

Health Impact Assessment

Legislative and Administrative Frameworks

February 2005

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Executive Summary

This paper was commissioned by the Legislation Reform Working Group of the National Public Health Partnership to examine legislative and administrative frameworks for facilitating Health Impact Assessment (HIA) associated with new development proposals, including best practice arrangements. In considering legislative and administrative frameworks for HIA associated with development proposals, the paper acknowledges that HIA may also apply more broadly, although this is beyond the paper's scope.

HIA has been defined by the enHealth Council as a systematic process to assess the actual or potential, and direct or indirect, effects on the health of individuals, groups or communities arising from environmental conditions or hazards arising from policies, objectives, programs, plans or activities. (enHealth Council, 2001)

This definition provides for the application of HIA within the context of the built and natural environment. For the purpose of this paper, this definition was preferred as it is most relevant to the purpose and scope of the project. Other definitions broaden or constrain the application of HIA to better enable its operation in various contexts. However, irrespective of the context within which HIA is applied, the need to assess the potential for the determinants of health to be affected and the distribution of these impacts within the population is maintained.

The paper attempts to map current legislative and administrative arrangements for HIA in each Australian jurisdiction, as a basis for analysing issues relating to HIA implementation. The paper notes that there is important scope for utilisation of HIA in relation to planning schemes.

The paper identifies the absence of empirical research relating to how legislative and administrative arrangements affect the quality of HIA, and the lack of benchmarks against which to measure best practice. Despite this, it recognises that the majority of commentary about HIA processes supports legislative requirements for HIA, and HIA as a component of Environmental Impact Assessment (EIA) rather than a stand-alone process. It also discusses a legislative model, which has been acknowledged as best practice by some commentators.

The paper highlights the need for close liaison between agencies responsible for EIA and health agencies, and the importance of clear delineation and documentation of these relationships.

It is argued that any benefits to be gained from a consistent approach to legislative requirements for HIA need to be analysed in a broader consideration of harmonising EIA requirements, as the differences in this area are likely to limit opportunities for consistency in relation to HIA.

The paper emphasises that the success of HIA as a component of EIA is dependent upon a broad commitment to this approach, particularly outside health agencies.

Finally, the paper identifies opportunities for further work on arrangements to institutionalise HIA.

Section 1: Preamble and Introduction

Preamble

The Legislation Reference Network

This paper examines legislative issues associated with Health Impact Assessment, particularly in the context of EIA. It was commissioned by the Legislation Reform Working Group (LRWG), then a sub-committee of the National Public Health Partnership Group (NPHPG). The NPHPG was established in October 1996 with the general aim to improve collaboration and co-ordination of the public health effort across Australia.

From 1997 to 2001 LRWG provided a forum for national discussion of current and emerging matters relevant to public health legislation and laws affecting public health.¹

Since the paper was commissioned, the NPHPG has repositioned legislation issues as a cross-cutting theme across NPHP priority work. In line with this change, the LRWG has been replaced by the Legislation Reference Network (LRN).

The LRN is available as a resource or “pool of expertise” for representing a public health legislation perspective on steering groups for NPHP projects and to act as a reference point for expertise on public health law and laws affecting public health.

The LRN has overseen the completion of this paper.

enHealth Council

This paper is informed by the *Health Impact Assessment Guidelines (2001)* developed by the enHealth Council, which specifically address the use of HIA when conducting Environmental Impact Assessment.

The enHealth Council is the premier advisory body on environmental health in Australia. It provides national leadership on environmental health issues, sets priorities, coordinates national policies and programs and provides a pivotal link between international fora and environmental health stakeholders in Australia. It is also responsible for implementation of the National Environmental Health Strategy and is a sub-committee of the NPHPG.

Abbreviations and Definitions

This paper uses the terms “HIA” to refer to “Health Impact Assessment” and “DP” to refer to “development proposal”. Health Impact Assessment has been defined as “a

¹ LRWG’s terms of reference included:

- Provide advice and recommendations to the National Public Health Partnership on legislative policy issues, priorities, work programs and areas in which legislation and regulation could most effectively be applied to the advancement of public health;
- Facilitate national public health legislation and regulation review and reform activities, including:
 - i. working towards modernisation of public health legislation;
 - ii. identifying and responding to gaps and emerging public health issues; and
 - iii. encouraging best practice.

combination of procedures or methods by which a policy, program or project may be judged as to the effects it may have on the health of a population". (European Centre for Health Policy (1999) *Health impact assessment: Main concepts and suggested approach. The Gothenburg Consensus Paper*, December 1999, WHO Regional Office for Europe)

In Australia, HIA has been defined as "a systematic process to assess the actual or potential, and direct or indirect, effects on the health of individuals, groups or communities arising from environmental conditions or hazards arising from policies, objectives, programs, plans, or activities" (Health Impact Assessment Guidelines, enHealth Council, 2001). The paper focuses on HIA associated with new development proposals.

Different authors have used different terms to refer to Environmental Impact Assessment, meaning a systematic process to assess the actual or potential effects of proposed developments on the natural environment. This paper uses the term Environmental Impact Assessment, abbreviated to "EIA" in the text. However, "Environmental Impact Assessment" and "Environmental Assessment" appear to be used interchangeably in the literature. Impact Assessment is a broader term that includes all forms of impact assessment such as EIA, HIA, Social Impact Assessment (SIA) etc. Where an author has used a particular term, that term is retained in any quotations from their work.

Impact assessment activities are undertaken at Australian Government, State/Territory and local government levels, as part of planning processes. The particular legislation and administrative procedures relating to impact assessment activities differ across jurisdictions and may be based on environmental protection, resource management, planning, or across all these areas. However, although the approaches of individual jurisdictions differ in details of content and form, they have general characteristics in common, and these will be used as the basis for discussion and analysis. The particular EIA legislation and processes in each jurisdiction are summarised in Section 2.

A full list of definitions and abbreviations appears at the end of the paper.

Approach

The paper generally advocates an outcome-based approach. It recognises that there may be a variety of ways to achieve an effective framework for HIA. In some circumstances the paper presents an example to illustrate a practical approach to implementing best practice. The use of particular examples does not imply that other methods may not result in an equally effective outcome.

Introduction

Background

Public health is primarily concerned with improving the health of the populations and reducing inequities in health status. Central to a population health approach is the recognition that health status is influenced by a range of factors or determinants ('health determinants') and that inequities in health status may be attributed to differences in how these determinants are experienced within a population.

HIA as variously defined is essentially a tool through which health impacts as a result of changes to health determinants can be assessed. HIA is a developing area both in theory and practice. In recent years there has been significant work done both nationally and internationally about how to effectively conduct HIA. Important HIA work has been

done in countries such as Canada, New Zealand and the UK, as well as by the World Health Organization. In Australia, the introduction of HIA within EIA more generally, has been identified as a priority by the *National Environmental Health Strategy* (enHealth Council, 1999).

Australian commentators on public health law have identified opportunities to facilitate HIA through appropriate legislative and administrative frameworks (Bidmeade & Reynolds, 1997, Australian Institute of Environmental Health, 1998). However, to date, most HIA work has focussed on the content and process of HIA, rather than the legislative and administrative framework to support this process.

Purpose

The project aims to address this gap in the HIA literature by providing an analysis of issues associated with legislative and administrative frameworks for HIA. It will also complement other HIA work such as the enHealth Council's *Health Impact Assessment Guidelines* (2001). The paper focuses on HIA associated with new development proposals. It looks beyond existing environmental impact assessment laws to examine whether current approaches represent best practice in terms of HIA.

The purposes and objectives of the project are set out in Appendix 1.

Scope

The paper:

- Identifies current administrative and operational links between public health and other assessment agencies relating to health impact assessment of developments.
- Identifies legislative mechanisms that currently exist in State and Territory jurisdictions to emphasise the links between environmental health and public health.
- Examines the adequacy of current arrangements for promoting the timely assessment of potential health impacts.
- Identifies problems and gaps that exist in addressing environmental health concerns, including identification of problems and gaps created by current processes in promoting the role of health impact assessments and considering the status of public health in current processes.
- Describes legislative models for health impact assessment, including the model of incorporating HIA into existing environmental or other legislation and the model of "stand alone" HIA incorporated into public health legislation.
- Assesses the efficacy of a "stand alone" health impact assessment legislative model compared to an integrated approach, including identification of the benefits and disadvantages of each approach.
- To the extent possible, determines barriers and opportunities to developing national consistency in health impact assessment processes.
- Recommends a best practice framework for requiring health impact assessment.
- Identifies a best practice legislative mechanism for HIA as a resource for those jurisdictions who wish to adopt a legislative framework.

HIA and policy

HIA could be applied in a range of different ways and to a wide range of activities ranging from broad policy development and program management to assessment of new developments. There is a growing recognition amongst commentators that HIA should extend beyond the assessment of development to decisions, policies and practices which have the potential to affect health (for example, British Medical Association, 1998, Mahoney & Morgan, 2001).

However, although some brief comments are made about the application of HIA in the policy and program context, this paper focuses on the development context and the broader application is generally beyond its scope. The application of HIA to policy is discussed further in a report by Deakin University on the application of HIA in non-development decision-making (*Health Impact Assessment: A tool for policy development in Australia, Report, Public Health Education & Research Program Innovation Grant, 2002*). Deakin University's Health Impact Assessment Unit's publication *Potential Health Impacts of the Proposed Family Violence Strategy – Safer Families, Safer Communities – Report of the Rapid Health Impact Assessment* conducted in October 2003 (Potter, Mahoney, Sangster & McCormick, 2003) provides an example of HIA's application to a proposed family violence strategy.

The Australian Government Department of the Environment and Heritage has advised that there are a number of national policy making bodies such as the National Environment Protection Council and the Environment Protection and Heritage Council where health impacts are increasingly being taken into account in the development of national environment policies.

There is often some consideration given to the health impacts of policy or program decisions where improvements in health are not the prime objective, but this is generally something different from a formal, rigorous HIA process. For example, in some jurisdictions, information must be provided to Cabinet about the health impacts of policy, program or legislative proposals, whether the proposals are health-related or not. However, the Cabinet process does not involve a formal HIA procedure and the information provided is generally an estimation of possible impacts rather than a rigorous evidence-based, scientific assessment.

Social Impact Assessment

Social impact assessment (SIA) has emerged as another specific area of impact assessment. SIA "includes the processes of analysing, monitoring and managing the intended and unintended social consequences, both positive and negative, or planned interventions (policies, programs, plans, projects) and any social change processes invoked by those interventions." Its primary purpose is to bring about a more sustainable and equitable biophysical and human environment (International Association for Impact Assessment). The summary of Queensland's EIA processes contains information on Queensland's approach to SIA (see Section 2).

The importance of including social issues in health impact assessment has been raised during the development of this paper, in recognition of the social determinants of health. Although specific consideration of SIA is beyond the scope of this paper, SIA's importance is acknowledged and it is recognised as an area for further work.

Human impact assessment has been developed as a holistic approach, which offers the potential to "bring together" health impact assessment (HIA) and social impact assessment (SIA) (Vanclay, 2002).

Section 2: Current Legislative Arrangements for Impact Assessment

"... traditional EIA has not always managed identification and reporting of likely human health effects in an optimum manner."

enHealth Council, 2001, 4

This Section considers legislative mechanisms that currently exist in Australian jurisdictions that link public health/health impact assessment and environmental impact assessment, including consideration of current legislative frameworks for HIA. It also provides some background about the development of EIA and the reasons for the emergence of HIA as a distinct approach.

Impact Assessment - background

The concept of HIA developed from analysis of established environmental impact assessment processes (Thomas, 1998, 2001, 31). It is thus useful to provide some background and description of Australian EIA processes as a context for later discussion.

Environmental impact assessment emerged during the 1970s as a response to concern about the impacts of developments on the environment and finite resources (Thomas, 1998, 11). It is the formal administrative process that was developed during the 1970s to assess development impacts (Thomas, 1998, 11).

In broad terms, Thomas describes EIA as a procedure to guide decision makers when assessing proposed developments (1998, 12). He summarises the EIA process in two stages:

- "1. Preparation of a document which provides information on the existing environment; predictions about the environmental effects; and recommendations which could flow from a decision to proceed with the proposal (or alternative to the proposal). This document is usually called an *environmental impact statement* (EIS).
2. Review of the EIS by the public and government officers to consider the accuracy of the EIA, and in view of the predicted effects recommend whether/how the proposal should proceed. This review is reported to whoever makes a decision about the proposal in some form of *assessment report*." (Thomas, 1998, 17-18)

Australian environmental impact assessment processes generally reflect Thomas' model of impact assessment (Thomas, 1998, 18) and are outlined for each jurisdiction later in this Section.

Over time, IA has developed further, and extended into areas such as Social Impact Assessment (mentioned in the introduction).

The HIA process

The enHealth Council has described the following elements of the HIA process (enHealth Council 2001, 11):

Screening	<ul style="list-style-type: none"> • Should the project be subject to HIA?
Scoping	<ul style="list-style-type: none"> • What issues must be addressed in the HIA?
Profiling	<ul style="list-style-type: none"> • What is the current status of the affected population and the local environment?
Risk assessment	<ul style="list-style-type: none"> • What are the risks and benefits? • Who will be affected?
Risk management	<ul style="list-style-type: none"> • Can risk be avoided or minimised? • Are better alternatives available? • How can benefits and risks be evaluated and compared? • How can differing perceptions of cost and benefit, nature and magnitude be mediated? • Will predictions of future health risk be robust enough to withstand legal and public scrutiny?
Implementation and decision making	<ul style="list-style-type: none"> • Does the assessment provide sufficient, valid and reliable information for decision-making? • Is there a conflict to be resolved? • How will conditions be enforced? • How and by whom will impacts be monitored? • How will post-project management be resourced?
Monitoring, environmental and health auditing, post-project evaluation	<ul style="list-style-type: none"> • Is the project complying with its conditions? • How well is the E&HIA process as a whole achieving its aims of protecting the environment and health?

Environment and health

Definitions of environment, such as that found in section 528 of the *Environment Protection and Biodiversity Conservation Act 1999* (Cth), clearly encompass human health:

environment includes:

- (a) ecosystems and their constituent parts, including people and communities; and
- (b) natural and physical resources; and
- (c) the qualities and characteristics of locations, places and areas; and
- (d) the social, economic and cultural aspects of a thing mentioned in paragraph (a), (b) or (c)

However, although the proposals subject to development assessment requirements in Australia generally involve impacts on the environment, whose definition generally includes human health, there has been little in the way of effective assessment of health impacts. Experience has demonstrated that the general coverage of health issues within the broad context of the environment alone has not resulted in effective assessment of health impacts. There are a variety of factors which have contributed to or accompanied this outcome, including:

- Recognition of a wider range of health determinants arising from a broadening in the concept of health (includes social and mental well-being as well as physical factors).
- Increasing awareness of the importance of both health protection and health promotion strategies.

- Definitions of environment that include health “sit within legislative schemes and administrations that are centrally concerned with protecting the natural environment.” (Reynolds, in Australian Institute of Environmental Health, 1998, 192).
- Although technically health is included in environment, health impacts may be subtle or complex, and thus overlooked in the EIA process without expert health input.

Health

Consideration of health in EIA processes has traditionally been narrow. The less direct determinants of health such as financial status, social structure, isolation and community cohesion have tended to be overlooked as health issues in the EIA process. Traditionally, EIA has had a strong focus on development and the environment. As a consequence, the practice has tended to address obvious and direct health impacts whilst more subtle and broader health issues have perhaps not received the attention they warrant. The *enHealth Council's Health Impact Assessment Guidelines* refer to “...the lack of a specific requirement to consider and report on human health impacts has sometimes seen significant health issues overlooked” (enHealth Council, 2001, 4).

Obviously human activities, human health and the environment are fundamentally interconnected. As Health Canada explains:

“Human activities are intimately embedded in, and dependent on the natural environment, which is in turn impacted by human activities. Human activities and all our social constructs are a subsystem of the natural environment and are intrinsically dependent on the health of ecosystems. Human health is therefore embedded in and intimately dependent on the natural environment as well. However, environmental quality is only one variable affecting human health. A comprehensive definition of health, such as that provided by the World Health Organisation, “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity”, acknowledges the influence of the multitude of human social constructs and their complex inter-relationships. The influence of political, social, cultural and economic elements are all crucial determinants of human health.” (Health Canada, 1999, 3)

As EIA has evolved, the wider health sector has increasingly supported the social determinants model of public health (Mahoney & Morgan, 2001, 10).

Health as part of the environment

Although assessment of the health impacts of a development has notionally been considered as part of the environment, the results have not been completely satisfactory.

“Environmental impact assessment (EIA) has been a feature of planning processes in Australia for the last two decades, and has been of benefit in assessing the potential environmental damage from a proposed development.... However, the effects on social structure and cohesion, education, employment, community structure and infrastructure, recreation opportunities, and spiritual factors are not well addressed in conventional EIAs.... As a result, many developments and policies with significant potential for adverse health effects proceed with minimal consideration of these effects.” (enHealth Council, 1999, 33)

While aspects of health protection have received some attention in EIA, for example exposure to chemicals produced from industrial processes, other less obvious threats and health promotion issues have attracted less attention. Best practice HIA offers opportunities for thorough investigation of all aspects of health protection associated with a development proposal, and for consideration of relevant health promotion issues.

Health expertise may contribute to early identification of health impacts

Some health impacts may be complex and difficult to identify without health knowledge and expertise.

“Many planning decisions have the potential to impact on the health of the general community. Often, the link will be direct and obvious for example the inappropriate siting of a preschool next to an industrial facility, or the siting of hazardous facilities adjacent to residential areas. However sometimes the mechanisms may be subtle or indirect and may not be apparent when assessing individual projects.” (NSW Health, 1999, 34)

The use of health expertise in an EIA process is likely to help ensure that even subtle health impacts are identified early and adequately assessed.

Emergence of HIA

The concept of a separate health-based component of impact assessment developed from the health sector’s concern that health issues were not adequately addressed by existing impact assessment processes.

“Both public health experts and the broader community have expressed concerns that these potential impacts are not being adequately addressed by existing planning systems. These groups have called for the development of better coordinated and comprehensive strategies to ensure public health issues are considered as part of the planning and development process.” (NSW Health, 1999, 33)

Reasons for HIA

There are many justifications for developing and applying HIA concepts, ranging from health promotion to more effective assessment of the possible health impacts associated with a development. These include:

- Efficiency, and additional opportunities for health protection and promotion. Anticipating health concerns and modifying proposals if necessary is more efficient and effective in protecting and promoting health than responding to established health problems (Mahoney & Morgan, 2001, 9).
- Effective HIA offers an opportunity to avoid the eventual costs of remedial action and the curative and treatment services necessary to deal with health effects (NSW Health, 1999, 33). By addressing and coordinating public health matters early in the development cycle, expensive, time-consuming interventions at a later date may be minimised (NSW Health, 1999, 34). The precautionary principle and a strategy of “anticipate and prevent” is far more cost effective than one of “react and cure” (NSW Health, 1999, 34).
- Evidence that the greatest scope for improving the population’s health lies outside the provision of formal health services (NZ National Health Committee, 1997, 1).
- At the local government planning level, there are advantages in dealing with health issues at the planning stage, rather than dealing with health problems later under public health legislation.
- Facilitating optimisation of likely positive health impacts.
- Improving the prospects for sustainable development.

By 1994, the National Health and Medical Research Council had endorsed the need for HIA to be considered explicitly in any environmental or economic decision-making process (NHMRC, 1994). In 1996 Tasmania was the first Australian State to implement

legislation for HIA as part of the EIA process (*Environmental Management and Pollution Control Act 1994*, s. 74).

In 2001 the enHealth Council issued *Health Impact Assessment Guidelines*. These *Guidelines* provide assistance in identifying and assessing health impacts, and are expected to assist in resolving some of the problems resulting from a narrow consideration of health in assessment processes relating to specific developments.

A diagram illustrating the HIA process is attached at Appendix 2.

An example of HIA - the Burnie Woodchip pile

Background

From March 2000 to September 2002 Tasmania's Department of Primary Industries, Water and Environment (the Environment Department) had received 44 complaints from the public of Burnie related to emissions of wood dust from a private forestry company woodchip pile at Burnie Port. The complaints were within 500 metres of ship loading and nearby industries operating out of the Burnie Port.

Woodchip storage at the port commenced in the mid-1990s. Prior March 2000 no complaints had been received. Since March 2000, increased stockpiling and export of woodchips had occurred, since the closure of the paper mill in Burnie, previously the recipient of most of the woodchips produced by the private forestry company.

Out of the 44 complaints, 30 related to nuisance impacts and 14 related to health – 8 relating to irritation due to dust in the eyes and upper respiratory tract and 6 of precipitation or exacerbation of respiratory symptoms such as asthma.

Response

The Burnie woodchip storage and loading facility was regulated by the local government authority. However, following the raft of complaints, the Environment Department assumed regulation of the site with the agreement of the authority. The Director of Environmental Management required the owners of the facility to prepare an Environmental Management Plan using powers under the Environmental Management and Pollution Control Act 1994. As concerns over health escalated, it was agreed that a health impact assessment should be carried out to inform the environmental management of the facility.

The Department of Health and Human Services (DHHS) recommended to the Environment Department that a health impact assessment be prepared by an independent consultant as part of the Environmental Management Plan, to review the following public health related aspects:

- Microbiologically related air pollution, including Legionella and allergic aspects, particularly in relation to the sacrificial chip layer
- Wood dust and wood fibre air pollution.

HIA

Two independent health impact assessments were conducted in regard to the woodchip pile. It was concluded that available data did not implicate wood chips as a microbial health risk and that the sacrificial layer of the woodchip stockpile was

not a reservoir for the growth and multiplication of Legionella bacteria. Wood dust emissions from the woodpile were concluded to pose no significant long-term health risks to the local community.

However, both consultants agreed that operations presented significant nuisance to the community in the Port area and CBD. Although the stockpiling and ship loading of wood chips was found to have no significant long-term health risks to the local community, it poses an acute health impact due to the irritation of eyes, nose and throat from inhalation of the dust and lodgement of larger dust particles in the eyes. To mitigate these effects, development of management practices to counter the effects of adverse climatic conditions were suggested. In particular:

- The private forestry company employees should follow appropriate OH&S guidelines such as wearing respiratory equipment when ship loading.
- Investigate and monitor wind directions to determine weather conditions likely to be associated with significant emissions towards the Port and CBD.
- Avoid stockpiling and loading of chips when easterly winds are likely to carry emissions to the Port and CBD.
- Loading of wood chips to be avoided when easterly winds are likely to carry emissions to the Port area and CBD.

The considerable concern and anxiety amongst some members of the Burnie community of the perceived health risks associated with exposure to fugitive wood dust was acknowledged. Regardless of the actual level of risk, it was felt that concerns and anxiety would remain high unless they were recognised and openly addressed. It was recommended that the private forestry company engage with the local community to communicate the potential risks and the control measures taken by the company to reduce and eliminate fugitive dust emissions.

Subsequently, an Environmental Protection Notice was issued under the Environmental Management and Pollution Control Act 1994 by the Director of Environmental Management to require the company to implement the measures arising from the health assessment, and other measures to control dust and fibre loss as well as implement ongoing fugitive wood fibre monitoring in the port area and in the CBD and environs area.

As the scope of the Environmental Management and Pollution Control Act encompasses health impacts, it can be used to require completion of an HIA.

Australian environmental impact assessment processes

The environmental impact assessment legislation and processes in each Australian jurisdiction are outlined here in order to facilitate discussion about best practice models for HIA. Whilst there are common elements to assessment in each jurisdiction, each process is unique. Jurisdictions also differ in the extent to which health issues receive specific attention in the impact assessment process, the triggers for development assessment and the administrative arrangements that support the formal process.

Tasmania is the only jurisdiction which has a legislative requirement for HIA as part of impact assessment processes. However, as other jurisdictions currently conduct HIA as a part of impact assessment processes, the outline is based on the legislation and processes applicable to development impact assessment generally.

Jurisdictional EIA procedures

Australian Government

Steps	Australian Government
Relevant legislation	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
Scope	Controlled actions which are activities prohibited by Part 3 of the Act without Ministerial approval
Responsible agencies	Environment Australia
Referrals	If a proposed action is not covered by one of the exceptions identified in the Act, a person proposing to take an action that is thought to have a significant impact on a matter of national environmental significance must refer that action to the Minister for the Environment.
Decision about assessment	Minister decides whether assessment and approval is required once a referral is submitted to Environment Australia
Method of assessment	If assessment and approval is required, the proponent submits preliminary information and the Minister decides which assessment approach is appropriate: <ol style="list-style-type: none"> 1. assessment by an accredited (case-by-case) State/Territory or Australian Government process; 2. assessment on preliminary documentation; 3. assessment by public environment report; 4. assessment by environmental impact statement; or 5. assessment by inquiry. <p>A key aspect of the Act is to enable actions taken within a State or Territory to be assessed in accordance with a Bilateral Agreement, which accredits specified State/Territory assessment processes.</p>
Preparation of documentation – responsible agency	Nil
Preparation of documentation – proponent	Proponent prepares referral and assessment documentation in line with the Minister’s decision and the requirements of the Act.
Consultation	Documentation made available for public comments
Revision of documentation	Where assessment is on preliminary documentation, by public environment report (PER) or environmental impact statement (EIS), the proponent is required to revise the preliminary documentation, draft PER or EIS to take public comments into account. The revised documentation, the final PER or EIS, is then submitted to Environment Australia.
Assessment	Environment Australia prepares assessment report
Approval	Minister decides whether to grant an approval to take the action and whether to attach conditions

Additional comments

Nil

Australian Capital Territory

Steps	ACT
Relevant legislation	<i>Land (Planning and Environment) Act 1991</i>
Scope	Mandatory Preliminary Assessment (PA): prescribed classes of defined decisions as listed under Appendix 2 of the Territory Plan. Discretionary PA: the Health Minister under the Public Health Act can request environmental assessment for certain proposals.
Responsible agencies	Department of Urban Services – Planning and Land Management Division (PALM)
Referrals	Under the Land Act, all environmental assessments are referred to the Conservation Council of the South East Region and Canberra (Inc).
Decision about assessment	Preliminary assessment is triggered under Appendix 2 of the Territory Plan.
Method of assessment	Preliminary Assessment is prepared by proponent in consultation with PALM. After evaluation of the PA, the Minister decides whether further impact assessment required (ie Inquiry, Public Environment Report (PER), or Environmental Impact Assessment (EIS)). Minister conducts Inquiry or proponent prepares PER or EIA. Alternatively Minister determines that no further assessment is required – development application is determined under planning processes.
Preparation of documentation – responsible agency	If further assessment is required, based on Ministerial scoping, proponent prepares PER or EIS and submits to Minister.
Preparation of documentation – proponent	Based on Ministerial scoping, proponent prepares final PER or draft EIS Draft EIS submitted to Minister
Consultation	In accordance with the requirements of the Land (Planning and Environment) Act.
Revision of documentation	EIS finalised by proponent, including consultation report
Assessment	Minister assesses and prepares evaluation report for EIS, which is tabled in Legislative Assembly
Approval	Minister makes recommendations about any conditions subject to which the proposal should be approved (for PA, PER or EIS).

Additional comments

Environmental Impact Assessment (EIA) in the Australian Capital Territory is carried out under Part 4 of the *Land (Planning and Environment) Act 1991* (the 'Land Act').

The ACT's legislation provides for three stages of assessment, namely:

- Preliminary Assessment (PA)
- Public Environment Report (PER) or Environmental Impact Statement (EIS) and
- Inquiries

While the ACT Land Act is the primary way through which EIA may be initiated, it is not the only one. The Land Act specifically allows that other legislation can require that decisions be referred for impact assessment under Part IV of the Land Act. For example, the *Environment Protection Act 1997* is empowered to initiate impact assessment under Part IV of the Land Act. The *Public Health Act 1997* also includes provisions to use Part IV to conduct health impact assessment.

The primary activities that may be subject to EIA are:

- Variations to the Territory Plan
- Draft management plans for public land
- The granting of leases
- Sub-divisions or consolidations of leases and
- Development applications.

Health impact assessment

Section 134 of the *Public Health Act 1997* provides that:

For the purposes of section 231 of the *Land (Planning and Environment) Act 1991*, the Minister may -

- (a) direct that an Assessment be made under the Division 3 of Part IV of that Act;
- (b) establish a panel to conduct an Inquiry under Division 4 of Part IV of that Act, about any aspect of a proposed development under Part IV of that Act that the Minister considers would be likely to have a significant effect on public health.

All development proposals that may have some impact on public health are referred to ACT Health for comment. This administrative procedure ensures that ACT Health has an opportunity to raise health matters at the scoping stage of development assessment. Section 231 of the *Land (Planning and Environment) Act 1991* provides that the relevant authority determining a development application must consider any comments of a person or body to which the application has been referred for comment.

The legislative power in section 134 provides a valuable backup by allowing the Health Minister to direct assessments and to establish panels to conduct inquiries under the *Land (Planning and Environment) Act 1991*.

New South Wales

Steps	New South Wales
Legislation	<i>Environmental Planning and Assessment Act 1979 (EP&A Act)</i>
Scope	In NSW, there is a formal requirement on proponents and approval authorities to consider the environmental implications of development proposals including for both private and public sector projects. There are 2 levels of assessment: <ul style="list-style-type: none"> • an EIS for developments likely to significantly affect the environment; and • a Statement of Environment Effect or Review of Environmental Factors for other developments.
Responsible authorities	<ul style="list-style-type: none"> • Minister for Planning for State significant development and local councils for local development (under Part 4 of the EP&A Act). • Minister for Planning for State government infrastructure projects triggering an EIS, local council for their infrastructure projects, and government agencies for other projects requiring a government funding, licence or permit (under Part 5 of the EP&A Act).
Referrals	With integrated development, Councils and the Minister for Planning refer projects to other approval authorities for an integrated assessment/approval.
Decision about level of assessment	<ul style="list-style-type: none"> • Under Part 4, the Council or Minister for Planning decides if EIS is required based on Schedule 3 to EP&A Regulation 2000. This Schedule takes into consideration social/health factors in setting designation levels. • Under Part 5, approval authorities have a responsibility to trigger an EIS for proposals likely to significantly affect the environment. In making this decision reference must be made to Department of Urban and Transport Planning's guideline "<i>Is an EIS required?</i>" which lists health and other factors to be considered in making this decision.
Method of assessment	<ul style="list-style-type: none"> • Environmental Impact Statement (EIS) for designated development or development likely to significantly affect the environment. • Statement of Environment Effect (SEE) or Review of Environmental Factors(REF) for other development.
Preparation of documentation – responsible authority	<ul style="list-style-type: none"> • Department of Urban and Transport Planning issue requirements for EISs and for SEEs for State significant developments. When the project is integrated development, the requirements of other agencies are included in these requirements. Prior to issuing these requirements, a "planning focus meeting" is usually held with other approval authorities, relevant councils and the proponent to identify key issues. • Department of Urban and Transport Planning also issues EIS Guidelines which provide comprehensive guidance for the preparation of EIA documents. These guidelines list health and social issues to be considered in the EIA process.
Preparation of documentation – proponent	The proponent prepares EIS, SEE or REF and lodges with approval authority. It is recommended that the assessment of key issues be peer reviewed prior to lodgement.

New South Wales (continued)

Consultation	<ul style="list-style-type: none"> • All proposals requiring an EIS, or are State significant development or are integrated development must be advertised and exhibited. • Proponents are encouraged to consult with the community and other stakeholders during the preparation of their EIA document and the exhibition period. • The Minister for Planning may call a Commission of Inquiry which provides additional opportunities for consultation and negotiation with the community. • All approvals by the Minister for Planning require proponents to establish mechanisms for ongoing community consultation during the construction and operational phases.
Revision of documentation	The approval authority may require additional information.
Assessment	Department of Infrastructure, Planning and Natural Resources (if the Minister for Planning is the approval authority), local councils or other agencies assess the EIA documentation taking into consideration public submissions, advice from other government authorities and any recommendations from a Commission of Inquiry (if held). If integrated development, the “general terms of approval” of other approval authorities must be incorporated into the recommendations.
Determination-	The decision may be an approval, approval with conditions or refusal by: Minister for Planning for State significant development and major government infrastructure; Councils for local development and their own infrastructure projects; A private certifier for low impact local development identified as “complying development”; and State Agencies for other developments requiring funding, permits or licenses.

Additional comments

Under the *NSW Environmental Planning and Assessment Act*, the environment includes *all aspects of the surroundings of humans, whether affecting any human as an individual or in his or her social groupings*. As a result, social and health issues need to be considered in the EIA process.

All development proposals in NSW must be assessed to ensure they comply with relevant planning controls and that they are environmentally and socially sustainable. State, regional and local plans and policies indicate what level of assessment is required and who is responsible for assessment. The system requires the environmental implications according to their nature and scale to be addressed in an EIS for projects likely to significantly affect the environment or in a SEE or REF for other projects. The system results in about 120–150 EISs being exhibited each year.

Department of Infrastructure, Planning and Natural Resources, issues EIS Guidelines to assist in the preparation of EISs and SEE/REFs. As well as outlining issues to be addressed in the assessment of the proposal, the guidelines provide site selection and consultation guidance. These guidelines identify relevant health and social issues to be considered and recommend consultation with NSW Health for projects likely to present health risks. In particular, with proposals such as sewerage systems, chemical plants and

landfills, the guidelines recommended that NSW Health be consulted at the Planning Focus Meeting stage, prior to the issuing of requirements for the EIS.

Under the NSW EIA system, proponents are required to consider the health implications when assessing air, noise, water quality and soil issues with health assessment criteria being key performance drivers in considering the acceptability of outcomes. In addition they are required to consider personal safety issues as well as impacts on amenity and other issues likely to result in physiological impacts.

NSW is working towards a strategy that recognises that while HIA is a useful tool in ensuring that inappropriate developments are not approved, it is only a small part of a wider approach. NSW Health is also exploring a more sustainable approach to dealing with the health impacts of developments by anticipating them before they occur.

NSW is keen to pursue using land use planning instruments to promote public health and safety by providing guidelines on nominated types of developments and by building public health capacity in agencies that determine the nature of the built environment. NSW Health is trying to pursue inclusion within planning processes locally, regionally and at State level. This inclusion is achieved by developing relationships with agencies outside of the conventional health network so that consideration of public health becomes an integral party of designing, developing and sustaining local communities.

Northern Territory

Steps	Northern Territory
Relevant legislation	<i>Environmental Assessment Act 1982</i>
Scope	Proposals which could have a significant effect on the environment
Responsible agencies	The Office of Environment and Heritage, a division of the Department of Infrastructure, Planning and Environment administers the Act. The Office is responsible to the Minister for the Environment and Heritage (the Minister).
Referrals	A Notice of Intent (NOI) or application lodged with the responsible Minister, the Minister who has final approval of a proposal, refers the NOI to the Minister. Alternatively, the NOI may be lodged with the Office and referred to the Minister.
Decision about assessment	The Minister determines whether assessment under the Act is warranted, and the level of assessment .
Method of assessment	Public Environment Report (PER) or Environmental Impact Assessment (EIS). EIS is the higher level of assessment.
Preparation of documentation – responsible agency	The Office prepares draft guidelines for a PER or an EIS.
Preparation of documentation – proponent	The proponent prepares the PER or EIS in accordance with the final guidelines.
Consultation	The PER or EIS are advertised and made available for public review and referred to relevant Government agencies, including Health, for review and comment. Final guidelines, incorporating comments received are issued to the proponent.
Revision of documentation	Comments on an EIS are referred to the proponent for preparation of a supplement. The Minister may request further information on a PER or on the supplement to an EIS.
Assessment	The Office prepares an assessment report and recommendations for the Minister’s consideration
Approval	The Minister advises and may make recommendations to the responsible Minister.

Additional comments

Nil

Queensland

Steps	Queensland
Relevant legislation	Integrated Planning Act 1997 (IPA) Environmental Protection Act 1994 (EPA) <i>State Development and Public Works Organisation Act 1971</i> (SDPWOA)
Scope	IPA addresses impacts associated with developments assessed at local level. EPA addresses impacts associated with mining activity. SDPWOA addresses impacts associated with State Significant projects (defined under the SDPWOA).
Responsible agencies	Dependent on type of assessment: <ul style="list-style-type: none"> • Assessments under IPA – local government. • Assessments under EPA – Environment Protection Agency. • Assessments under SDPWOA – Department of State Development.
Referrals	Process may involve referral to several approval agencies.
Decision about assessment	Dependent on type of application: <ul style="list-style-type: none"> • Assessments under IPA – local government. • Assessments under EPA – Environment Protection Agency. • Assessments under SDPWOA – Department of State Development.
Method of assessment	IPA: <ol style="list-style-type: none"> Self assessment – if development is consistent with the Local Government Planning Scheme the assessment is undertaken by the proponent on advice from Local Government. Assessable development – Assessment needs to be consistent with any requirements under the Local Government Planning Scheme and to provide opportunity for comment by relevant stakeholders. SDPWOA: formally recognises need for EIA. All agencies and other stakeholders provided opportunity to comment.
Preparation of documentation – responsible agency	None. Proponent prepares documentation for consideration by responsible agency.
Preparation of documentation – proponent	Proponent prepares documentation for consideration by responsible agency.
Consultation	Notification and invited stakeholder comment.
Revision of documentation	Supplement prepared by proponent as requested by responsible agency.
Assessment	Responsible agency, referral agencies and stakeholders.
Approval	Responsible agency.

Additional comments

Queensland Health is a concurrence referral agency for building work on private health facilities and must assess this type of development. Queensland Health may be invited to assess other development applications under IPA and the *Environmental Protection Act 1994*. However, under the SDPWOA, Queensland Health is a referral agency and, as such, is invited to comment on all declared projects.

Social Impact Assessment

Social impact assessment (SIA) involves assessing the likely direct and indirect impacts of developments, policies and plans on community cohesion, networks and infrastructure while accounting for cultural influences and population demographics and recognising the social determinants of health.

SIA has developed as an integral part of the EIA and as a result has many similarities. From Queensland Health's perspective, SIA is the process of assessing or estimating the potential social consequences that are likely to ensue from specific policies, programs or project development. For example, SIAs are conducted to examine the effects of projects on social and related economic conditions, such as employment, demographics, behaviour and lifestyle. Queensland Health considers that SIAs should be seen as part of the health component of EIAs.

Queensland Health has worked with other Queensland Government departments to develop guidelines for the conduct of social, economic and environmental impact assessments .

Health Impact Assessment

Queensland Health is working with key partners to develop a framework and toolkit for conducting HIA. The approach taken reflects national and international developments in this area.

South Australia

Steps	South Australia
Relevant legislation	<i>Development Act 1993</i>
Scope	Minister for Urban Development and Planning declares developments or projects to have major status.
Responsible agencies	Planning SA co-ordinates and evaluates assessment advice from various government agencies and submissions from the public.
Referrals	Planning SA must refer the development or project to the relevant council(s) and prescribed government agencies depending on the class of development (<i>Development Regulations 1993</i> , Schedule 8). All activities of environmental significance or major environmental significance are to be referred to the Environmental Protection Authority under these requirements.
Decision about assessment	The Major Developments Panel (MDP) (an independent statutory authority appointed by the Minister) decides on level of assessment required.
Method of assessment	Environmental Impact Statement, Public Environment Report, Development Report (for developments)
Preparation of documentation – responsible agency	MDP prepares guidelines identifying issues to be addressed by proponent.
Preparation of documentation – proponent	Proponent prepares EIS, PER or DR depending on decision of MDP.
Consultation	<p>EIS & PER:</p> <ul style="list-style-type: none"> • Public exhibition of proposal (developments) • Public meeting must be conducted • All written advice/submissions by government agencies, councils & the public must be addressed by the proponent. <p>Development Report:</p> <ul style="list-style-type: none"> • Public exhibition of proposal • Public meeting may be held • Written advice/submissions from government agencies, councils and public may be addressed by the proponent.
Revision of documentation	Proponent prepares a Response Document to advice/submissions from government agencies, councils and the public.
Assessment	The Minister for Urban Development and Planning evaluates the EIS/PER/DR, all advice/submissions, the Response Document as well as any other information required by Planning SA and other government agencies. The Minister then prepares an Assessment Report, with conditions (if appropriate) should approval be given.
Approval	The Governor, who can stipulate conditions.

Additional comments

Other planning authorities include:

- Council Development Assessment Panels
- Regional Development Assessment Panels (formed by 2 or more councils)
- The Development Assessment Commission (under the auspices of Planning SA).

However, all developments required by legislation to have a formal environmental assessment must undergo the above process, with some variations for prescribed mining activities.

Local councils play an important role as public health and planning authorities. This is expected to increase in the future and include some level of health impact assessment for lower impact development proposals, as a result of likely adoption of Local Agenda 21 and the concepts of ecologically sustainable development.

Tasmania

Steps	Tasmania
Relevant legislation	Environmental Management and Pollution Control Act 1994 (EMPCA) <i>Land Use Planning and Approvals Act 1993</i>
Scope	EMPCA classifies activities as: <ul style="list-style-type: none"> • Level 1 – activities below a threshold amount (as defined in Schedule 2 of EMPCA), generally low environmental impacts (assessed and regulated by Councils); • Level 2 – listed under Schedule 2 of EMPCA, more significant projects (assessed and regulated by Department of Primary Industry, Water and Environment (DPIWE)); • Level 3 – large scale projects of State significance. EIA applies to Level 2 activities and called in Level 1 activities. Level 3 activities are assessed by the Resource Planning and Development Commission and undergo a different impact assessment process to level 2 activities.
Responsible agencies	Councils EMPCA Board Resource Planning and Development Commission
Referrals	Council refers Level 2 activities to the EMPCA Board for EIA
Decision about assessment	EMPCA Board
Method of assessment	Development Proposal and Environmental Management Plan (DPEMP)
Preparation of documentation – responsible agency	Guidelines for DPEMP – prepared by DPIWE. May involve public scoping (larger level 2 projects only). Referred to Director of Public Health to advise on requirement for health impact assessment.
Preparation of documentation – proponent	Proponent prepares draft DPEMP and submits to EMPCA Board.
Consultation	DPEMP and Council development application advertised by Council (generally 28 days). Public can provide representation on proposal. DPEMP referred to government agencies for comment and may include referral to Australian Government agencies.
Revision of documentation	EMPCA Board can seek further information to be provided as a DPEMP Supplement. This further information should address issues raised in public representations and government agency comments. This may be referred for additional comment by government agencies.
Assessment	Environmental assessment report and permit conditions prepared.
Approval	EMPCA Board

Additional comments

Section 74 of the *Environmental Management and Pollution Control Act 1994* (Tas) provides that if required by the Director of Public Health, an environmental impact assessment must include an assessment of the impact of the proposed environmentally relevant activity on public health. The Director of Public Health has required that all EIAs include HIA.

Victoria

Victoria has two relevant Acts, which are dealt with in separate tables below.

Steps	Victoria
Relevant legislation	<i>Environment Effects Act 1978</i>
Scope	Proposals which could have a significant effect on the environment.
Responsible agencies	Minister for Planning
Referrals	A proponent or any Minister or authority that grants permits, licences or approvals must refer relevant proposals to the Minister for Planning
Decision about assessment	Minister for Planning determines whether the proposal requires an Environmental Effects Statement (EES)
Method of assessment	EES
Preparation of documentation – responsible agency	EES Consultative Committee formed to guide the preparation of the EES. Public scoping may be involved.
Preparation of documentation – proponent	EES prepared by proponent and submitted to the Minister
Consultation	Public exhibition
Revision of documentation	There may be modification of the proposal in the course, or as a result, of the Panel Inquiry Process.
Assessment	An independent Panel is appointed by the Minister for Planning to provide advice on the assessment of the proposal and prepare a report. This panel hears submissions from government agencies and members of the public. The Minister for Planning prepares an Assessment Report.
Approval	The decision-making Minister or authority must consider the Assessment Report before making a decision, but is not bound by the Report.

Victoria (continued)

Steps	Victoria
Relevant legislation	<i>Environment Protection Act 1970</i>
Scope	Matters requiring a works approval (specified in <i>Environment Protection Regulations 1996</i>)
Responsible agencies	Environment Protection Authority (The Authority also refers applications to other agencies)
Referrals	Organisations specified in section 19B(3)(a) <i>Environment Protection Act</i> , including the Secretary to the Department of Human Services
Decision about assessment	Environment Protection Authority
Method of assessment	Application for works approval, information from referral agency
Preparation of documentation – responsible agency	Environment Protection Authority – works approval
Preparation of documentation – proponent	Application for works approval
Consultation	Works Approval advertised by Environment Protection Authority for public submissions. Municipal council planning sections are also a referral point for consultation.
Revision of documentation	If further information is requested by the referral agencies or the Environment Protection Authority.
Assessment	The Secretary to the Department of Human Services has the power to veto projects on the ground that public health is likely to be endangered if a Works approval is issued. Section 19B(5)(a) provides that the EPA must refuse to issue a works approval: “where the Secretary to the Department of (Human Services) submits a written report objecting to the issue of a works approval on the ground that the public health is likely to be endangered if a works approval is issued”. (See also sections 20(8)(d)(ii) & 20A(6)(d)(ii)) The Environment Protection Authority can call a conference under section 20B of the Act to hear submissions from referral agencies and the public.
Approval	Environment Protection Authority

Additional comments

Division 2 of Part 3 of the *Environment Protection Act 1970* sets out a detailed process for Works approval in relation to certain prescribed industries or processes:

The obligation is placed on the occupier of the relevant premises and there are significant fines that apply against the occupier if certain works occur without the Works approval. It is not merely the case of councils referring planning permit applications to the EPA.

Provisions in the *Environment Protection Act 1970* ensure that the Victorian Department of Human Services is aware of applications for Works approvals and has a power of veto in certain situations.

The Environment Protection Act requires the Environment Protection Authority to provide a copy of the application for a Works approval and a copy or summary of the accompanying plans, specifications and other information to the organisations referred to in section 19B(3)(a), including the Department of Human Services. Section 19B(3)(b) also requires public notification of the application.

The provisions relating to an EES under the Environmental Effects Act do not replace the requirements under the Environment Protection Act for a Works approval. There may need to be a Works approval granted by the EPA under the *Environment Protection Act 1970* as well as an EES under the EEA 1978. The *Environment Protection (Scheduled Premises and Exemptions) Regulations 1996* sets out the matters for which a works approval needs to be sought.

There is also other Victorian legislation that contain provisions for addressing the health impacts of development proposals, including the *Extractive Industries Development Act 1995* and the *Minerals Resources Development Act 1990*.

Western Australia

Steps	Western Australia
Relevant legislation	<i>Environment Protection Act 1986</i>
Scope	<p>Significant proposals likely to have a significant effect on the environment if implemented.</p> <p>Strategic proposals that may in the future be significant proposals or proposals if implemented in combination with each other in the future and likely have a significant effect on the environment.</p> <p>Proposals of a prescribed class.</p> <p>Proposals under assessed schemes.</p> <p>Proposals where it appears to the Minister that there is public concern about the likely effect, if implemented, on the environment.</p>
Responsible agencies	EPA
Referrals	<p>Any person may refer a significant proposal to the EPA.</p> <p>The proponent may refer a strategic proposal.</p> <p>Only the proponent may refer a proposal under an assessed scheme.</p> <p>The Minister may refer any proposal.</p> <p>Under certain circumstances a decision-making authority must refer proposals.</p> <p>The EPA may call-in proposals.</p>
Decision about assessment	<p>EPA makes the decision on the level of assessment.</p> <p>If the EPA does not require assessment of proposals, it may provide advice and make recommendations on the environmental aspects of the proposal.</p>
Method of assessment	<p>Consultative Environment Review</p> <p>Public Environment Review</p> <p>Environment Review and Management Plan</p>
Preparation of documentation – responsible agency	Guidelines produced by the EPA
Preparation of documentation – proponent	<p>Proponent prepares depending on EPA decision:</p> <ul style="list-style-type: none"> • Public Environment Review • Environment Review and Management Plan
Consultation	Public review period. The length is dependent on the type of assessment.
Revision of documentation	Summary of public submissions, and proponent response to public submissions
Assessment	Assessment report prepared EPA for Minister for the Environment
Approval	Assessment Report published by Minister for the Environment who, prior to making a decision on the Report, consults with involved decision making authority/authorities and hears and determines any appeals lodged in respect to the Report.

Additional comments

“Input is sought from the Department of Health WA (DOH) for proposals to be assessed under Part IV of the *Environmental Protection Act 1986* if the Environmental Protection Authority (EPA) believes there is the potential for health impacts or there is public concern

about the likely affects, if the proposal were to be implemented. This is an informal arrangement and approaches to DOH are at the discretion of the EPA. The health impacts considered are predominantly those that constitute a health risk however, other amenity issues are gradually being considered.

The Interim Industry Guide to Community Involvement, 2003 was produced by the EPA and Department of Environment (DOE) to assist Western Australian business with the community involvement process of EIA and outlines the tools that can be applied at the proposal planning stage and throughout the life of the development. This Guide provides information on the various levels of community consultation ranging from provision of information to the community through to collaborative consensus engagement. Issues to be considered include social and personal health and safety issues that may arise during the consultation process.

The requirement for community consultation is addressed through the EIA Scoping Document - Guide to Preparing an Environmental Scoping Document, 2004. Where the proponent expects a level of assessment of Public Environment Review or Environment Review Management Plan to be set by the EPA, they are encouraged to prepare and submit an Environmental Scoping document as part of their proposal referral to the EPA. Where the EPA has set the level of assessment of PER or ERMP, the proponent is required to prepare an Environmental Scoping document if one has not been submitted as part of the referral.”

Jurisdictional EIA procedures – Conclusion

As evident from the preceding Tables, there is significant variation in development assessment processes throughout Australia, at the Australian Government, State and Territory and local government levels many of which flow from differences in jurisdictional planning systems. Impact assessment processes may apply to developments ranging from major projects of State and Territory significance through to local government planning applications.

Improved consideration of health impacts may be assisted by the continuing evolution of EIA. Over the last few decades, EIA has become an effective tool for assessing and facilitating control of impacts on the environment. Although to date, it has been less successful in relation to human health, EIA processes and practice have evolved significantly since they were introduced and continue to develop, presenting opportunities for improved attention to health impacts. For example, in 1999 the Australian Government substantially reformed its EIA processes with the introduction of the *Environment Protection and Biodiversity Conservation Act 1999 (Cth)*, replacing and updating the *Environment Protection (Impact of Proposals) Act 1974*.

“Despite considerable progress with respect to laws, methods and procedures over the years, there is still much more to be done for EA to reach its full potential in its applicability within all countries and its ability to contribute to the decision-making process.” (Health Canada, 1999, 6-1) In Australia, the integration of HIA at various levels of development decision-making is taking place in a variety of ways.

Section 3: Current Administrative and Operational Arrangements for HIA

The Australian approach to improving consideration of health impacts has been to use existing EIA mechanisms as a vehicle for HIA rather than to develop new frameworks. Most Australian jurisdictions have not introduced specific legislative requirements for HIA. Instead they have responded to the criticisms about inadequate assessment of health impacts by building in administrative procedures to facilitate HIA within existing EIA legislation and processes. These administrative arrangements differ between jurisdictions, both in terms of content of approaches and level of formality. The arrangements in each jurisdiction are briefly discussed below.

Australian Government

Matters of national environmental significance

In November 1997, the Council of Australian Governments (COAG) agreed in principle to the Heads of Agreement on Commonwealth/State Roles and Responsibilities for the Environment. Subsequently, all heads of government and the Australian Local Government Association signed the agreement. In the agreement, the States and Territories and the Australian Government agreed that the Australian Government's involvement in environmental matters should focus on matters of national environmental significance. It was also agreed that the Australian Government's environmental assessment and approvals processes should only be triggered by proposals which are likely to have a significant impact on the following matters of national environmental significance:

- World Heritage properties;
- Ramsar wetlands of international significance;
- listed threatened species and ecological communities;
- listed migratory species;
- Commonwealth marine area; and
- nuclear actions (including uranium mining).

Other impacts are assessed by State, Territory and local government agencies. This intention was brought into effect by the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act).

As a consequence, health impacts of environmental matters are assessed by the Australian Government to the extent that they contribute to a significant impact on a matter of national environmental significance. To illustrate, an assessment of the impacts of a proposed development on a threatened species is unlikely to address health impacts. On the other hand, for some nuclear actions referred under the EPBC Act, human health impacts are a major issue addressed in the assessment.

Under the EPBC Act, States and Territories also give a notice to the Australian Government stating that all environmental impacts (other than impacts on matters of national environmental significance) of a proposed action, have been assessed "to the greatest extent practicable" before Australian Government approval is given.

Actions by the Australian Government or on Commonwealth land

Actions that are likely to have a significant impact on the environment of Commonwealth land and actions taken by the Australian Government any where in the world that are likely to have a significant impact on the environment, also require approval under the EPBC Act. For the purposes of assessing the impact of these actions, the 'environment' is broadly defined in the EPBC Act and encompasses human health. Accordingly, where relevant, the likely impacts on human health will be assessed for proposed actions that are to be taken on Commonwealth land, are likely to have a significant impact on Commonwealth land, or by the Australian Government anywhere.

Consultation with other Government Ministers including the Health Minister

The EPBC Act provides for the Environment Minister to seek advice from Ministers that have administrative responsibilities relating to a proposal, including Ministers responsible for health issues in relation to the referrals, assessment and approvals processes under the EPBC Act. For instance, in deciding whether to grant an approval for an action at completion of an environmental impact assessment process, the Environment Minister must take into account relevant comments from other Ministers – including information on social and economic factors – which may include impacts on human health and well-being.

Currently there are no formal administrative mechanisms for liaison between Environment Australia and the Department of Health and Ageing in relation to assessment of impacts on human health in EIA. However, at a more general level, bilateral meetings are held at senior level between Commonwealth health and environment agencies on a regular basis and provide an opportunity to discuss a range of matters including HIA.

Australian Capital Territory

The Department of Urban Services (Planning and Land Management) (PALM) is responsible for development assessment in the ACT. The Department produces administrative guidelines relating to EIA processes in the ACT. If the Department identifies health issues in relation to particular developments, it refers them to ACT Health. ACT Health has no internal guidelines relating to HIA, and there is no formal arrangement between the Department of Urban Services and ACT Health in relation to EIA/HIA.

New South Wales

The Department of Infrastructure, Planning and Natural Resources produces a range of publications providing guidance on EIA processes in NSW.

Currently, there are no formal relationships between the Department of Health and the Department of Infrastructure, Planning and Natural Resources (DIPNR) in relation to the assessment of health impacts in EIA. However, DIPNR and NSW Health are investigating current arrangements to ensure appropriate consideration of health impacts occurs as part of the planning system.

Northern Territory

The Department of Lands, Planning and Environment has administrative guidelines about EIA. The Department of Health and Community Services (DHCS) also has an

information circular for environmental health officers who consider Public Environment Reports and Environmental Impact Statements referred to the Department.

The Office of Environment and Heritage refers draft guidelines and the PER or EIS to Government agencies for review and comment. The Executive Director Environment and Heritage writes to the Chief Executives of all the relevant agencies, including DHCS inviting them to review and comment on the respective documents. Most proposals that are undergoing environmental impact assessment are referred to DHCS for comment. There are no formal relationships between the two agencies except for the correspondence on each proposal. The Supplement to an EIS is also referred to the relevant Government agencies for review and comment.

DHCS thus has the opportunity to comment on any proposal undergoing assessment and generally avail themselves of this opportunity. However, this process does not capture proposals that are not undergoing EIA that could have health implications.

Queensland

The Department of State Development (DSD) has internal guidelines relating to EIA. Queensland Health has no HIA specific guidelines and there is no documentation of the relationship between DSD and Queensland Health in relation to HIA. However Queensland Health is working on a project on mechanisms to better coordinate and liaise with DSD regarding HIA.

South Australia

Planning SA publishes the booklet *Guide to the Assessment of Major Developments or Projects*.

There is no specific document that sets out how health impacts are to be assessed within existing EIA procedures in SA. Officers determine the appropriate approach to assessment of health impacts based on their knowledge and experience. Planning SA is required to obtain health agency input to EIA processes for the development of crematoria only. Schedule 8 to the *Development Regulations 1993* requires Planning SA to refer to the Minister administering the *Public and Environmental Health Act 1987* regarding these developments, but provides no details of how this is to occur.

Tasmania

In Tasmania, the EIA processes mandated in the *Environmental Protection and Pollution Control Act 1994* are supplemented by *Health Impact Assessment Guidelines* and general EIA guidelines (the *Environmental Impact Assessment Manual*).

These documents set out the administrative arrangements relating to general EIA and specific arrangements for HIA. They are supplemented by a document which describes the liaison arrangements between the Department of Primary Industries, Water and Environment (the decision-making authority under the *Environmental Protection and Pollution Control Act 1994*) and the Department of Health and Human Services. This document establishes the referral of proposals to DHHS for comment during the scoping stage of the proposal (where applicable), encourages the proponent to liaise with DHHS about health issues during the preparation of the impact Statement or environmental management plan and then the Statement/plan is provided to DHHS for comment.

All proposals which trigger a requirement for EIA are also subject to HIA as an explicit component. This is because the Director of Public Health has required that all EIAs under

the *Environmental Protection and Pollution Control Act 1994* must include an assessment of the impact of the proposed environmentally relevant activity on public health.

Victoria

In relation to the Environment Effects Act, the Department of Infrastructure (DOI) produced an administrative guide to impact assessment processes called 'Guidelines for Environmental Impact Assessment and the Environment Effects Act'. The latest version is dated April 1995. The Department of Sustainability and Environment (DSE) now administers the Environment Effects Act.

At this stage, there is no specific document, which sets out how health impacts are to be assessed within existing EIA processes in Victoria. However, the Environment Effects Statement (EES) process is currently under review by DSE. It is intended that health impacts and social impacts will be covered in the revised process.

In Victoria, the Department of Human Services (DHS) is regularly in contact with DSE and is invited to sit on agency contact group meetings to scope out potential health issues of EESs. DHS also receives a regular update on the progress of all EESs from DSE (by email). DHS has the same opportunity as other government agencies and members of the public to comment on EESs and the process is detailed in the guidelines that were produced by DOI. Although there is no formal document that sets out the referral and liaison arrangements between DSE and DHS in relation to an EES under the Environment Effects Act, DHS is advised of all projects where there is an EES.

There are also the detailed provisions in the *Environmental Protection Act 1970* regarding Works Approval applications.

Western Australia

Health Impact Assessment as a discrete activity is not yet undertaken in WA. However, health risk assessment occurs as part of environmental reviews associated with development assessment. WA is exploring options on how best to implement HIA based on the enHealth Council *Health Impact Assessment Guidelines*.

The Department of Health advises the Environmental Protection Authority (EPA) on health risk assessment. However, Western Australia does not have a formal administrative or legislative process in place for seeking health advice in relation to any environmental review undertaken. The EPA decides when to seek health advice. The extent and timing of the advice depends on the type of project. For example, if the project is a new type of development, the Department will provide advice early in the process about what should be included in the assessment. Notwithstanding the timing of involvement, the Department will provide advice and recommendations to the EPA on all aspects of risk assessment and public health.

The Department of Health follows the Health Risk Assessment processes outlined by the enHealth Council and is in the process of developing internal guidelines, which will cover administrative arrangements and expectations of what needs to be covered in a risk assessment.

Australian approaches to considering health impacts

Generally, development assessment agencies have developed administrative documentation relating to EIA processes, whether internal, external or both. This reflects the length of time EIA requirements have been in place and the need for explanatory materials to assist proponents. However, there is significant disparity between jurisdictions about documentation of HIA procedures and liaison and differing referral mechanisms between health agencies and development assessment authorities. This is perhaps a result of the relatively recent emergence of HIA procedures. However, as discussed in Section 8 below, the absence of documentation represents an opportunity for improvements in HIA practice.

Section 4: Problems and Gaps of Current Practice

In New Zealand, experience since 1991 "...suggests that the systematic consideration of health impacts has been sidelined."

Mahoney & Morgan, 2001, 8

During the two decades of experience with EIA, some deficiencies have emerged. Some of these problems have been addressed by developing specialised forms of assessment (Thomas, 1998). Assessment of health impacts is one such area. Commentators since the early 1990s have been calling for improved processes to ensure that health impacts are adequately assessed. (NHMRC, 1994) As outlined in previous Sections, the general response in Australia to criticism that health impacts have been inadequately assessed has been to build in requirements for HIA as part of existing EIA processes.

Ideally HIA should "...ensure a more focussed consideration of health issues so that important health concerns are addressed explicitly and comprehensively, preventing later adverse health events with attendant cost to individuals, industry and the community, and at the same time maximising any health benefits." (enHealth Council, 2001, 5) However, despite improvements in assessing health impacts as part of integrated EIA, commentators have continued to identify problems relating to the adequacy of provision for HIA. This Section highlights some of the problems and gaps identified by commentators while examining current approaches to HIA.

Problems

The problems that have been identified with current HIA processes can be broadly divided into three categories: general problems, resourcing problems and administrative problems, although there are obvious interrelationships and overlaps with each area. Some methodological problems are also discussed. As will be highlighted later, most of these problems could be overcome by clear, explicit requirements for best practice HIA.

General problems

The literature identifies a range of general problems in relation to HIA, including the effectiveness of EIA legislation, and the lack of incentives for implementing HIA:

- "The effectiveness of E&HIA is constrained by the effectiveness of the broader processes for project approval, land-use planning and public health surveillance, of which it forms a part. The regulatory frameworks governing EIA and HIA and their practice in the Commonwealth, States and Territories of Australia are complex, lack uniformity in both content and administrative structure and are rapidly evolving." (NHMRC, 1994, p 17)
- "The policies and legislation in each State and Territory differ in their definitions of the type of developments which should be subjected to EIA." (NHMRC, 1994, 22)
- Underdeveloped mechanisms and incentives for implementing HIA. (NZ National Health Committee, 1997)

- Lack of availability of data on potential health impacts, which can be a barrier to decision-making especially when considering issues such as cumulative impacts.

Resourcing problems

Resourcing problems range from financial to expertise deficits, including limitations in monitoring.

- “There are no clear guidelines for carrying out HIA, uncertainties still exist regarding monitoring the effects of health determinants and there are still underdeveloped mechanisms and incentives for implementing HIA. Implementation poses a challenge because of scarce resources, territoriality, achieving consensus on goals and objectives and involving high risk and marginalised groups.” (NZ National Health Committee, 1997) Some jurisdictions, such as Tasmania, now have their own procedural guidelines for conducting HIA. The enHealth Council *Health Impact Assessment Guidelines* also provide guidance within Australia.
- Lack of expertise in HIA: “There is no question that lack of expertise for conducting the type of E&HIA recommended is a major problem.” (NHMRC, 1994, 11) It is some time since this criticism was made, and it is unclear whether it remains valid. However, it is included for completeness, and also because it highlights the need for some empirical research focussing on details of HIA in practice such as relevant expertise and the need for capacity building.

Administrative problems

Late identification or failure to anticipate health issues and refer to health agencies are clearly problems with potential to significantly undermine the effectiveness of an integrated HIA/EIA process. They appear largely to relate to the fact that in most jurisdictions environment or planning agencies are deciding whether or not an issue needs to be referred to a health agency, without those agencies having direct access to adequate health expertise to enable them to make those judgements. Most of the issues identified below support a strong argument for a standardised referral process.

- Under current EIA processes, health issues are not always identified, or are often identified too late for a thorough health assessment to take place. “If there is no requirement that the assessing authority seek health input, then health agencies may be involved only towards the end of the process after the draft environmental impact statement is released, or not at all.” (NHMRC, 1994, 17)
- Health impacts are not considered or are inadequately treated. (Sadler, 1995 in Health Canada, 1999, Mahoney & Morgan, 2001, 9)
- Failure to identify health implications and involve health agencies. (NHMRC 1994) “Environmental health considerations in Australia are the responsibility of health agencies. The environmental and planning departments responsible for EIA do not have health professionals on staff, although some routinely consult health departments if a proposal appears to have health implications. The limitations of this approach are obvious, in that the potential for health impact may not be recognised and as a consequence the proposal may not be referred to health experts.” (NHMRC, 1994, 21) This issue can be addressed by a broad routine referral mechanism, such as that used in Tasmania.
- Determination authorities don’t prioritise HIA. (British Medical Association, 1998)
- “There has been a tendency in health impact studies to set up curative services to deal with the health problems created by a project instead of setting in place appropriate

preventative strategies as an integral part of the original development.” (Health Canada, 1999, 3)

- Grinlinton is critical of the success of EIA in New Zealand: “Traditional project specific EIA suffers from a number of shortcomings. It is usually reactive rather than anticipatory, and often takes place too late in the decision-making process to influence consideration of the availability of different alternatives to the proposed project. The process is often ill equipped to address cumulative, ancillary and long-term or delayed impacts. At a more fundamental level, because of the limited ambit of enquiry, it lacks the capacity to influence the implementation of normative principles such as “sustainability” and the “precautionary approach” in policy-making, strategic planning and decision-making at all levels.” (Grinlinton, 2000, 186)
- Lack of awareness of health issues may cause problems. “This deficiency can be two-fold: (1) EA practitioners, health professionals, decision-makers and the public may lack awareness of the benefits of including health in EA; and/or (2) this same group might not be aware of the full scope of EA” and the breadth of the WHO definition of health. (Health Canada, 1999, 7-3)
- There may be mistaken assumptions that health is adequately dealt with by EIA without HIA requirements. “There are also individuals who are of the opinion that health is automatically protected within EA if environmental protection measures are adequate. This is naïve and inaccurate since it does not take account of the physical health of humans (eg bioaccumulation) or the social, community and psychological aspects of health and well-being.” (Health Canada, 1999, 7-3)
- Current processes rely on and assume intersectoral collaboration between health, planning and environmental agencies at all levels of Government: Australian Government, State, Territory and Local. (enHealth Council, 2001, 5) While collaboration certainly occurs, it appears that there may be scope to finetune liaison mechanisms.
- Resourcing and differences in professional cultures impact on the effectiveness of liaison between health and assessment departments. (NHMRC, 1994, p 17)
- It is probable that collaborative approaches between health and resource management/environment protection/planning agencies can still be improved. (NZ National Health Committee, NHMRC 1994 identified initially, British Medical Association 1998, 33, 202)
- “One of the main difficulties in incorporating human health more directly has been the general lack of dialogue between those in the health care professions and those concerned with environmental regulation.” (British Medical Association 1998, 47)
- There has been limited consideration of the best way to ensure capacity to undertake health impact assessment.

Gaps

The following gaps in current processes have been identified in HIA commentary:

- Lack of power – health agencies generally have no power in the decision-making process but simply occupy an advisory role.
- Insufficient recognition of the need for new provisions and processes:
 - “It seems to have been assumed by many local and regional authorities that the existing provisions adequately cover health concerns. Unfortunately, existing health legislation and procedures do not provide an adequate framework for anticipating the range of impacts (indirect or cumulative) that may be associated with development proposals. Moreover, psychosocial impacts on health are rarely covered under such provisions,

nor are mechanisms available for addressing wider social issues relating to social determinants of health." (Mahoney & Morgan, 2001, 9-10)

Conclusion

Given the identification of these problems and gaps in the past, how well are current arrangements for HIA working in Australia?

The answer to this question is constrained by the lack of current Australian research on the effectiveness of HIA arrangements in ensuring that health impacts are adequately assessed. However, many of these problems were identified in Australia relatively recently (from 1994 onwards) and more recently in other countries which have attempted to integrate HIA into existing EIA processes similarly to Australia. The enHealth Council highlights the need for further improvements in HIA processes in the *National Environmental Health Strategy*.

It seems likely that many of the problems arise from the attempt to informally adopt HIA as part of EIA, without the support of an explicit formal requirement and clear administrative procedures. Many of the problems relate to liaison mechanisms, role clarity, collaboration opportunities and confusion about requirements. The introduction of formal jurisdictional requirements which clarify the status and procedures for HIA and the implementation of the enHealth Council's *Health Impact Assessment Guidelines* would be expected to largely resolve these issues, to the extent they remain present. These issues represent an opportunity to improve the effectiveness of HIA in Australia.

Section 5: Consideration of Health in EIA

This Section examines how well current arrangements deliver effective and timely assessment of potential health impacts.

In 1987, a World Health Organization Working Group in a report on Health and Safety Components of EIA (WHO, 1987) established four basic principles to help fulfil the potential of EIA for protecting human health:

- “One of the fundamental considerations in the approval of projects, policies and plans should be the health of communities affected by them.
- Greater consideration should be given to the consequences of development policies and programs for human health.
- Environmental impact assessment should provide the best available factual information on the consequences for health of projects, policies and plans.
- Information on health impact should be available to the public.” (WHO, in enHealth Council, 2001, 9)

Considering the extent to which current processes meet the WHO principles provides an indication of how well current arrangements deliver effective and timely assessment of potential health impacts.

Clearly there have been changes in Australia in response to concerns that health impacts were being inadequately assessed. All Australian jurisdictions have modified existing EIA processes to introduce administrative processes or legislative provisions to facilitate improved consideration of health issues. This approach provides benefits to the proponent, determination authorities and the public. The increasing recognition of HIA in documents such as the *National Environmental Health Strategy*, and the focus on developing resources such as the enHealth Council *Health Impact Assessment Guidelines* demonstrate progress towards effective HIA. However, have the changes gone far enough?

In 1994, the National Health and Medical Research Council commented that: “Although most policies contain an implicit assumption that EIAs address human health, it is evident that practice falls far short of this aim.” A 1986 WHO study concluded that “...the weight given to the evaluation of human effects in an EIA is largely determined by the perception of these issues by the EIA study team and the permitting authority.” (NHMRC, 1994, 5)

How much has changed since these deficiencies were identified? Commentary from UK (British Medical Association, 1998) and Canada (Health Canada, 2000) indicates that there is still work to be done in these countries before consideration of health impacts becomes truly effective. The problems and gaps discussed above and recommendations by the enHealth Council (1999, 2000) indicate that Australia is in a similar position. There is an absence of empirical research about the quality and effectiveness of consideration of health impacts in EIA in Australia, which presents an opportunity for research projects, which could inform implementation of HIA processes.

In summary, progress has been made towards effective consideration of health issues relating to development proposals, but scope for improvement remains. Additional specialised resources such as the *Health Impact Assessment Guidelines* developed by enHealth Council are likely to assist in achieving further improvements. Section 8 (best practice approach to HIA) suggests other possible solutions to remaining problems and gaps.

Section 6: Legislative Models for Health Impact Assessment

“Generally, the integration of health impacts into mainstream procedures seems to be the better option.”

Bidmeade & Reynolds, 1997, 83

This Section outlines possible legislative models for HIA, including integrated and stand-alone models, and highlights benefits and disadvantages.

Possible HIA processes

It is possible to legislate for HIA by creating new HIA processes or through incorporating HIA requirements into existing EIA processes.

New processes

Although new and dedicated HIA processes could be created, this would require the dedication of considerable resources. Benefits would include the ability to develop procedures tailored to health issues rather than broader environmental concerns. However, legislation would need to establish the relationship between the HIA processes and existing EIA processes. Due to the potential confusion and risks of duplication or gaps arising from this approach, and lack of support in the literature, it seems unlikely that it will prevail.

Existing processes

There is general acceptance that the best approach to implementing HIA, is to build on existing EIA processes rather than developing new processes (for example, enHealth Council, 1999, 2001). A properly integrated approach would establish health as one of the issues to be specifically considered in the EIA process, and would ensure health input at the scoping and documentation review stages.

Possible legislative models

Further breaking down the broad approaches outlined above, the most likely legislative arrangements for HIA are through either:

1. Existing EIA/development assessment legislation;
2. Public health legislation;
3. Stand-alone HIA legislation;
4. New forms of impact assessment legislation.

Combining the options for HIA processes with the possible legislative arrangements results in the following potential legislative models for HIA:

- Model 1: use existing EIA/development assessment legislation:
 - (a) specify HIA in existing list of relevant matters to be considered; or
 - (b) develop separate HIA provision(s) linked to existing EIA process; or
 - (c) separate HIA provision(s) with dedicated HIA process.
- Model 2: use public health legislation:
 - (a) separate HIA provision linked to existing EIA process; or
 - (b) separate HIA provision(s) with dedicated HIA process.
- Model 3: develop stand-alone HIA legislation:
 - (a) which builds into existing EIA process; or
 - (b) which has dedicated HIA process.
- Model 4: develop a new form of impact assessment legislation, which includes specific provision for HIA.

Analysis of particular models

The following analysis of benefits and disadvantages is based on the four general models outlined above, with comments on individual options where appropriate. This avoids repetition and focuses the discussion on the options, which appear to be most likely (ie those based on incorporating HIA into existing EIA processes and legislation).

HIA requirement in EIA legislation

Including health concerns within existing EIA processes "...minimises the need for separate health impact assessment processes and allows the health effects of development projects and policies to be considered in an integrated manner at the same time as environmental and economic issues" (NSW Health, 1999, 35). "This 'mainstreaming' of health issues allows health to be an ever present concern when environmental issues are being investigated." (Bidmeade & Reynolds, 1997, 83)

This model involves the incorporation of HIA requirements into existing EIA legislation through explicit or implied reference to HIA. This treats HIA as a separate but related component of impact assessment that can be incorporated into general existing impact assessment processes.

The following discussion focuses on incorporation through explicit references to HIA rather than implied incorporation. Whilst it may be possible to incorporate HIA into existing impact assessment processes without specific legislative reference, commentary suggests that this may not be the most effective way of ensuring health issues receive comprehensive consideration.

Incorporation of HIA into existing EIA processes is the only model to have been implemented in Australia to date. Section 74(5) of the *Environmental Management and Pollution Control Act 1994* (Tas) provides that if required by the Director of Public Health, an environmental impact assessment must include an assessment of the impact of the proposed environmentally relevant activity on public health. The Director of Public Health has subsequently required that all EIAs must include HIA.

HIA could be incorporated into any legislative provision describing the matters to be addressed in an EIA or other development impact assessment report. For example, section 74(4) of the *Environmental Management and Pollution Control Act 1994* (Tas) contains a list of matters about which the assessment authority must provide guidance to the proponent for consideration during the preparation of assessment reports. If no such provision is included in legislation, a specific provision could be developed.

Benefits of this model include:

- Coherent. All criteria and other aspects of the same process appear in the same legislation.
- Resource-efficient. Avoids duplication and facilitates sharing of information. Promotes comprehensive assessment process in which all relevant impacts are assessed.
- User-friendly. Proponent and public only need to comply with and understand one process.
- Promotes understanding of HIA by the environment sector (ie those managing EIA processes) and recognition of the interdependence of human health and the environment.
- Some would consider that recognition of human health impacts is broadly consistent with the principle of Ecologically Sustainable Development and the application of the precautionary principle and inter- and intra-generational equity.

Disadvantages of this model include:

- May limit HIA to existing EIA processes in terms of scope and procedures, depending on legislative provisions.
- Conducting HIA within existing EIA processes may limit its profile and effectiveness, as assessment will be conducted as one element of a broader process, which does not have a specific health focus.

HIA requirement in public health legislation

“Another way of dealing with environmental health was the ‘stand alone’ environmental health impact procedures written into the Victorian *Health Act 1958* (added in the amendment of 1988) but which were never brought into operation and were subsequently repealed. Generally, the integration of health impacts into mainstream procedures seems to be the better option, although the Victorian stand-alone scheme had the advantage of applying existing activities, as well as proposed activities.” (Bidmeade & Reynolds, 1997, 83)

A requirement that HIA be conducted could be included in public health legislation. However, the provision would either have to link into other impact assessment processes regulated/established under other legislation or stand-alone.

Benefits of this model include:

- Health impact assessment is a public health issue and is related to public health legislation.
- If desired, HIA could apply more broadly than current EIA requirements (eg to policies rather than assessment of specific developments).
- Dedicated HIA provisions could ensure that effective HIA occurred.

Disadvantages of this model include:

- If HIA is going to occur as part of existing EIA processes, then it is logical for any legislative provision to appear in EIA legislation. It is incoherent to locate a component of EIA processes in different legislation. It would fragment the process and does not facilitate understanding.
- The fragmented approach may not reflect or promote a comprehensive assessment process.
- Any requirement for separate processes would have to be carefully justified to ensure benefits resulted.
- Cost of two processes, possible duplication or gaps.

HIA requirement in stand-alone legislation

It would also be possible to create separate legislation mandating HIA for particular developments. The requirements could apply to specified developments, or more broadly, to policies and programs. The separate legislation would need to establish HIA requirements and their relationship to existing impact assessment procedures.

Accordingly stand-alone HIA legislation would presumably need to contain considerable detail, such as:

- The scope of the HIA requirement ie what would require HIA.
- The process for HIA.
- The relationship, if any, with other impact assessment processes.

Benefits of this model include:

- HIA specific processes could be developed.
- Health agency control would mean that quality of HIA could be ensured.
- There would be scope to include other impacts, which have traditionally not been adequately addressed under EIA, for example, social impacts.

Disadvantages of this model include:

- It is not clear that benefits would result from this approach. Any requirement for separate HIA processes would have to be carefully justified to ensure benefits resulted.
- A requirement for separate HIA processes in separate legislation not linked to public health or EIA could be confusing for proponents and the public.
- Separate processes are likely to result in resource-inefficiencies and duplication or gaps for uncertain gain.
- In a stand-alone process, which does not link to EIA requirements, there would be no synergistic benefits. If health effects were considered in isolation, interactions and cumulative impacts may not be identified.
- If decision-making power rests with a non-health authority, health may have more influence if recognised as part of the decision-making process rather than establishing an isolated process.

Section 7: Framework Best Practice Model for HIA

This Section considers elements of a best practice framework for HIA, including whether such a framework would be legislative or administrative. It is not possible to use benchmarking to establish best practice in relation to HIA frameworks. Currently, the literature indicates that almost all jurisdictions are still working towards achieving effective HIA. There is no universally accepted form of best practice framework, although the Tasmanian approach has received support from commentators (Bidmeade & Reynolds, 1997, enHealth Council, 1999).

Best practice comments in the literature

On a fundamental level, a best practice framework for HIA is one, which will promote thorough, effective, timely HIA. In this respect, it is possible to get some assistance from best practice comments made in the literature. Commentators have tended to identify aspects of best practice rather than describing a complete, integrated best practice scheme. However, the comments have been used as a basis for identifying elements of a best practice framework. Since the early days of HIA theory, commentators have also identified problems, which need to be addressed as part of best practice HIA. These issues are also used in the discussion of best practice. Comments on best practice and HIA are extracted below as a basis for describing a best practice HIA framework.

An integrated approach – HIA as part of EIA

Overwhelmingly, commentators support an integrated approach to HIA, as a component of existing EIA requirements. The World Health Organization was among the first to identify this aspect of best practice.

“In its recommendations, the WHO working group emphasised the need to strengthen the overall framework of impact assessment rather than promoting a separate procedure for environmental health impact assessment. This could be achieved by:

- Increasing awareness about HIA within EIA
- Transferring knowledge, expertise and experience from relevant health professionals to the EIA community
- Improving practice in EIA to assess effects on health.” (Public Health Commission, 1995, 8)

Surveys and consultation conducted by the NHMRC during preparation of the 1994 National Framework reflected substantial agreement that “HIA should be administered within the existing EIA process, and the development of national guidelines for HIA would be beneficial.” The enHealth Council continues to support this approach: “The decision-making capacity for an impact assessment does not lie within the health authority. This does not matter so long as the health authority is well linked into the process and communication between health and the decision-maker is adequate. The important issue is to have health impact assessment as part of the overall impact assessment process.” (enHealth Council, 2001, 19)

Including health in EIA minimises the need for separate health impact assessment legislation and requirements and allows an integrated approach to the health effects of

development projects and the environmental and economic issues associated with the project. An integrated approach is coherent, as "...decision-makers require information on economic issues, health and environmental effects concurrently ... the obvious decision should be to perform all tasks simultaneously. It would be time-consuming and often a duplication of information if one were to assess health separately from EA since information is often common for both. Equally important, the public expects health assessments to be part of the EA process" (Health Canada, 1999, 2-16). An integrated approach avoids unnecessary cost, inconvenience, delays, legislative complexities, and uncertainties of responsibilities (NHMRC, 1994 xii).

"Health assessment needs to be integrated into EA for reasons such as: (1) addressing public concerns; (2) minimizing the need for separate health and environmental impact assessments; (3) demonstrating cost effectiveness; (4) minimizing the adverse and maximising the beneficial effects on health; and (5) supporting the concept of sustainable development. The bottom line is that it makes sense to include health considerations within EA for economic and social reasons and ultimately, to ensure that the health and well being of individuals and society is not compromised." (Health Canada, 1999, 2-16)

"it is appropriate that HIAs should be considered as a component of EIAs, rather than as separate and parallel activities, because of the importance of developing an integrated approach to health and the environment. In addition, the planning machinery necessary for impact assessments has already evolved and it would be inefficient to attempt to duplicate or replace it." (British Medical Association, 1998, 40)

Another reason for integrating HIA within existing EIA processes is that it enables fullest utilisation of existing, already dedicated resources and minimises additional expenditure of resources by proponents (NHMRC, 1994, 11, 15).

Good working relationships and clear liaison mechanisms between health agencies and development authorities

Commentators highlight the importance of good working relationships between health agencies and development, environment and planning agencies, if HIA is to be an effective component of EIA.

"A collaborative rather than a confrontational relationship between health and resource management agencies will help to promote health impact assessment within the assessment of effects on the environment for the benefit of all parties concerned." (Public Health Commission, 1995, 5)

The NHMRC also recognised the importance of clarification of the roles both between levels of government and of the various government agencies (NHMRC, 1994, 9).

"There should be regular contact between environmental and public health agencies, even to the point of amalgamation (as long as health issues are not subsumed and are seen in their own right). There should at least be public health representation on environmental authorities." (Bidmeade & Reynolds, 1997, 84)

A legislative requirement for HIA

As early as 1994 the National Health and Medical Research Council was advocating a legislative requirement for HIA (NHMRC, 1994, v).

“Specific issues which will need to be addressed in the implementation of a credible and efficient E&HIA process ... include:

Formulation of legislative or regulatory guarantees which assure proponents that goals and standards are explicit, practicable and achievable, that procedures are known, quantifiable and cost-efficient, and that the costs of the process as well as the benefits are shared by those responsible for ensuring the health and wellbeing of the population.” (NHMRC, 1994, vi)

The National Health and Medical Research Council also advocated that the integration of HIA with EIA requirements would be most effectively achieved through legislation requiring public health impacts to be specifically addressed in EIAs (NHMRC, 1994, ix).

The British Medical Association has recommended that certain UK legislation should be amended to include an explicit and formal requirement for an assessment of the potential impacts on human health of all proposed developments requiring an EIA for planning purposes (British Medical Association, 1998, 154).

In Australia the National Environmental Health Strategy, endorsed by all Health Ministers, has also supported this approach. “All States and Territories should consider including Health Impact Assessment in their Environmental Impact Assessment procedures and should change their legislation and financial processes accordingly” (enHealth Council, 1999, 33).

Clear guidelines for implementation

The enHealth Council has recognised the importance of administrative guidelines to support HIA requirements.

“In many EIA processes the consideration of health issues is already recommended in the general consideration of the environment, however methodologies are not clearly articulated. The lack of best practice methodologies often results in assessments limited in scope, confined to gross and direct physical impacts and omitting consideration of health issues resulting from social or psychological impacts.

Best practice guidelines for the performance of HIA during the EIA process and the adoption of these guidelines as a formal part of the EIA process would overcome these shortcomings.” (enHealth Council, National Environmental Health Strategy Implementation Plan 2000, 22)

“HIA must not, however, become merely a side issue in an EIA system that has already developed priorities and mechanisms. Rather, specific consideration of public health should become a major element, and a central part, of EIA.” (McMichael 1990, NHMRC, 1994)

In 2001, the enHealth Council released Guidelines which aim to promote and enhance the incorporation of HIA into environmental and planning impact assessment generally, thereby improving the consideration of health issues.

In particular, the enHealth Council Guidelines seek to provide those involved in impact assessment across all levels of government and developers, along with their advisors, with an introduction to HIA and general guidance on the key steps involved.

Early involvement of health agencies or public health expertise

Early involvement of health agencies or public health expertise, as well as environmental/development perspectives in assessment processes is a key element of an effective integrated approach. A United Nations Environment Program report concluded that the key to ensuring that health issues are addressed adequately is to involve health authorities in the scoping process. (Go 1987, NHMRC, 1994, 5)

“If there is no requirement that the assessing authority seek health input, then health agencies may be involved only towards the end of the process after the draft environmental impact Statement is released, or not at all.” (NHMRC, 1994, 17)

“Health input is important, although it is frequently omitted at [the screening] stage unless policies and legislation require mandatory consultation with health authorities for designated developments.” (NHMRC, 1994, 37)

EIA screening criteria should explicitly refer to human health

Screening criteria used “for determining when a project requires an EIA as set out in the UK Town and Country Planning Regulations ... should be revised so that potentially significant impacts on human health are included more explicitly.” (British Medical Association, 1998, 158)

Health experts assess health impacts

Another key best practice element is the involvement of health experts in the assessment of health impacts. It addresses the problem of health impacts being overlooked or inappropriately or inadequately assessed and promotes early identification of health concerns.

“Most importantly, the procedures accompanying the Guidelines will mean that experts in human environmental health will also examine proposed developments.” (Bidmeade & Reynolds, 1997, 83)

Principles for effectiveness of EIA generally

Grinlinton has suggested principles to evaluate the effectiveness of EIA in his analysis of NZ legislation:

“A number of different attempts have been made to quantify the effectiveness of systems of EA and the range of evaluative criteria vary considerably. Nevertheless, some consistent principles for effectiveness have emerged, including the need for:

- Clear, mandatory and legally enforceable assessment requirements;
- Integration of normative principles of environmental and resource management such as “sustainability” and the “precautionary approach” into assessment processes and decision-making criteria;
- Consistent application to all policy-making, planning and decision-making which have environmentally significant effects;
- Efficiency in implementation of the assessment processes adopted;
- Consideration of how the policy, plan or activity under consideration is consistent with or advances broader environmental policies and strategic objectives, and critical analysis of alternatives to find the best option;
- An open, participative and fair system in the scoping of assessment requirements, in the identification and collection of relevant data, and in the analysis of the effects of plans, policies or projects;

- Independent auditing of systems of assessment, quality of data and veracity of assumptions and analyses;
- In the case of project-specific environmental assessment, enforceability of undertakings given in AEEs, and ongoing monitoring for compliance and enforcement of approvals;
- Ongoing review and management of systems of assessment; and
- Ongoing review and management of the environmental effects of activities and projects where consent has been granted" (Grinlinton, 2000, 193–194).

Where appropriate, these aspects are used below as elements of a best practice framework for HIA.

Elements of a best practice HIA framework

General

The following elements of a best practice framework for HIA are drawn from the discussion above, and where appropriate, the issues identified by Grinlinton in relation to EIA:

- An integrated approach so that HIA is conducted as a component of EIA, with an explicit requirement that this occur;
- Good working relationships and clear liaison mechanisms between health agencies and development, environment and planning authorities;
- A legislative requirement for HIA;
- Clear guidelines for implementation and procedures, including referral mechanisms and working relationships between agencies regulating EIA and health agencies;
- Early health agency involvement in HIA processes, to ensure health impacts are identified early, facilitating thorough assessment;
- EIA screening criteria should explicitly refer to human health;
- Health experts should be involved in identifying and assessing health impacts;
- Clear, mandatory and legally enforceable assessment requirements;
- Consistent application of HIA requirements to all development decision-making, which involves significant health impacts (this links with the screening issue).

Legislative

Commentators have recognised the Tasmanian approach to HIA as representing an example of best practice. This is discussed further in Section 9.

Best practice framework – administrative, legislative or both?

Although legislation is only one aspect of best practice HIA identified in the literature, its importance has been emphasised. The majority of commentators argue that a best practice approach to HIA involves a legislative requirement. However, it is equally clear that a legislative requirement will fail to achieve effective HIA without the support of good administrative procedures.

A legislative requirement may assist in raising awareness of HIA amongst decision-makers, proponents and the public, and focussing attention on HIA requirements. A legislative requirement can facilitate consistency of application of HIA requirements, set a standard for compliance, provide a strong basis for clarifying roles, responsibilities and working and liaison relationships between EIA agencies and health agencies. It can also fulfil an educative role in terms of giving status to HIA and legitimising it as a

fundamental component of EIA. For these reasons, a comprehensive best practice framework for HIA is likely to be based on a legislative requirement. However, any proposal for new legislative HIA requirements will obviously require assessment to ensure national competition policy and legislative review obligations are met.

Adopting a more minimal approach, a clearly documented undertaking that HIA will occur as part of EIA supported by documented arrangements between the agency responsible for EIA and the health agency and clear guidelines about when and how HIA will occur, is likely to go a significant way towards achieving best practice outcomes. Reliance on administrative mechanisms heightens the importance of transparency and formal, clearly documented procedures including referral mechanisms and inter-agency working relationships. It may also be useful to establish common goals across agencies (Stakes Ideacard 1/2001 provides some suggestions on possible strategies). Purely administrative frameworks may be more vulnerable to key person dependency (particularly in smaller jurisdictions), subjectivity and inconsistency and may present difficulties of non-compliance, due to failure to recognise HIA requirements and a lack of validation through EIA legislation.

Both legislative and administrative frameworks require well-documented procedures and inter-agency arrangements to be truly effective. In those jurisdictions that rely on administrative frameworks, the presence of these resources will also facilitate a smooth transition if a legislative HIA requirement is introduced.

The development of legislation, or introduction or formalisation of administrative arrangements to more formally include HIA in EIA will clearly require comprehensive consultation between relevant stakeholders.

Another important adjunct to any HIA framework must be the development and dissemination of information about HIA to increase its profile and improve awareness of requirements. In particular, there should be references to HIA in health and EIA agency guides and brochures about EIA.

Finally, frameworks need to be flexible enough to allow each State or Territory to manage its regulatory requirements and stakeholder issues.

Institutionalising HIA

Reiner Banken's concept of "institutionalising HIA" offers a more theoretical approach to this issue. He describes "institutionalisation" as a way of ensuring that health concerns become a permanent element of decision-making, and identifies the following mechanisms to achieve this:

- "proposing HIA as a useful, easy and powerful tool to decision-makers;
- implementing administrative frameworks that bind different institutions and levels of institution; and
- adoption by legal frameworks as permanent rules." (Banken, 2001, 20)

Banken points out that although legal frameworks are the most effective means of institutionalising HIA, they are insufficient alone and require support from "informal" and administrative frameworks. He conceptualises the desired outcome of HIA as adding "health awareness to policy-making and to inform decision-making." (Banken, 2001, 30) Ultimately, Banken supports a model of HIA based on knowledge transfer, which would enable "...actors in non-health areas to produce public health knowledge." He emphasises that such an approach must be part of a learning process and incorporate continuing quality control by public health (Banken, 2001, 31).

Section 8: National Consistency: Barriers and Opportunities

Having identified elements of a best practice framework for HIA, the question arises whether HIA is an area where benefits would flow from increased consistency between jurisdictions. This Section identifies some barriers and opportunities to harmonisation, and considers whether increased national consistency would be desirable in relation to HIA.

Recommended approach

The National Legislative Schemes paper recommends a strategy for evaluating which approach to national consistency is appropriate to a particular problem or issue.

“Identify the problem to be dealt with and decide what outcomes are to be achieved in dealing with the problem.

- It is important to identify the issue or problem first *before* considering the question of uniformity or harmonisation.
- Characterisation of the issue, its history, its current status, any current legal regime, the current political climate, the funding available or required, will assist with the considerations to be made in stage (2).” (National Public Health Partnership, 1999, 3)

The recommended strategy is applied here to national consistency or harmonisation and HIA.

The ‘issue’ is how best to achieve effective HIA across Australia. It has probably existed since HIA emerged as a discrete issue requiring consideration. The issue may achieve increased status and attention as a result of the current focus on HIA and associated issues, reflected by projects such as the *enHealth Council’s HIA Guidelines 2001*.

The following comments on the current status of the issue are based on HIA as a component of EIA. Currently, there are commonalities between the EIA processes in all jurisdictions, but also significant differences (see Section 2). There is little commentary indicating that the differences in approach to HIA between jurisdictions are causing difficulties (however, see Martyn, Morris and Downing proposing a common approach to EIA (1990), discussed briefly in Thomas, 1988, 206).

Working towards total national consistency is likely to involve significant costs and the dedication of considerable resources. HIA practice is still developing in Australia and internationally and the benefits and disadvantages of national consistency or harmonisation may still be emerging. In addition, it would be important to consider proposals for national consistency/uniformity for HIA in the context of EIA legislation, as there are clear implications for the broader IA processes.

The enHealth Council has identified a need for “...a greater level of harmonisation and consistency between environmental health legislation in Australia” (enHealth Council, 1999, 36). The enHealth Council also advocates “...increased acknowledgement of the roles ... of both public and environmental health in health legislation” (enHealth Council, 1999, 36).

Although the *National Environmental Health Strategy* recommends that all States and Territories should consider including HIA in their EIA procedures, it does not specifically recommend harmonisation or consistency of any legislative provisions. However, the enHealth Council clearly has a significant interest in any proposal relating to national consistency/uniformity which potentially impacted on general EIA requirements. The enHealth Council HIA Guidelines is also promoting some consistency between jurisdictions.

Assessing whether a nationally consistent approach is appropriate

The question whether a nationally consistent approach to regulating a particular issue is appropriate or desirable involves assessing complex and competing considerations. A nationally consistent approach will not be appropriate in all circumstances. Even where a nationally consistent approach seems preferable, consideration must be given to the level of consistency that is desirable.

The Legislator’s Toolkit paper *Implementation Options for National Legislative Schemes in Public Health* (the National Legislative Schemes paper) warns that:

“It is important to be aware that there can be an *assumption*, often unconscious, that uniformity is an end in itself. There will be a number of public health matters where uniformity may be demonstrably desirable. However, it is a necessary consequence of a federal system that *some diversity is to be expected*, and even to be welcomed. The antagonistic language of ‘centralism’ and ‘States’ rights’ is rarely helpful. It is essential instead to *evaluate the issue and circumstances at hand and consider what level of uniformity and co-operation is necessary to achieve the public health goal in question*”

“Every public health policy issue brings with it its own *particular political and cultural context and special issues*. In considering how best to achieve policy outcomes, it is critical to be familiar with the *processes and structures*, which are available to implement those policies, and the consequences of choosing any particular one. There is no one ‘best way’.” (*Centre for Comparative Constitutional Studies for National Public Health Partnership, 1999, 2*)

Barriers and opportunities to harmonisation/national consistency

There are always barriers and opportunities when considering increased consistency between jurisdictions on any issue. This Section highlights some barriers and opportunities that might arise when considering national consistency in relation to HIA.

Opportunities

Avoid duplication and achieve resource efficiency	Although the development of a nationally consistent approach may be resource intensive, each participating jurisdiction would have the benefit of the combined input and contribution of the other jurisdictions. This dedicated process could avoid the duplication of resources and effort in each jurisdiction, working on the same goal (the best practice approach to HIA provisions).
Simplicity and clarity	A nationally consistent approach would have benefits for proponents and the community, because there would be only one approach with which to become familiar. This would assist community participation in HIA processes, and provide efficiencies for proponents operating in multiple jurisdictions.

Resource efficiency	There may be efficiencies gained by jurisdictions combining time and resources to work towards a best practice nationally consistent approach.
Best practice	Achieve best practice across Australia – a national approach may assist a progression towards implementation of best practice in all jurisdictions, and provide a goal/benchmark to work towards.

Barriers

Cost and resources	Any proposal for increased consistency is likely to require the dedication of jurisdictional resources to progress and negotiate the principles and content of the nationally consistent approach. It is impossible to estimate the cost of this commitment, but in cases such as development of the model food law, it has been considerable.
Sovereignty	Nationally consistent legislation can be a sensitive issue within jurisdictions and their Parliaments. Some commentators, such as the Scrutiny of Bills Committees, have criticised proposals for nationally consistent legislation as undermining the sovereignty of individual jurisdictions, as Parliament's ability to adjust the legislation to respond to the particular circumstances of the jurisdiction is often met by the argument that any changes will compromise the integrity of the national scheme.
Jurisdictional differences	Currently each jurisdiction has unique and well-established impact assessment processes. Jurisdictional attachment to current processes may present a barrier to a nationally consistent approach. Individual jurisdictions may be unwilling to move away from their own models and schemes of impact assessment to a common approach.
Time	In many cases, the development of a nationally consistent approach has proved to be a time-consuming exercise. A commitment to a nationally consistent approach may halt improvements in jurisdictional processes until a nationally consistent approach is developed, potentially delaying progress, which some jurisdictions may be ready to make.
Lack of impetus	An additional barrier could be a failure to perceive significant problems resulting from jurisdictional differences and significant benefits that would flow from national consistency.
Inertia/familiarity	Proponents and the community are to some extent familiar with existing processes and would need to adjust to new requirements. Stakeholders may be resistant to change unless significant benefits are clearly identified.
Different legislative frameworks	Impact assessment provisions are regulated under different frameworks in each jurisdiction, which range from environmental management and resource management, to planning to environmental protection. A move towards national consistency would have implications for these frameworks in particular jurisdictions.

Uniformity issues

The following discussion is based on the issues affecting national consistency identified by the National Legislative Schemes paper (National Public Health Partnership, 1999). The report suggests considering the urgency of the issue, to what extent uniformity is required to solve the issue or problem identified and to what extent cross-border trade or movements are involved (National Public Health Partnership, 1999, 2).

There is no urgency constraining the development of best practice HIA legislation and any uniformity proposal is likely to benefit from a longer time-frame "...with plenty of opportunity for discussion and accommodation of parties' interests" (National Public Health Partnership, 1999, 2). Currently, the EIA system is operating with a very low level of uniformity, suggesting that uniformity is not imperative and that possibly only core provisions or standards may need to be made more consistent. EIA generally relates to matters within one jurisdiction, and is generally not relevant to cross-border trade or movements. There are few cross-border development proposals, but proponents may operate in different jurisdictions and consequently have to adjust to the differing requirements.

The enHealth Council has identified a need for "...a greater level of harmonisation and consistency between environmental health legislation in Australia" (enHealth council, 1999, 36). The enHealth Council also advocates "...increased acknowledgement of the roles of both public and environmental health in health legislation" (enHealth Council, 1999, 36). Although the *National Environmental Health Strategy* recommends that all States and territories should consider including HIA in their EIA procedures, it does not specifically recommend harmonisation or consistency of any legislative provisions. However, the enHealth Council clearly has a significant interest in any proposal relating to national consistency/uniformity that potentially impacted on general EIA requirements.

Options for increased harmonisation/uniformity

The National Legislative Schemes report identifies nine options for increased uniformity, ranging from high to lower:

"High Levels of Uniformity

- Option 1: Unilateral exercise of power by the Australian Government
- Option 2: Reference of power to the Australian Government
- Option 3: Incorporation by reference

Moderate Levels of Uniformity

- Option 4: 'Roll back' schemes
- Option 5: Complementary legislative schemes
- Option 6: 'Alternative consistent' legislative schemes
- Option 7: Reciprocal legislative schemes

Lower Levels of Uniformity

- Option 8: Agreed legislation/policies
- Option 9: Exchange of Information." (National Public Health Partnership, 2000, 12-13)

The substantial divergence between EIA legislation in Australian jurisdictions, issues of jurisdictional sovereignty and the low number of jurisdictions that have legislated for HIA suggest that the obstacles to increased harmonisation/national consistency in relation to HIA would be significantly greater for options of higher uniformity. As a consequence, the following discussion will focus on "lower uniformity" options, which are still consistent with recommendations made by enHealth Council (enHealth Council, 1999, 33).

These options may be more easily achievable at this stage of developing legislative requirements for HIA. Alternatively, the model provision could be used as a basis for increased uniformity.

Uniformity options – agreed legislation/policies

Governments could consider implementing similar HIA requirements, through each jurisdiction's own legislation. As the National Legislative Schemes report comments:

“There is a useful balance ... between the role of Ministers in agreeing to broad policy initiatives or outcomes, and then each facing their respective Parliaments with their specific provisions, drafted by local Parliamentary Counsels and drawing on local knowledge and contexts.” (National Public Health Partnership, 1999, 32)

Although this option highlights diversity rather than uniformity, it would avoid many of the obstacles presented by higher uniformity options. However, these options could be investigated further if considered desirable after HIA requirements have been clearly implemented in all jurisdictions.

Analysis

“The idea of a common approach to EIA within Australia was proposed by Martyn, Morris and Downing, along with consideration of the establishment of an independent body to supervise EIA With Australia's current Federal/State relationships, adoption of a single or uniform approach to EIA is very unlikely.... However, the national approach to EIA will ensure that the various procedures become essentially the same in practice, even if the administrative details are different.” (Thomas, 1998, 206)

The differences between EIA schemes in Australia are likely to flow on to HIA if it occurs as a component of EIA. Even if the guidelines for conducting HIA are the same, if the legislative framework for EIA is different, national consistency for HIA would not be achieved. Accordingly, if HIA is integrated with EIA, as most commentators recommend, then proposals for national consistency for HIA would be best examined as part of an analysis of national consistency for EIA generally.

One suggestion received during consultation on a draft of this paper was that a set of common guidelines about conducting HIA integrated with EIA would be useful.

Section 9: A Legislative Provision for HIA

This Section considers how best to legislate for HIA. It suggests a guiding principle for the development of legislative requirements for HIA, key points for a legislative requirement and provides an example of a legislative provision for HIA.

Guiding principle

Health Impact Assessment is crucial to ensure a good understanding of the likely human health costs and benefits of proposed developments.

Key points

Legislative requirements for HIA should:

- Be clear and unambiguous;
- Ensure health participation in scoping, documentation and review stages; and
- Be supported by well-documented administrative procedures and good liaison mechanisms.

Legislative approaches to HIA

As discussed further below, Tasmania is the only Australian jurisdiction that has an explicit legislative requirement for HIA. However, other jurisdictions, such as Victoria, have a legislative approach to impact assessment, which contains many of the elements commonly understood to constitute HIA outlined by the enHealth Council (and extracted on page 10).

A legislative approach to assessing health impacts

Victoria's works approval legislation under the *Environment Protection Act 1970* is discussed here as an example of a legislative approach for assessing potential public health impacts associated with certain types of developments.

The *Environment Protection Act 1970* requires that before prescribed industries or processes are established, the person intending to establish that industry must obtain a works approval from the Environmental Protection Authority. Generally, a works approval is required for industries that produce polluting discharges (ie to land, air or water). The EPA must process works approval applications within 4 months of receipt.

To obtain a works approval, the proponent must submit a completed application form. The EPA provides guidance to proponents on the information required to accompany the application. Where the application contains insufficient information, the EPA will request further information.

Applications for works approvals must be publicly advertised and circulated to various referral agencies, including any protection agency that the EPA considers may be directly affected by the application, the Secretary to the Department of Human Services, and any responsible authority under the *Planning and Environment Act 1987* administering a

planning scheme that applies to the land for which the application for works approval is made.

The Secretary to the Department of Human Services and any protection agency may within 21 days of the works approval application being sent, submit a written report to the EPA which may include any objections or recommendations in relation to the application. Section 19B(5)(b) of the *Environment Protection Act 1970* provides that where the Secretary to the Department of Human Services submits a written report objecting to the issue of a works approval on the ground that public health is likely to be endangered if a works approval is issued, the Environment Protection Authority must refuse to issue a works approval.

Further information about the works approval process is available on the EPA website at: http://www.epa.vic.gov.au/industry/works_approvals.asp

The works approval process provides the Department of Human Services with an extremely powerful mechanism for controlling potential impacts to public health from environmental discharges. Whilst the works approval process does not include an initial scoping stage and is limited in its application to particular types of developments (eg certain prescribed industries), it clearly allows Victoria's public health agency to have input into assessing the risks associated with an application, recommendations for managing those risks and significant decision-making powers, including a right to veto the application. Victoria's works approval process is an example of a legislative approach to assessing health impacts, which has many elements in common with the enHealth Council's HIA process.

There is also other Victorian legislation that contains provisions for addressing the health impacts of development proposals, including the *Extractive Industries Development Act 1995* and the *Minerals Resources Development Act 1990*.

Other jurisdictions may also have specific provisions in legislation that may require consideration of health impacts, rather than a generic HIA provision. There may also be potential models for assessing health impacts outside the HIA/EIA discipline.

Legislative provision for HIA

Commentary on legislative provision for HIA has focussed on the Tasmanian provision, as no other Australian jurisdiction requires HIA through an explicit legislative reference.

Commentators have recognised the Tasmanian approach to HIA as representing an example of best practice.

- "The recent *Tasmanian Environmental Management and Pollution Control Act 1994* provides the best practice model for the rest of Australia" (enHealth Council, 1999, 33).
- "The important Tasmanian initiatives in integrating environmental health concerns into the more general environmental impact assessment process warrant close attention as a possible model for other jurisdictions." (Bidmeade & Reynolds, 1997, 84)
- "It is important that where environmental assessment of proposed or ongoing activities is to occur, there is adequate input from public health experts to ensure that the human health elements of a proposal are properly considered. In this regard, the *Tasmanian Environmental Management and Pollution Control Act 1994* provides a useful model for other jurisdictions to consider in light of the Tasmanian experience." (Reynolds, in AIEA, 1998, 197)

The Tasmanian HIA provision meets the guiding principle by providing a clear mechanism for assessing the impact of proposed developments on public health. The associated administrative procedures ensure health participation at the scoping stage as well as review of the proponent's documentation. Liaison mechanisms are clear and well established.

The following case studies provide examples of how the Tasmanian provision operates in practice.

Particulate air pollution from a boiler

An upgraded wood fired boiler was proposed for an existing industry close to the centre of a Tasmanian city. The upgraded boiler would have complied with current regulatory emission limits and in some aspects would have had better environmental performance than the current smaller boiler. However, the city has an existing problem with high levels of background particulate air pollution in winter from wood fired domestic heaters.

The proponent was required to complete an Environmental Impact Assessment, which included a HIA. The Department of Health and Human Services was consulted at the scoping stage of the process and requested additional air quality issues associated with health impacts to be addressed in the EIA report.

Air modelling predictions were made in the EIA and HIA for the proposed boiler. After analysing the EIA report, DHHS recommended from a health viewpoint that more stringent emission limits for particulates be phased in for the development.

The end result was a regulatory requirement for the boiler to have tougher particulate emission limits than would have otherwise applied.

Arsenic in mining waste

A mining development in Tasmania was proposed and subjected to the usual land use planning approvals. In relation to waste disposal, the intention was to re-use some waste rock from the mining process for various building and other commercial purposes.

During the scoping stage of the E&HIA process, the Department of Health and Human Services requested that the arsenic content of the waste rock be analysed. Elsewhere in Australia health concerns have sometimes been raised over the historical use of old mine tailings containing arsenic. The EIA report identified that the ore and waste rock had variable arsenic content.

Subsequent to comment in the HIA report, there were restrictions placed on the use of the waste rock material for building and similar purposes, with respect to its arsenic content. The development was otherwise allowed to proceed.

Best practice provision

The lack of other examples makes it difficult to analyse to what extent the Tasmanian provision represents a best practice legislative provision for HIA. Although the Tasmanian provision satisfies the criteria identified here for a best practice provision, other solutions are possible, such as the Victorian approach noted above. Accordingly, the Tasmanian approach is used here as a sample legislative provision, rather than a benchmarked best practice approach.

Sample provision

Section 74(5) of the *Environmental Management and Pollution Control Act 1994* (Tas) provides:

If required by the Director of Public Health, an environmental impact assessment must include an assessment of the impact of the proposed environmentally relevant activity on public health.

This provision could be used as the basis for a model provision in other jurisdictions, although obviously substitution of a reference to the jurisdictional equivalent of the Director of Public Health would be required.

Section 10: Conclusion

“Two decades of operation of EIA have led to innovation in policy-making and administration and to reconceptualisation of some of the specifics associated with its implementation.”

Thomas, 1998, 14

EIA has become the accepted approach to development assessment in Australia since its inception in the early 1970s. However, it has remained a dynamic area which has continued to evolve from its original concentration on the biophysical environment to begin to include health and social impacts. These broader approaches “... have been possible almost since EIA became formalised in legislation, however, only now are we seeing that the practice of EIA is catching up with the intent of the process.” (Thomas, 1998, 218)

Developments in EIA theory have resulted in separate strands of commentary such as HIA, and calls for the extension of impact assessment practices beyond development projects to government policies and plans. It is likely that EIA will continue to develop, and that implementation of effective HIA requirements is crucial to EIA achieving its potential in relation to impacts on human health.

In Australia, there is still work to be done in terms of developing clear formal requirements for HIA, and in refining the administrative frameworks and mechanisms that have been established. The health sector has recognised the importance of this task. However, in implementing changes to HIA frameworks and processes, success will ultimately be dependent upon building a broader awareness of, and commitment to, HIA outside the health sector.

As commented by NSW Health, during the development of this report:

“While health departments are the primary State agencies responsible for improving the health of the population, there are increasingly more opportunities to integrate public health goals into a wide range of government policies and activities. There is clear evidence of the links between human health and the social and physical environments, in particular in relation to urban development. Ensuring the whole of government is aware of these links and building public health capacity in other agencies will go some way to achieving this integration of public health into public policy and practice.” (NSW Health, consultation comment, 11 March 2004)

“All governments need to have a strong commitment to breaking down barriers between environmental health and environmental protection and ensuring this is reflected in legislation.”

enHealth Council, 1999, 37

Definitions

There is a wide range of terminology used to describe different types and aspects of impact assessment. For clarity, definitions of the terms used in this paper are set out below:

Health	Health is a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity (WHO, NHMRC).
Impact	Effect, influence, consequence.
Environmental Health	Those aspects of human health determined by physical, chemical, biological and social factors in the environment. Environmental health practice covers the assessment, correction, control and prevention of environmental factors that can adversely affect health, as well as the enhancement of those aspects of the environment that can improve human health (National Environmental Health Strategy, enHealth Council 1999).
Environmental Impact Assessment	A systematic process to assess the actual or potential effects of policies, objectives, programs, plans or activities on the local or global environment. An assessment of risks to the environment, either directly or indirectly, as a result of human activities (Health Impact Assessment Guidelines, enHealth Council, 2001).
Health Impact Assessment	<p>A combination of procedures or methods by which a policy, program or project may be judged as to the effects it may have on the health of a population." European Centre for Health Policy (1999) Health impact assessment: Main concepts and suggested approach. The Gothenburg Consensus Paper, December 1999, WHO Regional Office for Europe.</p> <p>An Australian definition is:</p> <p>A systematic process to assess the actual or potential, and direct or indirect, effects on the health of individuals, groups or communities arising from environmental conditions or hazards arising from policies, objectives, programs, plans, or activities. (Health Impact Assessment Guidelines, enHealth Council, 2001).</p>

Health Risk Assessment

The process of estimating the potential impact of a chemical, biological, physical or social agent on a specified human population system under a specific set of conditions and for a certain timeframe. (Environmental Health Risk Assessment – Guidelines for assessing human health risks from environmental hazards, enHealth Council, 2002, xxiii).

Environmental Health Risk Assessment provides a tool for appraising health risks in the broader process of Health Impact Assessment (Environmental Health Risk Assessment – Guidelines for assessing human health risks from environmental hazards, enHealth Council, 2002, 7).

Key determinants of health

Examples of key factors that determine health (Health Impact Assessment Guidelines, enHealth Council, 2001, 5).

Fixed	Social and economic	Lifestyle	Access to services	Environment
Genes	Poverty	Diet	Education	Air quality
Sex	Employment	Physical activity	Health services	Noise
Ageing	Social exclusion	Smoking	Social services	Housing
	Community structure and infrastructure	Alcohol	Transport	Water quality
		Sexual behaviour	Leisure	Social environment
		Drugs		Sun exposure
		Coping skills		Disease vectors eg mosquitos

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- enHealth Council, *Environmental Health Risk Assessment – Consultation Draft* April 2000, Department of Health and Aged Care, Canberra, 2000
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Vanclay, F., *Bringing SIA and HIA together for Human Impact Assessment*, Human Impact Assessment Seminar, 24 January 2002, Helsinki, Finland, <http://www.stakes.fi/sva.huia/seminar/vanclay.html>

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Additional electronic resources

International Health Impact Consortium	http://www.ihia.org.uk
UK HIA Gateway	http://www.hiagateway.org.uk
WHO HIA websites	http://www.who.int/hia/en http://www.who.dk/healthimpact
Canadian Handbook on HIA	http://www.hc-sc.gc.ca/hecs-sesc/ehas/publications/canadian_handbook/volume1/toc.htm
The Merseyside Guidelines for Health Impact Assessment	http://www.ihia.org.uk/document/merseyguide3.pdf
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Frankish, C. James, Green, Dr. Lawrence W, Ratner, Pamela A., Chomik, Teena, Craig Larsen, Craig – Health Impact Assessment as a Tool for Population Health Promotion and Public Policy – A Report Submitted to the Health Promotion Development Division of Health Canada	http://www.hc-sc.gc.ca/hppb/phdd/impact/
London Health Commission (2000) A short Guide to Health Impact Assessment – Informing Health Decisions	http://www.londonhealth.gov.uk/pdf/hiaguide.pdf

A list of key citations has been compiled by the International Association for Impact Assessment and is available at: http://www.iaia.org/Non_Members/Activity_Resources/Key_Citations/health.doc

The Stakes website describes the development and implementation of human impact assessment in Finland, and has some useful references about multi-sectoral approaches and developing common goals across different agencies/perspectives in impact assessment. <http://www.stakes.fi/sva/huia/huiainstakes.htm>

Appendix 1: Purposes and Objectives

The following purposes and objectives were set for the project.

Purposes

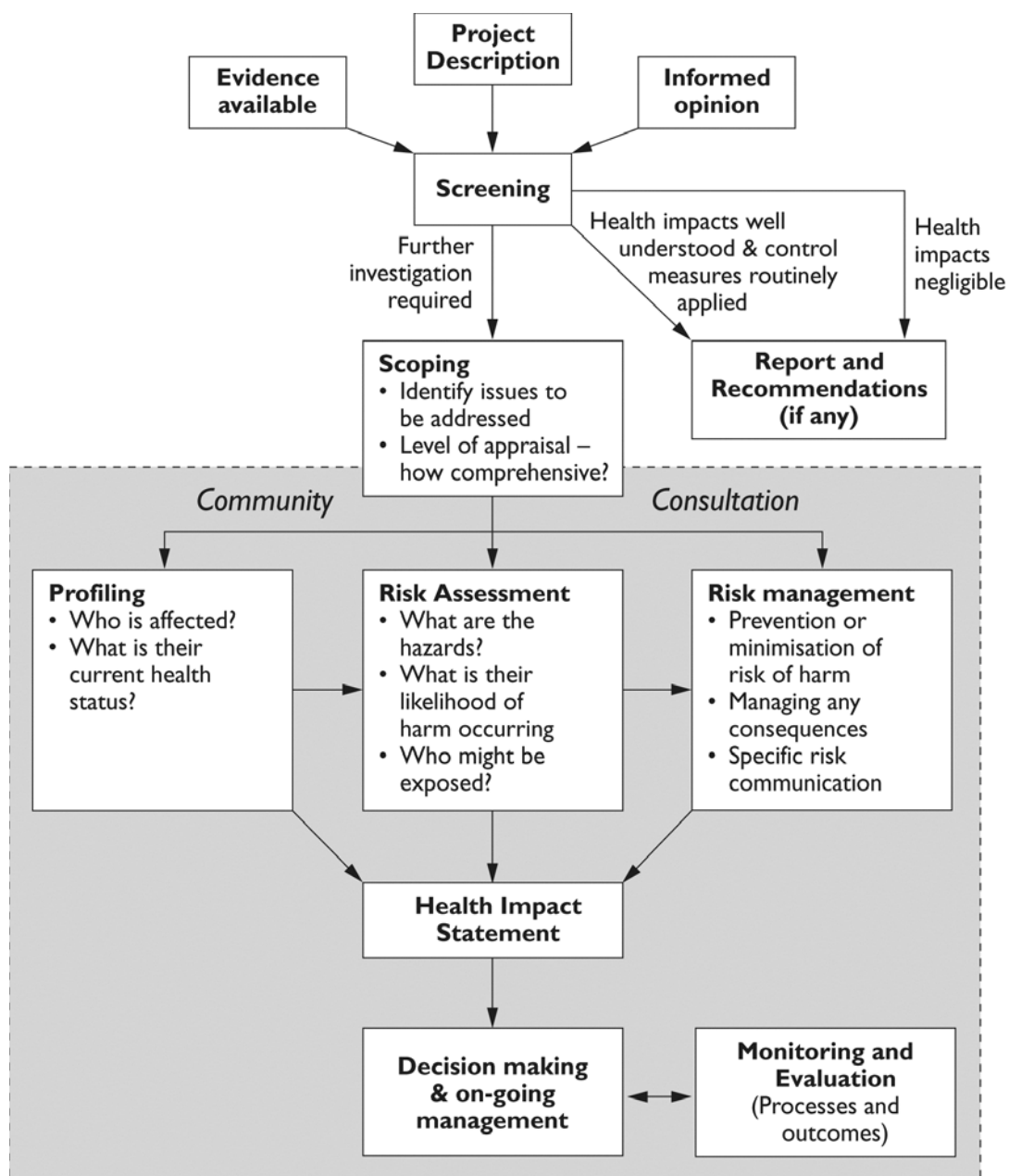
- To review how public and environmental health issues are incorporated into environmental protection legislation;
- To identify elements of best practice health impact assessment;
- To determine how best practice health impact assessment can be incorporated into current public health and environmental protection legislative practice;
- To determine how to best utilise environmental protection laws to promote public health particularly through the use of health impact assessment.

Objectives

- a) To identify current legislative practice in integrating environmental and public health concerns with environmental protection/planning practices;
- b) To examine the adequacy of current arrangements for promoting the timely assessment of potential health impacts;
- c) To identify problems and gaps created by current processes in promoting the role of health impact assessments;
- d) To assess the efficacy of “stand alone” public/environmental health impact assessment procedures including identification of the benefits and problems of a stand-alone approach;
- e) To develop a best practice model for health impact assessment;
- f) To determine barriers and opportunities to developing national consistency in health impact assessment processes;
- g) To develop a best practice legislative mechanism for health impact assessment, if appropriate, for inclusion in the Legislators’ Toolkit for possible adoption by States and Territories.

Appendix 2: The HIA Process

The HIA process shares the general framework commonly used for impact assessment, as shown in the diagram below.



Source: *Health Impact Assessment Guidelines*. enHealth Council, 2001.