

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.

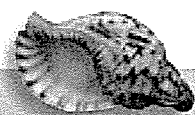
It is acknowledged that policy HIA takes place in a very complex political and administrative environment. Many factors influence how a policy is developed and finalised, with political will being an important factor.

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?



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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.[‡]

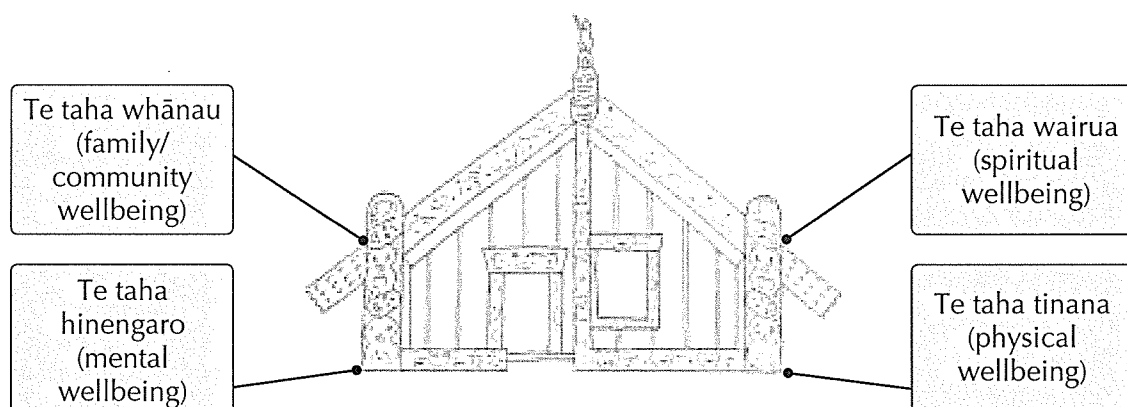
Translated as a four-sided house, Te Whare Tapa Wha represents health not only in terms of physical and mental wellbeing but also gives weight to the interrelated components of family and personal relationships, and to a spiritual dimension ('taha wairua'). All four sides of the house need to be strong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

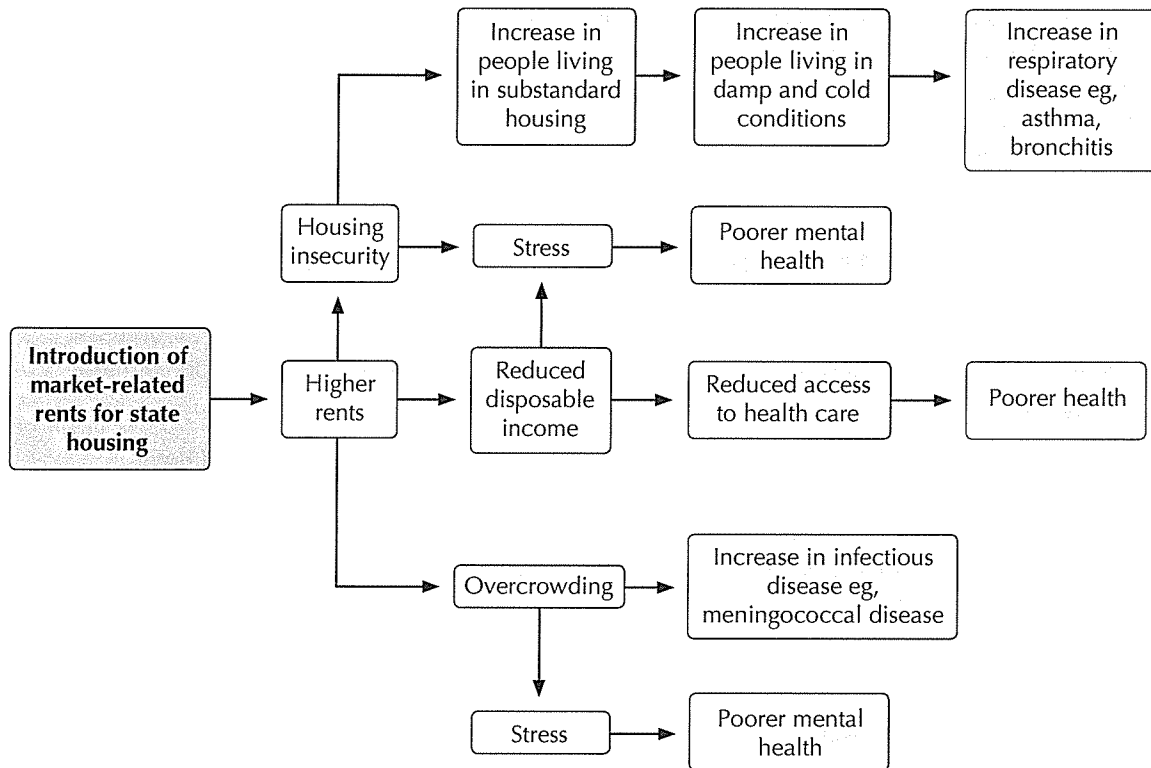
The term 'health outcome' is used to mean the resulting health status of individuals, groups within the population, or the population as a whole. For instance, negative health outcomes include conditions such as diabetes or asthma, and injuries from a range of causes such as motor vehicle crashes or 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;

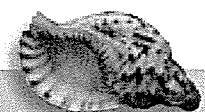
“In order to recognise and respect the principles of the Treaty of Waitangi, and with a view to improving health outcomes for Māori, Part 3 provides for mechanisms to enable Māori to contribute to decision-making on, and to participate in the delivery of, health and disability services.”

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

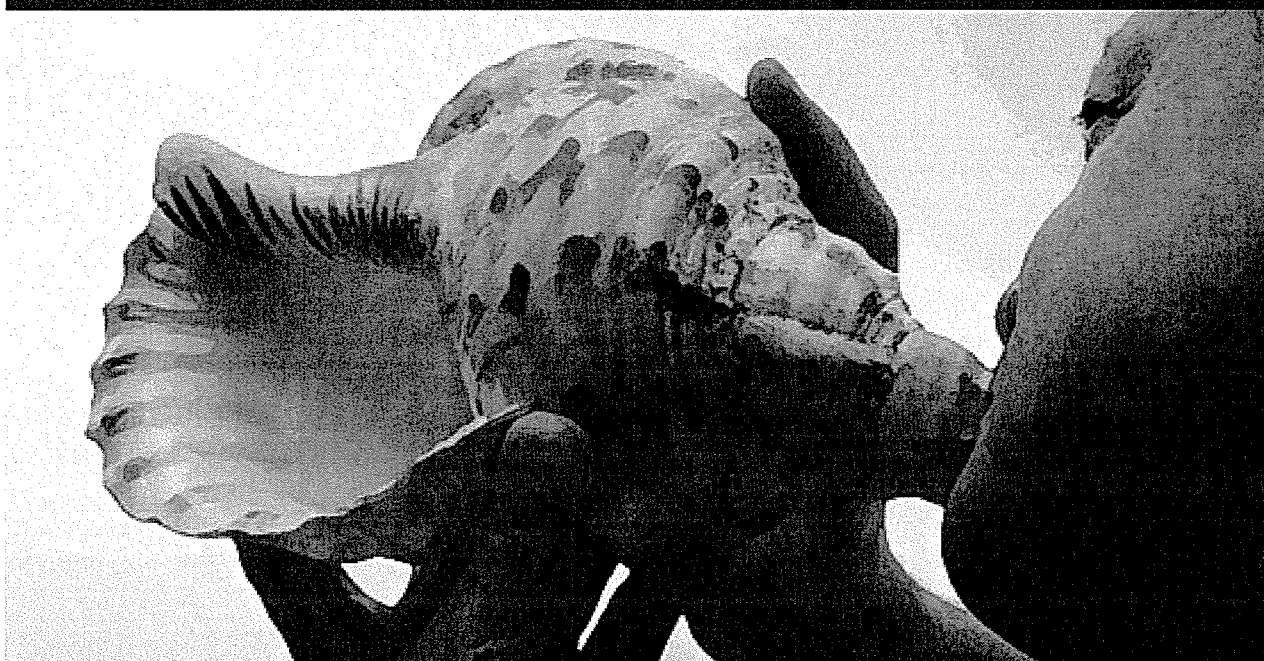
- Partnership: Working together with iwi, hapū, whānau and Māori communities to develop strategies for Māori health gain and appropriate health and disability services
- Participation: Involving Māori at all levels of the sector, in decision-making, planning, development and delivery of health and disability 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 Lens⁵ 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:

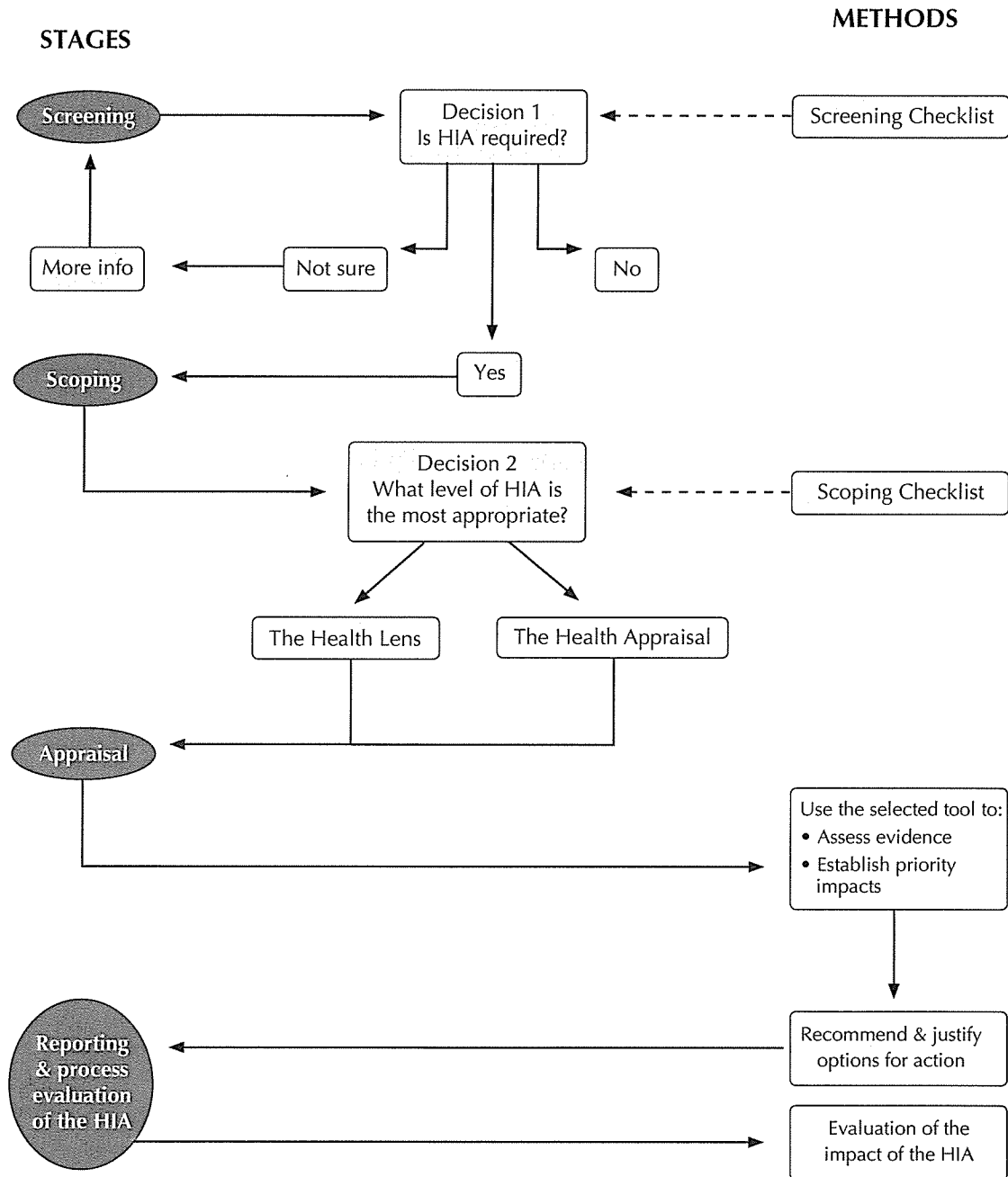
- that in the future patents would be operated commercially for maximum profit (a 'worst case', but realistic, scenario)
- that the cost of genetic testing would increase as a result of patenting.

⁵The 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

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.

