

ACHEIA

***Equity-Focused
Health Impact Assessment***

A Literature Review

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Australasian Collaboration for Health Equity Impact Assessment

Suggested Reference

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Equity Focused Health Impact Assessment: a literature review, Sydney: Centre for Health Equity Training Research and Evaluation (CHETRE) on behalf of the Australasian Collaboration for Health Equity Impact Assessment (ACHEIA).

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EXECUTIVE SUMMARY

Introduction

This report has been undertaken as part of the Equity Focused Health Impact Assessment (EFHIA) Project to identify the rationale for developing an equity focused HIA framework. Definitions used in this report include:

Health impact assessment (HIA) is a combination of procedures, methods and tools by which a policy, program or project may be assessed and judged for its potential, and often unanticipated, effects on the health of the population, and the distribution of those effects within the population.

Impact assessment is a process whereby predictions are made about the future consequences or impacts of changes being made or considered.

Health equity is about equal access to services for equal need, equal utilisation for equal need and equal quality of care for all, with a focus on health outcomes. An equity approach recognises that not everyone has the same level of health or level of resources to deal with their health problems and it may therefore be important to deal with people differently in order to work towards equal outcomes.

Equity focused health impact assessment (EFHIA) uses HIA methodology to determine the potential differential and distributional impacts of a policy, program or project on the health of the population, as well as specific groups within that population, and assesses whether the differential impacts are inequitable.

Health differentials are measurable differences, variations and/or disparities in the health of individuals or groups.

Background

The Australian Government's Public Health Education and Research Program (PHERP) has funded two projects to explore the application of health impact assessment (HIA) in Australia:

1. the first project examined the use of HIA as a tool for policy and program development in Australia, and
2. the second project seeks to develop a framework for equity focused health impact assessment (EFHIA) which is being tested through five case studies.

Equity is a core principle underpinning HIA. The aims in developing a framework for EFHIA are to:

- raise awareness of the need to address differential impacts and inequity in all health impact assessments, and
- provide a structured process for doing this throughout the HIA process.

Methods

References were identified by:

- searching the published literature;
- compiling a grey literature citation index, and
- web searching.

Figure 1: Literature Review Process



References were excluded if they were published before 1994, didn't deal with impact assessment or were not published in English. Identified references were reviewed to assess:

- how equity is addressed in the methodologies put forward;
- how effective are these methodologies in systematically addressing/incorporating equity;
- what is the rationale for a separate form EFHIA, and
- what models for EFHIA have been developed.

These reviews were qualitatively analysed in NVivo using a grounded theory approach.

Please note that this review may not reflect all aspects of current practice due to the range of information drawn on. It is hoped, however, that it may highlight possible

future directions and gaps within the field of HIA, with particular reference to equity issues.

Descriptive Findings

A total of 42 references were identified:

Table 1: Search Strategies by Exclusion Category

	Search Strategy 1: Database Searching	Search Strategy 2: Grey Literature Citation Index	Search Strategy 3: Recent Material	Total Number of References
Total Identified	563	4	12	579
Excluded: Not Recent	83	0	0	83
Excluded: Not Relevant	428	0	2	430
Excluded: Not English language	24	0	0	24
Excluded: Unable to Locate	0	0	0	0
Total in Final Review	28	4	10	42

Fifty-seven percent (57%, n=24) of references originated from the United Kingdom. Seventy-nine percent (79%, n=33) of references had been published in the past 3 years. Sixty-four percent (64%, n=27) of references were commentary or discussion pieces. Seventy-one percent (71%, n=30) of references dealt with health impact assessment, as opposed to other forms of impact assessment.

The literature identified is limited, drawing largely on what might traditionally have been viewed as low-level evidence. In light of this it is difficult to make comprehensive conclusions about HIA practice.

How is Equity Addressed in Methodologies for (General) Impact Assessment?

Equity is currently not effectively addressed in the methodologies generally employed in other forms of impact assessment. Differential impacts, when they are considered, are usually done so in terms of:

- gender;
- ethnicity, and
- locational disadvantage arising from proximity to the proposed development.

Differential impacts are generally assessed with a view to minimising negative impacts, not necessarily in order to maximise positive impacts. They are also usually assessed without explicit consideration of an equity dimension.

Community participation is the most cited mechanism to ensure the consideration of equity. It does this through:

- making explicit the trade-offs associated with a proposal, and
- identifying the groups most negatively impacted by the proposal.

The mechanisms for addressing equity identified in the literature may have limited practical effectiveness. There are several key assumptions that remain untested and undescribed within the broader impact assessment literature.

How is Equity Addressed in Methodologies for Health Impact Assessment?

HIA has greater scope to address equity than other forms of impact assessment because:

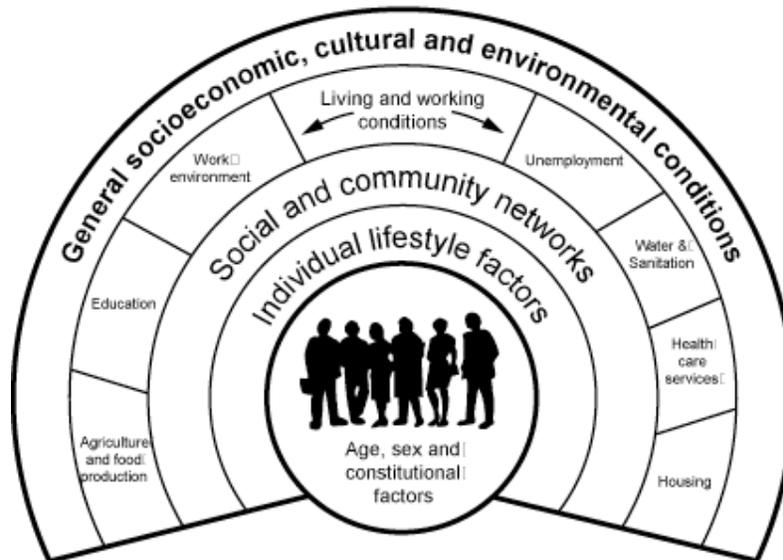
- it is more often used as a tool to directly assist decision making, rather than being an adjunct to it;
- equity is a core principle of HIA; and
- HIA is being driven internationally by action to reduce health inequalities.

Equity is being incorporated in HIA through both explicit and implicit mechanisms, though these are mainly inferred rather than stated. The **explicit** mechanisms include the **application of HIA principles**, which include equity, and **guidance on how to undertake HIA**:

- **Screening**
Equity considerations may act as a trigger for HIA.
- **Scoping**
Equity, health and the impacts considered are defined. Frameworks for evidence (collecting and valuing them) are also determined.
- **Identifying and assessing potential impacts**
Impacts are assessed against groups on the basis of certainty, severity and measurability.
- **Negotiation and decision making**
This step is poorly addressed in guidelines for HIA, instead relying on scoping to set the basis for equity-based decision making.
- **Monitoring and evaluation**
This rarely happens in HIA, as in other forms of impact assessment.

The **implicit** measures that may lead to the consideration of equity in HIA include:

- Using a **broad definition of health** that incorporates the determinants of health and widens the range of impacts considered (see Figure 2).
- Encouraging **community participation** so that those most affected are involved in assessing the impacts of the proposal. This view approach is underpinned by the assumption that those most affected will be able to make their views heard.
- **Drawing on a wide range of evidence** to effectively inform decision making, including both quantitative and qualitative data. This is to ensure that the HIA's findings will be relevant by addressing contextual issues of appropriateness, satisfaction and acceptability as well as broader issues of effectiveness

Figure 2: The Main Determinants of Health

Source: Dahlgren G, Whitehead M. *Policies and Strategies to Promote Social Equity in Health*. Stockholm: Institute of Futures Studies, 1991; cited in Acheson D, 1998¹.

When considering differential impacts the following categories should form a minimum basis for the assessment of differential impacts:

- **Gender**
- **Age**
- **Ethnicity**
- **Socioeconomic position**
- **Locational disadvantage**

Despite HIA having greater scope to address equity than other forms of impact assessment there is a lack of clear direction and guidance on how to make equity determinations. This is reflected in the gap that exists in current approaches between considering health differentials as a first step and addressing health equity as a second step. Structured guidance is needed in order to incorporate equity at all stages within HIA.

What is the Rationale for a Separate Form of Equity Focused HIA?

There was initial interest in EFHIA and health inequalities impact assessment (HIIA) following the *Jakarta Declaration on Leading Health Promotion Into the 21st Century* and the *Independent Inquiry into Inequalities in Health* in the United Kingdom. A methodological seminar was held in 2000 in the UK to discuss ways forward. At this seminar it was decided that equity should be integrated into all HIAs, rather than pursuing a separate form of EFHIA or health inequalities impact assessment (HIIA). Since that time there has been little work done on a separate form of EFHIA.

As a result of this there is only a limited amount of information available on the rationale for EFHIA and specific methodologies that might be used to undertake it. What is clear is that there is a lack of guidance on how to move from the consideration of differential impacts to explicitly addressing issues of avoidability and fairness. The differential impacts currently considered generally focus on:

- identifying those most negatively impacted rather than looking at positive impact as well, and
- don't examine equity issues in the distribution of these impacts, such as whether they are avoidable or unfair.

Clearer guidance is required if an equity dimension is to be incorporated at *all* stages of a HIA. Current guidelines stress the need to incorporate equity in HIA but provide limited practical direction on how to ensure this.

What Models Have Been Developed?

Four specific approaches were identified in this review, though none explicitly address EFHIA per se. Instead they focus on:

- providing guidance for all types of HIA;
- putting forth a health inequalities impact assessment (HIIA) approach, and
- identifying health inequalities, planning action to address them and measuring progress.

The Merseyside Guidelines provide structured guidance on the steps of HIA and stress the need for inclusiveness, transparency and community participation within a HIA.

The Bro Taf Health Inequalities Impact Assessment (HIIA) proposes:

- a policy audit that would provide a health inequalities focus for decision making in the case of smaller changes, and
- a rapid appraisal methodology that can be used to assess health inequality impacts across a broad range of determinants of health, and would be undertaken on new projects or changes to major changes to existing services.

The **Equity Audit** and the **Equity Gauge** were not developed for HIA specifically. They put forth a number of key questions and methods that enable the equity issues within an area or group to be identified and acted upon. They provide a useful framework for identifying inequitably affected groups, conceptualising equity impacts and monitoring them.

These approaches do not explicitly address the equity dimension of HIA relating to the distribution of impacts that are unfair and avoidable. All four approaches outlined stress the need to include strong and meaningful community participation for equity to be considered. Different levels of EFHIA, i.e. desk-based audits, intermediate health impacts statements and comprehensive HIAs, require different practical steps to consider health equity. Relying on community participation as the sole mechanism to ensure equity will be a difficult goal to achieve in practice – a range of measures are required. There is a clear need for a consolidated model that systematically incorporates equity in HIA, rather than focusing on only equity or only HIA.

Discussion

The bulk of the literature identified in this review takes the form of commentary and originates from the United Kingdom. This reflects not only HIA's growth in the UK, but also its status as an emerging field and the impediments to disseminating HIA findings that exist. This review found that equity is not effectively addressed in other forms of impact assessment, with issues of avoidability and fairness rarely examined.

HIA may have greater scope to consider equity due to the explicit and implicit mechanisms it utilises to address health equity. The extent to which these mechanisms lead to the consideration of health equity in practice is still very much open to question. This is largely due to the unexplained leap that is required to move from identifying differential impacts to making a determination about avoidability, fairness and avenues to address inequities.

A specific form of HIA that addresses equity has not been developed, practitioners favouring an "equity in every HIA" approach. There is however a lack of structured guidance or tools that may be drawn upon to achieve this goal in practice. A gap in the literature was identified for an approach that:

- moves beyond looking at differential impacts to explicitly addressing issues of avoidability and fairness, and
- clarifies how equity issues can be considered at every step of a HIA.

Existing approaches are limited from an EFHIA perspective because they either provide guidance on HIA or address equity issues - none comprehensively integrate both elements.

Conclusion

Many of those behind the increased international interest in HIA are also promoting a health equity agenda, and there is increasing interest in how the two may be combined. Despite suggestions that equity should be considered in every HIA there is little enabling guidance available. There is a need, particularly in contexts where an explicit commitment to reducing health inequalities does not exist, for clearly structured, practical guidance on how to incorporate equity in HIA.

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This document has been developed by Ben Harris-Roxas in conjunction with Sarah
Simpson, Liz Harris and other members of ACHEIA.

1. INTRODUCTION

- This report has been undertaken as part of the Equity Focused Health Impact Assessment (EFHIA) Project to identify the rationale for developing an equity focused HIA framework instead of HIA with equity as an implicit principle.
- Definitions used in this report:
 - **Health impact assessment (HIA)** is a combination of procedures, methods and tools by which a policy, program or project may be assessed and judged for its potential, and often unanticipated, effects on the health of the population, and the distribution of those effects within the population^{2,3}.
 - **Impact assessment** is a process whereby predictions are made about the future consequences or impacts of changes being made or considered⁴.
 - **Health equity** is about equal access to services for equal need, equal utilisation for equal need and equal quality of care for all, with a focus on health outcomes. An equity approach recognises that not everyone has the same level of health or level of resources to deal with their health problems and it may therefore be important to deal with people differently in order to work towards equal outcomes⁵.
 - **Equity focused health impact assessment (EFHIA)** uses HIA methodology to determine the potential differential and distributional impacts of a policy, program or project on the health of the population, as well as specific groups within that population, and assesses whether the differential impacts are inequitable.
 - **Health differentials** are measurable differences, variations and/or disparities in the health of individuals or groups.
- The structure of this report:
 - **Section 2** - background for the EFHIA Project
 - **Section 3** - methods
 - **Section 4** - descriptive findings and references identified
 - **Section 5** - methodologies for equity in other forms of impact assessment
 - **Section 6** - methodologies for equity in HIA
 - **Section 7** - rationale for a separate form of EFHIA
 - **Section 8** - models for EFHIA
 - **Section 9** - discusses the findings of this literature review

1.1. Purpose of this Report

This report seeks to: (i) examine what methodologies currently exist for the incorporation of equity within other forms of impact assessment and (ii) within health impact assessment specifically; (iii) establish what rationale exists for a separate form of EFHIA, and (iv) established what models have been developed. It has been undertaken as part of the EFHIA Project (see Section 2) to inform its work.

1.2. Definitions of Terms Used in this Report

1.2.1. Health Impact Assessment (HIA)

The most commonly cited definition of health impact assessment (HIA) and that used in this literature review and the Equity Focused Health Impact Assessment (EFHIA) framework is:

A combination of procedures, methods and tools by which a policy, program or project may be assessed and judged for its potential, and often unanticipated, effects on the health of the population, and the distribution of those effects within the population^{2,3}.

Health impact assessment is only one type of impact assessment and has its origins in the discipline of impact assessment. Impact assessment:

...is a process whereby predictions are made about the future consequences or impacts of changes being made or considered. The concept is general, ... Within a specific context, such as health effects, there may be a wide range of outcomes for which impacts could be assessed, such as death ... GP visits, ...absence from work ... Different contexts may emphasise different outcome measures, but the constant theme is future prediction, and in particular prediction of differences in outcomes under different scenarios of change against the status quo⁴.

Examples of other forms of impact assessment include: environmental impact assessment; strategic environmental assessment; social impact assessment; and integrated impact assessment.

The main differences between HIA as defined in the EFHIA framework and other forms of impact assessment that are of relevance to this literature review are:

- A **different context** – HIA specifically assesses the potential impacts on human health including impact of the social determinants of health on outcomes such as life expectancy, well-being, mental health and other morbidity measures. The impact of the physical environment on health will be addressed as part of this;
- A **social model of health** for assessing health impacts. As explained in the EFHIA position paper, the extent to which an HIA identifies potential ‘health’ impacts is determined by the definition of health used. In the EFHIA framework health encompasses physical, mental and emotional health and well-being;
- **Prospective** impact assessment of a proposed **policy, plan, program** or **project/development** – HIA is not limited to the potential impacts of a major development such as a new landfill site but might assess the potential impacts of a proposed new taxation policy on the health of a population. It is therefore broader in scope than forms of impact assessment such as EIA.
- EFHIA should result in a series of recommendations that contribute to improved **decision making**. To this extent, undertaking an HIA involves both assessing and applying the assessment in order to negotiate with stakeholders and make recommendations. This means that mechanisms need to be in place to include all key stakeholders and have agreements on how they define terms such as evidence

or impact. Some definitions are provided but consensus is needed in the planning processes. HIA is thus seen as a decision making tool.

- A core principle of HIA is **equity** – a HIA considers how potential health impacts are distributed in the population and whether these impacts are potentially inequitable⁶. In EFHIA, it is about determining differential impact and then assessing whether it is inequitable. By considering this issue before the proposed policy begins, or as part of a review process, action can be taken to prevent or minimise these differential impacts.

1.2.2. Health Differentials

Health differentials are measurable differences, variations and/or disparities in the health of individuals or groups. Differentials arise in populations due to range of factors including (but not limited to) age, gender, ethnicity, geographic location and socioeconomic status. These observed differences in health are seen in mortality data, morbidity data (including mental health) and health risk behaviours. For example the higher: mortality rate among older people than younger people; Aboriginal mortality rates; and rates of poor to fair self-reported health status among those who are socioeconomically disadvantaged. Because health disparities measure difference they are descriptive in nature and equate with health inequalities.

Differential health impacts are those changes (positive or negative) that may occur as a result of the proposed initiative and are *differentially* distributed among population groups. The framework for EFHIA makes an important distinction between assessing whether there are differential impacts and assessing the equity dimension of these potential differential impacts.

1.2.3. Equity

Equity is about equal access to services for equal need, equal utilisation for equal need and equal quality of care for all, with a focus on health outcomes. An equity approach recognises that not everyone has the same level of health or level of resources to deal with their health problems and it may therefore be important to deal with people differently in order to work towards equal outcomes⁵.

Equity in health implies that ideally everyone should have a fair opportunity to attain their full potential and, more pragmatically, that no one should be disadvantaged from achieving this potential, if it can be avoided. Based on this definition the aim of policy for equity and health is not to eliminate all health differences so that everyone has the same level of health, but rather to reduce or eliminate those, which result from factors which are considered to be both avoidable and unfair. Equity is therefore concerned with creating opportunities for health and with bringing health differentials down to the lowest levels possible⁷.

While there are many definitions of equity, the key features of relevance to EFHIA are:

- Health differences resulting from factors, which are considered to be both avoidable and unfair. Equity-focused HIA is therefore about both identifying and assessing differential health impacts *and* on making a judgement about whether

these potential differential health impacts will be, are, or were, inequitable – that is, avoidable and unfair.

- Reducing the potential for these differential impacts to become health inequities by using the findings from an EFHIA to amend, ameliorate and improve the proposed policy, program or project (ideally before it is implemented).

1.2.4. Equity Focused Health Impact Assessment (EFHIA)

Equity-focused health impact assessment (EFHIA) uses health impact assessment methodology to firstly determine the potential differential and distributional impacts of a policy, program or project on the health of the population as well as specific groups within that population and secondly, to assesses whether the differential impacts are inequitable.

The equity dimension of EFHIA is about assessing whether identified differential health impacts (eg. higher Aboriginal infant mortality rates in Australia) are inequitable - the result of factors that are avoidable and unfair, i.e. they are potentially preventable impacts.

1.3. Structure of this Report

Section 2 provides the background for the EFHIA Project.

Section 3 describes the methods used in this literature review.

Section 4 reports on the descriptive findings of the report including the range of references identified.

Section 5 reports on how equity is addressed in the methodologies used in other forms of impact assessment.

Section 6 reports on how equity is addressed in the methodologies used in health impact assessment.

Section 7 explores the rationale for a separate form of EFHIA.

Section 8 reports on what models for EFHIA have been developed.

Section 9 discusses the findings of this literature review.

2. BACKGROUND

- The Australian Government's Public Health Education and Research Program (PHERP) funded two projects to explore the application of health impact assessment (HIA) in Australia:
 - the first project examined the use of HIA as a tool for policy and program development in Australia, and
 - the second project seeks to develop a framework for equity focused health impact assessment (EFHIA) which is being tested through five case studies.
- Equity is a core principle of HIA.
- The aims in developing a framework for EFHIA are to:
 - raise awareness of the need to address differential impacts and inequity in all health impact assessments, and
 - provide a structured process for doing this throughout the HIA process⁸.

2.1. Background to the Equity Focused Health Impact Assessment Project

The Australian Government, through its Public Health Education and Research Program (PHERP) has funded two projects to explore the broader application of health impact assessment (HIA) in Australia:

- The first project focused on the broader application of HIA as a tool for assessing the potential health impact of policies and programs in the Australian context and not just development proposals as part of the environmental impact assessment process.
- The second project commenced in September 2002 and has as its primary objective the development of a framework for health inequalities impact assessment (HIIA), subsequently renamed equity focused health impact assessment (EFHIA). The aim of the EFHIA framework is to assist decision makers (in government and non-government organisations) in determining the potential differential health impacts of a proposal and assessing the extent to which these impacts may be inequitable. This project is being undertaken by the Newcastle Institute of Public Health (NIPH), Newcastle University in partnership with Deakin University and the Centre for Health Equity Training Research and Evaluation (CHETRE), University of NSW.

Five case studies (in Australia and New Zealand) are being undertaken to test the EFHIA framework and have been selected to illustrate how EFHIA can be applied to a variety of health policy and practice issues. The case study partners are the New Zealand Ministry of Health, the Royal Australasian College of Physicians (RACP), the Health Improvement Branch, Australian Capital Territory (ACT) Health Department, the National Health and Medical Research Council (NHMRC) in Australia, and the Division of Medicine, John Hunter Hospital, in Newcastle, Australia.

The New Zealand case study will involve collaboration with the New Zealand Ministry of Health to assess the equity impact of the “Healthy Eating: Healthy Action” policy which was written with specific reference to Maori health; the RACP case study will apply EFHIA to components of the College’s Support Scheme for Rural Specialists; the ACT Health case study will undertake a retrospective EFHIA of the ACT Health Promotion Board’s Community Funding Program; the NHMRC case study will apply EFHIA to the NHMRC guideline “Healthy Eating for Older Australians”; and the John Hunter Hospital case study will focus on investigating the health impacts of the hospital’s outpatient Cardiac Rehabilitation Program.

2.2. The Case for Equity Focused HIA

The literature on HIA overwhelmingly indicates that equity should be a core value or principle of any HIA⁹⁻¹⁴. The Gothenburg consensus paper on HIA identifies a range of principles that should inform a HIA, among them equity, democracy and sustainability¹⁰. There does appear to be a discrepancy, however, between the theory and the practice – equity in HIA is an aspiration, not necessarily a current reality:

HIA was not established specifically to reduce socioeconomic inequalities in health, but the developing methodology does offer an exciting opportunity to systematically identify potential health inequalities that may arise as the result of a proposed policy, and to recommend alternative actions that could promote greater equity in health⁹.

This dissonance between theory and practice might be due to the fact that HIA has its roots in environmental impact assessment (EIA), which originally did not focus on differentials and/or equity issues⁹.

A seminar on HIA held in 2000 considered whether a separate form of HIA – health inequalities impact assessment (HIIA) – was required to strengthen the focus on equity in HIA processes¹³. The resolution was that all HIA should have an equity focus⁹ and some have suggested that it is difficult to conceive how EFHIA would be different to current HIA¹².

There is a risk that in developing a specific form of HIA such as EFHIA, equity won’t be addressed by all those undertaking HIA. EFHIA could become something that only health promoters or those with an explicit commitment to health inequalities do as part of a HIA. This stance, however, is based on the assumptions that (i) HIA is being utilised within the context of an explicit commitment to addressing health inequalities, and (ii) that there is a process for systematically addressing equity issues throughout HIA beyond having it as an underpinning principle. An explicit commitment to addressing health inequalities of the type mentioned currently does not exist in Australia.

The aims in developing a framework for EFHIA are to:

- raise awareness of the need to consider differential impacts and inequality in all health impact assessments, and

- provide a process for doing this by strengthening the focus on equity throughout the HIA process⁸.

If successful EFHIA will become a best practice model for HIA and the issues of differential impacts and potential inequities will be considered in all HIAs⁸. The purpose of this literature review is therefore to identify the rationale for developing a separate EFHIA framework, as opposed to HIA with equity as an implicit principle.

3. METHODS

- References were identified by:
 - searching the published literature;
 - compiling a grey literature citation index, and
 - web searching.
- References were excluded if they were published before 1994, didn't deal with impact assessment or were not published in English.
- Identified references were reviewed to assess:
 - how equity is addressed in the methodologies put forward;
 - how effective are these methodologies in systematically addressing/incorporating equity;
 - what is the rationale for a separate form EFHIA, and
 - what models for EFHIA have been developed.
- These reviews were qualitatively analysed in NVivo using a grounded theory approach.
- This review may not reflect all aspects of current practice due to the range of information drawn on. It is hoped, however, that it may highlight possible future directions and gaps within the field of HIA, with particular reference to equity issues.

3.1. Overview

Many difficulties exist in synthesising knowledge relating to impact assessment. These stem from disciplinary and epistemological differences in the way impacts are conceptualised. They also stem from the difficulties in assessing and integrating the commentary, guidelines and opinion, rather than research findings, which make up the bulk of the published work. By drawing on a metasynthesis approach^{15,16}, as done in this review, it may be possible to consolidate information pertaining to and drawn from a number of sources and differing types of information.

3.2. The Review Process

The following review questions were developed by CHETRE and form the basis for this review. They reflect the key priorities of the Australian Collaboration for Health Equity Impact Assessment (ACHEIA) in determining the rationale for EFHIA tools instead of HIA with equity as an implicit principle.

1. How is equity addressed in methodologies for (general) impact assessment?
2. How is equity addressed in methodologies for health impact assessment?
3. How effective are these methodologies in addressing/incorporating equity systematically in HIA?
4. What is the rationale for a separate form of HIA – EFHIA?
5. What models have been developed?
6. How effective are these methodologies in addressing/incorporating equity systematically in HIA?

These questions guided the process of the review as outlined in Figure 3.

Figure 3: Literature Review Process



3.3. Search Strategies

3.3.1. Search Strategy 1: Database Searching

Catalogues were searched to identify the published literature. The most widely used databases were searched in the fields of health (Medline), sociology (Sociological Abstracts) and the environmental sciences (Environmental Sciences and Pollution Management). A comprehensive interdisciplinary database (Web of Science) and an Australian database (APAIS) were also searched (see Appendix 1.1 for database citations). The combination of these databases provided the broadest cross-section of the literature across a range of disciplines and countries.

The following Boolean term searches were performed:

- (assess* AND impact*) AND (health AND (inequalit* OR differential* OR disparit* OR equit*))
- “impact assessment” AND (inequalit* OR differential* OR disparit* OR equit*)
- (checklist OR gauge OR audit) AND (health AND (inequalit* OR differential* OR disparit* OR equit*))

- () indicates that the enclosed search is performed first
“ ” indicates that the retrieved records must contain the enclosed phrase
AND indicates that the retrieved records must contain both terms
* indicates unlimited truncation, e.g. inequalit* would return inequality or inequalities

3.3.2. Search Strategy 2: Grey Literature Citation Index

The references identified through the previous search strategy were examined in order to compile a citation index of the books, book sections and reports referred to. References that were cited more than four times were sought for inclusion in this review. This was done to ensure that important grey literature was included in the review.

3.3.3. Search Strategy 3: Recent Material

The previous search strategy depends on key grey literature being referred to in peer reviewed journals. Publication lag, however, can mean that it may be some time before developments within the field are reflected in the literature. In light of this three major HIA websites were searched for grey literature published in 2003. These were the:

- HIA Gateway
- IMPACT website
- ECHP HIA website (see Appendix 1.2 for full details)

The search was conducted using [Google’s Advanced Search](#). This was selected for several unique features:

1. its ability to search within Adobe Acrobat and Microsoft Office files;
2. its PageRank feature, which allows pages to be ranked according to their estimated web traffic¹⁷;
3. its crawled pages numbering in excess of 3.3 billion;
4. its ability to limit searches to a specific web domain;
5. its ability to limit searches to pages updated in the past six months; and
6. its support of implied Boolean searching.

The following implied Boolean term searches were performed, limited to the sites listed above and to pages updated in the past six months:

- “health inequalities impact assessment”
- “health equity” “impact assessment”
- “health equity” gauge
- “health equity” checklist
- differential “health impact assessment”

“” indicates that the retrieved records must contain the enclosed phrase

3.4. Screening References

Inclusion criteria were developed to screen the literature identified for inclusion in the analysis (see Table 2).

Table 2: Inclusion Criteria

Criteria	Details	Rationale
Recent	Published within the past ten years (1994 or later)	To ensure that the literature covers a long enough timeframe to be comprehensive but not so long as to be outdated.
Relevancy	Addresses at least one of the six steps of impact assessment as identified by ACHEIA (screening, scoping, profiling, mapping, recommendations and evaluation and monitoring)	To ensure that the article is focused on the aspects of impact assessment relevant to the review questions and not alternate forms of inquiry such as needs assessment, skills assessment, risk assessment, health technology assessment or evaluation.
English Language	Written in English	To ensure that the article can be assessed by the review team

3.5. Analysis

3.5.1. Assessing Document Attributes

An instrument was developed to assess each reference’s attributes (see Appendices 1.3 and 1.4). The instrument incorporates composite measures on research quality¹⁵ and intervention quality¹⁸ as well as information on the nature of the evidence¹⁹. The instrument was adjusted for resources presenting commentary or guidelines, as some of the information and measures were not relevant in these cases.

3.5.2. Document Analysis

Following the identification of the references to be included in the final review the references were reviewed according to the reference review questions developed (see Appendix 1.5). The data derived from this was then imported into NVivo²⁰ for analysis.

3.5.3. Grounded Theory Approach

Analysis of the data was undertaken utilising a grounded theory approach²¹⁻²³. Grounded theory is particularly useful where there is a limited research base to draw upon in the subject area and where existing understandings of a concept are of limited practical use²⁴.

Grounded theory employs two major strategies to explore data - theoretical sampling and constant comparative method. Theoretical sampling is an “ongoing process of data collection that is determined by the emerging theory and therefore cannot be predetermined...it is a critical element in the concurrent triad associated with grounded theory: joint collection, coding and analysis”²⁵. Constant comparative analysis is the process of coding data to develop concepts which are then refined by reviewing and comparing other data. On the basis of these comparisons concepts may be confirmed, discarded, refined or elaborated, and their relationships to one another are explored²⁶.

The concepts are integrated into a coherent theory which includes an awareness of the context and the conditions under which the findings arise²⁶. As a result the theories derived should both “fit” and “work”.

By "fit" we mean that the categories must be readily (not forcibly) applicable to and indicated by the data under study; by "work" we mean that they must be meaningfully relevant to and able to explain the behavior¹ under study²¹.

3.5.4. Thematic Coding

The text in each reference review document (see Appendix 1.5) was thematically coded to facilitate the retrieval of text in relation to specific criteria. Attributes were also assigned to each reference based on those identified in the assessment of document attributes (see Section 3.5.1 along with Appendices 1.3 and 1.4). The first iteration of thematic coding was by section, based on the reference review questions (Appendix 1.6). Further coding sought to identify, refine and consolidate categories based on themes and issues. The final iteration sought to “retest” key categories identified against the data to ensure the accuracy of the findings and that they “fit” and “work”.

These measures are designed to ensure that the answers to the review questions are grounded in the literature identified and that they are comprehensible across a number of contexts.

3.6. Assumptions Underpinning this Review

This review draws extensively on the published literature, though some portions of the “grey literature” and recent material from the web are also included. This means that some important sources of information, such as published reports of completed HIAs, may not be included. The decision to not include these sources does not imply that this information is not valuable. Rather it was due to:

- The practical difficulties inherent in identifying and obtaining these reports, and
- That published sources tend to be more highly valued within a field and often form the basis for future practice.

As such this review may not reflect all aspects of current practice. It may, however, highlight possible future directions and gaps within the field of HIA, with particular reference to equity issues.

4. DESCRIPTIVE FINDINGS

- A total of 42 references were identified:
 - 28 through searching the published literature;
 - 4 through compiling a grey literature citation index, and
 - 10 through web searching.
- 57.1% of references originated from the United Kingdom (n=24).
- 78.6% of references had been published in the past 3 years (n=33).
- 64.3% of references were commentary or discussion pieces (n=27).
- 71.4% of references dealt with health impact assessment, as opposed to other forms of impact assessment (n=30).
- The literature identified is limited, drawing largely what might traditionally be regarded as low-level evidence^{19,27}. In light of this it is difficult to make comprehensive conclusions about practice.

This section reports descriptively on the range and nature of the references identified. The substantive review findings, which refer to the review questions, are addressed in subsequent sections.

4.1. Search Strategies

The first search strategy, database searching, yielded 28 references in total. The second search strategy based on the development of a citation index of books, book sections and the grey literature identified 4 references and the final search strategy based on searching for recent material produced 10 references (see Table 3, full citation details may be found in Appendices 2.1-2.3). It is worth noting that whilst database searching yielded the most results it also had the highest proportion of irrelevant results and required the most time to undertake.

Table 3: Search Strategies by Exclusion Category

	Search Strategy 1: Database Searching	Search Strategy 2: Grey Literature Citation Index	Search Strategy 3: Recent Material	Total Number of References
Total Identified	563	4	12	579
Excluded: Not Recent	83	0	0	83
Excluded: Not Relevant	428	0	2	430
Excluded: Not English language	24	0	0	24
Excluded: Unable to Locate	0	0	0	0
Total in Final Review	28	4	10	42

4.2. References Identified

The references' countries of origin were identified by the contact details of the first author, with the majority coming from the United Kingdom (57.1%, see Table 4). The majority had also been published in the past 3 years (78.6%, see Table 5).

Table 4: Originating Country

	N	Proportion
England	18	42.9%
USA	5	11.9%
Scotland	4	9.5%
South Africa	3	7.1%
Australia	2	4.8%
Switzerland	2	4.8%
Wales	2	4.8%
Brazil	1	2.4%
Canada	1	2.4%
India	1	2.4%
Norway	1	2.4%
Sri Lanka	1	2.4%
Sweden	1	2.4%
Total	42	100.0%

Table 5: Year of Publication

	N	Proportion
1995	1	2.4%
1996	2	4.8%
1997	0	0.0%
1998	2	4.8%
1999	3	7.1%
2000	1	2.4%
2001	7	16.7%
2002	7	16.7%
2003	19	54.8%
Total	42	100.0%

Sixty four percent of the references used for this review were commentary or discussion pieces, with only 11.9% presenting completed impact assessments or research findings (see Table 6). The bulk of the references addressed health impact assessment (71.4%, see Table 7), as opposed to other forms of impact assessment.

Table 6: Nature of Publication

	N	Proportion
Commentary/Discussion	27	64.3%
Guidelines	3	7.1%
Literature Reviews	3	7.1%
Tools/Instruments	4	9.5%
Completed Impact Assessments	4	9.5%
Presenting Research	1	2.4%
Total	42	100.0%

Table 7: Nature of Impact Assessment

	N	Proportion
Health Impact Assessment	30	71.4%
Other Impact Assessment*	12	28.6%
Total	42	100.0%

* Includes environmental impact assessment, social impact assessment, strategic environmental assessment and gender impact analysis.

It was clear in 59.6% of the references how the impacts discussed were conceptualised. Approximately equal numbers examined negative impacts as examined both negative and positive impacts (28.6% and 31.0%). A small number of references presented data (5 in total). Of these three used qualitative data, one used quantitative data and one used both quantitative and qualitative data.

Table 8: Nature of Impacts Considered

	N	Proportion
Negative Impacts Only	12	28.6%
Both Positive and Negative Impacts	13	31.0%
Unclear	17	40.5%
Total	42	100.0%

Table 9: Type of Data Presented

	N	Proportion
Quantitative	1	20.0%
Qualitative	3	60.0%
Both Quantitative and Qualitative	1	20.0%
Total	5	100.0%

4.2.1. Associated Keywords Identified

The following keywords were associated with the references identified. These may help to guide and refine future searches.

Table 10: Keywords Identified

Adaptation	Health	Poverty (2)
Adolescent	Health Impact Assessment	Poverty Areas Power Plants
Adult	Health Inequalities	Program Evaluation (2)
Africa	Health Planning	Proportional Hazards Model
Aged	Health Planning Guidelines (2)	Prospective Studies
Aged, 80 and over	Health Policy (5)	Public Health (5)
Assessments	Health Priorities	Public Housing
Australia (3)	Health Promotion	Public Policy (2)
Cameroon	Health Services	Quality Control
Canada	Health Services Accessibility	Reference Standards
Care	(2)	Research
Chad	Health Services Research	Resource Management
Child	Health Status (3)	Resource Utilization
Child, Preschool	Health Status Indicators (2)	Review
Climate Change	HIV	Risk Assessment (2)
Congresses	HIV Infections	Scotland (2)
Consumer Participation (3)	Human (10)	Sensitivity
Decision Making (4)	Impacts	Sex Distribution
Development Programs	Inequalities	Social Change (2)
Disadvantaged Groups	Infant	Social Conditions
Disease	Infant, Newborn	Social Development
Economic Growth	Institutions	Social Impact Assessment
Economic Policy	Labor	Social Justice
Economics	Life Expectancy	Social Policy
Emissions, Risk	Life Tables	Social Responsibility
Energy	London	Socioeconomic Factors (3)
Energy Sources	Malaria	South Africa
Environment	Male	Sports
Environment Management	Marriage	Sulfate Aerosols
Environmental Health (4)	Mental Models	Support, Non-U.S. Gov't (2)
Environmental Impact	Mexico	Survival Analysis
Environmental Impact	Middle Aged	Survival Rate
Assessment	Models, Statistical	Sustainable Development
Environmental Monitoring	Models, Theoretical	Sweden
Europe	Mortality	Tax and Benefit System
Evaluation	Needs Assessment (3)	Transportation (3)
Female	Nova Scotia	Urban Health (3)
Focus Groups (2)	Organization	Urban Renewal
Forecasting	Organizational Case Studies	UV
Framework	Paid and Unpaid Economies	Vulnerability
Framing	People Know	Wales
Gender-Impact Assessment	Perspectives	World Health
Global Climate	Petroleum	World Health Organization
Great Britain (2)	Pilot Projects (2)	Youth
Greenhouse Gases	Policy	
Guidelines	Policy Making (2)	

4.3. Difficulties in Reviewing the Literature

The literature identified is limited. The bulk of it consists of commentary, discussion and guidelines. The minority of papers that do present research or report on impact assessments draw largely on what would be regarded as low-level evidence using traditional hierarchies^{19,27}. The contextual specificity of many of the issues described in the literature is also a complicating factor and may reflect the emerging nature of

HIA as a field of work^{28,29}. In light of this it is difficult to synthesise a coherent argument and to weigh up conflicting views. Without a solid base against which to appraise the literature the ability to make comprehensive conclusions is limited.

4.3.1. Ambiguity and Range of Terms

The lack of consistency in the literature in the use of the term “impact assessment” made it hard to identify relevant articles for inclusion. The phrase is often used to describe effects with a purely retrospective focus and not so that it can be used to guide future decisions and mitigate negative impacts. The types of assessment identified include:

- risk assessment;
- needs assessment;
- evaluation;
- technology impact assessment;
- health risk assessment;
- environmental impact assessment;
- integrated impact assessment;
- environmental health impact assessment;
- social impact assessment;
- human impact assessment;
- gender impact analysis, and
- forecasting.

This illustrates the difficulties in identifying literature relevant to this review.

5. HOW IS EQUITY ADDRESSED IN METHODOLOGIES FOR (GENERAL) IMPACT ASSESSMENT?

- Equity is not effectively addressed in the methodologies generally employed in other forms of impact assessment.
- Differential impacts are considered in terms of:
 - gender;
 - ethnicity, and
 - locational disadvantage arising from proximity to the proposed development.
- Differential impacts are assessed with a view to minimising negative impacts, not maximising positive impacts.
- They are assessed without consideration of an equity dimension.
- Community participation is the most cited mechanism to ensure the consideration of equity. It does this through:
 - making explicit the trade-offs associated with a proposal, and
 - identifying the groups most negatively impacted by the proposal.
- The mechanisms identified for addressing equity have limited practical effectiveness. There are several key assumptions that remain untested and undescribed within the broader impact assessment literature.

Equity is not effectively addressed in the literature reviewed. One potential reason for this is that impact assessment as a discipline suffers from a lack of publication. Impact assessors are limited in their capacity to disseminate the findings of their work. This problem afflicts impact assessment more than other fields due to the time and intellectual property constraints imposed by the commissioning parties³⁰.

Equity considerations, when they are made, are implicit rather than explicit. The implicit approach seen in the literature constitutes a first step in the consideration of equity, namely examining differential impacts and utilising community participation. The second more explicit step involves an explicit approach that clarifies the basis upon which decisions relating to fairness are made. It was this second step that was lacking in the literature reviewed.

5.1. Differential impacts

Differential impacts within impact assessment were considered in terms of gender, ethnicity (particularly indigenous populations) and locational disadvantage arising from spatial proximity to the proposed development³¹⁻³⁴. This is usually done in two ways:

1. *A Priori*: By profiling previously identified groups and then assessing the impact of previously defined high impact aspects of the proposal on them

- (most often done). This is usually done at the screening and scoping stages, though frequently those undertaking impact assessments are directed to look at the impact on certain population groups in their terms of reference; and
2. *Ad Hoc*: By identifying vulnerable groups and then assessing what aspects of the proposal are most likely to impact on them (done less often). This approach is underutilised because the open determination of which groups are more affected during scoping has the potential to add an extra step to an already time consuming and time sensitive process³⁰.

Differential impacts are usually assessed with the sole purpose of minimising negative impacts, rather than maximising potentially positive impacts arising from the proposal³⁴. This may be partly explained by the triggers for impact assessment, which are different from those described in the health impact assessment literature^{31,34}. Legislative and political imperatives often lead to third parties being commissioned by the proponents to undertake an impact assessment. This contrasts with HIA where those undertaking the HIA routinely have stronger links to the decision-making process³⁵ and may in fact be from the same agency. The implication of this for considering equity is that the distribution of benefits is not being discussed. It attempts to ensure that people won't be markedly worse off, not better off.

5.2. Community Participation

Community participation is the other major mechanism cited to ensure equity in impact assessment³⁶. Measures that promote community participation are seen to:

- make explicit the trade-offs associated with a proposal, and
- identify the groups most negatively impacted by the proposal.

There are three problematic assumptions underpinning this - (i) that all people can participate equally in the process; (ii) that the decision making process allows meaningful community input; and (iii) that those groups who are most affected define themselves as groups and perceive the range possible differential impacts. None of these assumptions exists solely within the realm of impact assessment³⁷; they are dependent on contextual factors larger than impact assessment processes. Skilled practitioners can assist but may not be able to ensure that all these assumptions hold true³⁸. Groups have to be highly organised and possess an understanding of the process to take advantage of most avenues for consultation^{34,39}. They face further hurdles if those avenues don't exist⁴⁰.

5.3. Effective Incorporation of Equity

Debates around the types of evidence relied on in impact assessment have limited the extent to which equity has been considered. Impact assessors are frequently attacked on the basis of scientific credibility³⁶. The validity and the reliability of the evidence used is disputed terrain because strong evidence adds significant weight to recommendations. Making recommendations regarding differential impacts for which there is relatively poor or weak evidence is risky. Such evidence is often less scientifically defensible and more open to attack. As such practitioners have focused

on developing impact assessment as a scientific instrument rather than as a tool for decision making, a feature that is emphasised in HIA⁴¹.

There is limited evidence of equity considerations in the literature⁴². Though differential impacts are sometimes addressed the dimensions of “avoidability” and fairness are rarely explicitly examined. This may be partly explained by the limitations on publication mentioned previously. This may lead to the literature not reflecting the complexity of the methods used in practice to consider equity. Additionally, there is considerable difficulty in judging how effective attempts to incorporate equity in HIA are. Making judgements about the benefits of an intervention under usual conditions for particular groups is not possible with regard to HIA in the way it might be in epidemiology - a different approach is required.

Promoting community participation is the most commonly stated mechanism for the consideration of equity. Its effectiveness in practice, however, remains to be seen as there are several key assumptions relating to people’s ability to participate meaningfully that remain untested and undescribed within the broader impact assessment literature.

6. HOW IS EQUITY ADDRESSED IN METHODOLOGIES FOR HEALTH IMPACT ASSESSMENT?

- HIA has greater scope to address equity than other forms of impact assessment because:
 - it is more often used as a tool to directly assist decision making;
 - equity is a core principle of HIA; and
 - HIA is being driven by international action to reduce health inequalities.
- The mechanisms for the consideration of equity in HIA are largely inferred rather than stated.
- Equity is being incorporated in HIA through both explicit and implicit mechanisms:

Explicit

- The **application of the principles** of HIA which include equity.
- **Guidance on HIA** to use through the process:
 - **Screening**
Equity considerations may act as a trigger for HIA.
 - **Scoping**
Equity, health and the impacts considered are defined. Frameworks for evidence (collecting and valuing them) are also determined.
 - **Identifying and assessing potential impacts**
Impacts are assessed against groups on the basis of certainty, severity and measurability.
 - **Negotiation and decision making**
This step is poorly addressed in guidelines for HIA, relying on scoping to set the basis for equity-based decision making.
 - **Monitoring and evaluation**
Rarely happens in HIA, as in other forms of impact assessment^{43,44}.

Implicit

- Using a **broad definition of health** that incorporates the determinants of health and widens the range of impacts considered.
- Encouraging **community participation** so that those most affected are involved in assessing the impacts of the proposal. This view approach is underpinned by the assumption that those most affected will be able to make their views heard.
- **Drawing on a wide range of evidence** to effectively inform decision making, including both quantitative and qualitative data. This is to ensure that the HIA's findings will be relevant by addressing contextual issues of appropriateness, satisfaction and acceptability as well as broader issues of effectiveness
- **Considering differential impacts**, i.e. the distribution of impacts within an area. The following categories should form a minimum basis for the assessment of differential impacts:

- **Gender**
- **Age**
- **Ethnicity**
- **Socioeconomic position**
- **Locational disadvantage**
- Despite HIA having greater scope to address equity than other forms of impact assessment there is a lack of direction and guidance on how to make equity determinations.
- There is a gap in current approaches between considering health differentials as a first step and addressing health equity as a second step.
- Structured guidance is needed to incorporate equity at all stages within HIA.

As stated in the introduction health impact assessment (HIA) is:

A combination of procedures, methods and tools by which a policy, program or project may be assessed and judged for its potential, and often unanticipated, effects on the health of the population, and the distribution of those effects within the population^{3,45}.

6.1. Greater Scope to Address Equity in HIA

A major theme that emerges from the literature is that there is greater scope to address equity within health impact assessment than other forms of impact assessment, including health risk assessment. This is because:

- HIA is focused more on providing information that readily feeds into decision making about policy development and/or planning;
- There are explicit statements setting out equity as a core principle of this type of impact assessment, and
- The recent development of HIA has been driven by, and embedded within, the context of government action to reduce health inequalities.

There is still considerable debate about what these factors mean in practice, as outlined in the sections below.

6.1.1. HIA for Decision Making

HIA has evolved as a tool for project, program and policy development and has an important place within it²⁸. There a number of mechanisms through which HIA might take place that have been identified in the literature:

1. Policy makers could commission HIA from outside experts, as is done for environmental impact assessment.
2. HIA could be a health advocacy activity, done separately from planning processes in order to lobby for change from the 'outside'.
3. HIA could be 'on the inside': integrated into policy making processes and done by those already involved in developing policy, with input from health professionals and other interested groups³⁵.

HIA is mainly done through the third mechanism at present – by those involved in developing policies, programs and projects. Douglas et al.³⁵ suggest that HIA has greatest potential if it is used to assist the policy, program and project development cycle by refining proposals rather than if it is solely used to provide a justification for previously decided courses of action.

The fact that HIA resides in the hands of decision-makers distinguishes it from most other forms of impact assessment (with the exception of strategic environmental assessment or SEA) which are commissioned by the proponents²⁸. In proponent driven impact assessments conflict often arises over the legitimacy of the science involved as it is seen as imparting an overall legitimacy to the proposal³⁶. HIA's current role as being primarily a process used by decision-making bodies allows it greater latitude in many of these struggles for legitimacy and affords it greater freedom to consider a broader range of evidence. This may include evidence of equity impacts, which are often less developed and rely on “lay opinion” to a greater extent.

6.1.2. Equity as a Core Principle

Equity is espoused as a key aspect of health impact assessment, stemming from the Gothenburg Consensus Paper² and readily observable in the literature:

Current thinking also suggests that [HIA] should include a commitment to the ethical use of evidence and that it should be based on a number of key principles:

- an explicit focus on equity and social justice
- a multidisciplinary, participatory approach
- the use of qualitative as well as quantitative evidence
- explicit values
- an openness to public scrutiny⁴⁶

This emphasis in the available HIA guidelines encourages HIA practitioners to being open to the consideration of equity within HIAs and to the acceptance of HIA being used to examine equity issues.

6.1.3. Government Action to Reduce Health Inequalities

A major driver for HIA internationally has been a commitment by a number of governments to act to reduce health inequalities. The impetus for this action can be seen as stemming from a number of sources. Following the *Jakarta Declaration on Leading Health Promotion into the 21st Century* in 1997 there was an increased interest in “equity focused health impact assessment”, as called for in the declaration^{29,47}. This was particularly the case in the United Kingdom following the *Independent Inquiry Into Inequalities in Health*^{1,48} in 1998 which called for health inequalities impact assessment. Following on from this in 1999 was the *Gothenburg Consensus Paper* which set out equity as a principle underpinning HIA². Interest in

* Scott-Samuel A. (1999) *Methods for Prospective Health Impact Assessment of Public Sector Policy* in Department of Health, *Health Impact Assessment: report of a methodological seminar*, London: Department of Health, p 61-75.

an explicitly equity-focused form of health impact assessment has since waned²⁸, but an interest in health equity and a commitment to addressing health inequalities remains. HIA may best be able to improve decision making by incorporating an equity dimension when it becomes a tool used by decision makers and policy developers for reviewing both universal health impacts as well as impacts on specific groups, as suggested by Donald Acheson¹.

6.2. How is Equity Being Incorporated into HIA?

It is difficult to identify exactly how equity is being incorporated into HIA, although it does seem to be occurring through both explicit and implicit mechanisms. The reason for this difficulty is the small number of completed HIAs addressing equity concerns identified in the literature. Inferences about how equity is being incorporated into HIA have to be drawn from commentary and guidelines, rather than directly from practice. Because we don't know if or how the underlying HIA principle of equity is being used in practice it is necessary to be cautious about drawing too many conclusions on the basis of it.

The explicit mechanisms employed for the incorporation of equity are based on principles emphasising equity and community participation, the consideration of differential impacts and drawing on a broader range of evidence to consider impacts. The implicit mechanisms arise from the use of a broader definition of health incorporating the social determinants of health and through some of the ways that differential impact are conceptualised and assessed. These are each discussed in further detail below.

6.2.1. Application of Principles

The principles underpinning HIA are many and varied and drawn from a number of sources^{1,2,46,47} but can be broadly described as being:

- equity and social justice;
- aiming to reduce health inequalities;
- using participatory approaches;
- considering a broad range of evidence;
- making values and assumptions explicit;
- making decision making transparent, and
- sustainable development.

These principles explicitly call for the consideration of equity. They also allow equity issues to be identified through many of the other principles such as using participatory approaches and transparent decision making. These principles are one of the major ways in which equity can explicitly be included in health impact assessments.

6.2.2. Use of a Broader Definition of Health

A key aspect of HIA is the incorporation of a broad definition of health including both positive and negative impacts^{46,49}. A broader socioeconomic definition of health is one of the more implicit mechanisms for the inclusion of equity in HIA. The

assumption that underpins it is that a broader definition will lead to the consideration of health inequalities and hopefully equity⁵⁰:

HIA is therefore based on a holistic, social model of health that recognizes that the health of individuals and communities is determined by a wide range of economic, social, and environmental influences as well as by heredity and health care. This definition is much broader than (and encompasses) the traditional medical model, which defines health as freedom from clinically diagnosable disease and which is primarily concerned with treating symptoms rather than their underlying causes⁴⁶.

Some commentators have suggested that one of the most important consequences of HIA has been to show decision makers the far-reaching effects of the social determinants of health through the broad definitions used³⁵. This is presumed to move the consideration of the social determinants and equity to an earlier stage in planning and decision making processes.

A contrary view in the literature suggests that there is nothing inherent in the consideration of health inequalities that leads to inclusion of equity issues, in particular to issues of avoidability and fairness. Winters suggests that a broad definition simply broadens the potential range of impacts that could be considered⁴⁹ – it doesn't direct what impacts end up being considered. This perspective suggests that the incorporation of equity arises from the manner in which the HIA is undertaken, not how health is defined.

6.2.3. Community Participation

Participatory approaches are widely regarded as an essential mechanism for the consideration of equity within HIA, as it is in other forms of impact assessment (see previous section). Community participation is seen as a practical approach by which those most likely to be impacted will have a voice and input into the HIA's recommendations²⁹. This is at somewhat at odds with the view that those "inside" the system have the greatest capacity to use HIA to influence decisions³⁵. This conflict remains unresolved in the literature.

Much of the literature suggests a dual purpose for community participation in HIAs:

- (i) **For Health Impact Assessment** - the assessment of intended and unintended impacts within the community, and
- (ii) **For Community Empowerment** - the engagement and possible empowerment of groups affected within the community⁴⁹.

The historical use of HIA to assess the impact of community regeneration initiatives may partly account for this community development focus^{13,49,51}. Proponents for this dual-purpose approach suggest that even if the recommendations of the HIA are not acted upon there will be lasting benefit to the community⁴⁹. This validity of this assumption, however, is yet to be comprehensively demonstrated, though clearly it shifts the focus from HIA being an approach which informs decision making to something more difficult to characterise. Another unexamined assumption underpinning the emphasis on participatory approaches is that those most negatively impacted by a proposal will be able to make their views heard. The extent to which

this may occur is subject to many factors, not the least of which is the skill of the practitioner undertaking the HIA in identifying them and seeking their opinions. Another factor that may limit the effective use of community participation may be that those groups with the most to gain or lose from a proposal may not be readily identifiable, even to themselves

The use of community participation as an explicit methodology to ensure the consideration of equity needs to be more clearly defined and the assumptions underpinning it need to be demonstrated.

6.2.4. Drawing on a Range of Evidence

One of the key principles of HIA is the consideration of a broad range of evidence in order to assess health impacts. Debate around the range of evidence to be considered in a HIA doesn't revolve around whether quantitative or qualitative approaches are superior per se⁵². Rather it is focused on what data will be most useful to inform decision making processes. In collecting these data HIA confronts the difficulties inherent in adapting research methods to applied planning and decision making processes⁵³:

Health impact assessment may also be found wanting by qualitative researchers who prefer to use a more inductive approach, which are not based on a priori categories. These categories cover a very broad spectrum of influence, which by necessity make the health impact assessment lack in depth analysis into a specific area of influence, which is the hallmark of qualitative techniques⁴⁹.

A wide range of evidence should be drawn upon if HIA is to effectively inform decision-making. This is because relying on a single type of evidence may exclude important contextual information such as appropriateness and acceptability²⁷. This relates to a concern expressed in some of the literature that if HIA becomes an expert driven process it may become marginalised within broader planning processes⁵⁴. This is because if HIA relies on exhaustive inquiry it will take longer and lack an explicit focus on utility. It may also have limited ability to assess the equity impacts as these rely on judgements that are likely to be insufficiently explored by “expert-based” modes of inquiry. As suggested by Mahoney “HIA is underpinned by the desire to create a more inclusive and evidence-based approach to the formation of public policy”²⁸.

6.2.5. Considering Differential Impacts

A key aspect of considering the equity impacts of a proposal is to examine its differential impacts, and to make a judgement about the avoidability and fairness of these impacts. As noted in Section Five there are two major ways in which differential impacts can be prioritised and assessed:

1. *A Priori*: By profiling previously identified (sub)populations and then assessing the impact of previously identified high impact aspects of the proposal on them (most often done), and

2. *Ad Hoc*: By identifying vulnerable/at risk populations and then assessing what aspects of the proposal are most likely to impact on them (done infrequently).

The basis upon which this determination is made is important. This is not solely because it will determine the nature and amount of work involved in the HIA; it also incorporates issues of transparency and an ethical dimension:

In this HIA, we only considered impacts borne by the resident population of the CEC area. Naturally, the City of Edinburgh Council (CEC) feels most responsibility towards this population, but different impacts may be borne by others, especially commuters into the city. Defining each of the subgroups also has implications for the impacts that are identified. Determining the population in an HIA is an ethical question, and it is important to be explicit about the populations and subgroups considered in the assessment⁵⁵.

The consideration of differential impacts on an *a priori* or *ad hoc* basis is still being debated in the literature. Parry and Scully⁵⁴ make a strong argument that in order for equity to be considered target groups need to be primarily predetermined rather than determined through the assessment process. If this is not done they suggest (i) important groups get ignored and (ii) the process of determining which groups to look at takes up too much time. Lester et al.⁵¹ disagree with this, suggesting that even rapid approaches can assess differential characteristics on a case by case basis in relation to factors as diverse as individual characteristics, lifestyle factors, the physical environment, economic factors and access. Whatever the outcome of this debate a profile of what should form the basis for the assessment of differential impacts emerges:

That being said, we would argue that as a minimum, future HIAs should include an explicit consideration of the effects of intervention stratified by sex, age, ethnicity and socio-economic status relative to the “whole” population, and that criteria for the inclusion or exclusion of other relevant sub-groups be determined by clearly stated and transparent criteria⁵⁴.

An additional category often referred to in the literature but not in the quote above is locational disadvantage^{56,57}. The following criteria form a minimum basis by which differential impacts should be assessed in order to make clear the trade-offs of a proposal:

1. Gender
2. Age
3. Ethnicity
4. Socioeconomic position
5. Locational disadvantage

It is important to note that the consideration of differential impacts doesn't necessarily equate with a consideration of equity⁵⁸. For that to happen there has to be a determination about the “avoidability” of the impact and its fairness. Although the differential impact dimension is considered within most of the models for HIA put forward in the literature the process for making an equity determination still needs to be made explicit. The approaches and guidelines for determining this are still underdeveloped.

6.2.6. Guidance on HIA

There are a multitude of guidelines available on health impact assessment. These break the process for HIA up into a number of steps:

- **screening** – deciding if a HIA is warranted;
- **scoping** – determining the focus and size of the HIA;
- **identifying and assessing potential impacts** – identifying and appraising impacts;
- **negotiation and decision-making** – formulating recommendations, and
- **monitoring and evaluation** – tracking the impacts of the proposal and the HIA.

Equity considerations have the potential to play a role in each of the steps, as outlined below.

6.2.6.1. Screening

Equity is rarely explicitly raised as an issue to be considered in the screening step in the literature identified. In the main screening is referred to as the step at which a decision is made about whether undertaking a HIA would be worthwhile^{41,49,59}. Differential impacts and equity may play a key part in this determination, though there is scant description of these decisions in the literature. If there were sufficient concerns about equity impacts a specific form of EFHIA might be triggered at this stage⁶⁰.

6.2.6.2. Scoping

Scoping is discussed to a greater extent in the literature^{28,49,54,59}. It has the potential to be the key step in ensuring the consideration of equity because it is at this stage that:

- Health is defined
- Equity is defined
- The impacts to be considered are outlined
- The methods to be used are outlined
- Targeted (sub)groups may be defined to assess differential impacts and for comparison

It is this step that currently affords the greatest opportunities for equity to be built into a HIA. It is also a step that is emphasised in HIA more than in other types of impact assessment. In most other models of impact assessment a practitioner is usually brought on board only once the screening and scoping has been completed or largely determined, usually having taken the form of commissioning documents or terms of reference. This means that HIA has greater potential to be responsive to equity issues by changing its focus or by being responsive to unintended impacts.

6.2.6.3. Identifying and Assessing Potential Impacts

Various approaches to assessing impacts against and between other groups are put forward in the literature^{51,58-60}. These tend to concentrate on mapping impacts against

the whole population and groups on the basis of severity of impact, certainty of impact and measurability of impacts. None of the models put forth in the literature explicitly included the consideration of equity within their frameworks, though there is scope to do so on an ad-hoc basis. This represents a considerable gap in the guidance available to those wanting to undertake EFHIA.

6.2.6.4. Negotiation & Decision Making

This step of HIA is largely ignored in the literature discussing equity⁶⁰. It is inferred that many of the equity determinations made in this step have their roots in scoping - the definition of equity, the process for decision making and the subgroups to be considered. These inferences are rarely articulated, however, and clear guidance on how to formulate equity-based recommendations is hard to find in the literature.

6.2.6.5. Monitoring & Evaluation

Evaluation is a much-neglected aspect of HIA. Because of this there is a paucity of evidence that shows how HIA informs decision making, whether it improves health and that whether health inequalities can be reduced through using HIA^{43,44}. Evaluation of the processes, impacts and outcomes of HIAs are necessary, not only to justify use in general but also to ensure HIA will have a meaningful contribution to planning and monitoring mechanisms for the proposal under consideration. It also remains to be seen if specific mechanisms for the consideration of equity issues lead to more equitable impacts and outcomes.

6.2.7. Summary

The mechanisms relied on for the consideration of equity in HIA are largely inferred rather than stated and rely on a number of unsupported assumptions. In part this stems from the wide range of contextual requirements and the wide range of methodologies required to meet them¹⁸.

The approaches to the consideration of equity outlined above represent the main ones identified in this review. A major limitation, however, is that the overwhelming bulk of the literature identified consists of commentary and guidelines, with comparatively few pieces reflecting on practical issues relating to the consideration of equity. As such the approaches named in the literature may differ from those currently employed by HIA practitioners.

6.3. Effective Consideration of Equity

HIA has greater scope to make explicit the health consequences of decisions, including their impact on health inequalities and health equity, than other forms of impact assessment because it is more closely linked to the policy, program and project development cycles³⁵. There are some measures available in the existing approaches to health impact assessment that allow the consideration of equity issues, however the problem with these approaches and guidelines is that they rely on rhetoric. Though they aspire to usefulness their guidance is often theoretically structured rather than practically focused. There is a lack of explicit direction about making equity

determinations. There is a strong need for structured practical measures to assist the incorporation of equity at *all* stages of HIA rather than just the scoping step.

The other problem that is apparent in current approaches is the gulf that exists between considering health differentials as a first step and addressing health equity as a second step. This is due to the number of unsupported assumptions that are made, namely that drawing on wider evidence, using broad definitions of health, examining differential impacts and involving communities are sufficient to ensure that equity is addressed. None of these measure in of themselves lead to equity determinations. A clearer set of measures with a more developed equity rationale is required for equity to be effectively considered.

Despite the considerable scope available for HIA to consider equity it fails to effectively incorporate it into the methodologies used. Systematic incorporation of equity means that it has to be undertaken at all stages of HIA⁵⁷, something that is difficult to accomplish without clear structured guidance⁵⁴.

7. WHAT IS THE RATIONALE FOR A SEPARATE FORM OF EQUITY FOCUSED HIA?

- There was initial interest in EFHIA and health inequalities impact assessment (HIIA) following the *Jakarta Declaration on Leading Health Promotion Into the 21st Century*⁴⁷ and the *Independent Inquiry into Inequalities in Health*¹ in the United Kingdom.
- At a methodological seminar held in 2000 in the UK it was decided that equity should be integrated into all HIAs, rather than pursuing a separate form of EFHIA or health inequalities impact assessment (HIIA). Since that time there has been little work done on a separate form of EFHIA.
- There is only a limited amount of information available on the rationale for EFHIA and specific methodologies that might be used to undertake it.
- There is a lack of guidance on how to move from the consideration of differential impacts to explicitly addressing issues of avoidability and fairness.
- The differential impacts currently considered generally focus on:
 - identifying those most negatively impacted rather than looking at positive impact as well, and
 - don't examine equity issues in the distribution of these impacts, such as whether they are avoidable or unfair.
- Clearer guidance is required if an equity dimension is to be incorporated at *all* stages of a HIA.
- Current guidelines stress the need to incorporate equity in HIA but provide limited practical direction on how to ensure this.

As stated in the introduction equity focused health impact assessment (EFHIA) uses health impact assessment methodology to determine the potential differential and distributional impacts of a policy, program or project on the health of the population as well as specific groups within that population and assesses whether the differential impacts are inequitable. The equity dimension of EFHIA is about assessing whether identified differential health impacts are inequitable and the result of factors that are avoidable and unfair, i.e. they are potentially preventable impacts.

7.1. Background

The 1997 Jakarta Declaration on Health Promotion into the 21st Century called for new responses to address the emerging threats to health. The declaration placed a high priority on promoting social responsibility for health, and it identified equity-focused health impact assessment as a high priority for action²⁹.

Following the Jakarta Declaration there was considerable interest in EFHIA. It was aggressively pursued in the United Kingdom in particular, following the *Independent Inquiry into Inequalities in Health*^{1,48}. After this initial interest, action on EFHIA dropped off. In large part this stems from a methodological seminar on EFHIA held

by the Liverpool Public Health Observatory in 2000. It was determined at this meeting that practitioners shouldn't pursue a separate form of HIA focusing on health inequalities and health equity²⁸. It was decided that these should instead be key considerations of *all* HIAs, as described below:

The Liverpool Public Health Observatory recently held an international seminar to discuss how to address health inequalities within health impact assessment. Two approaches in particular were discussed: selectively assessing potential health impacts of policies or projects on disadvantaged groups, and assessing the differential distribution of impacts across the whole population. Participants also debated whether inequalities should be emphasised in all health impact assessments, or whether a separate process of "health inequalities impact assessment" as implied by the Acheson report's recommendation, is required.

Many seminar participants felt that all health impact assessments should be concerned with inequalities because equality of income, status or opportunity is an important determinant of health. There is good evidence that more equal societies have better health overall. Equity is also a value, which arguably should underpin health impact assessment and inform the whole process. There may be trade offs between improving average health, improving the health of the most disadvantaged people, and reducing inequalities in health. Health impact assessment should make these trade offs explicit; restricting inequalities to a separate assessment would make them less so. The seminar's conclusions were that all health impact assessment methods and procedures should focus on health inequalities, explicitly considering both impacts on disadvantaged groups and the distribution of impacts across the population¹³.

Because of this determination there has been a lack of literature developed that explicitly describes how to undertake EFHIA. Only six of the forty-two references identified explicitly advance a separate form of health equity or health inequalities focused HIA, and all of these are presenting opinion or suggested approaches rather than completed HIAs. Because of this lack of information and consensus it is hard to make comprehensive statements about the rationale for a separate form of EFHIA.

7.2. Limited Incorporation of Equity in HIA

Statements such as "all health impact assessments should be concerned with inequalities"¹³ are hard to argue with. The concern is that this may be very difficult to do in a systematic way in practice. There appears to be an increased recognition of the limitations of the "equity in every HIA" perspective, with a number of documents discussing EFHIA or health inequalities impact assessment being produced in the past year^{54,56,58,60-62}.

The need for a clearer approach to considering equity has been suggested in the literature²⁸. The discussion of equity in HIA in the past has focused on:

- selectively assessing potential health impacts of policies or projects on disadvantaged groups, and
- assessing the differential distribution of impacts across the whole population¹³.

This view of equity presents a practical challenge for practitioners seeking to move beyond the consideration of differential impacts to explicitly addressing issues of avoidability and fairness. The other important dimension of equity that necessitates the development of practical measures is broadening the scope of HIA beyond the minimisation of negative impacts and their distribution to include the promotion and (re)distribution of positive ones.

7.3. The Need for Structured Processes to Incorporate Equity

There is currently a shortage of guidance or structured processes available to practitioners who wish to bridge the gap between seeing equity as a principle that underpins their HIA to incorporating equity systematically into the health impact assessment methodologies they employ. For this to happen broad definitions of health and health equity need to be systematically incorporated into HIA from the earliest stages⁵¹. This may be feasible for experienced practitioners operating within institutional contexts that support the consideration of health equity but the mechanisms for how this can happen in other contexts need to be clearly defined and outlined if health equity is to be systematically and effectively considered.

The notion of equity as a trigger for HIA in itself is largely neglected in the literature. The guidelines for screening contain little reference to the need for HIAs of proposed projects, programs or policies to be undertaken on the grounds of equity impacts alone. Rather they stress the need to look at economic, outcome, epidemiological and strategic issues⁵⁹. This suggests that equity is rarely the impetus for health impact assessment, though it may be considered in the identification and assessment of potential impacts.

Health equity is an important element underpinning health impact assessment. There is a strong and increasing interest in structured approaches to health impact assessment that incorporate a strong equity focus^{51,56,58,61,62}. Current approaches stress the need to incorporate an equity dimension but provide limited guidance in how this might be achieved in practice. This suggests that there is call for a separate or supplementary approach to HIA that not only draws on equity as a principle but integrates it into the HIA's process.

8. WHAT MODELS HAVE BEEN DEVELOPED?

- None of the four models identified explicitly address EFHIA as such. Instead they focus on:
 - providing guidance for all types of HIA⁵⁹;
 - putting forth a health inequalities impact assessment (HIIA) approach^{60,63,64}, and
 - identifying health inequalities, planning action to address them and measuring progress^{56,58,61,62}.
- These approaches do not explicitly address the equity dimension of HIA relating to the distribution of impacts that are unfair and avoidable.
- All the approaches identified stress the need to incorporate strong community participation for equity to be considered.
- Specific approaches include:
 - **The Merseyside Guidelines** provide structured guidance on the steps of HIA and stress the need for inclusiveness, transparency and community participation within a HIA.
 - **Bro Taf Health Inequalities Impact Assessment** (HIIA) proposes:
 - a policy audit that would provide a health inequalities focus for decision making in the case of smaller changes, and
 - a rapid appraisal methodology that can be used to assess health inequality impacts across a broad range of determinants of health, an would be undertaken new projects or changes to major changes to existing services.
 - The **Equity Audit** and the **Equity Gauge** were not developed for HIA specifically. They put forth a number of key questions and methods that enable the equity issues within an area or group to be identified and acted upon. They provide a useful framework for identifying inequitably affected groups, conceptualising equity impacts and monitoring them.
- Different levels of EFHIA, i.e. desk-based audits, intermediate health impacts statements and comprehensive HIAs, require different practical steps to consider health equity. Relying on community participation as the sole mechanism to ensure equity will be a difficult goal to achieve in practice – a range of measures are required.
- There is a need for a consolidated model that systematically incorporates equity in HIA, rather than focusing on only equity or only HIA.

Four specific approaches have been identified in this review:

- The Merseyside Guidelines for Health Impact Assessment^{49,59}
- BroTaf Health Inequalities Impact Assessment (HIIA)^{51,63-65}
- Equity Audit^{56,58}
- Equity Gauge^{61,62}

None of these models explicitly address EFHIA per se. Instead they incorporate aspects that may be useful in reaching equity determinations by providing guidance

on the process of HIA, incorporating health inequality considerations and working in an equity focused way. The models identified all emphasise the need for enhanced community participation in the process. They see participatory approaches as steering away from a technical approach that would exclude those for whom the proposal has the greatest potential for negative impact.

8.1. Merseyside Guidelines

The Merseyside Guidelines for Health Impact Assessment were amongst the earliest developed and provide information on the principles, process and issues for HIA^{49,59}. They do not explicitly seek to address health inequalities or equity issues however they do stress that:

- public policy impacts disproportionately on the already disadvantaged;
- HIA needs to incorporate those impacted on at every stage of the process;
- no one type of evidence should be valued above all others; and
- HIA and the processes used to make decisions within it should be transparent⁵⁹.

It is through the focus on community participation and valuing a broad range of evidence that the Merseyside Guidelines seek to highlight equity issues, along with an emphasis on assessing cumulative impacts. This approach arises from two concerns. The first is that if HIA becomes solely an expert-driven process it will become marginalised within decision making processes and not achieve buy-in from other sectors and external stakeholders. The second is that if those most affected are excluded from the process the HIA will inadequately identify and assess the impacts arising from the proposal^{49,59}.

The value of the Merseyside guidelines for those seeking to undertake EFHIA is that it provides a useful model for how to conduct HIA, i.e. being inclusive, transparent and community focused.

8.2. Bro Taf Health Inequalities Impact Assessment (HIIA)

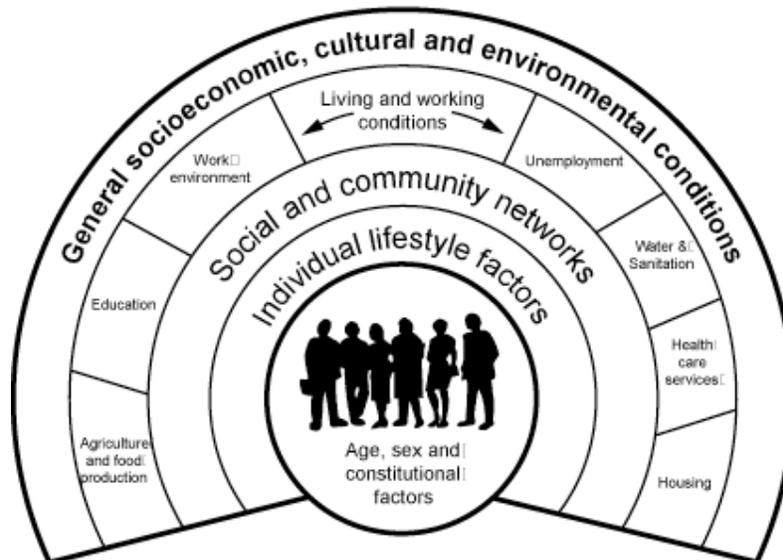
The Bro Taf Health Authority's work on health inequalities impact assessment (HIIA) arose from their Health Equity Strategy, which sought to respond to range of health inequalities that existed in their area. The Bro Taf approach to HIIA suggests three levels of HIA:

- Comprehensive health inequalities impact assessments (HIIAs) to be undertaken on major new projects;
- Rapid appraisals to be undertaken for less costly new proposals or changes to existing services and should be completed within two months⁵¹, though it may take as little as 3-4 days⁶⁴;
- Policy audits to for new policies or policy changes that do not merit rapid appraisals or comprehensive HIIAs^{51,60,63-65}.

The policy audit proposes that health inequalities may (i) act as a trigger for further work or investigation and (ii) provide a health inequalities focus for decision making. Though the Bro Taf approach does not explicitly address issues of avoidability and fairness it suggests that health inequality and equity considerations should be a major driver for further work. This is one of the few instances in which equity considerations are cited as a triggering factor within health impact assessment.

The rapid appraisal tool focuses on the determinants of health (see Figure 4) in order to broaden the scope of impacts considered. It then assesses the issues identified at each level of the determinants against the evidence gathered, though it stresses that this evidence should not be anecdotal in nature^{60,64}. This is done with a view to methodically assessing the range of impacts across all the determinants. This assessment is then used to formulate opportunities to improve health and reduce health inequalities.

Figure 4: The Main Determinants of Health



Source: Dahlgren G, Whitehead M. *Policies and Strategies to Promote Social Equity in Health*. Stockholm: Institute of Futures Studies, 1991; cited in Acheson D, 1998¹.

Though the Bro Taf HIA approach does not explicitly address issues of fairness and avoidability to bridge the gap between health disparities and health equity it provides a useful, succinct structure that may be used or adapted to highlight equity issues.

8.3. Equity Audit

The Equity Audit is an approach that was developed by EQUAL and the Liverpool Public Health Observatory⁶⁶ which has been adopted by the UK National Health Service as a process to identify local priorities to identify health inequalities, to plan action and to track progress^{56,58}. The Equity Audit is not designed for health impact assessment – instead it is a requirement of the NHS Planning and Priorities Framework 2003-2006. It may however be used or adapted to inform a HIA. It is designed to provide a profile of an area or group and to answer a number of questions:

- What are the known health inequalities for a particular population group or area?
- What are the significant equity issues in relation to provision/access to services, facilities and the determinants of good health?
- Which of these are priorities for action?
- What programs already exist which might help reduce the inequities?
- Are there any relevant national targets?
- Should a local target be set?
- What further action can be taken by existing public services or through more targeted action with key groups and areas?
- Have resources been reallocated to take the most effective action?
- Has there been any impact on the inequities targeted?⁵⁸

The Equity Audit illustrates the importance of profiling the inequities that exist within an area. This process helps to clarify avenues for mitigation/enhancement measures and helps to formulate recommendations.

The Equity Audit is designed to ensure planners are considering the right questions and incorporating equity considerations in their decisions. It may be adapted for use within health impact assessment with the same goals in mind. Its utility for EFHIA lies mainly in its clear guidance for undertaking an inequity profile of an affected area and using this to guide action to address health inequities.

8.4. Equity Gauge

As with the Equity Audit, the Equity Gauge is not particularly designed for use within HIA. There are some similarities however between the Equity Gauge and the Equity Audit in that both seek to analyse inequities. The Equity Gauge is an action-oriented approach that advocates for the minimisation of health inequities and puts greater emphasis on supporting the role of those most marginalised to be active participants in promoting change⁶². It puts forth a way of working based on three pillars:

1. assessment and monitoring;
2. advocacy, and
3. community empowerment^{61,62}.

The expected outcome is that collection of information on health inequities through assessment and monitoring will assist/empower marginalised groups to advocate for change and action to address health inequities. In terms of assessing differential impact, the Equity Gauge identifies a number of key social groups that should be considered when assessing impacts:

- socioeconomic status;
- ethnicity;
- religion;
- language spoken;
- gender;
- locational disadvantage;

- country of origin;
- sexual orientation;
- age;
- disability, and
- other marginalised groups.

Although the Equity Gauge does not mirror the steps of HIA it still provides a useful framework and structured process for identifying affected groups, conceptualising equity impacts and monitoring them. It also provides a framework for community empowerment and advocacy that may guide those undertaking EFHIA in how to collect information on potential health equity impacts through community participation mechanisms that are appropriate.

8.5. Effective Consideration of Equity

The different approaches outlined above show that not only do different levels of HIA require different levels of resource investment; they also require the use of different practical steps to consider equity. Community empowerment and the consideration of impacts across a broad range of groups may not be possible within time- and resource-limited HIAs. Another approach, such as the Bro Taf Rapid Appraisal Tool, may be more useful in these cases. None of the approaches identified can single-handedly guide a practitioner seeking to systematically incorporate equity considerations into their HIA – a combination of these measures is required.

All four approaches stress the need to involve those potentially affected by the proposal as much as possible. This is similar to the importance placed on community participation by health impact assessment generally and other forms of impact assessment.

8.5.1. Limitations

None of the four approaches identified are comprehensive in the measures they put forward to include equity in HIA. For example the Merseyside Guidelines provide clear information on HIA but don't focus on equity; the Equity Audit and Equity Gauge look at equity closely but don't deal with HIA. Further work is required to develop a consolidated, practical mechanism for the systematic incorporation of equity within HIA.

Another aspect of EFHIA that requires further attention is developing rapid approaches. In practice the greatest factor limiting the use of HIA is time⁶⁷. One needs a tangible proposal to undertake a HIA but by the time a HIA has been completed the proposal may have been finalised. This suggests that additional mechanisms for the rapid consideration of health impacts, and more specifically health equity impacts, need to be further developed. The Bro Taf Rapid Appraisal Tool^{51,60,63-65} is an important step towards this but additional and specific health equity impact tools may be key to achieving simple and readily-understood models for EFHIA.

The nature of HIAs is that they are not undertaken in controlled circumstances. As such there is a lack of evidence illustrating the comparative benefits that may arise from adopting an equity focus, rather than undertaking a more general approach to HIA. This issue is a central one for EFHIA to address if it is to be generally accepted as a suitable approach to HIA.

9. DISCUSSION

- The bulk of the literature identified in this review takes the form of commentary and originates from the United Kingdom. This reflects not only HIA's growth in the UK, but also its status as an emerging field and the impediments to disseminating HIA findings that exist.
- The literature review found that equity is not effectively addressed in other forms of impact assessment, with issues of avoidability and fairness rarely examined.
- A key mechanism to ensure the consideration equity cited in the HIA and general impact assessment literature is increased community participation. This approach is based on a number of assumptions that may not exist in real-world situations.
- HIA has greater scope to consider equity due to the explicit and implicit mechanisms utilised to address health equity. The extent to which these mechanisms lead to the consideration of health equity in practice is still very much open to question. This is largely due to the unexplained leap that is required to move from identifying differential impacts to making a determination about avoidability, fairness and avenues to address inequities.
- A specific form of HIA that addresses equity has not been developed, practitioners favouring an "equity in every HIA" approach. There is however a lack of structured guidance or tools that may be drawn upon to achieve this goal in practice.
- A gap in the literature was identified for an approach that:
 - moves beyond looking at differential impacts to explicitly addressing issues of avoidability and fairness, and
 - clarifies how equity issues can be considered at every step of a HIA.
- Existing approaches are limited from an EFHIA perspective because they either provide guidance on HIA or address equity issues - none comprehensively integrate both elements.
- Many of those behind the increased international interest in HIA are also promoting a health equity agenda, and there is increasing interest in how the two may be combined. Despite suggestions that equity should be considered in every HIA there is little enabling guidance available.
- There is a need, particularly in contexts where an explicit commitment to reducing health inequalities does not exist, for clearly structured, practical guidance on how to incorporate equity in HIA.

9.1. The Literature Reviewed

The literature identified for this review is limited for a number of reasons. The first is that the bulk of it consists of discussion, commentary and guidelines rather than presenting research findings or reporting on completed HIAs. In part this reflects HIA's status as an emerging field; in part it reflects the difficulties that exist in disseminating the findings of completed impact assessments. Even given these limitations this review was still able to highlight possible future directions for HIA

and gaps within the field. The majority of the references identified are from the United Kingdom (57.1%), demonstrating the increasing emphasis that is being placed on HIA in England, Wales and Scotland.

9.2. Equity in Other Forms of Impact Assessment

The literature shows that equity is not effectively addressed through the methodologies employed in other forms of impact assessment. Differential impacts are considered in a patchy way, most often being assessed in terms of gender, ethnicity and locational disadvantage arising from proximity to proposed developments. Even where differential impacts are addressed, the equity dimensions of “avoidability” and “fairness” are rarely explicitly mentioned. This may be partly explained by the limitations on publication.

In other forms of impact assessment, community participation is emphasised for its ability to identify the groups most negatively impacted by a proposal and to make explicit some of the trade-offs that are associated with the proposal. This and other mechanisms for the consideration of equity may have limited practical effectiveness because they are based on assumptions that may not exist in the real world³⁷. These include everyone being able to participate readily in opportunities for participation, accurate identification of all those groups who should be invited to participate and a willingness on the part of the proponents to listen to them.

9.3. Equity in Health Impact Assessment

Health impact assessment has greater scope to address equity than other forms of impact assessment but still has trouble systematically addressing equity issues. This is because even though equity is a key principle underpinning HIA the mechanisms for its consideration are inferred rather than explicit. The explicit mechanisms that do exist are the application of the stated principles, such as equity, and within the steps of HIA (screening, scoping, etc.). The implicit mechanisms are less straightforward and range from using a broad definition of health to drawing on a wide range of evidence to encouraging community participation. The extent to which both explicit and implicit measures lead to the consideration of equity in practice is largely open to question. This is because the leap from assessing differential impacts to making a determination about avoidability, fairness and avenues to address inequities is not accounted for in the literature. An area that requires further attention is the extent and mechanism by which concerns about inequitable impacts may actually act as a trigger for HIA during the screening step.

9.4. The Rationale for an Equity Focused Approach

Despite some initial interest a separate form of EFHIA has not been pursued, practitioners favouring the “equity in every HIA” approach put forth at a methodological seminar held in 2000. At this seminar it was argued that “equity is also a value, which arguably should underpin health impact assessment and inform

the whole process”¹³. This is a difficult proposition to argue against; however concerns arise over the lack of practical measures that may be used to ensure that HIA practice matches this rhetoric. Current guidelines stress the need to incorporate equity as an underpinning principle in every HIA. Clarity of principles and objectives do not necessarily lead to practical measures for inclusion though – a structured process is required. This is because structured processes provide a systematic way forward for HIA to inform action on health inequities.

A mechanism is required that (i) moves from the consideration of differential impacts to explicitly addressing issues of avoidability and fairness and (ii) clarifies how this and the consideration of health disparities outlined above can be integrated into each step of the HIA process.

It is recognised however that practitioners of EFHIA need to be clear about the objective(s) of their “equity focus” in HIA. Is the expected outcome of the HIA information that enables practitioners to improve the proposal so as to:

- i. improve the health of the most disadvantaged; and/or
- ii. close the gap in health between the most disadvantaged and better-off groups, and/or
- iii. address the relationship between socioeconomic position and health across the population^{68?}

A lack of clarity about the objective(s) of “equity focused” HIA however should not act as a barrier to developing a structured process for consideration and assessment of differential impacts in terms of avoidability and fairness within HIA. It is expected that as part of a structured process, practitioners would address this issue during the scoping step of a HIA.

9.5. Existing Approaches (eg. Bro Taf, Equity Gauge)

The existing approaches (Merseyside Guidelines, Bro Taf Health Inequalities Impact Assessment, Equity Audit and the Equity Gauge) are limited from an EFHIA perspective because they either address issues in undertaking HIA or assessing equity - none comprehensively integrate both. With the exception of the Equity Gauge, the models considered as potentially addressing health equity impacts do not explicitly address the equity dimension of HIA that relates to the distribution of impacts that are unfair and avoidable. The Equity Gauge, in addition to addressing the fairness and avoidability dimensions, may be useful to HIA practitioners by providing a process to assist in achieving increased levels of community involvement. There is a lack of clearly and systematically consolidated guidance on how to assess *both* the health impacts and the health equity implications of a proposal.

9.6. Conclusions

It is becoming increasingly accepted that HIA is an important mechanism for the consideration of equity issues within planning processes. Interest in health equity and equity-related issues is also increasing. Many of the forces driving this interest in

HIA and health equity are similar and there is an increasing focus on ways in which the two may be combined. This literature review has found that despite the suggestion that equity is being incorporated into all HIAs there is only limited evidence that differential impacts are considered and assessed in terms of their equity dimension (avoidability and fairness) in a systematic way. There is a need, particularly in contexts where an explicit commitment to reducing health inequalities does not exist, for clearly structured, practical guidance on how to incorporate equity in HIA.

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APPENDIX 1: METHODS

Appendix 1.1: Databases Searched for Search Strategy 1 (Database Searching)

APAIS (2004)

Australian Public Affairs Information Service (APAIS), National Library of Australia, accessed December 29 2003.

<http://www.nla.gov.au/apais/>

Environmental Sciences and Pollution Management (2004)

Environmental Sciences and Pollution Management, Cambridge Scientific Abstracts, accessed December 29 2003.

<http://www.csa.com/csa/factsheets/envclust.shtml>

Medline (2004)

Medline, US National Library of Medicine (NLM), accessed December 29 2003.

<http://www.ovid.com/site/products/ovidguide/medline.htm>

Sociological Abstracts (2004)

Sociological Abstracts, Cambridge Scientific Abstracts, accessed December 29 2003.

<http://www.csa.com/csa/factsheets/socioabs.shtml>

Web of Science (2004)

Web of Science, Thomson ISI, accessed December 29 2003.

<http://www.isinet.com/products/citation/wos/>

Appendix 1.2: Sites Searched for Search Strategy 3 (Recent Material)

ECHP (2003)

Health Impact Assessment Website, European Centre for Health Policy, WHO Regional Office for Europe, accessed December 11 2003.

http://www.euro.who.int/eprise/main/WHO/Progs/HPA/HealthImpact/20020319_1

IMPACT (2003)

IMPACT Website, International Health Impact Assessment Consortium, accessed December 23 2003.

<http://www.ihia.org.uk/>

NHS Health Development Agency (2003)

Health Impact Assessment Gateway, National Health Service Health Development Agency, accessed February 12 2003.

<http://www.hiagateway.org.uk>

Appendix 1.3: Document Screening Instrument Impact Assessments and Research

Equity Focused Health Impact Assessment Literature Review

Document Attributes - Impact Assessments and Research

Source	Reviewer _____
	Authors _____
	Title _____
	Source _____

Attributes	Country _____	Year _____			
	Type of Work	<input type="checkbox"/> Impact Assessment	<input type="checkbox"/> Presenting Research	<input type="checkbox"/> Systematic Review	<input type="checkbox"/> Tool/Instrument
	Type of IA	<input type="checkbox"/> HIA	<input type="checkbox"/> EIA	<input type="checkbox"/> SIA	<input type="checkbox"/> Other, specify _____
	Approach	<input type="checkbox"/> Checklist	<input type="checkbox"/> Rapid Appraisal	<input type="checkbox"/> Impact Statement	<input type="checkbox"/> Comprehensive Assessment
		<input type="checkbox"/> Other, specify _____			
	Medium	<input type="checkbox"/> Journal Article	<input type="checkbox"/> Report	<input type="checkbox"/> Book	<input type="checkbox"/> Book Section
		<input type="checkbox"/> Website	<input type="checkbox"/> Newsletter	<input type="checkbox"/> Other, specify _____	
	Differential Impacts Explicitly Addressed			<input type="checkbox"/> Yes	<input type="checkbox"/> No
	If yes, on what basis?	<input type="checkbox"/> N/A	<input type="checkbox"/> Gender	<input type="checkbox"/> Locality	
		<input type="checkbox"/> Ethnicity	<input type="checkbox"/> SES/SEP	<input type="checkbox"/> Other, specify _____	
Impacts Considered	<input type="checkbox"/> Negative Only	<input type="checkbox"/> Positive Only	<input type="checkbox"/> Both Negative & Positive		
	<input type="checkbox"/> Unclear	<input type="checkbox"/> N/A			
Data Considered	<input type="checkbox"/> Quantitative	<input type="checkbox"/> Qualitative	<input type="checkbox"/> Mixed Methods		

Evidence	Evidence Used	Process	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unknown	<input type="checkbox"/> N/A
		Impact	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unknown	<input type="checkbox"/> N/A
		Outcome	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unknown	<input type="checkbox"/> N/A
	Level of Evidence	<input type="checkbox"/> Level 5	Expert Opinion			
	(NHMRC 2002)	<input type="checkbox"/> Level 4	Case studies			
		<input type="checkbox"/> Level 3 (3)	Comparative studies , 2+ single arm studies, interrupted time series without a control group			
		<input type="checkbox"/> Level 3 (2)	Systematic review of comparative studies, cohort studies, case control studies or interrupted time series with a control group			
		<input type="checkbox"/> Level 3 (1)	Evidence from well-designed pseudo-RCTs (e.g. alternative allocation)			
		<input type="checkbox"/> Level 2	At least one well designed RCT			
		<input type="checkbox"/> Level 1	Evidence from a systematic review of all relevant RCTs			

Research Rating	1. Are the goals clearly described? (adapted from Borkan et al. 2002)
	<input type="checkbox"/> Not at all (0) <input type="checkbox"/> Barely described (1) <input type="checkbox"/> Moderately described (2) <input type="checkbox"/> Clearly described (3) <input type="checkbox"/> N/A
	2. Is the data collection technique clearly described?
	<input type="checkbox"/> Not at all (0) <input type="checkbox"/> Barely described (1) <input type="checkbox"/> Moderately described (2) <input type="checkbox"/> Clearly described (3) <input type="checkbox"/> N/A
	3. Do the data collection methods used appropriately measure the subject matter?
<input type="checkbox"/> Not at all (0) <input type="checkbox"/> Barely appropriate(1) <input type="checkbox"/> Moderately appropriate (2) <input type="checkbox"/> Clearly appropriate (3) <input type="checkbox"/> N/A	
4. Is the data analysis technique clearly described?	
<input type="checkbox"/> Not at all (0) <input type="checkbox"/> Barely described (1) <input type="checkbox"/> Moderately described (2) <input type="checkbox"/> Clearly described (3) <input type="checkbox"/> N/A	
Overall Rating (sum) _____ Comparative Rating _____ (score for 1, equates with commentary score)	

Intervention Rating

1. Are the outcomes of the research/IA clearly described? (based on Rychetnik et al. 2002)

Not at all (0) Barely described (1) Moderately described (2) Clearly described (3) N/A

2. Is the processes involved in the research/IA clearly described?

Not at all (0) Barely described (1) Moderately described (2) Clearly described (3) N/A

3. Are unanticipated findings described?

Not at all (0) Barely described (1) Moderately described (2) Clearly described (3) N/A

4. Is the research/IA's context clearly described?

Not at all (0) Barely described (1) Moderately described (2) Clearly described (3) N/A

5. Is the interaction between the research/IA and the context clearly described?

Not at all (0) Barely described (1) Moderately described (2) Clearly described (3) N/A

6. Are the findings applicable to the Australian context?

Consider if the results are generalisable to Australian populations and to HIA - cultural differences, differences in healthcare provision, differences in target groups, etc. (based on Taylor & Quigley 2002)

Not at all (0) Barely applicable (1) Moderately applicable(2) Clearly applicable (3) N/A

Why? _____

Overall Rating _____ Comparative Rating _____ (sum of scores for 4 and 6, equates with commentary score)

References

Borkan J et al. (2002) *Meta-Synthesis of Qualitative Studies: from theory to practice*, NAPCRG 30th Annual Meeting, Providence, Rhode Island, North American Primary Care Research Group (NAPCRG), November 18-19.

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Rychetnik L et al. (2002) *Criteria for Evaluating Evidence on Public Health Interventions*, Journal of Epidemiology and Community Health, 56(2), p 119-127.

Appendix 1.4: Document Screening Instrument Commentary and Guidelines

Equity Focused Health Impact Assessment Literature Review Document Attributes - Commentary and Guidelines

Source	Reviewer _____
	Authors _____
	Title _____
	Source _____

Attributes	Country _____	Year _____			
	Type of Work	<input type="checkbox"/> Commentary	<input type="checkbox"/> Guidelines	<input type="checkbox"/> Ad Hoc Review	<input type="checkbox"/> Tool/Instrument
	Type of IA	<input type="checkbox"/> HIA	<input type="checkbox"/> EIA	<input type="checkbox"/> SIA	<input type="checkbox"/> Other, specify _____
	Approach	<input type="checkbox"/> Checklist	<input type="checkbox"/> Rapid Appraisal	<input type="checkbox"/> Impact Statement	<input type="checkbox"/> Comprehensive Assessment
		<input type="checkbox"/> Overview (not approach specific)	<input type="checkbox"/> N/A	<input type="checkbox"/> Other, specify _____	
	Medium	<input type="checkbox"/> Journal Article	<input type="checkbox"/> Report	<input type="checkbox"/> Book	<input type="checkbox"/> Book Section
		<input type="checkbox"/> Website	<input type="checkbox"/> Newsletter	<input type="checkbox"/> Other, specify _____	
	Differential Impacts Explicitly Addressed?	<input type="checkbox"/> Yes		<input type="checkbox"/> No	
If yes, on what basis?	<input type="checkbox"/> N/A		<input type="checkbox"/> Gender	<input type="checkbox"/> Locality	
	<input type="checkbox"/> Ethnicity	<input type="checkbox"/> SES/SEP	<input type="checkbox"/> Other, specify _____		
Impacts Considered	<input type="checkbox"/> Negative Only		<input type="checkbox"/> Positive Only	<input type="checkbox"/> Both Negative and Positive	
	<input type="checkbox"/> Unclear		<input type="checkbox"/> N/A		

Research	1. Are the goals of the paper/guidelines clearly described? (adapted from Borkan et al. 2002)
	<input type="checkbox"/> Not at all (0) <input type="checkbox"/> Barely described (1) <input type="checkbox"/> Moderately described (2) <input type="checkbox"/> Clearly described (3) <input type="checkbox"/> N/A
	Overall Rating (sum) _____

Intervention Rating	1. Is the paper/guideline's context clearly described? (based on Rychetnik et al. 2002)
	<input type="checkbox"/> Not at all (0) <input type="checkbox"/> Barely described (1) <input type="checkbox"/> Moderately described (2) <input type="checkbox"/> Clearly described (3) <input type="checkbox"/> N/A
	2. Are the findings applicable to other contexts?
	<i>Consider if the results are generalisable to Australian populations and to HIA - cultural differences, differences in healthcare provision, differences in target groups, etc. (based on Taylor & Quigley 2002)</i>
	<input type="checkbox"/> Not at all (0) <input type="checkbox"/> Barely transferable (1) <input type="checkbox"/> Moderately transferable (2) <input type="checkbox"/> Clearly transferable (3) <input type="checkbox"/> N/A
	Why? _____

	Overall Rating (sum) _____

References	Borkan J et al. (2002) <i>Meta-Synthesis of Qualitative Studies: from theory to practice</i> , NAPCRG 30th Annual Meeting, Providence, Rhode Island, North American Primary Care Research Group (NAPCRG), November 18-19.
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	Rychetnik L et al. (2002) <i>Criteria for Evaluating Evidence on Public Health Interventions</i> , Journal of Epidemiology and Community Health, 56(2), p 119-127.

Appendix 1.5: Reference Review Questions

1. Abstract
2. Keywords
3. Quotes
4. How is equity addressed in the methodology for impact assessment used/put forward?
5. How effective are these methodologies in addressing/incorporating equity systematically in impact assessment? (in ideal or theoretical conditions and in practice)
6. What rationale does the paper put forward for a separate form of equity-focused impact assessment?
7. What model of equity-focused impact assessment does the paper follow/use/put forward?
8. How effective is this model of equity-focused impact assessment in addressing/incorporating equity systematically in HIA? (in ideal or theoretical conditions and in practice)
9. Methodological Comments

APPENDIX 2: RESULTS

Appendix 2.1: References Identified Through Search Strategy 1 - Database Searching

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Health inequalities impact assessment, Bulletin of the World Health Organization, 78(1), p 75-76.

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Appendix 2.2: References Identified Through Search Strategy 2 - Grey Literature

Table 11: Grey Literature Citation Index

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