



University of the
West of England

Review Evidence

Supplementary Report to Review 1 and Review 2 on: The effectiveness and cost effectiveness of health appraisal processes currently in use to address health and wellbeing during project and plan appraisal

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1. Introduction

This report aims at supplementing the evidence identified through the National Institute for Clinical Excellence (NICE) process of systematic review in relation to the incorporation of health into the appraisal of projects and plans.

During the systematic literature review for Reviews1 (projects) and 2 (plans) a number of citations that were identified that did not meet the inclusion criteria for the individual project or plan appraisal, as they did not contain sufficient detailed information. Some of these citations were however, reviews or summaries of case series of relevant appraisals¹. Although reviews do not normally form part of the evidence base submitted to a Planning Development Group, in discussion with NICE it was agreed that it would be beneficial to consider articles that included a series of primary case studies that would not otherwise be included in R1 and R2. (This would normally be because the level of detail available on each case study made it impossible to extract the data systematically in sufficient detail to include the study in R1 or R2.)

2. Methodology

The following inclusion criteria were used:

- The article had been identified using the search strategy agreed for R1 and R2
- The article had been considered at the full text screening stage for R1 and R2
- The article reported on a series of primary case studies that were not published elsewhere in full.

Critical Appraisal

Included citations were critically appraised (see critical appraisal tool at Appendix 1).

Data Extraction

A data extraction template was designed to take account of the special nature of the review findings (see data extraction tool for reviews at Appendix 2).

¹ One citation found to be review material (Kørnø, 2009) was also included in Review 2 as it met that Review's inclusion criteria. It is therefore included in both.

3. Results

The inclusion criteria led to the identification of nine citations which were critically assessed on quality (see critical appraisal tool at Appendix 1). Following further full text review, four studies were discounted as they either did not refer to spatial planning, or they merely reviewed appraisal methodology rather than effectiveness in influencing spatial planning. Two citations merited a quality score of [++], with the remaining three receiving [+]. The five citations that have been included are listed in Table 1. Copies of the data Extraction Tables are included in Appendix 3.

Table 1 Summary of ‘included’ reviews

Study identification Author, year of publication	Country	Internal validity score ++/+/-	External validity score ++/+/-	Appraisal type reviewed	Subject of Review
Bronson, J & Noble, B. (2006)	Canada	+	+	EIA	Reports on a study of the nature and use of health determinants in northern Canadian environmental impact assessment of spatial planning (ten oil or mining projects). Authors discuss the key challenges to, and opportunities for, improved practice.
Davenport, C., Mathers, J., Parry, J. (2006)	N/R	++	++	HIA	Review of 32 commentary papers and 88 case study reports of HIA.
Kørnøv, L (2009)	Denmark	+	++	SEA	Based on 100 environmental reports, examines the inclusion of health as a formal component in SEA
Taylor, L & Quigley, R. (2002)	N/R	++	++	HIA	Review & appraisal of available systematic review level evidence (14 citations) of whether and how HIA informs decision-making processes (relating to projects and plans).
York Health Economics Consortium (2006)	UK	+	++	HIA	Prospective study of 15 case studies (three relevant, i.e. completed and related to spatial planning) where HIA undertaken with retrospective analysis of control areas.

4. Findings: Outcomes summary table for Reviews

Author, date	Title	Quality	Significant Comments
Bronson, J., & Noble, B. (2006)	Health determinants in Canadian northern environmental impact assessment	+	Health determinants are not well integrated throughout the EIA process, providing little follow-up and monitoring of actual health outcomes and the effectiveness of health impact management programmes.
Davenport, C., Mathers, J., Parry, J. (2006)	Use of health impact assessment in incorporating health considerations in decision making.	++	<p>"HIAs have 'successfully' influenced decision making relating to PPPs when (1) key decision makers are involved in the design and conduct of the HIA; (2) there is organisational commitment to HIA; and/or (3) where statutory frameworks provide legitimacy for HIA within the policy process. They have had influence where HIA recommendations are realistic (read achievable) and echo political drivers."</p> <p>We may wish to widen "success" to include bringing about greater consideration of health into policymaking via less tangible routes—for example, by encouraging inter-sect oral working, by raising awareness of the wider determinants of health and so forth.</p>
Kørnøv, L (2009)	Strategic Environmental Assessment as a catalyst of healthier spatial planning: The Danish guidance and practice	+	<p>Health is included in planning assessment practice, but it is interpreted in a broader sense than national guidance, assessing both negative and positive impacts.</p> <p>Aspects often included include: noise, drinking water, air pollution, recreation/outdoor life and traffic safety, but no reference to equity.</p> <p>Assessment of human health is qualitative.</p>

Taylor L., Quigley R. (2002)	Health Impact Assessment, A review of reviews	++	“There is currently no review-level evidence available to demonstrate if and how the HIA approach informs the decision making process and, in particular, if it improves health and reduces health inequalities”.
York Health Economics Consortium (2006)	Cost Benefit Analysis of Health Impact Assessment Final Report	+	<p>“The majority of HIAs had a positive impact on the decision making process by increasing consideration given to health impacts, but difficult to attribute changes in the planned projects or plans specifically to HIA.</p> <p>The benefits of HIA outweighed the costs.”</p>

5. Findings: Commentary on Individual Studies

Bronson 2006

This paper is the third in a series examining “northern EIA”. It particularly sought to understand (“get a sense of”) the extent to which health determinants are considered in project impact assessment practices by gaining the views of those who had been part of the individual EIAs or had acted as consultees (federal and provincial authorities, and Aboriginals).

The study found that whilst health and quality of life is a main issue for Canadian EIA, more emphasis is given to physical environments as opposed to other, in particular social, determinants of health. Of nine identified health determinants, social support networks, working conditions and physical environments were considered more important than the rest.

The results on the perceived performance of these EIAs varied depending on the health determinant and the consultee, with Aboriginals giving a score of “very poor”, but other respondents scoring them “average” or “above average”.

The study emphasises the lack of understanding on the effect of these major projects on the indigenous population’s culture and livelihoods. Post-approval monitoring of the projects only occurred in 20% of EIAs.

The authors’ conclusions are that new frameworks for EIA in these northern areas need shaping to take account of the different circumstances.

Davenport, 2006

This paper sets out to identify “enables and barriers to HIAs having influence on the decision making process”. The results are categorised into two: “decision makers and the policy process and environment” and “conduct and reporting of an HIA”.

In terms of the former, the authors set out the particular politico-administrative environment for successful HIAs:

1. where key decision makers are involved in the design and conduct of the HIA
2. where there is organisational commitment to HIA; and/or
3. where statutory frameworks provide legitimacy for HIA within the policy process.

In terms of conduct and reporting, the authors summarise other views that:

1. the HIA must be undertaken within a time frame concordant with the decision making process
2. the lack of a standard methodology may be a barrier, and conversely that a consistent approach may facilitate the use of HIAs
3. institutionalising the HIA process within decision making organisations is key.

The authors conclude by suggesting that it is the HIA process (as an education to non-health professionals, or supporting intersectoral working for example) that possibly has more effectiveness than merely identifying health impacts.

Kørnøv, L (2009)

This is a straightforward study consisting of a review of 100 environmental reports of municipal and local spatial plans to understand how health is incorporated into them. It was found that health was included in all but seven of the 100 assessments and often interpreted in a broader sense than national guidance.

The author does not address the issue of implementation of the incorporated health issues. Health issues often included are noise, drinking water, air pollution, recreation/outdoor life and traffic safety, but equity or distributional aspects are rarely considered.

The author criticises the fact that health is usually not promoted in the assessments by the health sector.

Taylor (2002)

This paper used the HDA methodology for systematic review to identify evidence for the preparation of its attached Briefing Paper on how HIA informs the decision-making process and in particular how it improves health and reduces health inequalities.

The systematic review & strict critical appraisal and inclusion criteria only identified one document: McIntyre, L. and Petticrew, M. (1999). *Methods of Health Impact Assessment: a literature review*. MRC Social and Public Health Sciences Unit, Occasional paper No 2.

This paper did not provide the evidence to the authors that the HIA approach informs the decision making process and, in particular, if it improves health and reduces health inequalities.

Twelve other papers were excluded, but the authors used these to extract key points/recommendations:

1. To determine the effectiveness of the HIA approach, and to ensure quality, it is necessary to monitor and evaluate how the HIA process is undertaken (process), whether its recommendations were implemented (impact) and the effect on the health of the local population, for example, did it make a difference and were the outcomes as expected (health outcome)? Does the HIA process add value to the decision-making process, over and above other approaches?
2. Proponents of HIA advocate its use to help raise awareness and address health inequalities. It is suggested that this can be achieved by not only assessing how the proposal affects a population – but more specifically, how these effects are distributed between the different subgroups of the population concerned. It is also recognised there is a tension when trade-offs are required between improving average health and improving the health of the most disadvantaged to reduce inequalities in health.
3. The evidence base was lacking in how interventions assessed by HIA impact on health outcomes. It is recognised that the evidence is often complex because of the interrelationship between health determinants and their causal pathways. The isolation of influences of particular interventions is not easy.
4. The potential for universally acceptable HIA methodologies is noted, as is the need for thought to be given to the best way to involve and work with local communities in HIA.
5. An understanding of the policy-making process.

York Health Economics Consortium (2006)

In looking for evidence of cost-benefit of HIA, this study considered the effectiveness of the various HIA studied. The study disappointed because of the short timescale for reporting, which ruled out many of the 15 HIAs studied. This, added to the fact that only three of the HIAs were related to spatial planning, offered up limited evidence of effectiveness.

In summary (and of relevance) the study concluded that:

1. The benefits of HIA outweighed the costs, as it appeared that the HIA did have a degree of influence on decision making.
2. The timing of the HIA was crucial in ensuring that the health impacts were at very least mitigated.
3. There was a danger that HIA was just used as a validation tool to confirm existing beliefs.
4. Identification of practical challenges and difficulties in conducting HIA; capacity and capability within organisations; changes in scope or timeframe of proposal, project or plan; non-statutory nature of HIA.
5. It might be beneficial to determine whether HIA is more appropriate in assessing plans, programmes and policies, leaving EIA to deal with the project level assessments.

6. Evidence Statement

Five citations reported on various appraisal methods conducted in three countries:

EIA in Northern Canada – Bronson (2006): project appraisal

HIA in UK – Davenport (2006): project & plan appraisal

HIA in UK – Taylor (2002) and York Health Economics Consortium (2006): project & plan appraisal

SEA in Denmark – Kørnørv (2009): plan appraisal.

Two citations had quality scores of [++] (Davenport (2006) and Taylor (2002)), with the remainder scoring [+]. Only the York Health Economics Consortium study is not from a peer-reviewed journal.

All the citations reported that some health issues were addressed in the appraisal process studied. However, Bronson, Kørnørv and Taylor point out that the key issues of health equity and the distributional effects of policy are conspicuous by their absence.

All except Kørnørv (2009) consider that to some degree the appraisal process studied was effective in influencing health outcomes, though there was generally a lack of

clear and unambiguous evidence – due in part (Taylor observes) to complex and multi-dimensional causal pathways. One citation reported changes being made to a proposal following the appraisal (Taylor, 2002) and one of implementation of health recommendations and subsequent evaluation (Bronson, 2006). The York study, taking an economic standpoint, concluded that the benefits justified the costs of appraisal – though also highlights the difficulties of achieving good HIAs – lack of technical capacity, the evaluation of proposals that change and evolve.

In relation to method, Davenport and the York study stress the importance of aligning the HIA process with the decision-making process and the involvement of decision-makers. All four HIA reviews suggested that there would be potential benefits of adopting a more standard methodology and some raise the issue as to whether HIA should become a statutory requirement in some situations. Bronson (reviewing EIA – which is of course statutory) suggests new frameworks are needed to take better account of cultural difference.

All the citations are applicable to the UK's spatial planning processes however Bronson's (2006) Northern Canadian case studies are less relevant to the UK population.

7. References of included studies in this supplementary report

Bronson, J & Noble, B. (2006). *Health Determinants in Canadian Northern Environmental Impact Assessment*. Polar Record 42 (223): 315-324.

Davenport, C., Mathers, J., and Parry, J. (2006) *Use of health impact assessment in incorporating health considerations in decision making*. Journal of Epidemiol Community Health; 60: 196-201

Kørnøv, L. (2009) *Strategic Environmental Assessment as a catalyst of healthier spatial planning: The Danish guidance and practice*. Environmental Impact Assessment Review 29, 60–65.

Taylor, L & Quigley, R. (2002). *Health Impact Assessment - A Review of Reviews*. Health Development Agency.

York Health Economics Consortium (2006). *Cost Benefit Analysis of Health Impact Assessment*. YHEC, University of York 2006.

Appendix 1: Critical Appraisal Tool

Methodology checklist: systematic reviews and meta-analyses

Study identification <i>Include author, title, reference, year of publication</i>			
Aim of Study:			
Checklist completed by:			
SECTION 1: INTERNAL VALIDITY			
In a well-conducted systematic review:		In this study this criterion is: (✓ one option for each question)	
1.1	The study addresses an appropriate and clearly focused question.	Well covered Adequately addressed Poorly addressed	Not addressed Not reported Not applicable
1.2	A description of the methodology used is included.	Well covered Adequately addressed Poorly addressed	Not addressed Not reported Not applicable
1.3	The literature search is sufficiently rigorous to identify all the relevant studies.	Well covered Adequately addressed Poorly addressed	Not addressed Not reported Not applicable
1.4	Study quality is assessed and taken into account.	Well covered Adequately addressed Poorly addressed	Not addressed Not reported Not applicable

1.5	There are enough similarities between the studies selected to make combining them reasonable.	<div>Well covered</div> <div>Not addressed</div> <div>Adequately addressed</div> <div>Not reported</div> <div>Poorly addressed</div> <div>Not applicable</div>
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SECTION 2: OVERALL ASSESSMENT OF THE STUDY		
2.1	How well was the study done to minimise bias? <i>Code ++, + or –</i>	
2.2	If coded as + or – what is the likely direction in which bias might affect the study results?	
SECTION 3: DESCRIPTION OF THE STUDY <i>Please print answers clearly</i>		
3.1	What types of study are included in the review? (<i>Highlight all that apply</i>)	<div>RCT CCT Cohort</div> <div>Case–control Other</div>
3.2	How does this review help to answer your key question?	

Appendix 2: Data Extraction Tool

Data extraction form - Articles that review a series of primary case studies.

Title:

Study details	Population and setting	Project details and method of appraisal	Outcomes assessed*	Results	Notes
Authors Year: Citation: Aim of study: Study design: Quality score: External validity score:	Country: Setting (e.g. urban/rural) Population:	Inclusion criteria: Exclusion criteria Method of data extraction/collection:	Outcomes measured: Outcomes measured: <u>Process outcomes</u> <u>Y/N/NR</u> <u>Details</u> <u>Specific Health Issues</u> <u>Y/N/NR</u> <u>Details</u> <u>Knowledge outcome</u> <u>Y/N/NR</u> <u>Details</u> <u>Other: Y/N/NR</u> <u>Details:</u>		Limitations identified by author(s): Limitations identified by review team: Evidence gaps &/or recommendations for future research: Source of funding:

Where information is 'Not reported' or 'Not applicable' this should be recorded

* Only record outcomes relevant to this review (i.e., physical activity, mental health/ wellbeing, unintentional injury, environmental measures that affect health including air quality, water quality, noise pollution or land contamination, other health outcome, health knowledge or skills of planners, health outcomes included in the assessment process, recommendations about health outcomes included following appraisal, health recommendations acted upon / implemented, evidence of participation / engagement of communities in discussion on health outcomes)

** Only record results relevant to the outcomes in this review

Appendix 3: Data Extraction Tables

(Set out on the following pages)

Data extraction form- Articles that review a series of primary case studies.

Health determinants in Canadian northern environmental impact assessment.

Study details	Population and setting	Project details and method of appraisal	Outcomes assessed*	Results	Notes
<p>Authors Bronson, J & Noble, B.</p> <p>Year: 2006</p> <p>Citation: Polar Record 42 (223): 315-324</p> <p>Aim of study: Reports on a study of the nature and use of health determinants in Canadian northern environmental impact assessment, and discusses the key challenges to, and opportunities for, improved practice.</p> <p>Study design: The primary instrument used in this research was a mail-out survey, supplemented by semi-structured telephone and face-to-face</p>	<p>Country: Northern Canada</p> <p>Setting (e.g. urban/rural) North of the southern limit of the discontinuous permafrost zone</p> <p>Population: Largely indigenous populations</p>	<p>Inclusion criteria: Based on respondents to purposive survey.</p> <p>Exclusion criteria Not reported</p> <p>Method of data extraction/collection: Mail out survey supplemented by semi-structured telephone and face-to-face interviews.</p>	<p>Outcomes measured: <u>Process outcomes Y</u></p> <ul style="list-style-type: none"> •determinants of health are invariably considered in EIA •some implementation of recommendations • evaluation only rarely completed in less than 20% of cases <p><u>Specific Health Issues Y</u></p> <ul style="list-style-type: none"> • Income and social status • Education • Physical health • Personal health practices and coping skills • Social support networks • Working conditions • Physical environments • Healthy childhood development • Health services <p><u>Knowledge outcome NR</u></p>	<ol style="list-style-type: none"> 1. Bias towards consideration of physical environments as the principal determinant of human health. 2. Health determinants not well integrated throughout the EIA process, providing little follow-up and monitoring of actual health outcomes and the effectiveness of health impact management programmes. 3. There exist different understanding and expectations of the nature and role of health determinants, particularly within the Aboriginal context. No one-size-fits-all framework of health determinants 	<p>Limitations identified by author(s): Limited to knowledge & experiences of participants</p> <p>Limitations identified by review team: Limited to remote areas of northern Canada</p> <p>Evidence gaps &/or recommendations for future research: Identify mechanisms to improve upon past practices, and to provide guidance to practitioners on the selection and scope of health determinants</p> <p>Source of funding: Social Sciences and Humanities Research Council of Canada</p>

interviews. Quality score: + External validity score: +			<u>Other: Y</u> <ul style="list-style-type: none"> • Socio-cultural stress • Racism • Personal development • Self esteem • Mental health • Assistance to families left with one or no parents as a result of employment opportunities outside the community 		
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Data extraction form- Articles that review a series of primary case studies.

Title: *Use of health impact assessment in incorporating health considerations in decision making.*

Study details	Population and setting	Project details and method of appraisal	Outcomes assessed*	Results	Notes
<p>Authors Davenport, C., Mathers, J., Parry, J.</p> <p>Year: 2006</p> <p>Citation: Journal of Epidemiol Community Health;60:196-201</p> <p>Aim of study: To identify from a range of sources the factors associated with the success of HIA in integrating health considerations into the final decision and implementation of a planned policy, programme, or project.</p> <p>Study design: (a) a review of HIA case studies; (b) a review of commentaries, reviews and discussion papers relating to HIA and decision making; and</p>	<p>Country: Not specified</p> <p>Setting (e.g. urban/rural) Not specified</p> <p>Population: Not specified</p>	<p>Inclusion criteria: Published & unpublished HIA case studies. Reviews of commentaries. Reviews and discussion papers.</p> <p>Exclusion criteria If not linked to a decision/set of decisions</p> <p>Method of data extraction/collection: To list HIA characteristics & author perceptions.</p>	<p>Outcomes measured: <u>Process outcomes Y</u></p> <ul style="list-style-type: none"> - Role of decision-maker - Timing of HIA - Methods of reporting <p><u>Specific Health Issues</u> N</p> <p><u>Knowledge outcome N</u></p> <p><u>Other: N</u></p>	<p>The review highlights the current lack of empirical evidence available concerning the effectiveness of HIAs in influencing decision making processes</p> <p>“HIAs have ‘successfully’ influenced decision making relating to PPPs when (1) key decision makers are involved in the design and conduct of the HIA; (2) there is organisational commitment to HIA; and/or (3) where statutory frameworks provide legitimacy for HIA within the policy process. They have had influence where HIA recommendations are realistic (read achievable) and echo political drivers.”</p> <p>“We should reflect on whether it is possible to</p>	<p>Limitations identified by author(s): Articles reviewed by only one person.</p> <p>Limitations identified by review team: Difficult to see where evidence on effectiveness is from.</p> <p>Evidence gaps &/or recommendations for future research:</p> <p>Source of funding: Not reported</p>

<p>(c) an email survey of a purposive sample of HIA academics & practitioners, and policymakers. Information was captured on the following characteristics: information on the year undertaken; geopolitical level; setting; sector; HIA type; methods and techniques used; identification of assessors</p> <p>Quality score: ++</p> <p>External validity score: ++</p>				<p>link the characteristics of HIA to success, if we define “success” in terms of evidence of a change in/influence on a specific policy action or decision. HIA may bring about greater consideration of health into policymaking via less tangible routes—for example, by encouraging intersectoral working, by raising awareness of the wider determinants of health and so forth.”</p>	
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Data extraction form- Articles that review a series of primary case studies.

Title of paper: SEA as catalyst of healthier spatial planning

Study details	Population and setting	Project details and method of appraisal	Outcomes assessed*	Results	Notes
<p>Authors Kørnø, L</p> <p>Year: 2009</p> <p>Citation: EIA review 29, p. 60-65</p> <p>Aim of study: Examines inclusion of health as a formal component in spatial planning impact assessment. Based on a documentary study of 100 environmental reports, analyses of how health impact considerations are incorporated in SEA practice in Denmark.</p> <p>Study design: documentary analysis of 100 environmental reports</p> <p>Quality score: +</p> <p>External validity score: ++</p>	<p>Country: Denmark</p> <p>Setting (e.g. urban/rural) Not specified</p> <p>Population: Not specified</p>	<p>Inclusion criteria:</p> <p>Environmental Reports which:</p> <ul style="list-style-type: none"> - Include environmental assessment of spatial plans - municipal & local levels <p>Exclusion criteria</p> <p>N/R</p> <p>Method of data extraction/collection:</p> <p>Document analysis.</p>	<p>Outcomes measured:</p> <p><u>Process outcomes</u> NR</p> <p><u>Specific Health Issues</u> Y</p> <p>Details</p> <ul style="list-style-type: none"> - Physical activity - Environmental Health - Unintentional injury - Other e.g. shadowing & visual impact <p><u>Knowledge outcome</u> N</p> <p><u>Other:</u> N</p>	<p>In Denmark, municipal practice of SEA demonstrates:</p> <ul style="list-style-type: none"> - Health is included in planning assessment practice - Health is interpreted in a broader sense than national guidance - Aspects often included include: noise, drinking water, air pollution, recreation/outdoor life and traffic safety - Both negative and positive impacts on health are assessed - Assessment of human health is qualitative - No reference to equity <p>The presentation of human health impacts is lacking in environmental reports (i.e. no separate heading in reports)</p>	<p>Limitations identified by author(s): None</p> <p>Limitations identified by review team: None</p> <p>Evidence gaps &/or recommendations for future research: N/R</p> <p>Source of funding: not known</p>

Data extraction form- Articles that review a series of primary case studies.

Health Impact Assessment A review of reviews

Study details	Population and setting	Project details and method of appraisal	Outcomes assessed*	Results	Notes
<p>Authors Taylor, L & Quigley, R.</p> <p>Year: 2002</p> <p>Citation: Health Development Agency</p> <p>Aim of study: If and how the HIA approach informs the decision making process and, in particular, if it improves health and reduces health inequalities.</p> <p>Study design: Review & appraisal of available systematic review level evidence.</p> <p>Quality score: ++</p> <p>External validity score: ++</p>	<p>Country: Not identified</p> <p>Setting (e.g. urban/rural) Not identified</p> <p>Population: Not identified</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • English language only • 1996 to January 2002 • Systematic reviews, syntheses, meta-analyses and literature reviews • The effectiveness of the HIA methodology/approach/process (if and how the HIA approach informs the decision making process and, in particular, if it improves health and reduces health inequalities). <p>Exclusion criteria If the document provided:</p> <ul style="list-style-type: none"> • an overview and/or critical appraisal of HIA developments within a country/region/locality, or • an individual HIA case study, or • descriptive account of a tools/resources 	<p>Outcomes measured:</p> <p><u>Process outcomes</u> Y Case study evidence that Manchester Airport HIA contributed to proposal changes.</p> <p><u>Specific Health Issues</u> NR</p> <p><u>Knowledge outcome</u> NR</p> <p><u>Other:</u> NR</p>	<p>Out of a total of 13 documents, only one met the inclusion criteria:</p> <p>McIntyre, L. and Petticrew M. (1999). <i>Methods of Health Impact Assessment: a literature review</i>. MRC Social and Public Health Sciences Unit, Occasional Paper No 2.</p> <p>Other documents were excluded on the basis of their quality.</p> <p>The authors conclude that “<i>there is currently no review-level evidence available to demonstrate if and how the HIA approach informs the decision making process and, in particular, if it improves health and reduces health inequalities</i>”.</p>	<p>Limitations identified by author(s):</p> <ul style="list-style-type: none"> • Limiting evidence only to reviews. • Limited to HIA • Limitation of only including published material • Subjectivity of the critical appraisal process <p>Limitations identified by review team:</p> <p>Evidence gaps &/or recommendations for future research:</p> <ul style="list-style-type: none"> • Monitoring and evaluation • Inequalities • Evidence • Methodology. <p>Source of funding:</p> <p>Health Development Agency</p>

		<p>development. In addition papers that focused on other forms of impact assessment, for example environmental, were excluded.</p> <p>Method of data extraction/collection:</p> <p>Not recorded.</p>			
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Data extraction form- Articles that review a series of primary case studies.

Title of paper: *Cost Benefit Analysis of Health Impact Assessment Final Report November 2006*

Study details	Population and setting	Review details and method of appraisal	Outcomes assessed*	Results	Notes
<p>Authors York Health Economics Consortium</p> <p>Year: 2006</p> <p>Citation: Cost Benefit Analysis of Health Impact Assessment. YHEC, University of York 2006</p> <p>Aim of study: To undertake a cost-benefit of HIA</p> <p>Study design: Prospective study of 15 case studies (3 relevant, i.e. completed and related to spatial planning) where HIA undertaken with retrospective analysis of control areas.</p> <p>Quality score: +</p> <p>External validity score:</p>	<p>Country: England</p> <p>Setting Range of 8 projects and 7 strategies including economic development strategy, spatial planning and economic development strategy, older people's strategy, health care delivery project (3) and plan (1), regeneration project (1) and strategy (1), winter heating project, health promotion project, healthy school meal proposal, transport strategy, child care project.</p> <p>Population: Varied UK locations;</p>	<p>Inclusion Criteria HIAs identified from key respondents in government offices, public health observatories, universities, HIANET mailing list, Local Strategic Partnerships; final selection based on pragmatic selection with HIA included if the assessment would be concluded by April 2006.</p> <p>Exclusion criteria HIA not completed by April 2006</p> <p>Method of data extraction/collection: Preliminary meeting with HIA and research team. End of stage survey with HIA leads Questionnaires provided to other stakeholders, including decision makers</p>	<p>Outcomes measured: <u>Process outcomes Y</u> Process Evaluation: -Barriers to development/process of HIA -Costs involved in undertaking HIA</p> <p>Impact Evaluation: -Identify qualitative benefits of HIA -Value of perceived benefits of HIA</p> <p>Outcome evaluation: -Value the impact of HIA of public health</p> <p><u>Specific Health Issues</u> NR</p> <p><u>Knowledge outcome</u> NR</p> <p><u>Other Y</u> Costs</p>	<p>-Benefits of HIA outweighed the costs - identification of practical challenges and difficulties in conducting HIA; capacity and capability within organisations; changes in scope or timeframe of proposal, project or plan; non-statutory nature of HIA - monitoring and evaluation influences by lack of resources - majority of HIAs had a positive impact on the decision making process by increasing consideration given to health impacts, but difficult to attribute changes in the planned projects or plans specifically to HIA</p>	<p>Limitations identified by author(s): -The sample of HIAs considered may not be representative due to the need for a pragmatic approach to sampling to fit in with timeframe for completing research - not possible to determine whether outcomes predicted by HIA and mitigating steps put in place to address them were realised in practice due to length of study.</p> <p>Limitations identified by review team: Timeframe for research unhelpful</p> <p>Evidence gaps &/or recommendations for future research: Longer term studies need to assess whether outcomes predicted by HIA and mitigating</p>

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