REVIEW PROTOCOL

NIHR PHR Review Team

Evidence review of the effectiveness and cost effectiveness of Health Impact Assessment in spatial planning.

ScHARR review team:

Lindsay Blank (Project lead and lead reviewer),

Anna Cantrell (Information specialist)

Emma Hock (reviewer)

Liddy Goyder (Lead Director)

Andrew Booth (Co-Director, Chief Methodologist)

Katie Lewis (Administrator)

Project advisors:

Michael Chang (OHID)

Stakeholders and PPI: see Appendix 2

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Summary

- This work has been commissioned to provide an independent review and synthesis of research evidence on the effectiveness and cost effectiveness of Health Impact Assessment (HIA) in spatial planning.
- It will aim to provide national and local policy makers with the best available evidence to determine the implications for practice and to contribute to developing HIA guidance for England in particular (guidance in Scotland, Wales and Northern Ireland currently exists).
- We will identify, appraise and synthesise the evidence from published research and policy documents in order to produce an evidence review which can add to our understanding of the effectiveness and cost effectiveness of Health Impact Assessment in spatial planning, and inform future policy and practice. The review will also identify if there are significant gaps in the relevant evidence base.
- The first stage will involve completion of scoping literature searches and identification of relevant evidence including database and website searches. A workshop (and additional consultation as required) with stakeholders and topic experts will be used to refine the review questions and inclusion criteria, identify unpublished evidence, and ensure that the review will be meaningful to those working in the field of HIA in spatial planning.
- A mixed methods review will be undertaken (where the evidence permits), incorporating a synthesis of intervention studies, observational studies and qualitative studies.
- Given the complex nature of the topic, the review will take an iterative approach to evidence identification and synthesis and seek advice from key topic experts and stakeholders to ensure that relevant evidence is identified and appropriately interpreted.
- In consultation with stakeholders, the review will form the basis for evidence-based recommendations for policy, service development and future research, including the development of HIA guidance for England.
- The primary research output (a peer reviewed research paper) will be submitted, and all associated outputs will be delivered, by the end of March 2024.

Background

Health Impact Assessment (HIA) is a decision support approach for the advancement of health and wellbeing, used in project development and management, as well as in urban planning and policy making (Fisher et al. 2021). HIA is applied in local (spatial) plan making and project development planning.

In England, the use of HIA has recently been widely advocated within a 'Health in All Policies' (HiAP) context (Chang, 2019). However, no national guidance on the use of HIA exists. In contrast, HIA is a statutory requirement in specific circumstances, based on the Public Health Wales Act, 2017; and in Scotland, the 'Health and Inequalities Impact Assessment Network (SHIIAN)' aims to provide support (e.g. training and capacity building) for those engaging with HIA.

Systematic reviews of the use and benefits of HIA have been conducted in Australia/New Zealand (Haigh et al. 2013), and the US (Bever at al. 2021), but there is no recent synthesis of HIA in the UK context.

Therefore there is a wealth of guidance and some UK case studies to inform best practice in the use of Health Impact Assessment to inform planning decisions, but a lack of clear evidence on the effectiveness or cost-effectiveness of HIA in achieving health benefits. This is required to inform appropriate evidence-based decision making about whether to invest resources in HIA.

There is a need to undertake an up-to-date evidence synthesis to understand the current evidence for the effectiveness and cost effectiveness of Health Impact Assessment in spatial planning.

Aim and objectives

The overall aim of this review is to identify, appraise and synthesise research evidence that examines the effectiveness and cost effectiveness of Health Impact Assessment in spatial planning. We will aim to gain an evidence-informed understanding of the relevant factors and causal mechanisms in order to make evidence-based recommendations for policy, practice and future research priorities.

Specific objectives will be:

- To conduct a systematic review to identify, appraise and synthesise the most relevant research evidence on the effectiveness and cost effectiveness of Health Impact Assessment in spatial planning.
- To identify evidence-based recommendations for Health Impact Assessment in spatial planning, and future research to address identified research gaps.
- To contribute to developing HIA guidance for England.

Project plan

The work will be undertaken in two stages.

1) The first stage will involve completion of scoping literature searches and identification of relevant evidence including database and website searches. A workshop (and additional consultation as required) with stakeholders and topic experts will be used to refine the review questions and inclusion criteria, identify unpublished evidence, and ensure that the review will be meaningful to those working in the field of HIA in spatial planning. Existing models of HIA will be identified and used as a tool to guide and inform consultations with stakeholders. Workshop participants will be asked to help to clarify the scope and inclusion criteria for the review, suggest keywords for searching and identify potential sources of evidence.
2) We will undertake a systematic review, potentially drawing upon both quantitative and qualitative studies and included research and policy reports as well as journal publications. We will also focus on UK specific evidence as the most relevant given potential differences in HIA policy and norms between the UK and other European and high-income countries. Additional research from other developed countries may be considered for inclusion depending on relevance to UK, and the overall quantity and quality of UK evidence identified. Stakeholder views on the inclusion of international evidence will be sought.

Proposed methodological approach

Literature search and screening

We will begin by conducting searches in relevant databases. The search will comprise subject headings and free-text terms and will be initially developed on MEDLINE then adapted for the other databases. Search dates will consist of 2012-2023 based on major planning and public health reforms which took place in 2012 (Carmichael et al 2019) including Public Health coming under council control.

We will search the following databases:

- MEDLINE
- EMBASE
- PsycINFO
- Social Science Citation Index (Web of Science)
- Applied Social Sciences Index and Abstracts (ASSIA)
- International Bibliography of Social Sciences (IBSS)
- CINAHL
- Scopus

A sample search strategy is provided in Appendix 1.

The initial search will be restricted to papers in English and UK studies will be selected for consideration. Key papers published outside the UK will be noted for inclusion in the discussion of findings. An iterative approach to evidence identification and synthesis will be applied, with further searches undertaken by refining the terms as required.

Database searching will be accompanied by the following search methods:

- Scrutiny of reference lists (of included papers and relevant systematic reviews)
- Scrutiny of recent policy documents for relevant, peer reviewed evidence.
- Citation searching of key evidence sources
- Web search for any relevant UK grey literature on websites of organisations working in the field of HIA
- Consultation with local and national stakeholders, topic experts and public representatives will ensure key documents have been included. A full list of contributors is provided in Appendix 2.

Search results will be downloaded to a reference management system (EndNote) and screened against the inclusion criteria by one reviewer, with a 10% sample screened by a second reviewer. Uncertainties will be resolved by discussion between the two reviewers and among the wider review team as required.

Review scope and inclusion criteria

Review question: What is the effectiveness and cost effectiveness of HIA in spatial planning?

Population: People living in the UK in an area which is subject to a HIA.

Intervention: The undertaking of a HIA in the UK.

Comparator: Where studies with control groups exist we will include all control areas/conditions and also before and after analysis depending on study designs. Studies without control groups will also be considered for inclusion.

Outcomes: all measured outcomes that may impact on the health and wellbeing of the local population including potential impact on inequalities. Other impacts relating to the HIA such as behaviour change (i.e. use of services), community engagement and satisfaction will also be included. Wider outcomes relating to process evaluation (i.e. what factors might influence the

implementation and impact of HIA) will also be noted from studies with a focus on health outcomes, but will not be specifically searched for.

Study types: Quantitative, qualitative, and observational studies as available. Systematic reviews will be excluded to avoid double-counting but their reference lists will be scrutinised for relevant evidence. Books and dissertations will be excluded (but reference lists may be checked for relevance in specific cases). Case studies will be considered on an individual basis in terms of their study design and risk of bias. Studies published in languages other than English are excluded from the review.

Data extraction and quality appraisal

We will extract and tabulate key data from the included papers. Data extraction will be performed by one reviewer, with a 10% sample checked for accuracy and consistency. For qualitative papers we will extract data from both the authors' findings and from raw data within the published paper. A data extraction form for each type of study design (quantitative, qualitative, and observational) will be designed, piloted and refined. Quality (risk of bias) assessment will be undertaken using appropriate tools for the types of study designs included. Quality assessment will be performed by one reviewer, with a 10% sample checked for accuracy and consistency. The overall quality of the evidence base will also be considered.

Data extraction will be performed by one reviewer, with a 10% sample checked for accuracy and consistency. Quality (risk of bias) assessment will be undertaken using appropriate tools for the types of study designs included. Quality assessment will be performed by one reviewer, with a 10% sample checked for accuracy and consistency. The overall quality of the evidence base will also be considered.

Method of synthesis

The extracted data will be synthesised narratively. Additional forms of analysis and synthesis will depend on the characteristics of the evidence identified. We will seek to characterise key features of the literature including strengths, limitations and gaps. These will be validated by our PPI and stakeholder participants and reflected in the associated model as it develops. Assessment of the overall quality and relevance of evidence will form part of the narrative synthesis. We will describe the volume, quality and degree of consistency in the evidence, and where there are gaps requiring future primary research.

Registration and outputs

We will make the protocol available via the PHR programme website, our own website and PROSPERO.

The framework and associated evidence synthesis will be shared with national policy makers, local government representatives (officers and councillors), and other key representatives (e.g. commercial providers of HIA) as identified by stakeholders.

Proposed outputs:

- Peer-reviewed journal article for environmental policy/public health journal
- Conference abstract to be submitted to the Society for Social Medicine Annual Scientific Meeting
- Evidence summary for decision-makers
- Summary materials for public audiences
- Social media posts relating to the above

Stakeholder involvement

Initial stakeholder consultation has taken place with firstly with Michael Chang at OHID and secondly through a workshop with 40 stakeholders from local council planning departments, local and national public health bodies, academic experts and commercial HIA providers, which has shaped this protocol and the scope of this review (e.g. to refine inclusion criteria and suggest sources of evidence). Further stakeholder consultations are planned throughout the process of undertaking the review (to gain feedback and advice on the interpretation and implications of the evidence synthesis, including presenting the review findings to diverse audiences). We have identified key stakeholders through contacts already known to us and Michael Chang, using a 'snowball' technique. We will also consult Public Health PPI panels and community members as the review progresses and will seek advice on what we are finding in the research, and for help designing information for members of the public.

Timetable

Table 1. sets out our proposed timeline for completion of the review. We will hold regular team meetings to monitor progress and will keep the PHR programme team informed of progress at regular intervals.

Table 1: Timeline for completion of the review

Task	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	+

Scope and initial protocol agreed	x												
Scoping searches	x	x											
Workshop with stakeholders 23/5		x											
PPI recruitment and meeting 1			x										
Evidence identification			x	x									
Data extraction / QA			x	x									
PPI meeting 2						x							
Data analysis					x	x	x						
Drafting and circulation of main findings								x					
PPI meeting 3									x				
2nd workshop with stakeholders									x				
Paper writeup and submission										x	x		
Other outputs											x	x	
Conference submission													x

References

Bever et al. 2021. Use of health impact assessments in the housing sector to promote health in the United States, 2002–2016. J Hous and the Built Environ 36, 1277–1297 (2021). https://doi.org/10.1007/s10901-020-09795-9

Carmichael et al. 2019. Urban planning as an enabler of urban health: Challenges and good practice in England following the 2012 planning and public health reforms. Land Use Policy, Volume 84, 2019, Pages 154-162. https://doi.org/10.1016/j.landusepol.2019.02.043.

Chang, M., 2019. The State of the Union: reuniting health with planning in promoting healthy communities. Town and Country Planning Association. https://www. tcpa. org. uk/the-state-of-the-union-reuniting-health-with-planning-1.

Fischer et al. 2021. Health impact assessment in spatial planning in England–types of application and quality of documentation. Environmental Impact Assessment Review. 2021 Sep 1;90:106631.

Haigh et al. 2013. Characteristics of health impact assessments reported in Australia and New Zealand 2005-2009Aust NZ J Public Health. 2013; 37:534-46 doi: 10.1111/1753-6405.12102

Appendix 1: Search strategy

Database: Ovid MEDLINE(R) and Epub Ahead of Print, In-Process, In-Data-Review & Other Non-Indexed Citations and Daily <1946 to January 20, 2023>

Search Strategy:

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1 Health Impact Assessment/ (925)

2 ("health impact assessment*" or HIA).mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (2527)

3 1 or 2 (2527)

4 Evaluation Study/ or Program Evaluation/ (320539)

5 evaluation*.mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (1962139)

6 monitor*.mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (1153205)

7 method*.mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (10674209)

8 assess*.mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol

supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (4023296)

9 tool*.mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (938976)

10 good practice.mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (4624)

11 ((good or best) adj1 practice).mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (22476)

12 procedure*.mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (1650817)

13 approach*.mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (2248562)

14 influenc*.mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (1739999)

15 "pathway to impact*".mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] (421)

16 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15 (15632406)

17 3 and 16 (2281)

18 limit 17 to humans (1857)

19 limit 18 to english language (1704)

20 limit 19 to yr="2013 - 2023" (1271)

21 limit 3 to "review articles" (284)

22 limit 21 to (english language and yr="2013 - 2023") (190)

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Appendix 2: Stakeholders

Original topic proposal considered by the Prioritisation Committee. Large number of interested stakeholders and wide range of evidence needs identified:

Workshops organised for planners and public health by ScHARR and Michael Chang (OHID):