

A Guide to Health Impact Assessment:

A Policy Tool for New Zealand

Public Health Advisory Committee

Te Rōpū Tohutohu i te Hauora Tūmatanui

June 2005

2nd Edition



Public Health Advisory Committee
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A sub-committee of the National Health Committee

The Public Health Advisory Committee is a subcommittee of the National Health Committee. It provides the Minister of Health with independent advice on public health issues, including the factors underlying the health of people and communities.

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FOREWORD

It is now widely accepted that the factors that have the greatest effect on people's health and wellbeing lie outside and beyond the control of the health sector. Income, housing, education and employment are factors that play a major part in the ill-health people experience during their lifetime.

It is therefore in the interests of population health for policy-makers in local and central government to think seriously about the impacts – both positive and negative – that policies in these areas will have on people's health and wellbeing. By doing so, local, regional and national agencies can direct their investment to policies that indicate likely beneficial effects and away from policies that indicate likely adverse effects.

Health impact assessment (HIA) is a formal approach used to predict the potential health effects of a policy, with particular attention paid to impacts on health inequalities. It is applied during the policy development process in order to facilitate better policy-making that is based on evidence, focused on outcomes and includes input from a range of sectors. This Guide is for use – largely but not exclusively – by policy-makers in sectors other than health. Those likely to be affected by policy may also use it. We recommend that people who are using this Guide, or HIA for the first time, should attend an HIA training course and/or work alongside an experienced HIA practitioner.

In New Zealand the economic implications of policy proposals are routinely analysed before policies are finalised. The Public Health Advisory Committee (PHAC) believes that policies at central and local government level should also be routinely analysed for their potential effects on human health and wellbeing.

For example, if the health impacts of the introduction of market rates to state housing rentals in the 1990s had been assessed, this may have highlighted implications for health resulting from overcrowding, which is strongly associated with infectious diseases such as meningococcal disease.

Policy HIA takes place in a complex political and administrative environment. HIA does not strive to make health and wellbeing considerations paramount over other concerns such as economic or environmental. Rather, it enriches the policy-making process, providing a broader base of information to make trade-offs between objectives where necessary, and makes explicit the health implications of those trade-offs.

The PHAC believes that the values that should underpin HIA in New Zealand include commitment to the principles of Treaty of Waitangi, sustainable development, equity, public participation and working cross-sectorally.

The Government has made a strong commitment to HIA, listing it as an objective of the New Zealand Health Strategy. HIA is a valuable tool for local government when delivering on the expectations of the Local Government Act 2002, and delivering the outcomes desired by communities. The Public Health Advisory Committee has developed this Guide for use by policy-makers in any sector – and at both central and local level – to assist in assessing policies for their impact on human health.

Kevin Hague

Chair, Public Health Advisory Committee until Feb 2004





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GLOSSARY OF TERMS*

Concept of health	The conceptual framework used in health impact assessment. This Guide recommends the use of the Whare Tapa Wha model of health (see section 'What else do you need to know?')
Determinants of health	Health is determined by a continuum of influences ranging from age, sex and hereditary factors, through individual behaviours, to the social, cultural and economic contexts in which people live their lives.
Health impact assessment (HIA)	A combination of procedures, methods and tools by which a policy may be assessed and judged for its potential effects on the health of the population, and the distribution of those effects within the population. ¹
Health outcomes	The health status of individuals, groups within the population, or the population as a whole, eg, diabetes, asthma, injuries or the achievement of a level of physical fitness.
Policy	A course of action through which the Government aims to achieve its objectives. Health impact assessment can be used at both central and local government levels.
Prospective health impact assessment	Health impact assessment that takes place before a policy proposal is finalised, at a stage early enough to give input to the decision-making process, but late enough so that proposals are firm enough to assess. This Guide recommends the use of prospective health impact assessment.
Public health	"The science and art of preventing disease, prolonging life and promoting health through the organised efforts of society." ²

*See also Mindell J, Ison E and Joffe M. 2003. A glossary for health impact assessment. *J Epidemiology and Community Health* 2003;57:647-651.



EXECUTIVE SUMMARY

This Guide introduces health impact assessment (HIA) as a practical way to ensure that health and wellbeing are considered as part of policy development in all sectors. Policy-makers in any sector, at both central and local level, could use this Guide. Those who may be affected by policy may also find the Guide useful.

Health impact assessment is a formal activity that aims to predict the potential effects of policies on health and health inequalities. It is used to help analyse policy alternatives during the policy development process. Where this Guide and the HIA approach is used by policy-makers who have little health experience, we recommend using public health specialists as advisors, participating in an HIA training course, and/or employing the support of an experienced HIA practitioner.

Health impact assessment is based on the recognition that the health status of people and communities is greatly influenced by factors that lie outside the health sector, for instance in areas such as housing, employment or transport. HIA can be applied at the 'project' level (eg, when a new road is being built in a particular community), but this Guide focuses on the policy level (eg, public transport policy, housing assistance policy, student loans policy).

The main purpose of HIA is to enhance the policy-making process. It is a practical aid to help facilitate better policy-making that is based on evidence, focused on outcomes and encourages collaboration between a range of sectors and stakeholders. The use of HIA is part of wider moves towards sustainable development, cross-sectoral collaboration and a 'whole of government' approach. It is undertaken when there are policy alternatives being considered but before commitment has been made.

Key reasons to undertake HIA are:

- to help policy-makers use a sustainable development approach
- to assist policy makers meet public health requirements of legislation and policy direction, such as the Local Government Act (2002) and the Land Transport Management Act (2002)
- to help policy-makers incorporate evidence into policy-making
- to promote cross-sectoral collaboration
- to promote a participatory, consultative approach to policy-making
- to improve health and wellbeing, and reduce inequalities in health
- to help policy-makers consider Treaty of Waitangi implications.

The Guide defines health broadly using the 'Whare Tapa Wha' model, which includes physical, mental, spiritual and family/community aspects. Concepts of public health including determinants of health, inequalities in health, and health outcomes are discussed. Health inequalities are of particular concern in New Zealand. For instance, people on low incomes tend to experience worse health than those financially better off.

The Guide sets out four stages and two different appraisal tools for HIA (adapted from overseas models). Guidance is provided on how to apply the tools. The Public Health Advisory Committee (PHAC) intends the Guide to be primarily used by policy-makers in central and local government (with the support of public health specialists) but believes it could also be applied more widely.



The tools were originally tested on two case studies – policies on public transport funding and the patenting of human DNA – and revised in light of these applications. It has been revised a second time for this version based on feedback from users and people trained in the HIA approach. The PHAC believes in continuous improvement and anticipates feedback from users for further refinement and improvement of the Guide. Users are encouraged to adapt and refine the tools as they apply them and to give feedback to the PHAC so that the Guide may be enhanced over time.

The four key stages in the health impact assessment process are:

- 1) screening
- 2) scoping
- 3) appraisal and reporting
- 4) evaluation.

Each stage is described as distinct. However, in practice they may be revisited and repeated once new information becomes available.

- 1) **Screening** is the initial selection process to assess a policy's suitability for health impact assessment. A checklist and guidance notes are provided for this process. At this stage some thought is given to which of the determinants of health are relevant to the policy.
- 2) **Scoping** highlights the key issues that need to be considered to define and shape the HIA. At the end of this stage, policy-makers will have written a project plan (that identifies the parameters of the HIA, its objectives, and who will be involved) and decided on the appropriate depth of HIA.
- 3) The **appraisal and reporting** stage first identifies the relevant determinants of health and uses specific tools to identify potential health impacts. It then assesses the significance of these impacts (the 'impact assessment' phase) and draws out the practical changes to the policy that will enhance the positive and mitigate the negative effects on health and wellbeing.

Two appraisal tools are described in the Guide:

- the Health Lens (a concise list of questions)
- the Health Appraisal Tool (which includes assessing the impacts on health determinants, health inequalities, and a Treaty of Waitangi appraisal)

One of these appraisal tools is chosen by the HIA team in light of the information considered in the scoping stage.

Following on from whichever appraisal tool is applied, users of the Guide develop recommendations to adjust the policy proposal to maximise the benefits to health and wellbeing.

- 4) **Evaluation** of both the process of HIA and its impact is important. The HIA can be evaluated by assessing how the process was undertaken (process evaluation), and the extent to which the recommendations were taken up by the policy-makers (impact evaluation). Questions for evaluating the process and impact of HIA are provided in this section.



WHAT IS IN THIS GUIDE?

1) Introduction

The first section introduces health impact assessment (HIA) and answers these key questions:

- What is health impact assessment?
- Why do it?
- Who should do it?
- What else do you need to know?

2) How to do health impact assessment

The rest of this document sets out guidance for how to do health impact assessment. It covers the following:

- Each of the four stages of health impact assessment:
 - screening
 - scoping
 - appraisal and reporting
 - evaluation.
- Two appraisal tools to choose from for the appraisal and reporting stage – the Health Lens and the Health Appraisal tool. Users select **one** of these tools.
- ‘Impact assessment’, which is part of the appraisal and reporting stage, prioritises potential impacts on health and wellbeing, and assesses their significance.
- Making recommendations to amend the policy proposal in light of the health impact assessment at the end of the appraisal and reporting stage.
- A set of questions to evaluate both the process and impact of HIA is provided.
- A separate response form is provided for users to evaluate the Guide itself and give feedback to help develop it further.
- Further reading and references are provided at the end of the Guide.

Illustrations of the use of different parts of the process from public transport policy and a policy allowing the patenting of human DNA are provided throughout the Guide.





What is Health Impact Assessment?



WHAT IS HEALTH IMPACT ASSESSMENT?

Health impact assessment (HIA) is a formal process that aims to predict the potential effects of policies on health and wellbeing, and on health inequalities. It can be applied to policy-making at central and local government level, and is most effective when used early in the policy development process.

Health impact assessment is defined as a combination of procedures, methods and tools by which a policy may be assessed and judged for its potential effects on the health of the population, and the distribution of those effects within the population.¹

There are two major types of health impact assessment:

1. policy level HIA
2. project level HIA.

Health impact assessment is currently used at the project level in many countries (in New Zealand it is usually within resource management processes). Guidance on undertaking project level HIA in the context of the Resource Management Act was published by the Public Health Commission in 1995.³

The focus of this Guide, however, is the use of HIA in policy-making, which is less common but potentially more influential. The assessment of health and wellbeing impacts at the policy level is not yet well-established in New Zealand and is a relatively new field internationally.

In HIA at the policy level, the primary focus is on health and its determinants, whereas when HIA is applied to environmental management, health is just one component. Policy-linked HIA has its roots in public health and the recognition that health is largely determined by decisions made in other sectors. It aims to assist with meeting policy goals such as 'outcome-based' decision-making where the focus is on actual outcomes for people, rather than 'outputs' of policy (eg, a reduction in smoking prevalence is an outcome, while smoking cessation programmes are outputs).

Health impact assessment is based on the recognition that the health status of people and communities is greatly influenced by factors that lie outside the health sector, for instance, through social and economic policies. HIA is a forward-looking approach that could potentially be used in policy-making in any sector. It can help to identify ways in which:

- positive health effects of the policy can be enhanced
- negative health effects of the policy can be diminished or removed
- health inequalities may be reduced or widened as a result of the policy.



Some past policies in New Zealand may have been adjusted if an HIA had been conducted prior to the policy being finalised. For instance:

- the decision to remove tariffs on the importing of second hand cars
- the lowering of the drinking age
- the introduction of work-testing for the domestic purposes benefit
- the move to market rents for state houses
- the introduction of ambient air standards.

It is acknowledged that policy HIA takes place in a very complex political and administrative environment. Many factors influence how a policy is developed and finalised, with political will being an important factor.

This Guide contains guidance to be applied prospectively when policy alternatives are being considered prior to decision-making. Ideally, HIA should be an ongoing process that begins with the initial policy development stage, and concludes when the policy is finalised.

The four key stages in the process of health impact assessment are:

- screening
- scoping
- appraisal and reporting
- evaluation.

This Guide sets out each of these stages in turn. The next section looks at the rationale for doing health impact assessment.



Why do Health Impact Assessment?



WHY DO HEALTH IMPACT ASSESSMENT?

Health impact assessment is a practical means to help policy-makers apply a sustainable development approach to their work. It is a practical aid to help facilitate better policy-making that is based on evidence, focused on outcomes and incorporates input from a range of sectors and stakeholders.

The use of health impact assessment is part of wider moves towards sustainable development, cross-sectoral collaboration and a 'whole of government' approach.

One of the objectives of the New Zealand Health Strategy⁴ is to assess public policies for their impact on health and health inequalities. The New Zealand Disability Strategy promotes an inclusive society that enhances full participation by those with disability.⁵ Wide application of HIA will help to ensure the objectives of these strategies are met.

Key reasons to do health impact assessment

1) To help policy-makers use a sustainable development approach.

Sustainable development highlights the importance of taking into account the economic, environmental, social and cultural dimensions of issues when making policy decisions. The Government has implemented a programme of action towards ensuring that sustainable development concepts underpin all government activity. HIA is a tool to assist with this.

2) To help policy-makers address public health requirements of legislation and policy.

Health impact assessment is part of a wider culture change across government to incorporate a much broader range of considerations in routine policy work. HIA has strong links with the Local Government Act 2002 that requires local bodies to use a sustainable development approach to 'promote the social, economic, environmental, and cultural well-being of communities, in the present and for the future'. The Act also requires councils to prepare Long-term Council Community Plans (LTCCPs), which will set out the community's judgment about what it needs to promote its wellbeing and how the Council will contribute to those outcomes. In addition, the Health Act 1956 states that every territorial authority has a duty to "improve, promote and protect public health within its district".

HIA is a powerful tool that can be used by Local Government to help meet these obligations.

The Land Transport Management Act 2002 requires that agencies must now consider how their work "protects and promotes public health". HIA can be used to broaden the scope of transport planning beyond the traditional public health considerations of noise, vibration, and vehicle emissions. A focus on the wider determinants of health, such as social support, and access to services, and cultural resources, will significantly increase the type of information available to decision makers on the public health impacts of transport decisions.

In addition, the Human Rights Commission is now calling for HIA to be undertaken on local and central government policies.[†]

[†]Human Rights Commission. Priorities for action: Economic, cultural and social rights. Available at <http://www.hrc.co.nz/report/actionplan/6economic.html>



Health impact assessment helps to create a policy environment that routinely considers a broad range of potential impacts. It not only highlights negative health effects, but also seeks to amend policies to maximise potential positive effects on health.

- 3) **To help policy-makers incorporate evidence into policy-making.** Health impact assessment promotes the contribution of research and other evidence to policy-making. It can strengthen the links between research and policy.
- 4) **To promote cross-sectoral working by encouraging policy-makers to collaborate with other sectors.** This contributes to more integrated policy development and the promotion of ‘whole of government’ thinking. HIA is consistent with other cross-government initiatives, such as the Review of the Centre, and the Growth and Innovation Framework.
- 5) **To promote a participatory, consultative approach to policy-making.** Health impact assessment asks policy-makers to identify and consult with a wide range of stakeholders. This may include community representatives in some cases, or a range of government or non-government agencies. The HIA provides the focus for bringing disparate groups together in a non-confrontational and collegial way.
- 6) **To improve health and reduce health inequalities.** While health impact assessment is not a ‘magic bullet’, it can contribute to improving the overall health of the population by ensuring that policies, at the very least, do not produce serious adverse effects on health. It can also play a part in reducing inequalities in health by helping to ensure that policies do not exacerbate or continue existing inequalities.
- 7) **To help policy-makers consider Treaty of Waitangi implications.** Māori bear a disproportionate burden of premature death and illness. Māori have poorer health even when socioeconomic position is considered. This means that it is important to ensure that new policies aim to improve Māori health and wellbeing, and to reduce the difference in health status between Māori and non-Māori. Health inequalities for Māori should be addressed within a Treaty of Waitangi framework, which justifies an increased focus on Māori health. It is for this reason that appraisal tools in this Guide include an appraisal of the policy for its attention to the principles of the Treaty: partnership, participation and protection, and consequent impacts on the health and wellbeing of Māori whānau/families and communities. (See Treaty Appraisal section, pg 50, 51).



Who should do Health Impact Assessment?

Who should do Health
Impact Assessment?



WHO SHOULD DO HEALTH IMPACT ASSESSMENT?

This Guide has been developed specifically with policy-makers in mind. Ideally, policy-makers across all public sectors should use health impact assessment for significant policies.

For instance, central government policy analysts and advisors in policy areas such as housing, employment or taxation should use HIA. Local government officials and policy-makers across sectors such as transport, planning, social policy or environment should also find HIA tools useful.

Although this Guide is aimed at central, regional and local government policy-makers, both community and corporate organisations could also use the Guide. In New Zealand, processes for participation by, and partnership with, the Treaty partner (relevant iwi or Māori organisations) are required, as well as wider consultation as appropriate.

This Guide has been primarily designed for policies outside the health sector, but health policy-makers could also use it to assess potential impacts of health policies on health inequalities.

A distinction needs to be made between 'owning' and 'doing' health impact assessment. Policy-makers are encouraged to take ownership of, and responsibility for, the HIA applied to their policy. They may choose to do an HIA themselves or commission someone else to do it, such as a public health specialist, or use a mix of these two approaches.

Collaboration between the sector concerned and public health specialists is important to ensure that knowledge is shared. A cross-sectoral approach can draw together the specialised knowledge of the policy agency with public health knowledge and HIA experience. It is recommended that people who are using this Guide, or HIA for the first time, attend an HIA training course and/or work alongside an experienced HIA practitioner.

This Guide takes a public health perspective but acknowledges that policy-makers across all sectors will have a broad range of valid perspectives that influence their policy-making. The Guide also encourages collaboration across sectors as a way to incorporate this range of perspectives and ensure that all aspects are considered.

Public participation is seen internationally as a core value of health impact assessment. While public participation has not been well-researched in the context of HIA, it has been shown to have a positive effect on health project development and implementation, and on changing individual attitudes towards health.⁶ A range of participation processes can contribute to policy-making, for instance key informant interviews, stakeholder workshops, focus groups or citizens' juries.

Users of the Guide may adapt and refine the tools as they apply them – this is expected and encouraged as contextual factors will affect policy processes and thus mediate the approach taken. The introduction of HIA is also about building experience in the application of the tools.





What else do you need to know?



What else do you
need to know?

WHAT ELSE DO YOU NEED TO KNOW?

This section introduces a concept of health for health impact assessment in New Zealand, and discusses the concepts of public health, determinants of health, health outcomes, health inequalities and the importance of the Treaty of Waitangi, which are an integral part of HIA. Understanding these concepts is fundamental for effective application of the HIA Guide to policy development.

Concept of health

Health is not just about the absence of physical injury or disease. The 'Whare Tapa Wha' model (see Figure 1) has been adopted as the concept of health for this Guide. Te Whare Tapa Wha takes a broad view of health that includes physical, mental, emotional, social and spiritual wellbeing. It is widely used in the New Zealand health environment and is consistent with international definitions such as that of the World Health Organization.[‡]

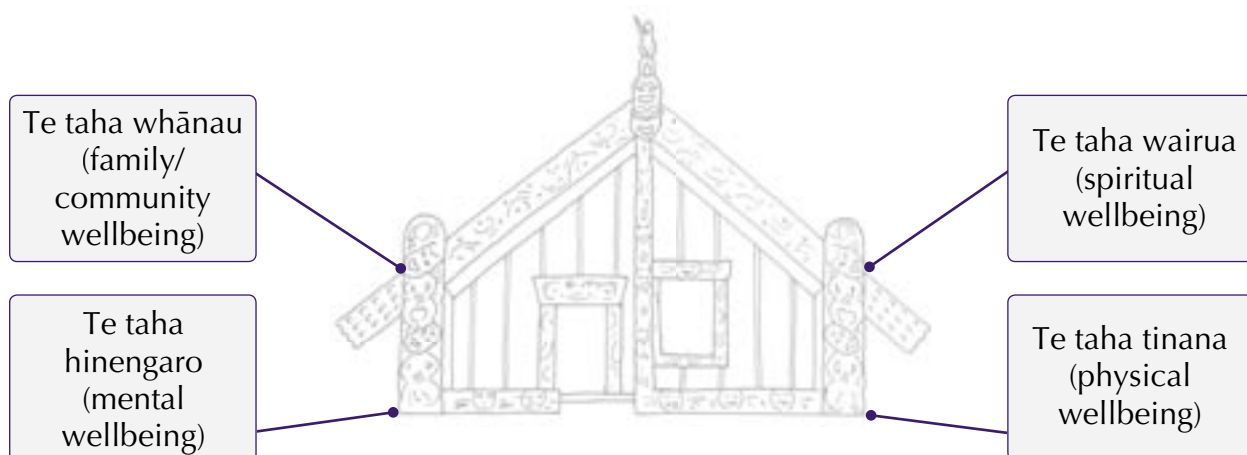
Translated as a four-sided house, Te Whare Tapa Wha represents health not only in terms of physical and mental wellbeing but also gives weight to the interrelated components of family and personal relationships, and to a spiritual dimension ('taha wairua'). All four sides of the house need to be strong and balanced to ensure health and wellbeing.

Spiritual health can be hard to define and is often equated with organised religion. The concept here is much broader, but may include religious beliefs. In work on a Māori measure of mental health outcomes, Professor Mason Durie acknowledged the challenges in defining taha wairua. He portrays taha wairua in a way that does not require specific cultural or religious reference points, which may allow accessibility to a wider audience.

Durie describes taha wairua as incorporating "the experience of mutually rewarding encounters between people, a sense of communion with the environment, access to heritage and cultural integrity."⁷

Spiritual health could be affected when a new road is planned for a site that is sacred to Māori or of historical significance. Two examples of family and community health are strong relationships within families and a sense of pride and involvement in one's community.

Figure 1: Te Whare Tapa Wha model of health⁸



[‡]The World Health Organization has defined health as "a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity." Available at <http://www.who.int/about/definition/en/> (accessed 21 June 2005).



The concept of whānau ora, healthy families, is at the centre of the Maori Health Strategy, He Korowai Oranga.⁹ The strategy recognises the influence that public policies have on the health and wellbeing of whānau and calls for the public sector to take responsibility for its part in supporting the health status of whānau. The Ministry of Health is developing impact assessment tools based on this Guide, which specifically assess the impacts of policies on whānau ora.

Public health

Health impact assessment also draws on the concept of public health. Public health is about keeping people healthy and improving the health of populations. It is defined as “the science and art of preventing disease, prolonging life and promoting health through the organised efforts of society.”²

Most of the improvements in life expectancy and quality of life over the past 150 years can be attributed to broad ‘organised efforts of society’ rather than improvements in health care. Societal interventions such as social welfare, universal education, sewage systems and clean water supplies have significantly contributed to better public health.

Public health is not the same as *publicly funded health services*, although these two terms are often confused. Publicly funded health services include all health and disability support services funded from taxes, including public health services (eg, smoking cessation programmes) and personal health services (services delivered to individuals – eg, General Practitioner or hospital services).

Increasingly in New Zealand, organisations such as District Health Boards (DHBs) and local government have to consider the health of their communities as part of their role. The Local Government Act 2002 requires local government to consider community wellbeing and to play a greater role in terms of health. HIA will be an important technique to assist these organisations in considering population health.

Public health expertise can be accessed at Regional Public Health Units of DHBs, Departments of Public Health in universities, the Public Health Association of NZ, the Health Promotion Forum of NZ, and other relevant non-government organisations such as NZ AIDS Foundation, some private organisations, and the Public Health Advisory Committee.



Health determinants and health outcomes

Health impact assessment draws on the concepts of determinants of health and health outcomes. It is important to understand these terms and the relationships between them.

It is increasingly accepted that the health of the population is not primarily determined by health services or individual lifestyle choices, but mostly by social, cultural, economic and environmental influences.^{10,11} Understanding the range of factors that contribute to the health of the population can help us to identify ways to develop policies in such a way as to maximise their positive impact on population health and wellbeing, and on health inequalities.

Health is determined by a continuum of influences ranging from age, sex and hereditary factors, through individual behaviours, to the social, cultural and economic contexts in which people live their lives. These contexts have the greatest impact on the health of populations.^{10,11}

Examples of determinants of health that may be considered in applying the HIA Guide are:

- social and cultural factors (eg, social support, participation, access to cultural resources such as marae)
- economic factors (eg, income levels, access to employment)
- environmental factors (eg, land use, air quality)
- population-based services (eg, health and disability services, leisure services)
- individual/behavioural factors (eg, physical activity, smoking)
- biological factors (eg, biological age)

Some determinants are close to the individual (such as biological or lifestyle factors), while others are more distant (social, cultural and economic factors) and their effect is mediated through closer factors. For instance, a person's low income may hinder their access to healthy food such as fruit and vegetables, which in turn may contribute to increased susceptibility to infection or to heart disease and diabetes.

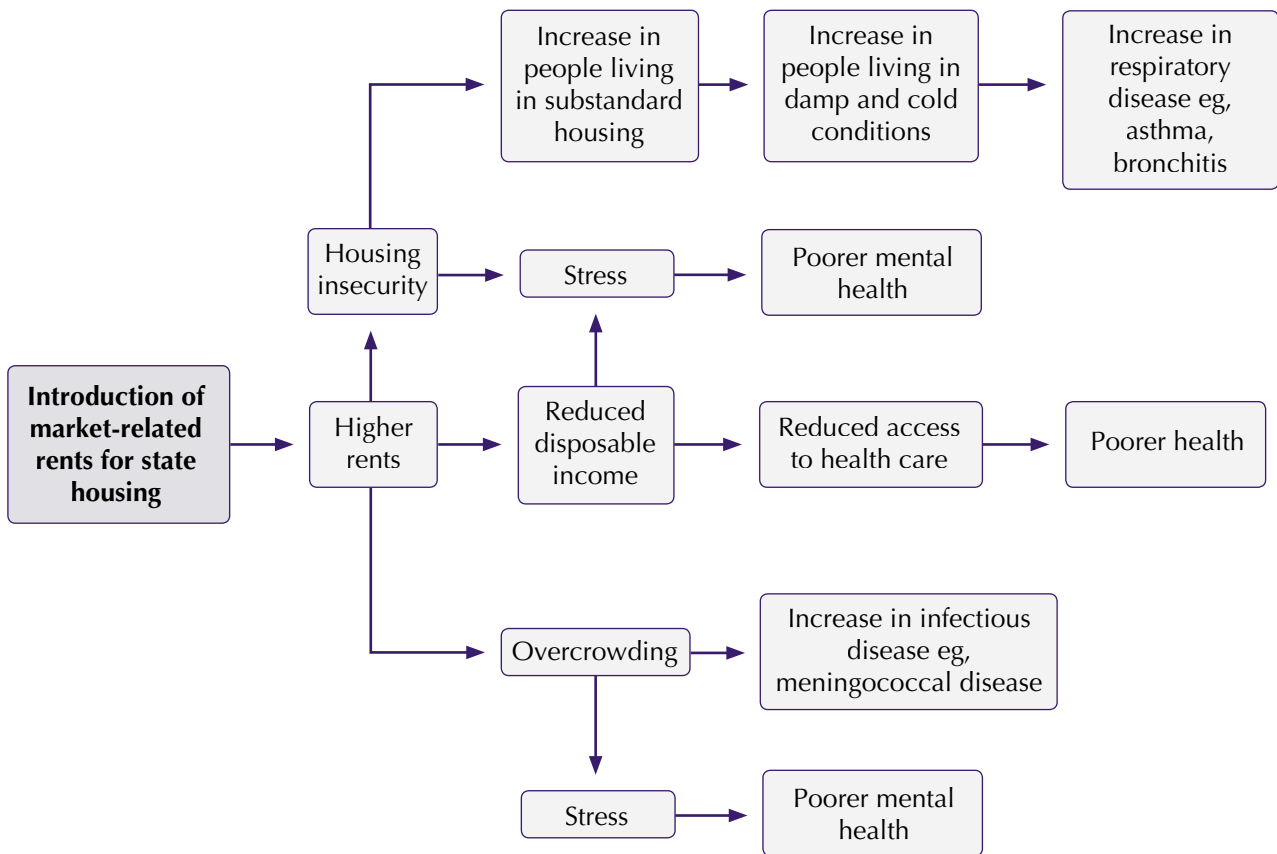
The term 'health outcome' is used to mean the resulting health status of individuals, groups within the population, or the population as a whole. For instance, negative health outcomes include conditions such as diabetes or asthma, and injuries from a range of causes such as motor vehicle crashes or sporting accidents. A positive health outcome may be the achievement of a level of physical fitness, or a positive emotional state.

Determinants of health contribute to health outcomes in various ways, either directly or indirectly, and often in combination with other causal factors or intermediary factors. As another example, someone may live in substandard housing due to being on a low income, and then these factors combined may result in the worsening of a pre-existing respiratory condition such as asthma or bronchitis. Causal pathways are usually complex and multi-factorial – it would be rare to have only a few factors involved as in this simplified example.

The following diagram gives some possible causal pathways between a change in policy (introduction of market-related rents) and health outcomes:



Figure 2:
Possible causal pathways between a housing policy change and adverse health outcomes



Health impact assessment is concerned with health outcomes both in terms of overall population health and in terms of differences between groups, or inequalities in health.

Health inequalities

An important part of health impact assessment is predicting potential effects of policies on inequalities in health.

In New Zealand, as in other countries, there are inequalities in health among socioeconomic groups, ethnic groups, those living in different geographic areas, and males and females. These factors interact and result in cumulative effects throughout life and across generations. Inequalities in health are not random. There is evidence that socially disadvantaged groups have poorer health and worse access to health services.¹²

The main causes of health inequalities are inequalities in the distribution of, and access to, material resources such as income, education, employment and housing.

An example of socioeconomic inequalities is the finding in New Zealand that life expectancy declines as the deprivation of the area of residence increases.¹² Geographic inequalities in health can operate through such factors as access to health services, availability of affordable, healthy food, road safety and transport networks, and the quality and appropriateness of housing.¹²



The impact of ethnic identity is closely linked with social and economic determinants of health. In New Zealand, Māori at all socioeconomic levels have worse health status than non-Māori. Persistent ethnic disparities suggest that there are other features of our society that produce ill-health in Māori and other groups such as Pacific peoples. Institutional racism, and the effects of colonisation and land confiscations (eg, by narrowing the Māori economic base and reducing Māori political influence) may play an important part in contributing to inequalities.¹³

Assessment of health inequalities is an integral part of HIA.

Treaty of Waitangi

The Treaty of Waitangi forms an important part of the New Zealand context for health impact assessment. It is the founding document of New Zealand and has a key place in both health legislation and the wider public policy environment. The Treaty has implications for both the Crown and Māori, and HIA is a potential means for helping ensure that policies address these implications.

Differences in the Māori and English texts of the Treaty of Waitangi have led to different understandings of the meaning of the Treaty. These differences, coupled with the need to apply the Treaty in contemporary circumstances, led Parliament to refer to the *principles* of the Treaty in legislation, rather than to the Treaty texts. The New Zealand Public Health and Disability Act 2000 Part 1 section 4 states;

“In order to recognise and respect the principles of the Treaty of Waitangi, and with a view to improving health outcomes for Māori, Part 3 provides for mechanisms to enable Māori to contribute to decision-making on, and to participate in the delivery of, health and disability services.”

There is no single point of reference that defines the principles of the Treaty of Waitangi. However, in the health sector the three principles derived from the Royal Commission on Social Policy are most commonly used. He Korowai Oranga, the Māori Health Strategy, elaborates on each of the principles as follows:⁹

- Partnership: Working together with iwi, hapū, whānau and Māori communities to develop strategies for Māori health gain and appropriate health and disability services
- Participation: Involving Māori at all levels of the sector, in decision-making, planning, development and delivery of health and disability services
- Protection: Working to ensure Māori have at least the same level of health as non-Māori, and safeguarding Māori cultural concepts, values and practices.

For an expanded view of the principles of the Treaty refer to Te Puni Kōkiri¹⁴, Chen¹⁵ or to Durie.¹⁶

For questions to help appraise a policy for Treaty principles, see the appraisal section of this document.





How to do Health Impact Assessment



This section of the Guide sets out how to do each of the following stages:

- Screening
- Scoping
- Appraisal and reporting – this stage includes:
 - A) two appraisal ‘tools’ – the user selects and applies one of these tools
 - B) an ‘impact assessment’ stage – which is completed after the appraisal tool has been applied
 - C) developing and reporting recommendations to amend the policy proposal
- Evaluation.

HOW TO DO HEALTH IMPACT ASSESSMENT

This section discusses each of the four stages of health impact assessment in turn and gives guidance on how to carry out each stage. Two alternative appraisal ‘tools’ are presented at the appraisal and reporting stage (Stage 3). The user applies just one of these tools.

Examples from public transport policy and a policy allowing the patenting of human DNA are used to show how the tools can be used.

The four stages in the process of health impact assessment are:

- screening
- scoping
- appraisal and reporting
- evaluation.

Note that the appraisal stage has **three** parts:

- 1) choose one appraisal tool, then
- 2) complete the ‘impact assessment’ stage and
- 3) develop practical recommendations to enhance positive impacts and mitigate the negative

Although these stages are presented as distinct phases, it is recognised that the process is iterative. The stages may overlap and each stage may be revisited.

The formal use of new policy assessment approaches such as HIA can challenge existing policy development arrangements. Policy-makers may have concerns about extending the policy development timeline or introducing other parties into the process.

One way to reduce concern about the use of HIA and gain the most benefit from it is to start it at an early stage in the policy process with time and resources allocated to it. It is also crucial for policy-makers to see the value of using HIA as a practical technique to help with their work (by highlighting the effect it could have on people), rather than something imposed from outside.

Identifying the policy for HIA

It is essential to get a clear statement of the policy that is subject to the HIA. HIA should always consider at least two options – for instance, comparison of a new course of action with retaining the status quo.

The focus of the HIA should be on assessing the anticipated outcome (or outcomes) of the policy for its impact on public health.

If the policy is expressed in output terms, rather than in terms of outcome, then additional work is needed to develop scenarios of what the outputs may produce. These can be used as proxies for the policy itself to enable a more effective analysis using HIA. An example is provided on the following page.



Patenting of human DNA

A case study application of health impact assessment on the patenting of human DNA used the following question as the basis of the HIA:

What are the potential health impacts of the current policy allowing patenting of human DNA sequences and their biological functions?

It was originally thought that this question would be a clear basis for the HIA. However, when applying the Health Lens^s it became clear that potential health impacts would depend on the current and future behaviour of patent-holders (whether they enforce a patent, how much they charge, or whether they act on a strict commercial basis and enforce patents in order to optimise profits).

Accordingly the following assumptions were agreed on and were used as the basis for the application of the Health Lens:

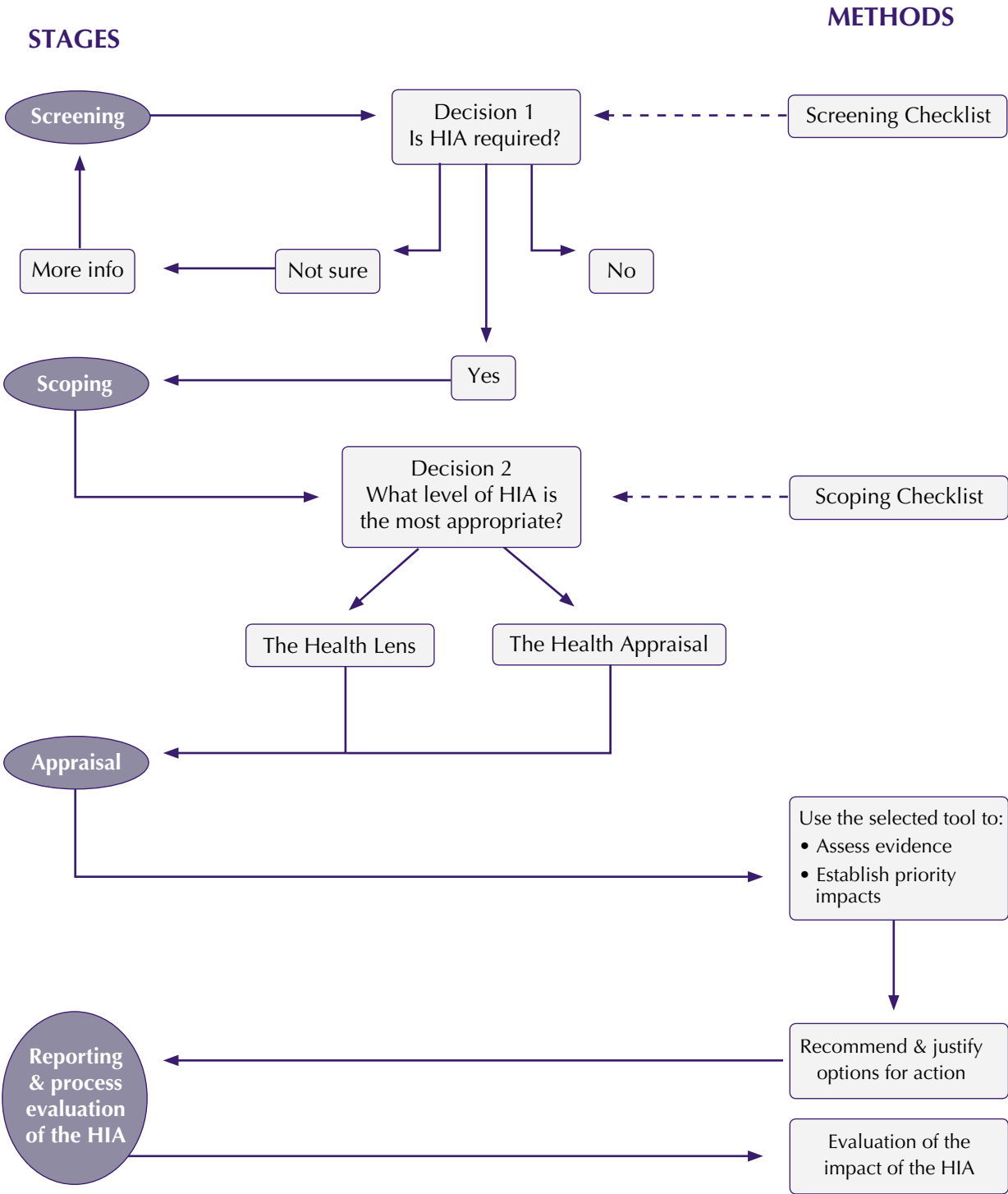
- that in the future patents would be operated commercially for maximum profit (a 'worst case', but realistic, scenario)
- that the cost of genetic testing would increase as a result of patenting.

^sThe Health Lens is an appraisal tool for health impact assessment, see the appraisal section of this Guide.



The following diagram shows the stages in the health impact assessment process applied to policies from an early stage.

Figure 3: The health impact assessment process¹⁷



Getting started – practical advice on HIA application

- Start the HIA process when some policy alternatives have been developed. Note that a policy proposal may be assessed in relation to the status quo.
- Establish a clear understanding of the proposed policy and the policy alternative (for example, status quo).
- Develop clear justification for the work and seek a senior ‘sponsor’ who can give authority to the project. Applying HIA in policy areas outside of health may meet some resistance as it may be perceived as less relevant, time consuming or costly.
- Focus on policy outcomes, or if these are not clear, develop and use scenarios.
- Use multidisciplinary teams including a public health specialist where possible. If the HIA team does not have in-house expertise in conducting HIAs, employ an experienced HIA practitioner or ensure people in the team attend an HIA training course.
- If the HIA is not led by Māori, it is important to include Māori in the HIA team.
- Be prepared to research some issues as there are usually information and knowledge gaps.
- Effective communication is an integral part of HIA, particularly between staff doing the HIA and stakeholders.
- Ensure good relationships at governance level, as well as at staff or officials level. If one agency is working cooperatively with another on HIA, there may be a need for direct meetings between the two governance bodies, as well as collaboration at the level of officials.

It is important to be clear about how a health impact assessment can help your policy-making process. Kemm (2000) identifies several ways it can add value.¹⁸ HIA can:

- identify positive and negative factors that would not otherwise have been identified
- quantify the magnitude of effects more precisely
- clarify the nature of trade-offs in policy-making
- allow better mitigation of harmful effects and enhancement of positive effects
- make the decision-making process more transparent with more stakeholder participation
- change the culture so that policy-makers always take health into consideration.

The next section will go on to discuss each of the four stages of health impact assessment in more detail.



Stage One: Screening



STAGE ONE: SCREENING

Screening is the first and fundamental stage in the process of health impact assessment. It should be applied in all cases irrespective of the particular policy being considered and irrespective of the appraisal tools used.

Screening's main function is to act as a selection process where policies are quickly judged for their potential to affect the health of the population, and hence the need (or not) to undertake HIA. By looking at the nature and likely scale of potential health impacts, a decision needs to be made as to whether to conduct an HIA.

Who undertakes the screening process will depend on the policy and organisational context in question. There is no single best approach to this, although ideally several people should undertake the screening process. Screening could be conducted in conjunction with invited specialists (eg, public health practitioners or academics) external to the organisation. It is critical that at least one person involved in screening (and preferably everyone involved) has a good understanding of the wider determinants/ influences on health. (See section on determinants of health in "What do you need to know?" For a more complete list of selected determinants of health, see Table 3 in the Appraisal and Reporting section).

In some cases a particular interest group or community representative may raise concerns that are not shared by the majority of those in the particular population. On the other hand, there may also be situations where limited knowledge about potential health effects means that there is no public concern. In this case an HIA could still be justified.

Table 1 on page 25 is a checklist to aid users in making a judgment as to whether an HIA is necessary. The table is designed to help you decide whether an HIA is necessary and appropriate.

Three different conclusions can be reached:

- 1) It is necessary to conduct an HIA.
- 2) It is not necessary to conduct an HIA but recommendations can be made on how negative health impacts can be ameliorated.
- 3) It is not yet possible to decide one way or the other, due to inadequate information. If there is not enough information available to decide, the screening process can be repeated after obtaining further information.



For each policy element, policy option, or policy outcome scenario:

- go through the screening checklist (Table 1) and circle **one** of the three responses – ‘yes’, ‘don’t know’ or ‘no’
- then for each question, estimate the level of certainty of your responses by classifying each as high, medium or low
- the final step is to make a judgment call, based on the information in the table. As every situation will be different, it is important to use common sense. A judgment call should be made on whether the table suggests a need for HIA or not. If the majority of your answers are either “yes” or “don’t know”, then you should consider conducting an HIA.
- If good ideas about impacts, enhancements or mitigations are raised, note them down for later consideration in the appraisal and reporting stage,
- It is important to think very broadly about what influences health and wellbeing at this early stage. Refer to Table 3 in the Appraisal section to help identify these influences (determinants of health).

Write down the decision as part of the overall record of the HIA process.



The results of the table will help indicate whether a health impact assessment should be done. The information gained may also be useful in justifying a decision to conduct an HIA (or a decision not to go ahead). If this process leads to a decision to undertake an HIA, proceed to the next step – the scoping stage.

Pose these questions	Put your answers here		
To your knowledge:	Should conduct an HIA	No need to conduct an HIA	Estimated level of certainty for your response to the questions (high, medium, low)
Is there potential for positive health impacts as a result of the proposed policy change? (Think about whether it will affect the determinants of health such as socioeconomic or environmental factors or lifestyle – see Table 3 in Appraisal section.)	Yes/don't know	No	
Is there potential for negative health impacts as a result of the proposed policy change?	Yes/don't know	No	
Are the potential negative health impacts likely to affect a large number of people? (Include consideration of future and intergenerational impacts.)	Yes/don't know	No	
Are the potential negative health effects likely to cause death, disability or hospital admission?	Yes/don't know	No	
Are the potential negative health impacts likely to be disproportionately greater for disadvantaged or vulnerable groups in the population? (Think about which groups in the population could be affected.)	Yes/don't know	No	
Are the potential negative health impacts likely to be disproportionately greater for Māori?	Yes/don't know	No	
Are there public or community concerns about potential health impacts of this policy change?	Yes/don't know	No	
Is there uncertainty about what the potential health impacts might be?	Yes/don't know	No	
Is there support from the policy-makers involved, or political support within the organisation to carry out an HIA?*	Yes/don't know	No	

NEXT STEP

After you have completed this table, make a decision as to whether it is necessary to conduct a health impact assessment. If so, the next step is to proceed with the scoping stage.

*If there is not sufficient political will in the organisation, evidence gathered at the screening stage can be used to advocate for that support at a later date.





Stage Two: Scoping



STAGE TWO: SCOPING

Scoping aims to establish the foundations for undertaking the health impact assessment. The goal is to highlight the key issues that need to be considered to define and shape the health impact assessment, and to set aside others that may divert time and money from the core issues. Scoping is simply good project management.

Particular aspects to consider in scoping are public concerns about the policy proposal, as well as technical concerns, and the practical questions of organising how to do the HIA.

GUIDANCE

In this stage you will:

- a) write an **assessment plan** (or project plan) to set out the work
- b) decide on the depth of the HIA and which **appraisal tool** to use.

Health impact assessment is an iterative process and scoping may continue throughout the HIA process. For instance, if information comes to light that challenges some earlier assumptions, you may return to the scoping stage later on and re-scope the work in some way. It helps to remember it is seldom possible to identify all of the relevant issues.

A particular aim of the scoping process is to define the boundaries of the work (including scale and depth of analysis needed), and how it relates to other work. The objectives for the work should be identified. It will also be important to identify the resource needs for the health impact assessment, including identifying the project team.

Based on the responses to these questions (and any others that may be relevant), an assessment plan can be drawn up to set out the parameters for the work. This will establish exactly what the work will involve, who will do it, and when it will be done (ie, the process as distinct from content).

There are two functions of the HIA process:

- 1) Ownership – ensuring that policy-makers have a sense of ownership of the HIA process, see the HIA as part of their agenda and ensure that they seriously consider the results of the HIA.
- 2) Assessing – doing the work of the HIA.

The ownership function requires one or two senior policy-makers or managers to take responsibility for the HIA (or for a large HIA, a project board may be required). For the second function, a working group of those policy-makers or contractors who actually do the work is required.

Selection of appropriate people to participate in the HIA working group is crucial – usually technical or specialist qualifications or experience will be required. It may be best to restrict this group to those involved in the ‘hands-on’ work rather than including advisors. In some circumstances it may be helpful to have an additional advisory group to comment on the work as it progresses.



Consideration of how the work will be recorded is also important. For instance, you may consider tape-recording significant events such as workshops or consultation meetings.

As part of the assessment plan, it is important to develop a participation and communication strategy even if it involves only a limited expert group of people or organisations. The nature and degree of participation required will depend on the policy in question. If the HIA is not being led by Māori, it is important to involve Māori as part of the HIA team.

Finally, it is important to consider the issue of evaluating the HIA as part of scoping.

For instance:

- how will the HIA be evaluated to show whether it was done well and whether it added anything to the quality of the policy decision?
- what are the resource implications of evaluating the work?
- how realistic is it to evaluate the work?

Evaluation requires both reflecting on the process and getting feedback from the policy-makers as to what extent the HIA met their requirements. Suggested sets of questions to help with this are provided in the evaluation section.



Scoping – getting started

Some questions that may be asked to help with the scoping process include the following:

- What are the aims and objectives of the health impact assessment?
- What will be the extent and boundaries of the HIA?
 - What is to be included and excluded?
 - What are the boundaries in terms of timing and location?
 - When will the assessment be done?
 - How much time will it take?
- Who will conduct the HIA and what skills are needed?
- What stakeholders are involved in assessing the policy?
- What is the geographic scope of the HIA? (ie, what is the community under consideration – a particular region or local authority area, the whole of New Zealand, families with children in New Zealand?)
- What is the temporal scope of the HIA? (ie, are you concerned about the next five years or what happens in 20 years?) How heavily will you discount future impacts?
- If the whole policy is not being assessed, what parts are being assessed?
- What comparison policy will be used for the HIA: alternative policy option(s) or comparison with the status quo?
- What data are available, or need to be collected, to help describe the alternative policy option(s) or the status quo?
- If the outcomes of the policy are not known, what assumptions need to be made to predict the potential outcomes?
- What public or community concerns have been raised about the policy area?
- Who are the key people to consult with as part of the HIA? (Think systematically about whom it is important to involve).
- Can an assessment plan be drafted to set out the key milestones and timeframes of the HIA?
- What are the parameters for evaluating the HIA?
- What is the budget and sources of funding for the HIA and any associated work?
- What methods could be used in the HIA? (See also the appraisal stage to help with providing an initial answer to this).
- Are there any relevant relationships to statutory requirements? (eg, resource consent processes [section 32 of the Resource Management Act], gender analysis, requirements for consultation, legislative impact statements).



Deciding on the level of health impact assessment

Different health impact assessment tools can be used to achieve more or less detailed examination of the policy. They can range from a brief appraisal to more thorough health impact assessment. In this document, two tools are set out – the Health Lens and the Health Appraisal. You need to make a decision as to the level of HIA to use. The two outcomes to the decision, and the corresponding appraisal tools are as follows:

Depth of assessment	Corresponding appraisal tool
a brief HIA	the Health Lens
a more thorough HIA	the Health Appraisal Tool

A brief assessment (the Health Lens) is used when limited time and resources constrain the ability to undertake a more thorough assessment. In the policy environment, this is likely to be the most realistic level of assessment. However, a more detailed assessment (the Health Appraisal Tool) can provide more thorough and convincing information.

The following table can be used to help you decide which level of HIA is appropriate (and therefore which of the two appraisal tools to use). It should be completed in two steps:

- 1) respond to questions, then
- 2) identify the most appropriate level of comprehensiveness – either less or more comprehensive.

It is important to remember that each situation will be different, however, and unique circumstances should be taken into account. In the end, the decision as to the best level of assessment in each situation will come down to judgment and common sense.



Table 2: Scoping Checklist – choosing the appropriate level of HIA

Question	Response to question	Guidance on the appropriate level of tool	More/less comprehensive
Is the magnitude of the proposed policy change significant?		The greater the magnitude of the policy shift, the more comprehensive the tool should be	
Are there significant potential health impacts of the policy change?		The greater the significance of potential health impacts, and the higher the degree of uncertainty, the more comprehensive the tool should be	
How urgent is the need for policy change?		If there is relatively high urgency then select a less comprehensive tool	
Is the timing critical in relation to other policies/issues?		If timing is critically linked to other policy developments and timeframes are short, select a less comprehensive tool	
What is the level of political interest?		The higher the level of political interest, the more comprehensive the tool should be	
Are there other political considerations?		The more politically complex the policy change is, the more comprehensive the tool should be	
What is the level of public interest?		The higher the level of public interest in the policy change, the more comprehensive the tool should be	
Is there a 'window of opportunity' for the work?		Consider if there is a window of opportunity (ie, timeliness, currency, political support). If the window is likely to close, select the less comprehensive tool	
What level of staff resource is available?		The higher the resource level, the more comprehensive the tool should be	
Are there funds available for HIA?		The higher the level of funding, the more comprehensive the tool should be	



GUIDANCE

- In light of your responses in the table, decide which appraisal tool is most appropriate (the Health Lens or the Health Appraisal Tool).
- Write down the decision and justify your choice.
- If there is a range of policy options, repeat the table for each policy alternative.
- Please note that the guidance provided in the third column is suggested as a guide only. You may wish to make a different choice.
- If good ideas about impacts, enhancement or mitigation are raised, note them down for later consideration in the appraisal and reporting stage.

NEXT STEP

In summary, scoping includes developing an assessment plan, deciding how comprehensive the work will be, and identifying the relevant determinants of health.

The information gathered and produced during scoping will be used in the next stage of HIA – the appraisal and reporting stage. The appraisal tools provided in this package include the Health Lens and the Health Appraisal.



Stage Three: Appraisal and Reporting



STAGE THREE: APPRAISAL AND REPORTING⁺⁺

Introduction

This stage of health impact assessment concentrates on describing the potential benefits and risks to health, then determining their nature and magnitude. In order to do this, the determinants of health relevant to the policy need to be identified. Once the scale of potential impacts on health is determined, there is a need to assess the importance or significance of the health impacts. The aim is to appraise a policy proposal’s potential to affect the population’s health when implemented. Finally, this stage also determines what practical changes can be made to the policy to promote and protect health and wellbeing.

The appraisal stage has four distinct parts to it:

- 1) identifying the determinants of health that are relevant to the policy being assessed
- 2) using an **appraisal tool** to identify health impacts
- 3) assessing the significance of health impacts – called the **impact assessment** phase
- 4) **reporting** what practical changes can be made to the policy.

Two appraisal tools are described in this document:

- The Health Lens
- The Health Appraisal Tool

Understanding the policy

Key aspects to consider:	
Policy components: <ul style="list-style-type: none"> • aims and objectives • content and dimensions • values – explicit or implicit – and assumptions • priorities/goals • target populations/communities/groups • outputs • intended outcomes. 	Issues that affect the policy process: <ul style="list-style-type: none"> • trade-offs • social, political and policy context – nationally/locally • relationship to other policies or strategies • non-negotiable aspects of the policy.

⁺⁺This guidance has drawn on the following sources: Scott-Samuel et al 200117, Mahoney and Durham. 200211, NHS Executive ‘Resource for HIA’¹⁹.



Health impact assessment of policies requires initial policy appraisal to identify the key aspects that the HIA will need to address. This may build on or use material already available from earlier policy development work. It is crucial to have a clear agreement on the policy definition and potential outcomes. There are always at least two options with regard to a policy – to retain the status quo, or to make a change. As raised earlier, an HIA should consider both of these alternatives and compare them.

Human resources for health impact assessment

Using information sources beyond the normal reach of the traditional policy development process is central to effective health impact assessment. Sources of information from the community are a critical component in addition to the usual expert groups involved in research, allied policy areas and service delivery agencies.

Community sources may be groups or key individuals. They are drawn on for identifying the 'site' of the impact (in the scoping stage), its scale and significance (scoping and appraisal) and opportunities for mitigation or enhancement of the policy.

The following participant categories could be referred to in preparing an HIA work programme:

- government agencies and statutory advisory bodies
- hapū, iwi, Māori communities
- tertiary educational institutions or senior practitioner knowledge
- professional bodies
- councils, community boards
- community based NGOs.

Methods for appraisal

There is no one perfect method for health impact assessment. Every method has both advantages and limitations. However, all methods should be able to identify and measure effects in some way, as well as be capable of providing interpretation of effects.

Ideally, a range of methods can be used at different stages in the process. Some methods, such as checklists, are better suited to screening and scoping stages while others, such as systems models, are useful for understanding environmental systems and the processes linking different environmental components.

Selection should be appropriate to the particular policy issue in question (ie, "horses for courses"). A combination of methods is ideal, and both qualitative and quantitative methods should be used where possible. Some examples of methods that can be used in HIA are provided below.

Examples of methods that could be used in health impact assessment:

- focus groups
- population and regional analysis (either quantitative or qualitative)
- scenario assessments (either quantitative or qualitative)



- health hazard identification and classification (either quantitative or qualitative)
- stakeholder workshops
- ‘with-proposal’ and ‘without-proposal’ scenarios
- surveys
- key informant interviews
- brainstorming
- citizens’ juries (inviting members of the public to hear evidence from experts and make an assessment)
- Delphi processes (panel of individual experts and key people engaged in consensus decision-making, where the group decides the weighting and scaling using an iterative process)
- environmental monitoring (either quantitative or qualitative)
- risk assessment, risk communication and risk management
- cost-benefit analysis
- evaluation.

Appropriate methods should be selected to match the level of detail of the HIA. Any of these methods can be used in conjunction with the tools described here.

Identifying the relevant determinants of health

The first step in the appraisal process is to understand the determinants or underlying influences on health that may be affected by the particular policy being assessed. This was undertaken as a preliminary exercise when screening the HIA, and is carried out in more detail at this appraisal and reporting stage. (Refer also to the section on determinants of health in the “What else do you need to know?” section).

It is increasingly accepted that the health of the population is not primarily determined by health services, but mostly by social, cultural, economic and environmental influences. The selection of determinants of health should be carried out irrespective of the appraisal tool selected.

Table 3 on the following page lists a wide range of potential determinants of health and wellbeing. It gives a general determinant and specific examples under each heading. Only some of them will be relevant to the policy being assessed.

The particular determinants and examples provided here do not form an exhaustive list, or a list of priorities. Using the table as a starting point, identify your own list of relevant determinants that apply to the particular policy under study. This process should be carried out irrespective of the appraisal tool selected. Guidance to help with identification of determinants is provided after Table 3, as well as two examples of determinants relevant to a public transport policy and a gene patenting policy.

Remember that the determinants of health can either directly or indirectly impact on health and wellbeing.



Table 3: Selected examples of health determinants

Categories of determinants of health ²⁰	Examples of specific health determinants
Social and cultural factors	Social support, social cohesion Social isolation Participation in community and public affairs Family connections Cultural and spiritual participation Expression of cultural values and practices Links with marae or other cultural resources Racism Discrimination Attitudes to disability Fear of prejudice Relationship with the land and water Level and fear of crime Reputation of community/area Perceptions of safety
Economic factors	Creation and distribution of wealth Income level Affordability of adequate housing Availability and quality of employment/education/training Skills development opportunities
Environmental factors (including living and working conditions)	Housing conditions and location Working conditions Quality of air, water and soil Waste disposal Energy Urban design Land use Biodiversity Sites of cultural significance (eg, sacred or historic sites) A change in the emissions of greenhouse gases Public transport and communication networks Noise Exposure to pathogens
Population-based services	Access to, and quality of: employment and education opportunities, workplaces, housing, public transport, health care, disability services, social services, childcare, leisure services, basic amenities, and policing.
Individual/behavioural factors	Personal behaviours (eg, diet, physical activity, smoking, alcohol intake) Life skills Personal safety People’s belief in the future and sense of control over their own lives Employment status Educational attainment Level of income and disposable income Stress levels Self-esteem and confidence
Biological factors	Biological age



Guidance to help identify health determinants

Ask the following questions to help select the relevant determinants:

- using the table as a prompt, what are the main factors determining health that may be affected by this policy?
- what other determinants **apart** from those in the table could be relevant?
- how could the initial list of your determinants be grouped or summarised to produce a concise list of the **most** relevant determinants in this situation?

It is unlikely that the HIA will be able to cover all of the identified determinants of health in the next stage of the appraisal, so a decision on which determinants of health should be taken forward is likely to be required. Make a judgment on which ones affect the most people, affect vulnerable groups disproportionately, affect Māori, or are of concern to stakeholders.

Note:

- brainstorming/workshop approaches work well
- involve a range of people outside the policy development group such as social scientists, community workers, public health specialists, etc
- consider the objectives of the policy and its expected outcomes (identified in scoping stage)
- think about particular scenarios or possible impacts on particular groups (eg, women, Māori, people with disabilities, urban residents).

Highlight the chosen determinants in Table 3 to take forward to the impact assessment stage.



Examples of determinants for two policy areas:

The following are example lists of determinants that might be chosen in two specific cases – a policy to fund the provision of public transport, and a policy to allow patenting of human gene sequences.

EXAMPLE

Example 1: Determinants of health related to provision of public transport

Determinants of health – use of passenger transport	Examples
Social and cultural factors	Social support and social cohesion Participation in community, cultural and public affairs, and social isolation Level and fear of crime, and perceptions of safety
Economic factors	Access to education, employment and training
Environmental factors	Air quality Energy use
Population-based services	Access to healthcare, disability and social services, childcare, leisure services and amenities Facilities for people with disabilities
Individual/behavioural factors	Physical activity Personal safety, feelings of anxiety, fear and sense of control over own lives.



EXAMPLE**Example 2: Determinants of health related to the policy allowing patenting of human DNA sequences**

Determinants of health – patenting of human DNA sequences	Examples
Social and cultural factors	Expression of cultural values and practices
Economic factors	Creation and distribution of wealth, skills development opportunities, availability and quality of research
Population-based services	Access to, and quality of, health care
Individual/behavioural factors	Personal choices based on knowledge about genetics.

NEXT STEP

Having chosen the level of appraisal tool that is most appropriate in the Scoping Stage (Health Lens or Health Appraisal Tool) and having identified the relevant determinants of health, the next steps will bring these two aspects together.



Appraisal tools

This Guide describes two appraisal tools:

- 1) the Health Lens – a concise list of questions
- 2) the Health Appraisal Tool, comprising:
 - (A) impacts of the policy proposal on the determinants of health
 - (B) appraisal for partnership, participation and protection
 - (C) inequalities appraisal.

You will have selected **one** of these appraisal tools in the scoping stage.

The appraisal tools are contained in the following pages. Each tool aims to first identify the key impacts on health, and then to assess the size and significance of those impacts. An important ingredient is a component specific to addressing the principles of Treaty of Waitangi. The level of detail for this depends on the comprehensiveness of the tool.

Whatever tool is selected, the starting point is to use the determinants of health that are relevant to the proposed policy alternatives under consideration (selected during the scoping stage). These determinants are used to decide what the key impacts on health and health determinants will be. Each appraisal tool also requires a clear understanding of the policy's definition and potential outcomes.

The Health Lens requires the user/s to consider a range of questions, including identifying the potential impacts of the policy on determinants of health and health outcomes, and identifying potential effects on inequalities and Treaty issues.

The Health Appraisal Tool requires more consideration and time than the Health Lens. It has several components as outlined above. These are linked and sequential activities, all of which should be used to achieve a satisfactory HIA.

The identification of impacts on health determinants in the Health Appraisal is more comprehensive than the identification done already at the scoping stage. A matrix sets out a wide range of potential determinants for consideration. It is intended that this process will help to highlight unanticipated impacts and it is here where HIA's greatest added value may lie.

The tool then guides the user to undertake appraisal for inequalities and partnership, participation and protection.

GUIDANCE

Irrespective of the particular appraisal tool chosen, the impact assessment stage should be undertaken after using the appraisal tool. This is outlined at the end of this appraisal section (on page 54). As you proceed you should find that each stage provides greater clarity and insight. It is an iterative process.



The Health Lens²¹

This tool is a concise checklist that helps to identify potential impacts of a policy proposal on both determinants of health and health outcomes. It also considers the implications for inequalities and Treaty issues. It could be used in a range of settings, for example in policy areas such as transport, housing or education. The Health Lens is designed for use by a multi-disciplinary team.

GUIDANCE

The following points offer some guidance in using the Health Lens.

1. Answer the questions in the box either 'in-house' or with the support of external experts. If several people are involved, use a workshop to brainstorm the questions and agree on the priority responses as a group.
2. For question one, consider **each** determinant identified. It may be easiest to group the determinants, and to start with the most obvious set of determinants.
3. Responses to the questions can be presented in a variety of ways – from simply listing the responses to presenting them as a table or matrix. One way to record the answers in a matrix is to use symbols for positive (+), negative (-) and neutral (0) impacts.
4. Use **existing** materials, resources, or evidence to help answer the questions (eg, easily available literature reviews, academic research, policy papers, fact sheets, summaries of research findings, conference papers, etc). There is no need (or time!) to commission specific work to help with this type of appraisal tool.
5. Keep a lookout for regional differences. An impact may be positive or neutral in one region and negative in another.

Record the possible or definite impacts of the policy using the checklist questions, then group and prioritise them before using the impact assessment matrix to further analyse them (see the impact assessment section, page 56).



HEALTH LENS CHECKLIST

1. What are the potential impacts of the policy proposal on the identified determinants of health? (The determinants were identified earlier in the appraisal stage within the following groups)

- social and cultural factors
- economic factors
- environmental factors
- population-based services
- individual and biological factors

2. What are the potential impacts on health *outcomes*?

(Refer to Te Whare Tapa Wha model of health in the section ‘What else do you need to know?’ – ie, the four components listed. Also refer back to Question 1 to help answer this question. Consider each determinant in turn).

- physical health
- mental health
- family and community health
- spiritual health

3. How will the policy proposal address the principles of partnership, participation and protection? (Refer to the “What else do you need to know?” section for definitions).

4. What are any potential effects on health inequalities?

(Consider whether inequalities could be reduced or widened – refer to background section where there is an explanation of health inequalities. Who would be most affected?)

5. In particular, how will the policy impact on people with disabilities?

6. What might the unintended health consequences of the policy be? How will these be addressed?



Example of Health Lens use:

EXAMPLE

Policy allowing patenting of human DNA

Determinant	Impacts of DNA patenting policy on determinant
<p>Expression of cultural values and practices</p> <p>(Note: it was felt this determinant was especially significant).</p>	<ul style="list-style-type: none"> • Enforcement of patent can result in loss/challenge/undermining of cultural values • Commercial pressures restrict the idea of “normal” and widen the concept of “disease” • Challenging values around health knowledge as public good (commercialisation/loss of individual access, control) • Commodification of the human body (loss of control over personal/whānau genetic material) • Loss of intellectual property rights/kaitiakitanga of hapū/whānau genetic knowledge.
<p>Access to, and quality of, health care</p>	<ul style="list-style-type: none"> • Patenting will limit access to health care by increasing its costs (both testing and treatment) • Potential for diverting funding into expensive (advertised) genetic-based health care away from other health services • Could direct research and development effort into issues/problems affecting large numbers and wealthier populations • The policy may stimulate the development of genetic tests (and increase availability), but this is contestable as patenting could restrict development of tests if it blocks access to further research work on a gene • Increased demand (cost to society) of secondary health services – but on the other hand, testing can eliminate the need for further surveillance, leading to a saving in health care costs. Overall more likely to be increased demand and costs.
<p>Creation and distribution of wealth/skills development opportunities/availability and quality of research</p>	<ul style="list-style-type: none"> • Could stimulate research leading to economic growth (or inhibit – depending on behaviour of patent-holders) • Patenting requires research ‘secrecy’ reducing collaboration and skills development • Opportunity costs in health and other sectors.
<p>Individual factors (personal choices based on knowledge about genetics)</p>	<ul style="list-style-type: none"> • Potential increase in unnecessary concern • ‘Societal’ pressure interacting with/affecting personal choices.



GUIDANCE

At the conclusion of the Health Lens exercise, information or uncertainty about some issues may lead to a decision to re-scope the project, re-examine particular health determinants and/or collect more information on a particular issue. Completing the impact assessment matrix subsequently may also lead to further work.

Health impact assessment is an interactive and learning process that may be repeated at different levels of detail to “tease out” issues of importance.

NEXT STEP

Following completion of the Health Lens:

Undertake the ‘impact assessment phase’. It is the second part of the appraisal stage and is found at the end of the appraisal section (on page 54).



The Health Appraisal Tool²²

Introduction

The Health Appraisal Tool comprises three components with which to examine the proposed policy. **All** are to be used. They are:

- A) Impacts of the policy proposal on determinants of health
- B) Appraisal for partnership, participation and protection
- C) Inequalities appraisal.

GUIDANCE

General guidance to help with Health Appraisal Tool

- Agree on assumptions and anticipated policy outcomes prior to completing the table – remind each other of these.
- Refer back to the policy's objectives:
 - what are the objectives of the policy proposal?
 - what is the presently proposed means of achieving the objectives?
- Focus on the 'big' impacts and prioritise impacts after each component of the tool. After the three components of the Health Appraisal Tool have been completed, an overall prioritisation is done. This is the impact assessment phase, which is covered at the end of the appraisal stage. The prioritisation for each component can be compared with each other, and compared with the final one generated in the impact assessment stage.
- Repeat the exercise with alternative policy options or outcome scenarios. To be useful, an HIA must compare at least two options. It is often in making comparisons that the important factors emerge.
- Try not to agonise too much over the detail – it is important to be rigorous but it is also important not to get 'stuck'. Use common sense and pragmatism.
- It is acceptable to return to important impacts and consider them more fully or seek more information. Use question marks as responses if not sure.
- It is important to consider potential determinants, outcomes or areas of inequality that are **not** listed in the set of examples provided here. Consciously try to think 'outside the square' and consider other areas.
- It will take quite a while – do not rush it.



A) Impacts on determinants of health

The initial work on identification of determinants of health completed in the scoping stage is repeated more rigorously here using a matrix. Table 4 on the following page provides the format for consideration of a range of potential determinants of health that could be affected by public policy. Table 4a is the same format but completed as an example.

Enter into Table 4 the relevant determinants of health that relate to the particular policy being assessed (identified earlier in this section). Add others that may be particular to the policy being assessed. Then sort and group them, and complete the matrix (Table 4). Questions to help complete Table 4 on the next page are provided after the table.

GUIDANCE

Ensuring focus

It is recommended that only the most obvious or important specific determinants are noted initially and the matrix is completed using these. Grouping of the determinants is also suggested. A partially completed matrix is shown on Table 4a, page 49.

Remember that the exercise is to identify the effects of the policy on determinants of health, not the other way round (potential effects of determinants on the policy).

Look out for, and identify, specific determinants that have a regional character (ie, determinants that relate to particular geographic regions).



Table 4: Matrix for determinants of health

Health determinants specific to policy (identified earlier in this section)	Description of impact on each determinant of health	Identify any measurable indicators*1 or qualitative impacts*2	How measurable is the impact? *3	Differential impacts on particular groups with respect to each determinant	External influences that may interact with the policy being assessed*4	Summary of impact on determinants of health (2 nd column)*5

*1 eg, unemployment rates, changes in income levels

*2 eg, interviews with key informants, qualitative survey, anecdotal information

*3 classify as qualitative, estimable or measurable (quantitative)

*4 other influences that could affect the health impacts of the policy eg, if benefit cuts were being introduced along with market rents (the policy being assessed) there would be a cumulative impact

*5 positive, neutral or negative



Questions to help fill out Table 4:

- In the first column, list the specific determinants of health relevant to the policy proposal that were identified from Table 3.
- Describe the impact of the policy on each of these determinants of health. Remember that you are considering impacts on **determinants** only (not health outcomes).
- What measurable indicators are available to substantiate the choice of each impact?
- To what extent can each impact be measured? (classify as either qualitative, estimable or measurable).¹³
- Will the policy proposal exacerbate or reduce health inequalities for any groups, with respect to each determinant? If so, in what way? Consider Māori, low socioeconomic groups and people with disabilities in particular.
- What other influences are there on the determinant of health? Are there other policies, legislation or interventions that may interact with the policy being assessed?
- In summary, is each impact positive, neutral or negative?



Table 4a: Matrix for determinants of health (example: impacts of improved passenger transport)

Health determinants specific to policy (identified from table 3)	Description of impact on each determinant of health	Identify any measurable indicators ^{*1} or qualitative impacts ^{*2}	How measurable is the impact? ^{*3}	Differential impacts on particular groups with respect to each determinant	External influences that may interact with the policy being assessed	Summary of impact on each determinant of health (2nd column) ^{*4}
Social support and social cohesion	Improved availability of bus services enables people to be mobile and maintain social support networks	Qualitative information could be sought through surveys or interviews	Qualitative	Particular impact on people without car access, those on low incomes, older people, unemployed	Availability of alternative public transport More affordable cars	Positive
Air quality	Potential for improvements in air quality through reduced use of cars	Local air quality monitoring	Measurable	Particular impact on people with respiratory conditions, older people, children	Regional and national Air Quality Standards Vehicle emission standards	Potential positive impact over the medium to long term
Access to: – employment and education opportunities – health care, disability services, social services – facilities for people with disabilities	Timetable and routes affect access to public services	Qualitative information through surveys	Qualitative	Access to services, employment etc. for families/people without cars and people with disabilities	Availability of alternative public transport and of walking and cycling tracks	Positive
Physical activity	a) Increased physical activity through walking to bus stops/train b) Decreased physical activity if availability of new bus routes within a central city area means that people choose to take the bus instead of walking	Qualitative information through surveys	Qualitative	Not applicable	Walking and cycling policies of local authority	a) Positive b) Negative

*1 eg. unemployment rates, changes in income levels

*2 eg. impacts identified from interviews with key informants, surveys or anecdotal information

*3 classify as qualitative, estimable or measurable

*4 positive, neutral or negative

*5 these are grouped determinants, in this case arising from public transport



Description of impact

Aside from detailing potential impacts, there are two other options for recording responses in the Table 4 'description of impact' column:

- insufficient information available to make a decision or call
- unlikely to be significant impact.

Before attempting to make an overall assessment, it is important to acknowledge that there is likely to be some degree of uncertainty about the policy's potential impact on determinants. You may need to go away and collect more information using policy or HIA specialists or knowledgeable people in the subject area. The table is designed to help you identify what is not known.

GUIDANCE

The next step is to complete Table 4 for several different policy options and compare the results. If policy alternatives are not being considered at the stage the HIA is done, the table could be filled out for the status quo and the proposed policy, with the status quo being used as the basis for comparison.

After completing the table, prioritise the most significant impacts by highlighting them. The main purpose of Table 4 is to identify the more strongly positive or strongly negative impacts and key issues or concerns, in order to help generate recommendations that can address these issues. The eventual goal of HIA is to make an overall assessment based on the table's information in terms of whether the policy proposal is generally positive or negative. Table 6 in the impact assessment section is supplied to help with this.

At this stage, it is appropriate to start to form a view on which impacts are the most significant, but avoid drawing a firm conclusion prematurely. It will also be important at this stage to highlight any areas of particular concern and major effects regarding Māori health and health inequalities.

B) Appraisal for partnership, participation and protection

In order to recognise and respect the principles of the Treaty of Waitangi, and with a view to improving health outcomes for Māori, the NZ Public Health and Disability Act 2000 (Part 3) provides mechanisms to enable Māori to contribute to decision-making on, and to participate in the delivery of, health and disability services. Fundamental to the principles of the Treaty is the notion of partnership. This principle should be reflected throughout the HIA process.

Health impact assessment helps to ensure that proposed policies consider the expectations of the Act, including the principles of partnership, participation and protection, by applying the following questions. Refer to the "What else do you need to know?" section for definitions.



Questions:

1) How does the policy proposal provide for effective partnership with Māori? (the principle of partnership)

2) How does the policy proposal provide for opportunities for Māori to contribute to the policy process? (the principle of participation)

3) How does the policy proposal contribute to improved health outcomes for Māori? (the principle of protection). Please explain where it does or does not.

4) Considering the determinants of health in the previous section, what is the potential effect of the policy proposal on Māori health?

- impact on the mental and physical health and wellbeing of Māori whānau/families/communities

- impact on the spiritual and cultural values of Māori whānau/families/communities

- impact on Māori with disabilities and their whānau/families.

NEXT STEP

The next step is to make an assessment of whether the principles have been taken into account adequately and take the assessment through to the impact assessment stage of the appraisal (Table 6).



C) Inequalities appraisal

This section of the tool considers specifically the potential for the policy to have impacts on health inequalities. Inequalities in health occur across a range of areas, including socioeconomic status, age, gender, ethnicity, disability and geographic location. Note that one measure of socioeconomic status is the New Zealand Deprivation Index (NZDep), which takes the following variables into account:

- access to a telephone
- income including whether on a benefit or having an income below an income threshold
- employment status
- access to a car
- living in a single parent family
- educational qualifications
- home ownership
- living space.

These are all variables that have relevance when conducting a health impact assessment.

Complete Table 5 (on the following page) for each policy option and note impacts. Some impacts may be new, others will endorse previously noted items. In this case there may be reason to vary 'answers' to the analysis framework that the matrix provides.

It is acknowledged that there may be some crossover in responses to the different parts of this appraisal tool. The intention is to repeat aspects from different 'angles' in order to ensure that every potential impact and effect on health inequalities is covered.

After using this tool you should have identified the major contributors to health (or ill-health) of the specified policy, and the main potential impacts on health inequalities. Consider how the planning of this policy could incorporate steps to reduce any potentially negative impacts on health inequalities.

For example, a policy to reduce vehicle emissions may impact more heavily on people on low incomes. A step to mitigate this effect would be to subsidise the cost of tuning vehicles or upgrading fuel quality.

GUIDANCE

After completing the table, prioritise the most significant impacts by highlighting them. If several components of the tool highlight particular impacts, these may be especially important.



Table 5: Health inequalities matrix^{##}

Does the policy proposal have a potential effect on health inequalities in respect of:	Describe the effects on health inequalities	Identify any quantitative measure/s	How measurable is the impact – qualitative, estimable or calculable?	Summarise the impact on health inequalities – positive, neutral or negative
Deprivation and income groups ^{\$\$}				
Age				
Gender				
Disability				
Ethnicity				
Regions or local areas				
Rural areas				
Other				

^{##}This table is adapted from the UK Dept of Transport, Local Govt and the Regions Integrated Policy Appraisal tool (see bibliography for full reference)

^{\$\$}Income groups may be identified by socioeconomic measures such as the NZDep index (a 10-point index of deprivation derived from Census data)



Impact assessment

This is the second phase of the appraisal stage. You have identified potential impacts on determinants of health, on Māori, and on inequalities using one of the two appraisal tools. The next task is to identify the extent, nature, measurability and risk of those potential impacts.

You are now asked to prioritise the identified impacts. It is advised that you select the most significant impacts and keep the list of impacts as small as possible. This makes the exercise more manageable.

GUIDANCE

For each anticipated effect on particular health determinants (both direct or indirect health impacts) or health inequalities consider the:

- likelihood of the impact occurring
- severity of impact and numbers of people affected
- likely timescale of achieving the predicted impact
- strength and type of evidence
- distribution of the impact across the population, considering in particular, the impact on Māori
- practical ways to improve positive impacts and minimise negative impacts, both within the proposal and external to the proposal.

Remember that positive as well as negative effects on health and wellbeing are being considered.

The resources and methods used for this work will include those that have already helped to identify the potential impacts. Nevertheless, additional information may be needed, and in a comprehensive assessment a literature review or other specific research may need to be undertaken or commissioned.

The following table, Table 6, may be used to plot the impacts and record the information about these predicted health impacts. It can be used to further analyse information gained from using either the Health Lens or the Health Appraisal Tool. Particularly in the latter case, the successive stages of appraisal may add shape and emphasis to impacts already identified. In some cases opposing positive or negative impacts may come to light arising from the same source.

The table begins by allowing a listing of all of the potential impacts that have been identified up to this point:

- Determinants of health that are affected, including direct impacts (such as noise and certain pollutants) and indirect impacts (such as social cohesion and income) from Table 4.
- Impact on Māori health from page 51.
- Health inequalities from Table 5.



Table 6 presents a simple grading system for the working group to rate its considered assessment. This work is, to an extent, a subjective process, as it aims to correlate diverse information and that is why it is important to make it a group exercise. As much evidence on the associated health effects as possible needs to be referenced, although it is acknowledged that assessment of measurability and risk of impact may be based on subjective perceptions.

In determining the extent and nature of the impacts, it may also be useful to assess the significance or severity of the impact and identify whether it is a precursor for other impacts. That is, will it result in or contribute to further positive or negative impacts?

As is the case for the appraisal tools, work on the Table 6 matrix may identify uncertainties or knowledge gaps that require further investigation.

When prioritising impacts, you need to question whether the issues that have been identified are those that are the most 'known' or discussed. It may be tempting to focus on impacts that are well known or on the public or government agenda, rather than more significant impacts in lesser-known areas. You may need to reflect on this and take steps to move outside your 'comfort zone'. Inevitably, it is much easier to focus on direct effects. It is harder to address indirect effects and changes over time that result from interactions between components.

The issue of change that occurs over time and space is a challenging issue for those involved in impact assessment. For example, methods used may overlook additive, synergistic, or neutralising effects. In other words, some thought needs to be given to longer term change which might occur, given the adoption of particular policies.





Table 6: Impact assessment matrix

	List of identified potential impacts (both direct and indirect) of proposed policy on health determinants, Māori health and health inequalities (identified in Table 4 and 5)		Likelihood of impact occurring (low, medium, high)	Severity or significance of potential impact (small/low, medium, high)*	Scope of potential impact (affects small or large number of people)*	Expected time to take effect (short term, medium term, long term)	Measurability of potential impact (qualitative, estimable, calculable)	Possible actions to enhance positive or diminish negative impacts
	Positive	Negative						
Impact on Determinants (From Table 4)								
Impact on Māori (From page 51)								
Impact on Inequalities (From Table 5)								

*These two aspects are very important when seeking management or mitigation responses. For example, the common cold may have a mild effect across large sections of the population, whereas SARS will have a very severe effect across a smaller group. This distinction will have implications for the policy response.

REPORTING

Formal reporting is an important component of health impact assessment but it does not necessarily need to be exhaustive. A report is an important record of both the process and the outcome to feed back to participants, or contributors to the process, and to help those receiving recommendations to understand the context in which they arose. The report should be appropriate to its purpose. Good communication between the decision-makers and the assessors will ensure that an appropriately detailed report is produced.

The reporting stage focuses on identifying the practical changes that could be made to a proposal to minimise the harmful effects and maximise the beneficial effects on health. These can be presented by way of recommendations to the agency or management group introducing/developing the policy. Recommendations for stakeholder agencies can also be made.

This stage will be contingent on the internal reporting procedures of the organisation. It is important to note that reporting will need to be done in different ways depending on which level of appraisal is done. In general, more detailed appraisal will require more detailed reporting.

As a minimum the report would include:

- reporting on the HIA process and the people, organisations and resources that were involved
- reporting on the methods used in the HIA
- reporting on the partnership, protection and participation appraisal
- reporting on the impacts
- making recommendations to maximise positive impacts and minimise negative impacts.

Often an HIA of a particular policy will identify opportunities or issues with related policies, including those managed by other agencies. Reports need to be sufficiently targeted for these other agencies to understand and respect the process and try to adopt the recommendations.

The report should be given to all participants, stakeholders and those who were consulted.

There should be a peer review process undertaken to ensure the report is robust and accurate.

It is advisable to set up a peer review group to review the report before it is finalised.

Making recommendations

The final part of appraisal is to draw conclusions and make recommendations for adjusting the policy proposal or policy alternatives. It may help to group the impacts in order of significance (ie, how important or severe) and scope (ie, how widespread) and comment on the expected time to take effect. This also helps to identify issues that affect a smaller or more vulnerable part of the community. Select other types of grouping if you wish.



There are four tiers of response:

- 1) **There is not enough information** – need to seek further information, continue the appraisal and re-do the table.
- 2) **Modify policy proposal to enhance positive impacts** – opportunities to provide or extend health benefits are not fully realised.
- 3) **Modify policy proposal to address negative impacts** – for instance, if an identifiable group within a population is negatively affected.
- 4) **No action required** – because there is no feasible way of enhancing potential positive impacts on health (or avoiding negative impacts).

Use judgment to identify the most significant impacts and issues, and translate these into recommendations to the decision-making body (and to other stakeholder agencies if appropriate).

The ultimate result is an agreed set of recommendations for modifying the policy proposal/s so as to maximise health benefits or minimise adverse effects on health. The recommendations must be made within the context of complex social, political or material constraints. They will be influenced by the current context for proposal implementation and the constraints operating locally, such as the resources available and the relative priority given to health and health gain. There are likely to be regional factors to be taken into consideration. Negotiation among the decision-makers may be necessary if their views differ about the appropriate actions to take.

It is important to note the recommendations from an HIA will form just part of a bigger picture involving recommendations from other perspectives (for instance, economic analysis, consideration of impacts on gender or disability). The purpose of HIA is to predict the health consequences of each policy alternative so that the policy-makers can make the best trade-offs between health, wellbeing and other policy goals.

Occasionally it may be possible to define a single solution to achieve optimum health and wellbeing benefits of the proposed policy. However, in most cases a series of options will need to be formulated and presented. Formal option appraisal may need to be undertaken. Alternatively a less formal approach may be sufficient.

It is critical to formulate recommendations that will have both the most impact on the policy and the most chance of being implemented. This process is iterative so you may not achieve it all in one step. You may need to refer back to contributors to get agreement once the evidence is factored in.

It is important to bear in mind the 'baseline situation', for example, the consequences of a change in alcohol law would be different for a heavy drinking community, compared with a light drinking community.



Guidance in making recommendations

The following are some general questions that could be asked to help with making recommendations:

- Who are the likely 'winners' in the policy proposal, how many of them are there, and how will they be affected?
- Who are the likely 'losers', how many of them are there, how serious is the loss, and how could they be compensated?
- What steps could policy-makers take to reduce or mitigate any negative impacts on health and wellbeing and on health inequalities from the policy proposal?
- What are some ways in which current policy or practice could be changed to enhance the positive impacts or to reduce inequalities between population groups?





Stage Four: Evaluation



STAGE FOUR: EVALUATION

Evaluation must be factored into the health impact assessment process and should not be too complex or unwieldy. It needs to be included as an organisational task and costed/ planned during the scoping stage. Setting clear objectives for the HIA in the scoping stage becomes critical for evaluation, as the evaluation will also look at whether the objectives of the HIA were met. It is important to feed results back in to the policy-making process, and to share the evaluation with others to demonstrate whether, how and why HIA works. Evaluation could be done by either the 'in-house' policy team doing the HIA, or by an external evaluator or peer reviewer.

Both process evaluation and impact evaluation should be used to assess the HIA. Process evaluation aims to assess how the HIA was done and provide information that will be useful in future HIAs. In comparison, impact evaluation analyses the extent to which the recommendations made by the HIA were taken on board in the final policy decision-making.

Outcome evaluation, where the impacts predicted by the HIA are evaluated, is more difficult to do in practice. It is challenging to evaluate whether health impacts will eventuate, as there are complex, multi-causal pathways involved and long timeframes required to track health impacts over time. It is possible to evaluate whether predicted health impacts from the HIA were accurate, but as this is a difficult process, it should only be undertaken by skilled practitioners/evaluators with adequate resources.

Evaluation can provide a valuable insight into how:

- the process of HIA can be improved through reflection
- various proposals can be modified to achieve health gain
- the accuracy of predictions made during appraisal can be assessed
- resources were used – money, staff and stakeholders involved.

In addition, evaluation:

- is the basis for feedback to stakeholders and the community
- generates commitment to HIA – institutional and stakeholders
- develops evaluation skills that can be applied in other settings.

Current best practice for policy agencies involves clear monitoring to identify if the outcomes sought by the policy are being achieved. Such monitoring programmes can be designed to include an evaluation of the public health outcomes and the assumptions and predictions that were introduced into the health impact assessment. Some suggested evaluation questions are shown on the next page.



Questions about the process of the HIA^{23,24}

Now you have completed the HIA, you will need to document how you went about it and the methods used so that your organisation can learn from your experience for future HIAs. Include details on time, place, and resources used (financial, staff time, consultants, etc) and participants. Record also what the policy proposal sought to achieve, what geographical area it covered and what population groups were affected.

Then answer the following questions:

- What evidence was used in the HIA, and how was it used to inform development of recommendations? Was the evidence in the literature on the consequences of similar proposals properly searched?
- How were the issues identified during scoping addressed?
- How were the potential health impacts on vulnerable groups explored and assessed?
- How were the health impacts of alternative policy options explored?
- Were efforts to mitigate any negative effects concentrated on the largest impacts?
- Were the approaches used to ensure transparency in the HIA decision-making process effective or are there other ways you would recommend?
- Given the resources used, (financial, staff time etc) what were the associated opportunity costs?
- How and when were the recommendations delivered to the relevant policy-makers?
- What did those involved in the HIA think about the process used and what changes would they make if they were to do it again?
- Were the aims and objectives of the HIA met?

Questions about the impact of the HIA

- How was the HIA used in the policy development and advice process?
- Was the policy proposal changed as a result of conducting the health impact assessment? If so, what changed?
- Were the recommendations of the HIA accepted and implemented by policy-makers? If so, how and when, and if not, why not?
- What unintended consequences resulted from the HIA, for example: working in partnership, cross-sectoral collaboration, raising the profile of health needs and putting health 'on the agenda'?



FURTHER READING ON HEALTH IMPACT ASSESSMENT

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Websites:

- Public Health Advisory Committee website <http://www.nhc.govt.nz/phac.htm>
- NHS National Institute for Clinical Excellence's HIA Gateway website (United Kingdom) <http://www.publichealth.nice.org.uk/>
- World Health Organization website on health impact assessment <http://www.who.int/hia/en/>
- Netherlands Health Impact Assessment Database <http://www.hiadatabase.net/>
- IMPACT International Health Impact Assessment Consortium <http://www.ihia.org.uk/>
- NZ Association of Impact Assessment <http://www.nzaia.org.nz>



Support available:

1. HIA training courses are available in New Zealand and Australia to increase the knowledge and skill of participants to undertake policy-level HIA. The New Zealand course provides participants with the opportunity to:
 - Understand the value of using HIA in the policy setting
 - Gain and develop an understanding of HIA theory, principles and methods
 - Increase their understanding about how HIA has developed in New Zealand and internationally
 - Undertake a hypothetical HIA using A Guide to Health Impact Assessment: a policy tool for New Zealand developed by the Public Health Advisory Committee
 - Know where to access further information on HIA
 - Network with others interested in HIA
 - Explore how to make HIA happen.

Please contact PHAC for more information.

2. The PHAC may also be available to provide advice to agencies wanting to undertake an HIA. Please contact PHAC for more information through the website <http://www.nhc.govt.nz/PHAC/Feedback.htm>.



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- ¹⁹ The screening checklist is adapted from the NHS Executive *Resource for Health Impact Assessment HIA screening tool*, Dept of Health London 2000. Available at <http://www.londonhealth.gov.uk/allpubs.htm#HIAResource1> (accessed 22 May 2005).
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- 1) National Health Committee. 1998. *The social, cultural and economic determinants of health in New Zealand: action to improve health*. Wellington.
 - 2) McCormick J. 2002. *Framework for a Rapid Health and Wellbeing Impact Assessment Tool for the Victorian Indigenous Family Violence Strategy*, October 2002 (produced as part of the BA. Sci (Honours) degree), Deakin University, Australia.
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- 3) An equity lens developed by the Wellington School of Medicine (Department of Public Health) for use in work with District Health Boards on reducing health inequalities
 - 4) The Bro Taf Health Inequalities Impact Assessment Tool (Bro Taf Health Authority, Wales, 2000), cited in Mahoney M, Durham G. 2002. *Health Impact Assessment: a Tool for Policy Development in Australia*, Deakin University.
- ²² The Health Appraisal Tool has been adapted from a range of models - the UK Department of Transport, Local Government and the Regions draft Integrated Policy Appraisal tool, Swedish County Councils HIA model, Kirklees HIA model, British Columbia HIA checklist, New Zealand Ministry of Social Development's domains of wellbeing, and New Zealand Ministry of Women's Affairs' gender analysis tool. See the list of further reading above for the full references for these.
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