

- Gathering relevant data and evidence;
- Considering the impact of the subject of the HIA given this evidence;
- Reporting on the potential impacts.

The data collected may be qualitative or quantitative. Typically, the term 'quantitative data' has been used to refer to quantification of health impacts, but it may also allude to quantification of qualitative data (for example, calculating the number of stakeholders who have specified a particular health impact).²²

For the HIAs participating in the cost benefit analysis, the assessment stage involved analysis of both primary (original) and secondary (previously published) data. The techniques adopted by the HIAs to collect primary data generally focused on qualitative methods, including participatory workshops, surveys, focus groups and interviews.

²² Abeyasekera has discussed the application of quantitative methods to qualitative data (see www.rdg.ac.uk/ssc/workareas/participation/Quantitative_analysis_approaches_to_qualitative_data.pdf).

Secondary data were obtained from reviews of previously published literature. This section examines the following in further detail:

- Review of existing evidence;
- Qualitative methods;
- Quantification;
- Some degree of stakeholder participation or consultation.

4.1.3.1 Review of Existing Evidence

A number of guides exist on how to conduct a literature review.²³ One has been specifically targeted at reviewing the evidence for HIA²⁴, which identifies the following eight steps to review evidence:

- Framing the question(s);
- Determining whether a literature review is required, and its scope;
- Purpose, organisation and structure;
- Literature search;
- Critical appraisal;
- Interpretation;
- Conclusions;
- Reporting.

One of the participating HIAs used this guide in conducting their literature review.

In practice, all of the HIAs that were studied undertook a review of existing literature. However, the HIAs did vary with regard to the depth of the literature reviews usually due to the amount of time and/or resources available. For most HIAs, a rapid review was undertaken, which predominantly incorporated evidence from completed or currently ongoing HIAs on similar topics. Web-based resources, such as the database of completed HIAs on the NICE and LHO websites, were found to be useful for this purpose. A number of the HIA teams commented that if time and resources had allowed, they would have preferred to undertake a more extensive review of the literature.

More comprehensive reviews were undertaken for a small number of HIAs, where the evidence from the literature review was to be used to populate a model, or where an external organisation was commissioned to undertake the review of evidence. HIA teams acknowledged the benefits of employing external consultants to undertake this component, such as broadening the perspective and depth of expertise.

Most HIAs circulated evidence from the literature review or supporting material to stakeholders who were invited to participate in events – either prior to the event or during the

²³ See, for example, the Centre for Reviews and Dissemination (CRD), Undertaking Systematic Reviews of Research on Effectiveness, CRD Report No. 4, March 2001.

²⁴ Mindell J et al. The Guide to Reviewing Published Evidence in Health Impact Assessment. London Health Observatory. <http://www.lho.org.uk/HIA/ReviewingEvidence.aspx>

event. Stakeholders found this information useful and it generally helped to focus the discussion at the event.

4.1.3.2 Qualitative data

There are multiple ways of collecting qualitative data – including surveys, interviews, focus groups and stakeholder participation workshops, which have been used by the participating HIAs. According to the Gothenburg Consensus Paper, one of the values governing HIA is democracy, acknowledging that individuals have a right to participate in policy decisions that affect them. Thus, some have argued that instruments used to collate qualitative data should be robust (such as surveys, action research, participative approaches) and should go beyond conventional consultation which is not always a democratic process.

4.1.3.3 Quantitative data

A number of commentators have stated that qualitative data in HIA may not be sufficient to influence decision makers who are used to seeing quantified evidence on health impacts in other forms of assessment exercise, particularly studies of transport and environmental policies.²⁵ The poor perception of qualitative data may be related to the difficulties associated with validating and generalising from such data. However, it is also acknowledged that this qualitative approach, by incorporating inclusive and participative methods, satisfies the role of HIA in democratic decision making. Whilst quantification of health impacts offers some additional benefits it is inherently difficult due to the wide range of confounding factors that influence health and the availability of suitable data sources on health impacts. There are also concerns that by focusing purely on quantifiable impacts, important health effects (which may not be measurable) will be omitted.

Tensions between qualitative and quantitative data may reflect a disparity between the roles of HIA as a technical or democratic process. However, the two types of data are not wholly incompatible and may be combined to provide a robust multi-method approach to HIA. However, in light of this, Love et al. (2005) argue ‘the privilege in favour of quantitative methods’ among a number of HIAs ‘appears problematic’.

Mindell et al. (2001) acknowledged the difficulties associated with quantifying health impacts and recommended the following framework for quantitative HIA:²⁶

- Profile affected populations;
- Identify potential impacts;
- Obtain evidence for impacts;
- Determine how impacts are affected by differences in subgroups’ exposures and susceptibilities;
- Draw up a causal pathway;

²⁵ There are also concerns regarding how qualitative data would stand up to judicial review, which may arise if HIA were incorporated into other legally-required impact assessments. However, both EIA and SEA contain qualitative data and are subject to legal challenge.

²⁶ Mindell J, Hansell A, Morrison D, Douglas M, Joffe M, on behalf of the participants in the Quantifiable HIA discussion group. *Journal of Public Health Medicine* 2001; 23(3): 173-178.

- Select impact measures;
- Select or develop statistical model, using causal pathway;
- Test statistical model against empirical data and carry out sensitivity analysis;
- Consider carrying out an economic analysis.

The DH has produced a guide which is designed to ensure that health effects are taken into consideration in the formulation of policy.²⁷ This guide provides advice on identifying, quantifying and valuing health effects. To quantify health effects, the report recommends that one of the following should be estimated:

- Lives lost;
- Years of life lost;
- Severity and duration of any distress, discomfort or disability for those directly affected (and for others).

In addition to quantity of life, the guide suggests that quality of life should also be considered using quality-adjusted life years. However, it is acknowledged that the ability to quantify such measures is dependent on the availability of information. Similarly, the report outlines an approach to valuing the health effects, but qualifies this by noting that 'valuing health benefits is difficult and can be controversial'.

As an example of how health impacts may be valued and compared with the costs of HIA, completed quantitative HIAs were assessed. The health impacts (typically number of deaths or lives saved) were translated into quality-adjusted life years (QALYs) by calculating the mean age within the geographical area and comparing this with life expectancy at this age. In this way, it was possible to calculate the QALYs at the mean age and those anticipated if the individual lives to the expected age. The difference in QALYs, thereby, represents those lost due to death. Values were then assigned to these QALYs and compared with the costs of the HIA. Based on this simplistic analysis, the findings suggest that the value of the benefits of HIA dominated the costs of undertaking the assessment. However, caution should be exercised in interpreting these results for a number of reasons. First, not all health impacts were quantified. Therefore, the value of these benefits does not take account of other benefits from the HIA such as community engagement or partnership working. Secondly, the analysis does not take account of whether the HIA recommendations were actually implemented (in which case the outcomes may not have materialised) or the wider contribution of the HIA to the decision-making process in terms of providing mitigation against unforeseen consequences.

The ARMADA (age-related morbidity and death analysis) model was specifically designed for HIA to translate environmental impacts into health impacts. Although there are 12 impact areas in an environmental statement, the limited availability of data meant that the model concentrated on three of these areas – air, chemicals and road accidents.

²⁷ Department of Health. Policy Appraisal and Health. November 2004.

Only one HIA in the current study adopted a purely quantitative analysis, with no stakeholder involvement. A model, which was populated using data extracted from relevant literature, was designed to assess the potential impact of an intervention.

4.1.3.4 Participation/Consultation

In running participatory activities, one of the most influential factors of ensuring a productive event is to identify and invite key stakeholders from different backgrounds to obtain a broad view of the potential positive and negative health impacts. HIA teams identified potential participants through previously established links or by identifying roles within organisations (where named individuals were not known). This list was generally presented to the HIA Steering Group for approval. HIA teams who have experience of organising such events may already be aware of the stakeholders who should be invited.

HIA teams generally had little control over whether invitations to participate in workshops are accepted. However, the likelihood of acceptance may be increased if potential participants received supporting information on how the subject of the HIA may affect them or how they may contribute to the HIA. Indeed, one stakeholder commented that, in general, it may be useful to provide workshop participants, who may be unfamiliar with HIA, with some context regarding HIA and the objectives of the particular assessment to which they have been invited. Furthermore, another stakeholder commented that invitations should be addressed to named individuals, particularly when circulated to government organisations.

One HIA team deliberately arranged focus groups to fit in with the pre-existing meetings of target groups. In this way, the HIA team ensured that there was good attendance from the groups the team was particularly interested in consulting. Another HIA organised its consultation event in conjunction with a wider public consultation event on the subject. While this may have been an effective use of resources, from discussions with stakeholders it was not clear that they were aware of the HIA or that it was a separate activity from the wider consultation event.

A number of participating HIAs identified that the views of all stakeholders were not captured. This may have been due to a decision not to include these stakeholders in the participatory event, or because the invited stakeholders were unable to attend.²⁸ In the case of the latter, the views of absent stakeholder may be obtained through other means (time permitting). For example, it may be helpful to circulate a report summarising the discussion during the event to all stakeholders who were invited to attend.

The number of attendees at individual events varied across the participating HIAs – ranging from eight up to 30.

²⁸ For example, as a public consultation process was being undertaken alongside the HIA, it was decided that the public would not be invited to participate in the HIA event. Relatedly, one HIA has made a conscious decision to take account of evidence obtained through a public consultation event in their HIA. The latter ensures that the public are not overburdened by involvement in consultation processes, and also expands the views captured by the HIA.

4.1.3.5 Event structure

All of the workshop events commenced with an introductory session which outlined the subject of the HIA and provided background information on HIA. Participants were then divided into groups which were usually facilitated by an individual with experience of the subject and/or impact assessment. The purpose of this group work was to identify the potential positive and negative health impacts and who exactly would be affected. The role of the facilitator in this group work was pivotal as it ensured that the discussion remained focused on the issues at hand. Discussions were captured using flip charts or graffiti walls. The group discussions were then fed back to the entire workshop.

One HIA attempted to use an event to address two issues – identification of the impacts and feedback on the process. Discussions with decision makers suggested that trying to achieve these objectives within one workshop proved difficult. Obtaining comments on the process was particularly difficult because it required a certain familiarity with impact assessment which not all participants possessed.

Prioritisation of health impacts was not always undertaken by the HIA teams. However, where this was done, it was undertaken with stakeholders within the workshop or by the HIA team unilaterally. Within the context of the workshop or HIA event, stakeholders were provided with an opportunity to prioritise health impacts (identified through group work). For some workshops, stakeholders were provided with a number of sticky dots which they were asked to allocate to the (positive or negative) health impacts which they considered to be most important. While some HIA teams have admitted that this is not a highly scientific process, it has also been used for consultation outside the HIA field.

4.1.4 Development of Recommendations

The approaches adopted to develop recommendations (regarding maximising positive health impacts and mitigating negative health impacts) differed across the HIAs. Some HIAs developed recommendations during the stakeholder events. In contrast, others used the discussion from the workshop, together with other strands of evidence, to assist in formulating recommendations within the HIA Steering Group.

Where time permitted, HIA teams generally provided stakeholders with an opportunity to comment on the workshop report and/or the HIA report. Even when this was not possible due to binding time constraints, HIA teams acknowledged that they would have liked to obtain stakeholder input in the formation of recommendations. Stakeholders generally welcomed this opportunity and saw it as further way of providing their input. This approach also acted as a further form of validation of participants of the findings of the HIA. In one instance, recommendations were primarily developed by one group with input from the HIA and the HIA team as one source of evidence which assisted in this process.

Practice regarding the prioritisation of recommendations varied across the HIAs. Generally, prioritising was seen as a way of highlighting the crucial recommendations and was often (but not always) undertaken when there were a large number of recommendations.

4.1.5 Engagement with decision makers

Early engagement of decision makers in the HIA process has been a key factor in the progress of the assessments in this study. However, even with decision makers' support, PCTs may still encounter difficulties, such as delays in receiving relevant documentation. The evidence from this study suggests that such engagement has been beneficial to the HIA team and decision makers. From the perspective of the HIA team, access to decision makers is helpful in clarifying issues regarding the subject of the HIA. Through involvement in the process, decision makers gain ownership and develop an understanding of HIA, which may lay foundations for future assessments. Indeed, where it has been possible to assess the benefits of HIAs, decision makers frequently cited that one of the advantages of the process was establishing links with the health sector, and developing a mutual understanding of the frameworks within which the respective organisations operate. If decision makers are not involved with the HIA from its commencement, there is still potential for engagement as a result of the outcome of the HIA process (see Box 4.1, for example).

To counter these benefits, involvement of decision makers could potentially threaten the independence, and consequently the credibility, of the assessment. However, this problem seemed to be overcome within HIA teams through skilled chairing of Steering Groups or the removal of decision makers from the process of developing recommendations.

4.1.6 Monitoring and evaluation

The importance of monitoring and evaluation for the future of HIA cannot be overestimated. This has already been recognised by the HDA, which called for HIA practitioners 'to engage with monitoring and evaluation activities, and disseminate their completed case studies, their evaluation findings, and key lessons learned' which has been echoed by the WHO. As discussed above, evaluation should not only focus on the HIA process, but should also consider the impact and outcome of the HIA. Proof of the effectiveness of HIA in informing the decision-making process will highlight the importance of considering health impacts of policies, programmes and policies in the future. Reflecting on the HIA process will ensure that HIA teams may learn from practice and identify examples of good practice.

The HIAs participating in this study have used evaluation forms to assess the HIA process (particularly the assessment stage). These evaluation forms were circulated to participants at the end of workshops. However, few HIAs had plans in place to formally evaluate the impact of the HIA or monitor outcomes. This lack of a framework to monitor and evaluate the HIA may be due to a number of reasons. For example, sufficient resources may not be available to undertake further stages of the HIA. The weak role of monitoring and evaluation was also identified by Quigley and Taylor (2003), who attributed it to the availability of staff.²⁹ Where there are plans for monitoring, some HIAs identified indicators which could be used to assess the impacts.

²⁹ Quigley R J, Taylor L C. Evaluation as a key part of health impact assessment: the English experience. *Bulletin of the World Health Organization* 2003; 81(6): 415-419.

4.2 IMPACT EVALUATION

Given the small number of HIAs that were completed and were subsequently considered in the decision-making process during the course of the study it is difficult to comment on the degree to which the HIAs impacted on decision-making. In the cases where the decision-making process was complete or underway, then it did appear that the HIA had some degree of influence on the final decision making process leading to more consideration being given to the potential health impacts. However, it was difficult to attribute any specific changes in the decision making process to the information provided by the HIA in most cases. This was due to the difficulties of disentangling the information provided in the HIA from other inputs to the decision making process.

In order to secure the future development of HIA, it is important that HIA leads identify notable changes to decisions that arise as a result of the HIA in order to justify the investment of time and money in the process. If HIA is undertaken in a timely manner then response to the HIA is likely to involve mitigation to address any avoidable negative health impacts or to promote positive health impacts. Although not explicitly stated, there was a suspicion that some of the HIAs were being undertaken in order to validate current thinking and confirm the suspected health impacts rather than as a means of ensuring that all health impacts of a plan or project are identified and highlighted. Improved scoping of the HIA would help to overcome this approach. However, a change in mindset is also required to ensure that HIA is used as an investigative tool, rather than as a validation tool to confirm existing beliefs or in a 'tick-box' manner to satisfy planning requirements.

4.3 OUTCOME EVALUATION

In order to undertake an evaluation of the outcomes of HIA, it is necessary to determine the accuracy of the HIAs in predicting the impact of a policy or project on public health. Given the relatively short timeframe for the completion of this research, a true outcome evaluation is outside of the scope of this study. However, participants in the research were asked to report whether the HIA had any impact on the development of the policy or project. In many cases, the stakeholders did report that the recommendations of the HIA were adopted, suggesting that the HIA will impact on public health. However, longer term monitoring and evaluation is required to ensure that HIA is delivering benefits to public health. This monitoring will also help to show the value of HIA and ensure that it becomes embedded in decision making.

4.4 FACTORS AFFECTING THE DEVELOPMENT OF HIA

4.4.1 Capacity to Undertake HIA

Responses to invitations to participate in the cost benefit analysis generally indicated that there was a substantial amount of HIA activity. This finding was supported by anecdotal evidence regarding the heavy workload of independent HIA consultants. However, in spite

of expressing an interest, there were several reasons why many organisations were not in a position to conduct HIA. Perhaps the most influential of these factors was related to the capacity to undertake HIA in terms of the availability of both financial and staff resources. Capacity constraints were felt to be particularly problematic in primary care trusts although equally there appeared to be limited resource made available from other organisations such as local authorities. While some organisations have dedicated HIA staff, where this was not the case, the plethora of competing duties and responsibilities along with the non-statutory status of HIA meant that it was inevitably de-prioritised. It should also be noted, that the study was conducted at a time when the NHS, and in particular primary care, was undergoing major reform which may have further de-prioritised HIA activities.

Having specific staff devoted to HIA was not in itself a solution to alleviate the problem of limited resources. Reliance on individual members of staff meant that HIA skills and expertise may be lost if these staff members leave the organisation or are unable to work. Thus, capacity must be built up throughout the entire organisation to ensure that there is a pool of skilled HIA practitioners able to embed their skills within organisations. However, given the current optional status of HIA, there was little incentive for organisations to pursue this option.

One resource which is available in many organisations is public health specialists. To enter the UK Voluntary Register, public health specialists are required to *'demonstrate how knowledge and understanding has been achieved in different methods of health impact assessment'* and *'must demonstrate experience of involvement in/carrying out a health impact assessment'*. Whilst this is undoubtedly increasing the number of HIA practitioners a number of HIA commentators raised concerns about the quality implications of public health specialists undertaking HIA to satisfy this requirement. These concerns may be justified if HIA was undertaken as a one-off project to meet these requirements, which would not allow the opportunity to develop skills and learn from building up experience in the area. The tendency for public health registrars to undertake a HIA as a part of their development also means that HIA skills are not embedded in an organisation, as registrar placements tend to be short-term. Therefore, whilst this process increases the resources available for HIA, it is not necessarily an appropriate method for embedding HIA into routine practice in the NHS and ensuring the availability of skilled practitioners.

Commissioning external organisations to undertake HIA was another alternative to developing in-house expertise. Whilst this provides access to a pool of HIA practitioners, there are no formal registration requirements for independent HIA practitioners which means that quality may vary. No attempts have been made within this study to determine the relative quality of HIAs conducted by independent contractors or staff working within the health service or local authorities. One benefit of out-sourcing HIAs is that it ensures that there is a firm commitment to undertaking the assessment exercise with ring-fenced funds allocated to support it. As such, out-sourced HIAs may be less likely to stall or be delayed due to the lack of stakeholder support or dedicated resources. Although this study was only able to follow a small number of HIAs, the evidence suggests that those contracted to external organisations progressed in a more systematic manner than many of those that relied on internal resources within the health service.

However, commissioning a third party to undertake a HIA requires financial resources which are limited within the NHS. In addition to the fees paid to external consultants, time input from the commissioning organisation was required to supervise and liaise with the HIA team to ensure that the outcomes met their needs. The lack of adequate funds and management time meant that this is not always an option for overcoming the inadequacies of internal capacity within the NHS.

One of the most frequently cited benefits of HIA has been the greater partnership working established through the HIA process. The opportunities for establishing links with partner organisations, such as local authorities and other stakeholder groups, may be limited if external consultants are employed to undertake the HIA. However, one way of overcoming this problem is to outsource specific components of the HIA to external organisations, such as the literature review.

4.4.2 Negotiating an HIA

Lack of awareness of HIA meant that assessment teams faced considerable hurdles in attempting to secure support from partner organisations (including decision makers). However, HIA is futile if agreement from these organisations has not been obtained. In fact, input from these organisations may be pivotal to the ability to undertake an assessment. For example, a lack of cooperation at a local authority level may impact on the timeframe of the HIA (which may subsequently affect the scope of the HIA), and may even result in abandoning an HIA.

There are a number of possible explanations for such a lack of cooperation. For example, local authorities may be unfamiliar with the concept of HIA. In this case, it is necessary to raise awareness about HIA at all levels within a local economy. The fact that HIA is not a statutory requirement, combined with the legal requirement of other forms of impact assessment, may also explain the lack of commitment from organisations outside the health sector. Some commentators have suggested that in the case of developments, local authorities and health organisations may be competing against each other for funds as part of planning obligation agreements.³⁰ Evidence from EIA suggests that developers often contribute some or all of the costs of EIA in order to progress a development. However, due to the non-statutory nature of HIA, there is little incentive for developers to provide funding, as the absence of a HIA is unlikely to slow their progress. In London, resources have been dedicated to providing assistance to the health sector to better understand the planning process more generally and how they can contribute to it through the development of the Healthy Urban Development Unit (HUDU).

³⁰ Planning obligations are typically agreements negotiated between local planning authorities and developers in granting a planning consent. The purpose of planning obligations is to ensure that developers contribute to the infrastructure requirements (such as new access roads, affordable housing and health centres) of a development. Contributions may be made in cash or in kind. The current system of planning obligations is set out in Section 106 of the Town and Country Planning Act 1990. (Further details available at: www.healthyurbandevelopment.nhs.uk/, date accessed: 7 March 2006.)

4.4.3 Exogenous Factors

HIAs are assessments of projects, programmes or policies, and as such may be susceptible to changes in factors that are outside the control of the HIA team. For example, changes in timetables of projects have affected the progress of several HIAs identified in the current study. While extensions to timeframes may have a positive impact on the HIA (within resource constraints), changes in the nature or scope of the subject may lead to uncertainty and inefficiencies for the HIA team particularly, if planning on the HIA process had already commenced.

4.5 INTEGRATING HIA WITH OTHER FORMS OF ASSESSMENT

As discussed in Section 1, there are an increasing number of impact assessments. Where there are overlaps in their terms of reference, there is a strong economic argument for merging separate forms of assessment. For example, both SEA and SA are required to consider impacts on human health. Using HIA to address this requirement would eliminate duplication and provide an opportunity to translate environmental impacts into health outcomes through sharing of information.³¹ These benefits may be achieved at relatively low marginal cost, since health must be addressed in compliance with the SEA Directive in any case.

Furthermore, apart from these economic arguments, integration may also overcome the risk of 'impact overload' resulting from multiple assessment activities.³² For instance, one decision maker mentioned that given limited resources, an increase in the number of impact assessments means that less time and resources can be allocated to each one individually and prioritisation would be given to those with mandatory status. However, a number of participants raised concerns about the potential to undertake integrated assessments given the availability of appropriate tools and guidelines. Such tools were criticised for not being integrated but rather multi-assessment tools. Issues were also raised concerning the depth of expertise currently available to address health in SEA among the organisations that have been commissioned to conduct such assessments. These concerns may be allayed as learning about the SEA and SA processes improves future practice. However, it is precisely at this early stage in the development of SEA and SA that there is an opportunity to embed HIA into these processes.

Given the relatively small number of HIAs reviewed as part of this research, it was not possible to identify the key driver that might lead to integration of impact assessments. Only one of the assessments was part of an integrated model, which combined HIA with SEA and SA. A number of other HIAs were undertaken as parallel processes alongside other impact assessments. However, there was generally no information sharing between the various forms of impact assessments. A number of HIA teams and practitioners were in support of using HIA to consider health impacts within other forms of impact assessment.

³¹ For a discussion of models that have used environmental factors to quantify health impacts, see Section 4.4.3.

³² Ardern K. HIA: a practitioner's view. Chapter in Health Impact Assessment. Edited by Kemm J, Parry J, Palmer S. 2005.

The costs of an assessment which incorporates both SEA and HIA should be compared with those of undertaking these assessments separately to determine whether there are any economies of scale to integrating the assessments. The costs of the integrated assessment, which was studied as part of this cost benefit analysis, amounted to approximately £45,000. The regulatory impact assessment of the SEA Directive has estimated that the cost of a one-off SEA of a local authority development plan might range between £10,000 and £50,000, while an SEA on a regional strategy may cost between £50,000 and £200,000.³³ A private sector briefing paper estimated the costs of an HIA to range between £5,000 and £10,000 for a rapid assessment; £15,000 to £20,000 for an intermediate assessment with community consultation; and £20,000 to £30,000 for a comprehensive assessment with a wide stakeholder consultation.³⁴ Other estimates of the total cost of HIA, cited by Atkinson and Cooke (2005) ranged from between £69,200 to £86,600 for the HIA on Fittingly Airport; £12,650 per HIA undertaken as part of the Merseyside HIA Programme; and £11,000 for an HIA on a local transport plan. This broad range of estimates of the costs of HIA indicate how the costs are dependent on the nature and scope of the HIA, as well as its subject. Consequently, it is difficult to calculate a mean cost of conducting an HIA. In order to improve the planning of HIA in the future, a cost calculator tool has been developed by the London Health Observatory³⁵.

On the basis of these estimates and the cost information contained in this study, it is difficult to draw definitive conclusions about the potential cost savings from combining SEA and HIA when compared to separate assessments separately. However, logic dictates that it would seem sensible to seek opportunities to integrate activities wherever possible to make efficient use of scarce resources.

While cost is only one component, a further question arises concerning whether HIA and SEA together may be more effective in informing decision making than separate assessments. For instance, some interviewees raised concerns that placing HIA within an SEA would narrow the focus of the health assessment to concentrate on the effects of environmental impacts for public health. This risk may be mitigated if guidance is formulated on how health should be addressed as part of the SEA processes. Conversely, a single integrated impact assessment may have more of an impact on decision making and be easier for decision makers to consider than multiple assessments. Further guidance on how health might be incorporated into other impact assessments, particularly SEA would be beneficial.

³³ ODPM, www.odpm.gov.uk/index.asp?id=1143282#P34_3795, date accessed: 23 March 2006.

³⁴ Vohra S (Living Knowledge Consulting). Integrating Health into Environmental Impact Assessment: A briefing report for directors and heads of planning and public health. 2005.

³⁵ HIA Cost Calculator. London Health Observatory. <http://www.lho.org.uk/HIA/AboutHIA.aspx>

Section 5: Conclusions and Recommendations

5.1 CONCLUSIONS

The primary aim of this study was to compare the costs and benefits of HIA by studying a sample of assessments as they were being undertaken. This sample consisted of HIAs which exhibited a broad range of characteristics – such as the type of HIA, subject, and geographical location. The findings suggest that the benefits derived from HIA outweigh the costs of undertaking the assessment, suggesting that HIA is a cost effective use of NHS resources. However, a number of other issues arose during the course of the study which need to be addressed.

The first important finding from this study identified the challenges encountered by individuals and organisations in planning and undertaking HIA. This study followed 15 assessments over a period of just over one year. Of those identified at the beginning of the study period, only a small number of HIAs have been completed on schedule (that is, the HIA has been finished and a decision has been reached). The factors that hindered process are discussed in the previous section. It is difficult to isolate any one particular element as being pivotal to the successful completion of an HIA. However, the following factors seemed to have a positive effect on the ability to undertake an HIA:

- Good relationships between the health sectors and other partners;
- Awareness of HIA within and outside the health sector;
- Previous experience of HIA (which assisted in identify which model works well and how to inform the decision-making process);
- Availability of funding;
- Project management (constantly reviewing the progress of the HIA and identifying risks involved in the process);
- Involvement of decision makers in the process;
- High-level subjects which generated a lot of interest and discussion;
- Circulation of published evidence on the health impacts to workshop participants.

Evidence from some areas where HIA has been prolific suggests that there are potential economies of scale to undertaking HIA. Repetition of HIA allows the HIA team and stakeholders to become familiar with the concept of HIA and to develop an understanding of the wider determinants of health. Furthermore, as has been found in London, the relationships between decision makers (in this case regional planners and the London Health Commission), which have been developed through continued and repeated use of HIA, means that consideration of the health effects is taken into account in the development of the policy, programme or plan.

The voluntary status of HIA seemed to be strongly correlated with many of the challenges encountered by HIA teams. For example, financial and staff resources were not dedicated

to HIA because it was not a statutory requirement. Cooperation from key stakeholders was not forthcoming because they considered that other statutory impact assessments were more important than HIA. However, from studying the participating HIAs and discussions with HIA practitioners, there was a lack of consensus concerning whether HIA should be made statutory. While proponents of this view argued that making HIA statutory would afford more weight to the assessment. Others felt there was a possibility that making HIA a legal requirement would mean that it would only be concerned with a narrow definition. In addition, concerns were raised that HIA may not stand up to legal challenge. Even making HIA mandatory was not considered as a solution because it is not necessary or practical to undertake an HIA on all proposals, programmes or policies.

The application of a more systematic approach to screening may partly overcome this problem by identifying those policies, programmes and projects which would benefit most from HIA. Although not possible to determine from this review, it may also be beneficial to undertake more wide-reaching research to determine whether HIA is more applicable to policies, programmes or projects. It might be that scarce HIA resources are better targeted at a strategic level supporting assessment of policies and projects, as is the case with SEA. By doing so, the health impacts of individual projects would need to be adequately addressed in EIA, which already includes assessment of the impact on the population or human beings, although not human health per se. Further guidance on this issue would help to ensure that HIA is applied in a more systematic manner and that the limited resources for HIA are used optimally.

The methodologies adopted throughout the HIAs considered varied considerably. It is vitally important that adequate attention is paid to the screening and scoping stages as these will impact on all future stages of the assessment. Assessment was generally conducted in a robust manner although there were differences in the degree of literature searching, consultation and the balance of qualitative and quantitative information. Ideally, HIA should adopt a multi-method approach that seeks to bring together the benefits of both qualitative and quantitative assessment.

While some of the HIA teams proposed methods to monitor and evaluate the HIA, there generally seemed to be little consideration given to these areas. A number of HIAs suggested (existing) indicators that could be used to monitor health impacts. Long-term monitoring and assessment of the impact of HIA should be encouraged as a means of showing the value of HIA to decision makers.

The current study suggests that the degree of integration between HIA and other forms of impact assessment is limited and arguments both for and against integration were put forward by HIA practitioners. It seems logical to suggest that an integrated approach to impact assessment would offer savings compared to several stand-alone assessments as there is a common information set required for all the assessments. It could also be argued that integration could improve the efficiency of the decision making process by reducing the number of assessments that need to be considered.

Human health is a core requirement of the SEA Directive so the argument does not relate to the potential for *integration*, but rather the use of HIA to address the health requirement that is already an integral part of the legislation. While the legislation currently states that significant effects on human health should be considered, guidance is required to ensure that a comprehensive and consistent assessment of human health is undertaken. Furthermore, the organisation responsible for undertaking the SEA should have experience and/or an understanding of health and its wider determinants.

At the project level the Environmental Assessment Directive requires that the effects on population are considered. Human health is not explicitly required although it would seem logical to look at health issues as integral to developing an understanding of population effects. Merging the EIA and HIA processes would enhance the data available to both assessments. There is potential for HIA to translate the data contained in the EIA into health outcomes so there would appear to be benefits from closer integration of the two assessments.

The benefits gained from HIA largely focused on those obtained through participation in the process – for example, partnership working and generating an improved awareness of health and its wider determinants. Within the timeframe of this study, it has not been possible to observe the impact of HIA on public health. However, even on the basis of the limited number of completed HIAs considered in this study, it suggests that the benefits of HIA may exceed the costs. Whilst proving that HIA is a cost effective use of NHS resources overcomes the financial barriers associated with further adoption, it is arguably less important than the barriers associated with capacity and multi-agency collaboration that are essential to ensuring that HIA is applied appropriately in the future.

5.2 RECOMMENDATIONS

Guidance and Best Practice for undertaking HIA

- Guidance should be available to Primary Care Trusts, Strategic Health Authorities and Regional Public Health Groups, and to Regional Planning Bodies and Local Planning Authorities, which indicates how and when to undertake HIA. This guidance should be accompanied by a commitment for the practice of HIA from a national (e.g. Department of Health) and/or regional (e.g. Public Health Observatory) level. Where appropriate, Health Impact Assessment should be built into the performance management systems of organisations operating at a local level and monitored by the appropriate bodies (e.g. Healthcare Commission).
- A steering group comprising all relevant stakeholders should be considered early in development to ensure that stakeholders are fully committed to the assessment and understand the implications for their organisation.
- Further consideration should be given to ensuring that the terminology associated with HIA is clearly communicated to relevant bodies. Terms such as ‘rapid’ and ‘comprehensive’ assessments were frequently quoted as being misleading and the

individual stages of HIA (e.g. screening, scoping) were not necessarily understood. Any future guidance should address this issue.

- Information should be shared across individuals and organisations undertaking health and other forms of assessment through the publication of HIA reports and the use of a central network to facilitate networking and discussion between HIA practitioners.

Methods

- Practitioners of HIA should be encouraged to pay more attention to the scoping and screening stages of the assessment. These have been shown to be vital to the success of EIA and HIA practitioners should ensure that appropriate resources are allocated to these early stages of an assessment.
- HIA practitioners should routinely incorporate consideration of health inequalities into the assessment process.
- Where available, quantitative data should be used in conjunction with qualitative data to assess the impacts on health. This will help to improve the acceptability of the findings of HIA.
- Mechanisms should be in place to monitor and evaluate HIAs to determine the impact on decision-making.
- As it may not always be possible for all identified stakeholders to participate in an HIA event, the HIA team should employ alternative methods to extract views from those stakeholders who are unable to attend. For example, a report of the event may be circulated to stakeholders.

Integration with Other Forms of Impact Assessment

- Further guidance is required on how the various types of impact assessment might be integrated to provide the maximum amount of information to decision makers whilst also minimising the burden of assessment. This can be addressed through either the establishment a statutory requirement to undertake HIA alongside other forms of impact assessment or ensuring that those forms of impact assessment that are required to consider health do so in a robust manner.
- Where health is integrated into other forms of impact assessment (for example, SEA or EIA) it would be beneficial to have guidance available for practitioners who may be unfamiliar with dealing with health impacts.
- Where HIA is integrated in other forms of impact assessment, caution needs to be exercised to ensure that the health impact is not ‘watered down.’

- HIA should build on evidence from other forms of impact assessment, notably environmental impact assessments, to determine the impact on the determinants of health that may be affected by a policy or programme.

Capacity and Skills

- The capacity and skills to undertake HIA at a local level need to be strengthened. The Department of Health and other relevant bodies should look to implement appropriate support systems to ensure that there is sufficient capacity to enable HIA in appropriate situations.
- Training and education should be provided to healthcare professionals as well as other relevant organisations (such as local authorities). Consideration should be given to including HIA in the curriculum for relevant professions (e.g. planners).
- Efforts must be made to ensure that capacity and skills are embedded in organisations to support the long-term development of HIA.

Abbreviations

Abbreviation	Meaning
A&E	Accident and Emergency
AAP	Area Action Plan
ARMADA	Age-related Morbidity and Death Analysis
ASHE	Annual Survey of Hours and Earnings
BMA	British Medical Association
BME	Black and minority ethnic
CPD	Continuing Professional Development
CRD	Centre for Reviews and Dissemination
CTRL	Channel Tunnel Rail Link
DEFRA	Department for Environment, Food and Rural Affairs
DH	Department of Health
DPD	Development Plan Document
DTI	Department of Trade and Industry
EIA	Environmental Impact Assessment
ERM	Environmental Resources Management
EST	Energy Saving Trust
GDPO	General Development Procedure Order
GLA	Greater London Authority
GP	General Practitioner
HIA	Health Impact Assessment
HDA	Health Development Agency
HFP	Healthy Futures Programme
HMR	Housing Market Renewal
HUDU	Healthy Urban Development Unit
IEMA	Institute of Environmental Management and Assessment
IIA	Integrated Impact Assessment
LAA	Local Area Agreement
LCH	Local Care Hospital
LDF	Local Development Framework
LHC	London Health Commission
LHO	London Health Observatory
LIP	Local Implementation Plan
LSDC	London Sustainable Development Commission
LSLHA	Lambeth, Southwark and Lewisham Health Authority
LSP	Local Strategic Partnership
LVSC	London Voluntary Service Council
MESH	Medical Subject Headings
MRI	Magnetic Resonance Imaging
NICE	National Institute for Health and Clinical Excellence
NWZ	Newcastle Warm Zone
ODPM	Office of the Deputy Prime Minister
PCT	Primary Care Trust
PEC	Professional Executive Committee
PID	Project Initiation Document

PPC	Pollution Prevention and Control
PPI	Patient and Public Involvement
PRINCE	Projects in Controlled Environments
QALY	Quality-adjusted Life Year
R&D	Research and Development
RES	Regional Economic Strategy
RHEF	Regional Health Executive Forum
RPHG	Regional Public Health Group
RSDF	Regional Sustainable Development Framework
SA	Sustainability Appraisal
SE	South East
SEA	Strategic Environmental Assessment
SHA	Strategic Health Authority
SRDF	Sub-regional Development Framework
WHIASU	Welsh Health Impact Assessment Support Unit
WHO	World Health Organisation
YHEC	York Health Economics Consortium
YHPHO	Yorkshire and Humber Public Health Observatory