Decision-Making about New Health Interventions

A Report to the New Zealand Minister of Health

MAY 2005

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The National Advisory Committee on Health and Disability
(the National Health Committee, NHC) is an independent committee appointed by,
and reporting directly to, the New Zealand Minister of Health.

The National Health Committee is required to provide an independent assessment of the quality and mix of services that should, in the committee's opinion, be publicly funded. It also advises the Minister on measures that would deliver the greatest benefit to the health of the population and groups of the population, with particular regard to groups at risk or disadvantage. More detail about the committee's role and work are available on its website www.nhc.govt.nz.

Members of the National Health Committee

Robert Logan (Chair)
Geoff Fougere
Sara Georgeson (from November 2004 – May 2005)
Kevin Hague
Riripeti Haretuku
Linda Holloway
Andrew Moore
Althea Carruth-Page (until February 2005)
Neil Pearce
Lynette Stewart
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Acknowledgements

The NHC wishes to thank all those who contributed their expertise and thoughts to this project. In addition, the NHC would like to acknowledge the support of past and present members of the secretariat who have been involved.

First published in May 2005

The National Advisory Committee on Health and Disability
(The National Health Committee)
Wellington, New Zealand

ISBN: 0-478-28504-3 (Book)
ISBN: 0-478-28505-1 (Internet)
HP: 4113

This report is available on the NHC's website: www.nhc.govt.nz
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Foreword

The introduction of appropriate new health interventions is a critical issue that has relevance for everyone in New Zealand because of its potential to enhance the quality of health care. Rapid developments are occurring in clinical practice and in ways of providing health services. The increasing demand for the introduction of these interventions is occurring in an environment of finite health care resources. As a result, health funders, planners, consumers, clinicians and managers are increasingly identifying the need for robust decisions about the introduction of new interventions, which take all stakeholders' interests into account.

The National Health Committee (NHC) began this work by focussing on how to improve the evidence base for decision-making. However it became apparent that any solution also needs to address the web of factors influencing decision-making, the complexity of which is largely unrecognised. In order to take account of the perspectives of all stakeholders and the complex factors influencing the adoption of new interventions, there needs to be greater emphasis on the processes used for decision-making.

Throughout its work the NHC has been aware of the large overlap between decisions about new interventions and the overall prioritisation of health resources. This congruency is reflected in the principles and approach taken in its advice. Current processes for deciding whether or not to adopt new health interventions differ from those used for prioritisation. For instance, they are strongly influenced by clinical perspectives, and decision-making is often siloed. In addition, disinvestment decisions tend to focus simply on choices between existing interventions and a newer alternative. The National Health Committee has therefore continued to focus specifically on new health interventions rather than just enhancing general prioritisation processes.

Decisions on new interventions are not made in isolation. Effective solutions require good service planning and it is important that the development of these areas occurs in tandem. The workforce implications of the adoption of new interventions also need to be recognised and addressed in workforce planning and development.

There is a clear interrelationship between good decision-making and providing quality care. The National Health Committee believes that putting good decision-making processes in place will have significant benefits over time for both consumers and the health sector.

This report summarises the National Health Committee's findings and provides a frame of reference from which solutions for specific aspects of decision-making about new interventions can be developed.

Robert Logan
Chair

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Executive Summary

This advice to the Minister of Health considers how decisions are currently made about introducing new health interventions and proposes a frame of reference for better, more informed decision making.

Its focus on promoting evidence-based medicine led to the National Health Committee's (NHC's) awareness of the international trend to systematically assess new health interventions through the use of tools such as health technology assessment (HTA). As a result, the NHC began looking at how to improve health technology assessment in New Zealand.

The National Health Committee's work on new health interventions began at a time of major change within the New Zealand health sector, when decision-making moved from a centralised Health Funding Authority to 21 District Health Boards (DHBs). The NHC's initial finding was that there was general agreement about the need for a framework for the development of HTA, but no clear consensus on the details.

In 2004, the NHC extended its work in this area, broadening its scope to focus on how decisions about new health interventions are made within District Health Boards. It became clear that decisions are made in a complex environment and are influenced by a wide variety of factors, some of which are beyond the control of DHBs. The NHC's work also revealed that health technology assessment information is just one of these many factors, and solutions to the problems associated with the adoption of new interventions need to be wider than a focus on just improving HTA.

Within District Health Boards and the wider health sector a variety of formal and informal processes are used to decide whether to adopt new health interventions. However, many of the processes apply only to specific areas or types of interventions, are not well integrated, or are easy to avoid.

The committee's work highlighted the ways DHBs are interconnected and how decisions made by one District Health Board influence others. This revealed the need for both structural solutions for specific problems and for greater emphasis on cultivating a culture of robust decision-making.

Clinicians are at the centre of both informal and formal processes, but other stakeholders such as funders, consumers, managers and policy-makers have a growing interest and expect to be involved in decision-making.

While most formal DHB decision-making processes about new interventions require some evidence of effectiveness, in reality, decisions are often based on one or more articles from reputable journals or clinical trials, rather than a synthesis of all available evidence and information.

Following extensive research and interviews with a selection of DHBs, the NHC is proposing two areas for action. The committee believes priority should be given to developing robust decision-making processes and to improving the capacity and capability for assessing evidence and information. The NHC makes recommendations in each of these areas.

The NHC has identified the attributes required for decision-making processes, which should be facilitative rather than creating new barriers. Decision-making processes should enable the timely adoption of interventions that are consistent with the goals of the health agency, and add value, while also acting as a filter for those that do not.

The NHC acknowledges that a range of views will exist about the value of a new intervention and that in many situations it may not be possible to reach universal agreement.

The committee believes, rather, that the focus should be on having an agreed process to make the best decision, taking account of all relevant perspectives, within the time available and based on current information.

The establishment of robust decision-making processes will require greater collaboration between different groups within individual DHBs, between DHBs themselves, and between DHBs and the Ministry of Health. A balance must be achieved between the autonomy of DHBs that are responsible to their local communities, the impact that decisions of individual DHBs have on others, and health sector expectations.

The NHC also believes health services need the capacity and capability to access and interpret relevant evidence and information. The NHC has suggested components that would assist decision-makers to better access and effectively use the information. These components include a web-based searchable library to act as a repository of relevant international and New Zealand generated evidence and HTA information. A further suggestion is for a brokerage agency to provide a rapid source of HTA information for instances in which the web-based library may be inadequate. The NHC believes that decision-makers within DHBs are in the best position to decide on the details of the arrangements and types of information that will best support their evidence and information support needs.

The National Health Committee envisages its advice on new health intervention as providing a frame of reference and platform from which health decision-makers can develop effective local and national solutions. It is the view of the NHC that DHBs need to have a central role in determining the shape of these.

Recommendations

The National Health Committee has made seven recommendations to the Minister of Health on decision-making about new health interventions. An understanding of the context in which these recommendations were developed is essential to gain a full appreciation of their importance. This context is provided in the text of this report.

The National Health Committee recommends that the Minister of Health:

1. a) endorse the following attributes for robust decision-making processes about new health interventions

   b) encourage and monitor their adoption throughout the health sector.

Underlying principles of decision-making processes

- Timely
- Process agreed to by all stakeholders
- Robust and explicit
- Decisions made and the reasons for them are publicly accessible

Context

- At the right level for the intervention
- Relevant to the diverse needs of a defined population
- Considers the views of all stakeholders

  Reflects clinical realities and available resources

Process

- Clearly defined and explicit decision-making process that is appropriate to the organisational context and the decision under consideration
- Explicit decision-making criteria
- Supported by appropriate resources (e.g. time and costs of obtaining evidence)
- Considers the opportunity cost of the process
- Defensible in the face of challenge
- Requires ongoing feedback about the performance of a new intervention
- Enables appropriate innovation
- Critically assesses new interventions against existing interventions

Inputs

- Based on appropriate evidence and information
- Inclusive of all relevant stakeholders' interests (e.g. planning and funding, health professionals, consumer perspectives)
- Consideration of ethical issues

Outcome

- Stakeholder acceptance of the robustness and fairness of the process independent of the decision reached
- Decisions reflect integrity and are consistent with the common good
- Provision for challenge and dispute resolution
- Revisable in the light of new information

2. a) encourage District Health Boards to:
   i) further develop and put into practice the list of attributes identified in recommendation 1
   ii) prepare guidance for hospital decision-makers on making robust decisions about new health interventions
   b) direct the Ministry of Health to assist District Health Boards in recommendation 2(a)
   c) request that the Ministry of Health, in partnership with District Health Boards, continue to promote the prioritisation framework, *The Best Use of Available Resources.*

3. request that the Ministry of Health in partnership with District Health Board New Zealand establish a small team to:
   a) take leadership and assist individual District Health Boards in initiating or strengthening decision-making processes
   b) train District Health Board staff in establishing and maintaining decision-making processes
   c) hold best-practice workshops to bring key decision-makers together
   d) support clinical and other leaders to promote robust decision-making processes within their District Health Boards.

4. direct the Ministry of Health to give priority to implementing the recommendations in *Tackling Inequalities: Moving theory to action*, in particular to:
   a) ensure hospital decision-makers have the opportunity to take part in training on tackling health inequalities
   b) identify ways of including consideration of health inequalities in undergraduate and post-graduate training.

5. a) encourage District Health Boards to continue to develop improved national and regional decision-making processes for new health interventions, and ensure that these:
   i) are based on the attributes identified in recommendation 1
   ii) take place at the appropriate level for the intervention under consideration
   iii) are based as much as possible around existing national and regional forums
   b) direct the Ministry of Health to assist District Health Boards with recommendation 5(a).

6. a) encourage District Health Boards to establish a national forum to discuss emerging and high-profile interventions.

   It is suggested that this forum:

   i) has strong links with formal regional and national decision-making processes (see recommendation 5)

   ii) has access to timely and tailored HTA information

   iii) receives pertinent information from international horizon scanning agencies

   iv) discusses the evidence for and the implications of emerging and high-profile interventions and, if possible, reaches consensus about their adoption

   v) uses the attributes identified in recommendation 1

   b) direct the Ministry of Health to assist District Health Boards in implementing recommendation 6(a).

7. a) strongly encourage District Health Boards and District Health Boards New Zealand, in partnership with the Ministry of Health, to:

   i) continue to develop proposals with the wider health sector to improve capability and capacity for assessing evidence and information, taking into account the National Health Committee's suggestions

   b) direct the Ministry of Health to:

   i) assist the implementation of the proposals identified through the process described in recommendation 7(a)

   ii) report annually to the Minister of Health on progress with the implementation of proposals in recommendation 7(a)

   iii) provide guidance on the access of the private sector to publicly-funded sources of evidence and information.

1. Project Overview

Project history and methodology

In 2001, the National Health Committee initiated a project on New Technology Assessment as a result of its concern that New Zealand did not have a systematic process for assessing new interventions before they were introduced into the health system.

The NHC believed that the absence of such a process could create extra costs for the publicly funded health and disability system, and place patients at unnecessary risk of experiencing unsafe or ineffective interventions. The NHC was also concerned that health resources would be unnecessarily wasted if a number of different District Health Boards (DHBs) duplicated the assessment of the same new interventions. The committee was aware that other countries had developed health technology assessment (HTA) capacity to attempt to address similar issues. In particular, structured processes had been established in some countries to ensure that health technology assessment information was included in decision-making about new health interventions and to achieve the efficient introduction of beneficial new health interventions.

The NHC's project aimed to recommend ways in which decisions about the introduction of new interventions could be improved. This would ensure that the publicly funded health and disability system introduced interventions that are efficient, safe and acceptable, in a consistent fashion across the sector.

In 2002 the NHC produced a discussion document[i] that identified the processes that health agencies (Health Funding Authority[1], Ministry of Health, PHARMAC, and ACC[2]) had used, and were using, to decide whether to introduce new health interventions. The discussion document proposed possible changes about which respondents to the document were generally supportive. Many submissions noted that greater detail was needed on how the proposed new arrangements would work.

In November 2002, the NHC held a workshop with a range of stakeholders to clarify these details. The workshop revealed a variety of perspectives about how to improve health technology assessment in New Zealand. The workshop participants suggested that as a first step, a web-based clearinghouse might be an appropriate avenue through which information about new technologies could be stored and shared. However, scoping work carried out on the clearinghouse proposal in 2003 indicated that there was little agreement about the function of such a website, who its audience should be, and how it should be funded. As a result, the NHC decided greater clarity was needed about the context in which decisions about new interventions are made.

District Health Board decision-making

In 2004, the NHC's focus shifted to District Health Board decision-making. This shift reflected changes that had occurred in the structure of the health sector since the project had been initiated. Under this new structure DHBs make the majority of decisions about the funding of new interventions. It was therefore considered essential to gather information about District Health Board processes and their use of health technology assessment to ensure that any recommendations for change were grounded in the decision-making reality of the DHB environment.

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1 Disestablished in 2001 with the establishment of District Health Boards.

2 See page 13-14 for explanations of the roles of these agencies.

Interviews were held with health professionals, planning and funding staff, and managers at five DHBs. These interviews took place during the second half of 2004 and were conducted at Hutt Valley, Counties-Manukau, Northland, Southland, and Canterbury District Health Boards. These DHBs were chosen due to the differences in the services they provide, the ethnic compositions of their populations, their relationships with neighbouring District Health Boards, and their setting (i.e. urban or rural). Meetings were also held with staff in other DHBs who expressed interest in the project, shared service agencies, ACC, PHARMAC, health technology assessment agencies and the private health sector.

Formal and informal decision-making processes were explored in the interviews, as well as the factors that impact on decision-making, the criteria used, use of HTA information and evidence, and the issues that arise from current decision-making practices.

The NHC did not investigate decision-making practices in all DHBs. However, the findings from interviews were consistent with the descriptions offered by representatives of other DHBs, suggesting that the processes and issues described reflect those of at least the majority of DHBs.

The National Health Committee greatly appreciates the willingness with which the interviewees discussed their views and experiences of decision-making processes. It is only through their openness that a clear picture has been developed of current decision-making processes for the adoption of new interventions and the issues associated with these. The views expressed by individuals in interviews were not necessarily those of the DHBs for which they work.

Disability technologies

Early on in the project it was decided to exclude from the scope of the project disability technologies designed to reduce barriers for people with impairments, (in particular assistive technologies[3]). This decision was made in light of the different philosophical bases between the prioritisation and provision of health care and the social model of disability (on which the New Zealand Disability Strategy is based).

However, following the release of the NHC's 2002 discussion document, concerns were raised that it had not considered improvements to the assessment of new assistive technologies. The NHC therefore decided to look at decision-making processes for assistive technologies at the same time as examining DHBs' processes for new health interventions. This involved interviews with staff in the Disability Services Directorate of the Ministry of Health, fund-holders, assessors, allied health professionals and disability advocates.

The information gathered from these interviews indicated that many of the problems facing decisions about new assistive technologies are similar to those for health interventions. However, the decision-making structures in this area differ significantly. The National Health Committee is of the view that improvements to these processes need to be developed in the context of wider discussions about the future direction of disability support services and their role in the implementation of the vision of the New Zealand Disability Strategy.

In regard to health technology assessment capacity, new disability technology is an area where evidence tends to be limited and difficult to collate. The National Health Committee suggests that improvements in HTA capacity should include expertise on assessment of new disability technologies, which may require different skills from those used to assess new health interventions (see Section 6: *Improving Capability and Capacity for Assessing Evidence and Information*).

[3] Any process, system, or equipment that maintains or improves the capabilities of people with disabilities.

Definitions

Health interventions

Health interventions can include "drugs, devices, procedures and the organisational and support systems within which health care is delivered".[ii]

Internationally, the term 'health technology' is often used to refer to this range of interventions. However, the term 'health interventions' was used for this project because it reflects the breadth of health care approaches being considered. This term also avoids the tendency to focus only on devices (e.g. a laparoscope), and encompasses other interventions (e.g. a screening programme, or new clinical practice).

"New" health interventions

The NHC decided to use a broad definition of "new" to gain a comprehensive understanding of how health interventions are introduced. The vast majority of new interventions are improvements on existing techniques, devices, pharmaceuticals, or infrastructure. Only a small proportion of interventions are entirely new ways of doing things.

In examining the assessment and adoption of interventions, the term 'new' has included consideration of:

- innovative or emerging interventions that have not been adopted in New Zealand, e.g. positron emission tomography scanning.[4]
- the introduction of an intervention into a specific health service in New Zealand. In this situation the intervention may be available in another DHB or part of the health service, for example private hospitals or tertiary hospitals, but be new to the health provider in question.
- changes to devices or the way an intervention is performed (often referred to as technology creep). For instance, minor modifications to orthopaedic devices or the move from bare metal stents to 'drug eluting' stents in interventional cardiology.
- transfer of interventions from one area of care to another, for instance from secondary to primary care. For example, specialist diabetes clinics being held in the primary health care setting.
- the use of an intervention for a new purpose. As with the use of cancer treatments for patients with rheumatoid arthritis.

The specific decision-making processes around the adoption of the various categories of new health interventions can differ, but there are common themes and issues associated with their assessment and introduction.

Health technology assessment

Health technology assessment is one source of information that can be used to inform decisions about new health interventions. HTA involves the evaluation of an intervention through the production, synthesis, and/or systematic review of a range of scientific and non-scientific evidence. The types of information about an intervention that can be used include:

- safety
- efficacy
- cost and cost-effectiveness
- health services impacts
- ethical considerations
- broad social impacts.

HTA is a prioritisation tool that recognises the limited quantity of health resources and aims to assist health-funders to identify the interventions that will achieve the best health outcomes for their investment.

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4 A nuclear medicine medical imaging technique, which produces a three-dimensional image or map of functional processes in the body.

2. Adoption of New Health Interventions in New Zealand

The decision-makers

Decisions about whether to adopt new health interventions occur at the macro, meso and micro levels of the health sector and are made by a variety of agencies. Some decisions are made through formal processes and others are the result of one-off or informal decision-making. The following diagram shows the types of decisions that are made at each of these three levels.

Figure 1: Decision-making processes

Macro	Political decisions Special High-Cost Treatment Pool (Ministry of Health) Pharmaceutical Schedule (PHARMAC)
Meso	Regional planning Regional capital process DHB funder arm planning processes
Micro	Clinical decisions Formal DHB processes

Under the current health system structure, District Health Boards play a critical role in decisions about new interventions. Other decision-makers include:

- the Minister of Health and other Ministers of the Crown
- the Ministry of Health – which monitors the performance of DHBs, develops national policies and programmes, and administers the Special High-Cost Treatment pool
- PHARMAC – which has responsibility for purchasing pharmaceuticals, determining pharmaceutical subsidies, and deciding which pharmaceuticals will be funded through the Hospital & Community Exceptional Circumstances scheme
- the Accident Compensation Corporation (ACC) – which provides personal injury cover for people in New Zealand
- private health providers and health insurance companies
- individual clinicians, including general practitioners, dentists and allied health professionals.

Stages of assessment

In its 2002 discussion document, the National Health Committee identified six stages that decision-makers might use in assessing a new health intervention.[i]

1. Horizon scanning – the identification of emerging interventions before they become available for introduction
2. Prioritisation for assessment – deciding which new or emerging interventions should undergo further assessment
3. Assessment – a research-based process designed to determine whether a new intervention

is safe, efficacious, cost-effective and efficient

4. Appraisal – a judgement on the social and ethical acceptability and appropriateness of a new intervention. This includes consideration of community need, equity, and opportunity cost[5]
5. Adoption and diffusion – the process whereby new interventions are taken up in clinical practice
6. Evaluation – the ongoing assessment of a new intervention following its introduction.

These individual stages can be categorised into three phases:

- the first phase (stages 1 and 2) involves identifying new interventions and determines whether or not they should be assessed
- the actual decision about whether a new intervention should be funded is made in the second phase (stages 3 and 4), and HTA information may be used at this point to inform the decision
- the third phase (stages 5 and 6) is concerned with the introduction and monitoring of the new intervention.

This process operates in a circular manner, in which information from the evaluation stage is incorporated into a reassessment to determine whether an intervention will continue to receive funding once it has been introduced and used for a time.

In practice, the delineation between the six stages is mostly theoretical and most decision-makers do not focus on all six. The interviews with DHB staff provided an opportunity to find out which of these assessment stages actually occur in real-world decision-making.

Principles for decision-making

In its 2002 discussion document, the National Health Committee proposed five principles that decision-makers should take into account when considering the adoption of new interventions: effectiveness, cost, equity, acceptability and Māori health.[i] These were based on the Health Funding Authority's five prioritisation principles.[6]

These principles were defined as follows:

1. Effectiveness – the extent to which the service produces desired outcomes. A highly effective service produces more of these outcomes.
2. Cost – the total economic costs of the service.
3. Equity – the extent to which the service reduces disparities in health status.
4. Māori health – whether the service is consistent with the Treaty of Waitangi and encourages Māori participation in providing and using services.
5. Acceptability – whether the service is consistent with the values and expectations of New Zealanders.

The extent to which these principles inform decision-making processes was discussed in the interviews with DHB staff undertaken as part of this project.

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[5] The value of the foregone benefit because the resource is not available for its best alternative use.

[6] These principles were adapted from those developed in the early 1990s by the Core Services Committee (now the National Health Committee).

3. A Snapshot of District Health Board Decision-Making

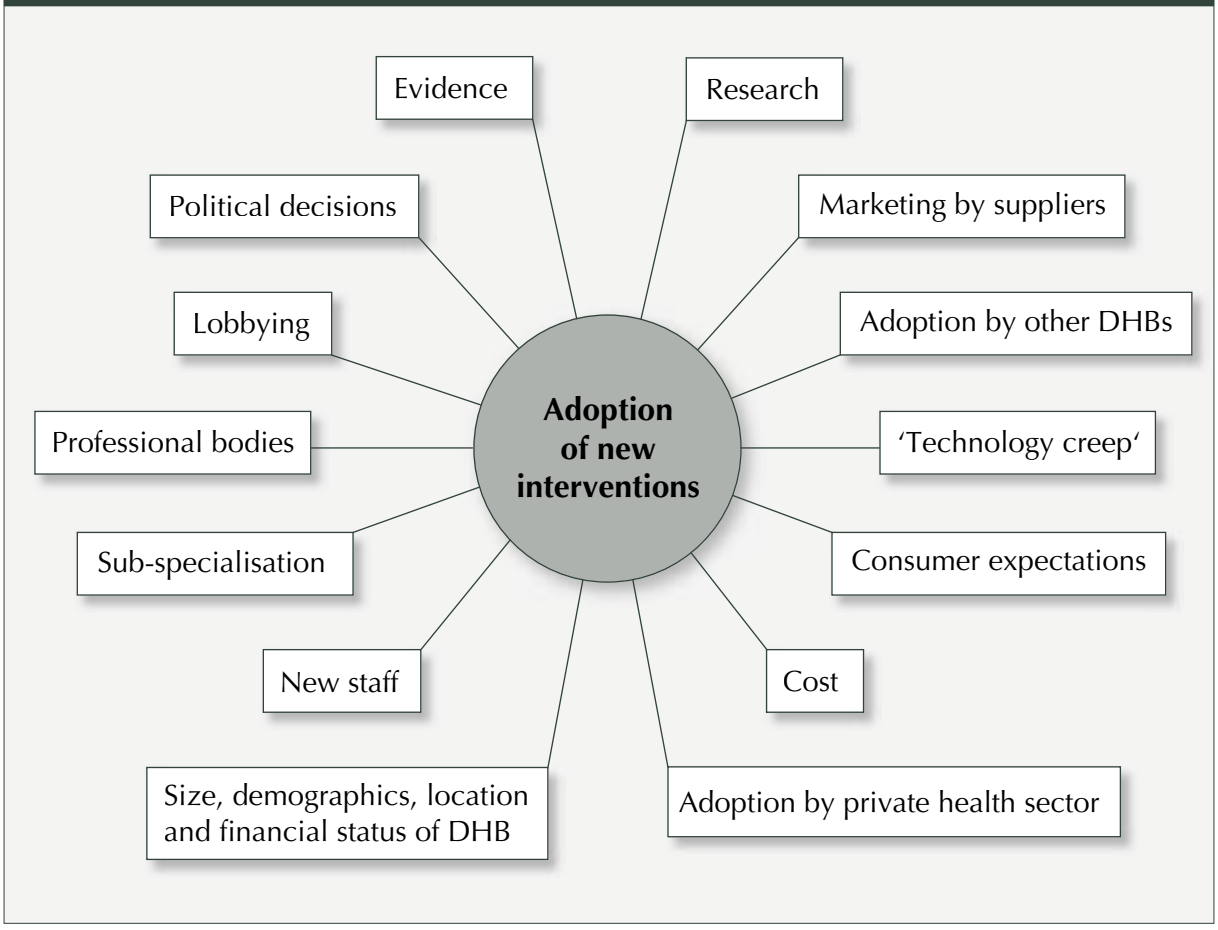
District Health Boards use a variety of informal and formal processes to make decisions about whether or not to adopt new health interventions. Interviews with staff in DHBs provided a picture of the factors influencing the adoption of new health interventions, the range of decision-making processes used, who the decision-makers are, what criteria are taken into account and the nature of the evidence and information used. Interviews with other stakeholders also contributed to the following snapshot of how decisions are made about new interventions.

A background paper providing a detailed summary of the information gathered from interviews with District Health Boards is being prepared. This paper will be available on the NHC website shortly.

The decision-making environment

The National Health Committee found that DHBs' decisions about the adoption of interventions are made in an extremely complex environment. The diagram below illustrates the wide variety of factors that influence decision-making. These factors are described in detail in the

Figure 2: Factors influencing DHB decision-making about new health interventions



background paper noted above.

Some factors are beyond the control of DHBs - consumer expectations, central government decisions, regulations, and marketing by suppliers. Other factors, such as sub-specialisation and technology creep[7], can be influenced by appropriate decision-making processes. For instance, it was reported that new clinical staff often expect they will be able to practice all procedures in which they have experience, even those not currently provided in the hospital. As a result, some newly appointed clinicians have been introducing new interventions without prior scrutiny by the DHB. In recognition of this problem, some DHBs have now introduced processes to reduce the risk of unexpected sub-specialisation and the accompanying demands for new interventions.

Furthermore, many medical specialists work in both the public and private health sectors. As interventions are sometimes adopted first in the private sector, this can influence public sector decision-making.

The specific impacts of these factors vary between DHBs, depending on such characteristics as rurality, size, the services provided, internal structures and relationships between clinicians and managers. The speed at which clinical practice is changing, and new interventions are emerging, also impact significantly on the assessment and adoption of these interventions.

Decision-makers

Both clinicians and managers believe that within hospitals, the adoption of new health interventions is primarily a clinical decision. Generally these decisions are made solely on the basis of improving care within a clinical speciality.

For a variety of reasons, there is growing interest in these decisions and how they are made, from patients and consumer advocates, managers, funders and policy makers. In particular, changes in the nature of the relationship between patients and clinicians mean that patients are requesting greater input into decisions about what interventions are adopted.

As District Health Boards are required to provide health services for their population from within an allocated budget, managers are keen to ensure that any new equipment, procedures or infrastructure provide value for money and have the potential to improve health outcomes. District Health Boards' strategic plans take a community-wide perspective and include goals such as improving overall health status and reducing inequalities in health. Funding a new intervention may benefit a group of the population that already has good access to health services while denying other groups access to interventions that may improve their health (often referred to as the "inverse care law").[iii] Funding new interventions can, therefore, increase health inequalities.

Clinicians, patients, managers and planners may have quite different perspectives on decisions about adopting new interventions. Many of those interviewed highlighted good working relationships between managers and clinicians as being critical for timely and effective decision-making.

Decision-making processes

Hospitals use a mix of explicit (formal) and implicit (informal) processes in deciding whether to adopt new interventions. Without explicit processes, decisions may be driven by personalities or personal preferences, or be at odds with the DHB's priorities. In addition, the perception amongst the general public and some health care providers that new interventions are intrinsically better than existing approaches may lead to their being introduced when their

[7] The process by which existing interventions are replaced by newer modified, and therefore usually more expensive, versions.

actual value is unclear.

The ease with which new interventions are adopted depends on factors such as the size of and pressure on the budget of the speciality, the fiscal status of the DHB and the extent to which clinicians advocate for an intervention.

Decisions about the adoption of new interventions are made at different levels and in different forums according to the characteristics and cost of the intervention. Within the hospital, there is a hierarchy of managerial responsibility for signing off the purchase of items, with decisions about more expensive interventions being made at higher levels. The adoption of new interventions does not, however, always involve spending money.

A variety of formal processes have been set up in hospitals to improve consistency and quality in decision-making about the adoption of new interventions. Some of these processes have been established to consider "low-tech" interventions, such as hospital consumable products, that have a low unit price but a high overall cost due to the large quantities that are required. Other processes have been established to consider specific areas or types of interventions that have a higher unit cost.

Existing formal processes include clinical boards and committees that focus on:

- assets and capital
- credentialling
- new interventions
- hospital medicines

Some of these processes are not particularly robust, or are easy to avoid. Their effectiveness is generally dependent on the buy-in and personal commitment of senior clinicians.

In some circumstances, the establishment of formal processes has vested the responsibility for declining requests in a group, rather than it being the role of an individual who may feel pressured to introduce an intervention despite lacking conviction of its appropriateness.

Within hospitals in particular, decisions tend to be made within clinical specialities. As a result, little consideration is given to the impacts that adopting an intervention may have on other areas of care (e.g. ongoing pharmaceutical or primary health care costs), to what extent the intervention will improve health outcomes, or whether using the funding elsewhere in the health services could have greater benefits.

Decision-making criteria

The National Health Committee found that in those DHBs visited, hospital processes generally used criteria such as clinical effectiveness and cost, but did not take account of wider factors like equity, Māori health and acceptability. This means that the interests of other key players, such as funders or consumers, may not be taken into account. Also, as decisions about new interventions tend to be made in the context of a medical speciality, they are usually based on historical patterns of service provision rather than in response to the identified health needs of a District Health Board's community.

Decision-making and prioritisation

From the information gathered it appears that most decisions within hospitals about the adoption of new health interventions are not seen or treated as if they are related to prioritisation processes. As a consequence, these decisions may be inconsistent with a District Health Board's priorities and potentially increase inequalities. On the other hand, decisions that planning and funding teams make about new interventions - for instance, contracts for new community-based programmes - are more likely to take account of the DHB's priorities.

However, these interventions tend to account for only a small portion of the DHB's budget.

Inter-relationships between District Health Boards

Decisions that one District Health Board makes about adopting new interventions have the potential to influence some or all other DHBs. If one DHB decides to fund a clinical intervention then other DHBs often feel that they should follow suit. In interviews with DHB staff this was often referred to as the 'domino effect'.[8] One area of interventions where the domino effect is potentially strongest is in emerging interventions for which the evidence is unclear, but where there is clinical or public pressure for the DHB to fund them. In some instances, these decisions are made by one person under tight timeframes and public pressure. One example of such an intervention, that was raised repeatedly in interviews, is the use of drug eluting stents in interventional cardiology. Drug eluting stents were introduced onto the market in the last three years and there is still debate amongst clinicians and other decision-makers over their value compared with bare metal stents.

Smaller District Health Boards are particularly affected by decisions made by those DHBs providing tertiary and specialist services to their populations. Increased costs are borne by smaller DHBs through inter-district flows[9] and the ongoing care they are required to provide to patients whose treatment has been initiated in tertiary hospitals. Currently there is no established forum in which DHBs providing tertiary and quaternary care routinely discuss the impact of their decisions with those DHBs that will be affected by their adoption.

Lack of consistency in decision-making between DHBs was also a constant theme in the interviews. Many felt that there is a need for more co-ordinated planning and decision-making, either regionally or nationally - particularly for high-cost tertiary and quaternary services and the interventions associated with these. Those interviewed were of the view that without clear processes to determine which DHB(s) will provide these interventions, duplications or gaps in service provision are likely to occur. Interviews highlighted the tension between decision-makers' desire to have input into decision-making processes, and their wish that someone else would make the difficult decisions.

Use of evidence and health technology assessment information

The NHC found that there is very little use of health technology assessment information in formal DHB decision-making processes. Interviews with DHB staff showed that while evidence may be sought as part of the decision-making process, it is only one factor influencing decisions about the adoption of new interventions.

Only one DHB generates its own HTA information. Some clinical staff at other DHBs access existing HTA information from New Zealand or overseas. While most formal DHB decision-making processes about new interventions require some evidence of effectiveness, in reality this means decisions are often based on one or two articles from reputable journals or clinical trials, rather than a synthesis of all available evidence and information.

While investigating the concept of a web-based clearinghouse in 2003, the NHC found that there were gaps in sources of readily accessible evidence and information about new interventions. It was concluded that this would make it difficult for decision-makers to access information in a timely and efficient way. This was confirmed in interviews with DHB staff who said that there was no obvious avenue through which to easily access relevant HTA information that has been generated in New Zealand, or from the immense pool of information

[8] This also occurs in the private sector. For instance, if a large health insurer agrees to fund a new intervention then other health insurers are likely to do the same.

[9] Reimbursements that DHBs pay for the services that are provided to their populations by other DHBs.

that exists overseas, or to share results of reviews done and decisions made by other DHBs.

Often the evidence about new interventions, especially emerging or controversial interventions, is unclear and constantly changing. These factors can make it difficult for decision-makers to determine the best time to decide whether or not to adopt a new intervention.

In evidence-based medicine, there is a hierarchy of research designs, of which randomised controlled trials (RCTs) are considered the most rigorous. However, in some areas such as community interventions, disability technology, and areas of surgery, RCTs are neither feasible nor appropriate. This can make it both difficult to compare different types of interventions, and less likely that interventions will be funded, for which 'gold standard' evidence is not available.

Assessing the quality of research studies and trials is a skilled task and can be time-consuming. Often decision-makers do not have the skills or time to interpret and assess the quality of evidence on which they are basing their decisions. In addition, there is frequently inadequate expertise and/or capacity within DHBs to interpret economic analyses.

4. Improving Decisions about New Health Interventions

When the National Health Committee began looking at the assessment of new health interventions, its primary concern was for the potential safety, fiscal, and efficiency risks associated with new interventions being introduced without a clear assessment process that included HTA. This focus was consistent with the NHC's emphasis on evidence-based medicine and its earlier work on the prioritisation of health services.

Decisions about new health interventions occur at all levels of the health sector. The establishment of local District Health Boards with responsibility for improving the health of their populations using finite resources means that these entities are critical in decision-making about the adoption of new interventions. Interviews with staff in DHBs have highlighted that many factors influence decisions about new interventions, some of which are beyond the control of District Health Boards and others over which DHBs do have influence.

From the information gathered in interviews with DHB staff and other stakeholders, the National Health Committee has concluded that the problems arising from the adoption of new health interventions are wider than just lack of an adequate evidence-base for decision-making.

As most existing processes focus only on the third and fourth stages (assessment and appraisal) of the assessment process[10], the NHC's analysis has primarily focused on these. However, in developing its recommendations, consideration has been given to how important components of the other stages can be incorporated into existing and new decision-making processes.

In hospitals, clinicians are currently the key players in formal and informal decision-making about new health interventions and their clinical perspectives are essential. As noted earlier however, there is increasing interest in decisions about new health interventions and how they are reached, from patients, managers, and funders. These stakeholders may bring different perspectives from clinicians. For decision-making processes to be robust and effective it is important that they have clear procedures, criteria, and input from all relevant stakeholders.

Hospital decision-makers generally consider a narrow range of criteria, which reflect the interests of only a small group of stakeholders. The wider criteria that are taken into account by staff making prioritisation decisions in the funder-arm of the DHB rarely feature in decisions made within hospitals. As a result, there is a potential for decisions made within the hospital to be inconsistent with the DHB's priorities and increase inequalities.

District Health Boards are responsible for managing their budgets. In reality, however, they are not autonomous since, as noted earlier, decisions made by one DHB have the potential to impact on others, for example through the 'domino effect'.[11] It is also inefficient for each DHB to undertake an extensive assessment of the same new interventions and this is particularly difficult for small DHBs with limited analytical resources. This is further exacerbated by a general lack of capacity and capability within the health sector around economic analysis and assessing evidence.

A great variety of decisions about new interventions are made within the health sector. Some decisions are about low costs items or incremental changes in interventions. Others relate to expensive interventions or have impacts for populations living in other DHB districts.

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[10] See pages 13-14 for a description of all the stages.

[11] See page 18 for a description of the 'domino effect'.

Processes need to enable robust decisions to be made rather than acting as a barrier to the adoption of new interventions. The NHC considers that requiring all decisions to go through a complex and lengthy process would be too time-consuming and resource intensive. Similarly, making all or most decisions at a national level would involve a level of centralisation contrary to the DHB model. It is therefore essential that decisions are made at the right level, using a process that is appropriate for the intervention under consideration.

The National Health Committee believes that effective decision-making processes should enable the timely adoption of interventions that add value and are consistent with the goals of the health agency, while at the same time acting as a filter for new interventions that do not meet these criteria.

It is the view of the NHC that it is appropriate for most decisions about new health interventions to occur at District Health Board level, but that some collaborative and national processes are also needed - particularly for high cost interventions or complex decisions. In developing structural solutions the NHC suggests that existing forums and structures should be utilised as much as possible.

Furthermore, there is a small group of new health interventions that are causing particular concern to DHBs. Many of these are high cost and the evidence for some of them is unclear or rapidly changing. District Health Boards find themselves in a particularly difficult situation when there is disagreement among clinicians about the value of such an intervention or considerable public pressure to fund it. In these situations a senior clinician or manager can be placed in the difficult position of having to make a complicated decision quickly, and often in the public spotlight. Private health insurers and providers also face similar challenges when making decisions about this group of interventions.

Whilst evidence, including HTA, is an important element of decision-making, evidence alone is not sufficient for making decisions. Evidence does, however, provide a fundamental basis for discussions within a decision-making process between clinicians, managers and other stakeholders.

The ways in which evidence is taken into account will differ according to the context in which decisions are made. There are some circumstances in which even robust evidence may be of limited relevance to a decision, for example when deciding about the adoption of an intervention for a patient who, without it, is likely to die. Even if the evidence indicates that the intervention is effective for only a very small proportion of the population, it is likely to be used if the patient has not responded to other interventions and it is the only possibility for saving their life. It is unlikely, however, that this intervention would be adopted for the general population or for patients who had not previously received standard interventions.

The assumption that 'gold standard' evidence is infallible is increasingly being challenged. Evidence from randomised controlled trials is subject to limitations in both its contextual validity and also its applicability to individuals.[iv] Decision-makers need to be aware of this when appraising and interpreting evidence.

Furthermore, when evidence about a new intervention is emerging or changing as new studies are published, it is often not possible to make a definitive decision about whether or not to adopt an intervention. Therefore, the decision may be made not to introduce the intervention at that stage but review it in the future, run a pilot with a particular group of patients[12], or provide it only to those who meet specific clinical criteria (for instance, those not responding to existing interventions).

[12] This would require ethics approval.

The interviews with DHB staff identified a number of specific needs for access to information and training. In particular, staff identified the need for increased capability within DHBs for interpreting evidence and health technology assessment information. This would enable decision-makers to better understand the information they are accessing and to recognise the implications of changes in evidence on their decisions.

While some decision-makers felt they had good access to information and evidence, others wanted access to an information source that is easy to navigate. This would enable them to take the most up-to-date information into account when making decisions.

Dealing with complexity

The National Health Committee is aware that recommendations to improve decision-making about new interventions need to be cognisant of the complex environment in which these decisions are made, in particular:

- the diversity of new interventions about which decisions need to be made (from small low-cost items to expensive innovative equipment)
- differences in type and reliability of evidence available. RCTs are not appropriate for some types of interventions including areas of surgery, complementary and alternative medicines, community health approaches and disability technologies. Also, for many new interventions the evidence is unclear or often changing
- the speed at which clinical practice is changing
- the wide range of factors influencing the adoption of new interventions
- tensions between DHB autonomy and the potential impact that decisions made by one DHB can have on others
- tensions between local decision-making and the requirements of central directives and decisions
- other stakeholders and decision-makers, including PHARMAC, ACC, private health providers and health insurers.

Principles-based approach

The National Health Committee endorses the proposal in its 2002 discussion document that decisions about adopting new interventions should be consistent with the Health Funding Authority prioritisation criteria – effectiveness, cost, equity, Māori health and acceptability.

These principles were developed from the initial principles proposed in the early 1990s by the Core Services Committee.[13] They are also reflected in the prioritisation framework, The Best Use of Available Resources, produced in 2004 by District Health Boards and the Ministry of Health.[14]

[13] Now the National Health Committee.

[14] This framework identifies the principles of effectiveness, equity and value for money. It includes acceptability among the factors for consideration when making a decision.

The NHC proposes that decisions about new interventions should be based on the following principles:

- effectiveness
- cost
- equity
- Māori health
- acceptability

Two areas for action

The complex environment that surrounds new health interventions means that there is no simple solution to improving decisions about them. Rather, there needs to be a greater focus locally, regionally, and nationally, on how these decisions are made and the development of resources and support to assist improvements in decision-making.

The NHC proposes that priority should be given to:

- developing robust decision-making processes
- improving capacity and capability for assessing evidence and information.

The National Health Committee has identified specific recommendations in each of these areas. These are outlined in the following sections.

As a result of its analysis of the information gathered, the National Health Committee has specifically excluded two possible courses of action. Some of the rationale for this decision has been mentioned in previous sections but is largely because the NHC considers they would not fully address the current problems, or would create more problems than they would solve. The two options are:

- to **solely** increase health technology assessment (HTA) capacity within New Zealand. The information gathered from interviews with DHB staff and others indicates that HTA capacity is only part of the solution. Appropriate decision-making frameworks are also needed
- the establishment of a central decision-making institution that covers **all** interventions and provides directives to DHBs. This is because the appropriate level for most decisions is local or regional, rather than national. Also the development of a central process for all interventions would not be consistent with current health service structures where DHBs have responsibility for making decisions to improve the health of people living in their area. A national process for **all** new interventions has the potential to create unnecessary delays in the adoption of interventions and to be impracticably resource-intensive.

5. Developing Robust Decision-Making Processes

The first area for action that the National Health Committee has identified is developing robust decision-making processes for new health interventions throughout the health sector. The NHC is of the view that making better and more informed decisions requires defensible processes with explicit criteria.

Establishing explicit decision-making processes would enable wider perspectives to be taken into account in decisions about new health interventions. In addition, such processes could provide a mechanism for decision-makers to account for the downstream impacts of a new intervention, and consider whether adopting a new intervention is the best use of health resources (in terms of either health outcomes or value for money). As stated previously, it is also important that the processes used are at the right level for the intervention under consideration.

Interviews with DHB staff and other stakeholders emphasised the importance of good relationships and open communication. This is an important factor within medical specialities, between planning and funding arms of DHBs, and between DHBs and/or other health sector agencies.

Due to the range of views that may exist about the value of a new intervention, the National Health Committee recognises that it may not be possible in all situations to reach universal agreement. Rather, the focus should be on having an agreed process to make the best decision, taking account of all relevant perspectives, within the time available and based on the information available at that point in time.

The National Health Committee believes that to improve the outcomes of decisions about the adoption of new interventions, such decisions should be made using robust, legitimate and defensible processes, that occur at the right level for the intervention under consideration and that take account of the views of all stakeholders.

Three interconnected strategies have been identified for achieving this:

- promoting robust decision-making processes
- improving national and regional decision-making processes
- establishing a DHB-run forum for decisions about emerging or high-profile interventions.

Promoting robust decision-making processes

The National Health Committee has begun to identify the attributes for robust decision-making processes. These attributes have been developed from discussions with DHB staff and other stakeholders, and consideration of other New Zealand and international decision-making processes. They are designed to be generic attributes that can be applied to any decision about a new intervention independent of where the decision is being made, and who makes the decision.

The attributes for robust decision making processes that the NHC has identified so far are:

Underlying principles of decision-making processes

- Timely
- Process agreed to by all stakeholders[15]
- Robust and explicit
- Decisions made and the reasons for them are publicly accessible[15]

Context

- At the right level for the intervention
- Relevant to the diverse needs of a defined population[15]
- Considers the views of all stakeholders
- Reflects clinical realities and available resources

Process

- Clearly defined and explicit decision-making process that is appropriate to the organisational context and the decision under consideration
- Explicit decision-making criteria
- Supported by appropriate resources (e.g. time and costs of obtaining evidence)
- Considers the opportunity cost of the process
- Defensible in the face of challenge
- Requires ongoing feedback about the performance of a new intervention
- Enables appropriate innovation
- Critically assesses new interventions against existing interventions

Inputs

- Based on appropriate evidence and information[16]
- Inclusive of all relevant stakeholders interests (e.g. planning and funding, health professionals, consumer perspectives)
- Consideration of ethical issues

[15] Based on Daniels and Sabin's conditions for 'accountability of reasonableness'. These conditions were designed to ensure that resource allocation decisions are made according to reasons or rules that 'fair-minded' people can agree are relevant. Three of these conditions have been included in the list of key attributes. The fourth condition is that there is either voluntary or public regulation of the process to ensure that the other three conditions are met. [See Daniels N and Sabin J. 1998. The ethics of accountability in managed care reform. *Health Affairs* 17(5): 50-64.]

[16] For example in situations where no other interventions have worked for a patient, it might be appropriate to try an intervention for which there is little evidence of widespread effectiveness but that has been shown to be effective for a small number of patients.

Outcome

- Stakeholder acceptance of the robustness and fairness of the process independent of the decision reached
- Decisions reflect integrity and are consistent with the common good
- Provision for challenge and dispute resolution[15]
- Revisable in the light of new information

Recommendation 1

The National Health Committee recommends that the Minister of Health:

a) endorse the above attributes for robust decision-making processes about new health interventions

b) encourage and monitor their adoption throughout the health sector.

The National Health Committee recognises that more work is needed to develop these attributes into a form that is useful for District Health Board staff and other decision-makers. This would include advice on how to establish decision-making processes that are consistent with the attributes.

The prioritisation framework *The Best Use of Available Resources*[v] is a toolkit that aims to improve prioritisation decisions in District Health Boards. It already includes a section on decision-making processes that provides some guidance on what factors need to be taken into consideration. The information the National Health Committee has gathered about DHB decision-making indicates that most decisions about new health interventions are made in hospitals and without any reference to this framework. It is therefore suggested that a more detailed resource that provides hospital decision-makers with guidance on decision-making would be a logical extension of the framework. It is expected that this resource would provide:

- a clear statement of what is required for a robust decision-making process
- hands-on information that can be utilised by clinicians, managers and other decision-makers to help establish or enhance decision-making processes
- processes that can be tailored to the right level for the group of new interventions under consideration.

It is suggested that this resource be in the form of printed and/or electronic guidance. The resource could be linked in with the prioritisation framework and produced as a stand-alone document. The National Health Committee also considers that greater promotion of the prioritisation framework, particularly within DHB provider arms (hospitals), would help engender a culture of robust decision-making.

Recommendation 2

The National Health Committee recommends that the Minister of Health:

a) encourage District Health Boards to:

i) further develop and put into practice the list of the attributes identified in recommendation 1

ii) prepare guidance for hospital decision-makers on making robust decisions about new health interventions

b) direct the Ministry of Health to assist District Health Boards in recommendation 2(a)

c) request that the Ministry of Health, in partnership with District Health Boards, continue to promote the prioritisation framework, *The Best Use of Available Resources.*

The National Health Committee has identified that District Health Boards may need guidance to establish and maintain robust and workable decision-making processes. In addition, the NHC suggests that DHBs would benefit from having an avenue for sharing information with each other about the barriers and successes they have experienced while establishing or enhancing their decision-making processes.

It is suggested that this is co-ordinated by a small team. It would be appropriate for this team to be part of, or work closely with, staff responsible for promoting use of the prioritisation framework (see recommendation 2(a)). One role of this team would be to respond to individual requests for information or assistance, and run training with groups of District Health Board staff on how to use the attributes for, and guidance on, robust decision-making processes. There exists a substantial body of information that describes the elements that are required to achieve effective group decision-making. A further role of the small team would be to ensure that the information and advice it provides reflects this knowledge.

One of the benefits of running training is that this would bring together people, either within a DHB or from different DHBs, who have different roles and perspectives on decision-making and therefore enhance understanding of differing perspectives. Decision-makers involved in established DHB processes reported during interviews that such collaboration had resulted in improved decision-making.

Another avenue that the support team could use would be to run best-practice workshops. These would provide an opportunity to build on existing expertise and for key individuals within DHBs to learn from each other's experience of running decision-making processes. This would also help to develop the leadership required to cultivate a culture of support for robust decision-making. This leadership could be from a combination of senior clinicians, the clinical board, key managers or other senior decision-makers.

Recommendation 3

The National Health Committee recommends that the Minister of Health request that the Ministry of Health in partnership with District Health Boards New Zealand establish a small team to:

a) take leadership and assist individual District Health Boards in initiating or strengthening decision-making processes

b) train District Health Board staff in establishing and maintaining decision-making processes

c) hold best-practice workshops to bring key decision-makers together

d) support clinical and other leaders to promote robust decision-making processes within their District Health Boards.

Interviews with DHB staff found that while there was good understanding of concepts such as population health and equity in planning and funding teams, hospital staff were less likely to identify equity as a factor for consideration in decision-making processes. This includes consideration of who will benefit from the introduction of new interventions and reducing barriers for access to new interventions for particular sub-populations, for instance disabled people or those on low incomes.

The National Health Committee believes all participants in decision-making processes within the health sector need to have an understanding of the concepts of population health and equity and their relevance to decisions about new interventions. The Ministry of Health has developed an intervention framework for reducing health inequalities[vi] and runs training with District Health Board staff using the *Health Equity Assessment Tool.* In DHBs, this training has to date been mostly with staff in planning and funding teams. Another avenue for training to improve clinicians' understanding of the relationship between their decisions and equity would be at undergraduate level and through professional development.

A recent joint report by the Ministry of Health and the Wellington School of Medicine and Health Sciences identifies specific recommendations and actions for improving understanding in the sector about reducing health inequalities.[vii]

Recommendation 4

The National Health Committee recommends that the Minister of Health direct the Ministry of Health to give priority to implementing the recommendations in *Tackling Inequalities: Moving theory to action,* in particular to:

a) ensure hospital decision-makers have the opportunity to take part in training on tackling health inequalities

b) identify ways of including consideration of health inequalities in undergraduate and post-graduate training.

Improving national and regional decision-making processes

A common theme in interviews with DHB staff was the impact that decisions about new tertiary and quaternary interventions have between DHBs. The NHC believes that better inter-DHB processes are required for decisions about interventions or services that would be costly and inappropriate for each DHB to provide individually. These include state-of-the-art diagnostic or treatment equipment, organ transplants and specialised treatment services. National decisions have already been made about the placement of some of these services.

Decision-making about these types of new health interventions would be improved if it was carried out in the context of well-coordinated national and regional processes. This would enable a discussion between all interested groups about the type and level of service that is necessary, and the optimal location for the service.

There are a number of existing structures that have a role in regional planning. These include shared support agencies, and the capital expenditure framework. Any improvements to national and regional decision-making processes should be based as much as possible around existing structures.

Recommendation 5

The National Health Committee recommends that the Minister of Health:

a) encourage District Health Boards to continue to develop improved national and regional decision-making processes for new health interventions, and ensure that these:
   i) are based on the attributes identified in recommendation 1
   ii) take place at the appropriate level for the intervention under consideration
   iii) are based as much as possible around existing national and regional forums

b) direct the Ministry of Health to assist District Health Boards with recommendation 5(a).

Establishing a District Health Board-led forum for discussing emerging or high-profile interventions

As well as the need for regional and national decision-making about new high-cost tertiary and quaternary interventions, senior clinicians identified a small group of interventions that are currently causing DHBs problems with decision-making. Examples given included drug eluting, monoclonal antibody therapies for rheumatoid arthritis, and novel antibiotics or anti-fungals. These interventions are often identified as requiring a decision in a number of DHBs at the same time, and have some or all of the following characteristics:

- high cost to DHBs (because of unit cost or quantity)
- evidence still emerging or unclear
- variety of views among clinicians about clinical effectiveness. (For instance, some specialists in New Zealand may be involved in a clinical trial on the intervention)
- high consumer acceptability or demand
- information about the intervention is already in the public domain, for instance on the Internet
- there is pressure to make decisions quickly.

Often the major tension in decisions about these new interventions is the pressure to make decisions quickly at a time when the evidence about them is still emerging or is changing as new studies are published. In many cases, it is a matter of making the best decision based on the evidence available at that time. Other examples are where decisions are very difficult to make because they require consideration of the value of providing an intervention for which there is little evidence of effectiveness, to an individual who has not responded to other treatments. These interventions are often very high-cost. They may also be the last resort for the patient concerned and because of this can attract significant media attention.

The National Health Committee believes that because a number of District Health Boards may be facing decisions at the same time, it would be useful to have a forum at which DHBs could discuss the evidence available and their different perspectives about adopting these emerging or high-profile interventions.

This forum would need strong linkages with regional and national decision-making processes but may involve slightly different representatives as the focus of the discussion here would be on considering emerging evidence and the potential for clinical effectiveness. The aim of the forum would be to discuss and share perspectives about emerging and high-profile interventions rather than reaching national consensus about their adoption. However, for some interventions it may be possible to reach consensus or establish criteria for when an intervention will be used, and this forum could aid in such action.

For this forum to function effectively it would require access to a source of rapid and tailored HTA information. This source would need to be able to quickly provide a summary of the most recent clinical evidence, cost-effectiveness information, and other factors that need to be considered. It would also be valuable for this forum to have access to international horizon scanning information to alert it to interventions that are emerging overseas, and may therefore face DHBs in the near future. How these types of information can be provided is discussed in more detail in Section 6: *Improving Capability and Capacity for Assessing Evidence and Information*.

Recommendation 6

The National Health Committee recommends that the Minister of Health:

a) encourage District Health Boards to establish a national forum to discuss emerging and high-profile interventions.

   It is suggested that this forum:

   i) has strong links with formal regional and national decision-making processes (see recommendation 5)

   ii) has access to timely and tailored HTA information

   ii) receives pertinent information from international horizon scanning agencies

   iii) discusses the evidence for and the implications of emerging and high-profile interventions and, if possible, reaches consensus about their adoption

   v) uses the attributes identified in recommendation 1

b) direct the Ministry of Health to assist District Health Boards in implementing recommendation 6(a).

6. Improving Capability and Capacity for Assessing Evidence and Information

The previously outlined attributes for robust decision-making processes provide District Health Boards and other decision-makers with guidance about what should be taken into account when making a decision about whether or not to adopt a health new intervention. Health services also need the capacity and capability to access and interpret the evidence and information that is relevant to these decisions.

As a result of its research and consultation, the NHC has identified that there are a number of components that would assist decision-makers to better access and effectively use the evidence and information that is available. This section describes these components and proposes possible solutions for improving capability and capacity for assessing evidence and information. The NHC believes, however, that decision-makers within DHBs are in the best position to determine the arrangements and types of resources that they think will best meet their evidence and information support needs. The following section has been developed to inform DHBs' collective consideration of options for improving capability and capacity for assessing evidence and information.

Establishing reliable, collaborative relationships between decision-makers in DHBs and providers of HTA information is crucial to ensuring that decision-makers access, understand, and act on appropriate information. District Health Boards New Zealand (DHBNZ) has initiated work on improving access to evidence, and better integrating evidence into decisions. District Health Boards and DHBNZ need to be intimately involved in the establishment or reconfiguration of any resources. It is also important that such developments take clinical perspectives into account and therefore will require collaboration with medical colleges and other specialist groups.

An evidence and information repository

Interviews with DHB staff identified that decision-makers tend not to consider HTA information when making decisions. While some decision-makers felt they had adequate access to information and evidence, others identified the need for access to a source of evidence and information that is easy to navigate. The NHC has concluded from interviews and its scoping work done on a web-based clearinghouse, that there is a need for a searchable repository of relevant international and New Zealand-generated evidence and HTA information. This repository would be particularly helpful for situations when the evidence about an intervention is clear, relatively static, and generalisable to the New Zealand context, and when the circumstances surrounding the decision about a new intervention are not complex. The NHC believes that an appropriate format would be a web-based library as this would allow DHBs to easily obtain the information and evidence needed to inform their decisions.

It is proposed that such a library would contain the breadth of information that is used by the variety of stakeholders involved in decision-making, rather than being tailored to one decision-making group. Thus it would contain clinical evidence as well as economic and financial information. To ensure that the information stored on it was both up-to-date and relevant the library would also need to be actively maintained by a kaitiaki, or caretaker. It would be desirable for this kaitiaki to perform three roles. One would be to identify the information that reflects New Zealand priorities, and select, from the immense amount of information available, the technology assessment information that is most relevant to the New Zealand decision-making context. A kaitiaki could also bring together the information and evidence on any given intervention, and provide commentary on its quality and the extent to which it is applicable to the New Zealand context. The third role would be to respond to requests from decision-makers for information on a particular intervention.

In addition, it is suggested that individual DHBs could provide information about the interventions on which they have collected information, and reached decisions.

Providing this information would enable DHBs to contact each other and, if appropriate, obtain information that is relevant to their own decisions. This would reduce the potential for duplication by DHBs and allow them to consider other DHBs' approaches when making decisions about the same types of interventions. The library could also provide a location for DHBs to comment on the outcomes of their decisions, enabling them to take the experiences, successes and issues faced by other DHBs into account.

Appraising and interpreting evidence, information, and economic analysis

In order to make decisions based on the information they have obtained from the web-based library, DHB decision-makers also need guidance on how to appraise and interpret evidence and economic analysis. *The Best Use of Available Resources* provides DHB staff with links to sources of guidance on how to undertake these tasks. However, it appears that the material supporting this framework has yet to be widely distributed to decision-makers within hospitals. The NHC believes that key decision-makers within both the funding and planning arm of DHBs and hospitals would be able to more effectively analyse the information and evidence that they collect if they were provided with training in these skills. This training could be provided by the support team proposed in recommendation 3 of this report.

A rapid source of health technology assessment information

There are situations in which the information available through a web-based library would not be adequate to meet decision-makers' requirements. For instance, where the evidence and information about a new intervention is incomplete, rapidly changing, or very complex, or when the circumstances of the adoption of an intervention in New Zealand are complicated and/or unique. In these situations, decisions-makers may benefit from access to a source that can produce rapid HTA information that is tailored to the requirements of the decision being made. To be effective, this source would need to have the capability to respond to requests from regional and national decision-making groups, as well as individual DHBs.

Decision-makers often have to make decisions in tight timeframes. The requirement for timeliness means that the information and advice produced by such a source is unlikely to be as rigorous as comprehensive HTAs. While this is less than ideal, the NHC believes it is preferable that decisions are informed by the best evidence that can be gathered under the time constraints, rather than by none at all.

A rapid HTA source would need to be able to provide guidance about whether or not an intervention should be adopted, as well as synthesising the existing relevant information and evidence about the intervention. The type of guidance required would need to be clearly identified by the agency/agencies requesting the information. The National Health Committee has identified a number of situations in which decision-makers would be most likely to request tailored HTA information and guidance on the adoption of a new intervention. These include:

- decisions about new interventions for which the evidence is equivocal and/or rapidly changing
- comparisons between interventions for which the level of evidence differs (e.g. comparing qualitative information with the results of RCTs)
- decisions about assistive technologies (which may also require different assessment tools to those used for new health interventions)
- decisions about interventions for which there is little evidence or information that is applicable to the New Zealand social, political and economic context.

A further function of a source of rapid HTA information would be to notify decision-makers in health services about emerging interventions that are likely to be proposed for introduction, and considered by decision-making processes. New Zealand has access to information produced by a number of international horizon-scanning agencies that a rapid HTA source could link into in order to advise decision-makers, including the DHB-run forum proposed in recommendation 6.

There are a number of existing agencies in New Zealand that produce HTA information. However the National Health Committee believes that it is essential that one agency acts as the contact point for DHBs and health sector decision-makers who want to obtain rapid HTA information. This would ensure that effective relationships between these groups are established and maintained. A key role of this co-ordination and brokerage agency would be to manage relationships and negotiate arrangements for HTA information contracts. The agency would have the option of compiling the information itself, or contracting the work out to another agency with the appropriate expertise. An effective working relationship between the co-ordination and brokerage agency and the web-based library would also be essential.

The National Health Committee recognises that robust HTA reviews will still be required to inform some health sector decisions. It is important that this facility remains and is well-integrated with any new processes for the provision of HTA advice.

Private health sector

As mentioned earlier in this report, the private health care sector faces many of the same difficulties as DHBs when deciding whether to fund interventions for which the evidence is equivocal or rapidly changing. The NHC understands that private insurers would be interested in having access to a source of HTA information, and the web-based library of information discussed above. Such an arrangement could help improve consistency in decision-making across the wider health sector. The Ministry of Health would however, have to consider and provide guidance on the implications of this in the context of its policy work on the interface between the public and private health sectors.

Funding for improvements

The establishment and maintenance of the proposals outlined above would require the investment of resources. While the cost of this could be met in part by the redirection of current expenditure, it is likely that additional resources would also be needed. The NHC believes that measures to improve the capability and capacity to assess information and evidence should be funded jointly by DHBs and the Ministry of Health. It is suggested that the District Health Board Legal Buy-In Group provides a possible model for DHBs' contributions. The DHB Legal Buy-In Group is a cost-sharing arrangement by which all DHBs contribute to funding legal advice on issues that are generic to the sector.

Recommendation 7

The National Health Committee recommends that the Minister of Health:

a) strongly encourage District Health Boards and District Health Boards New Zealand, in partnership with the Ministry of Health, to:

   i) continue to develop proposals with the wider health sector to improve capability and capacity for assessing evidence and information, taking into account the National Health Committee's suggestions

b) direct the Ministry of Health to:

   i) assist the implementation of the proposals identified through the process described in recommendation 7(a)

   ii) report annually to the Minister of Health on progress with the implementation of proposals identified in recommendation 7(a)

   iii) provide guidance on the access of the private sector to publicly-funded sources of evidence and information.

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National Health Committee
MAY 2005