

# **Health Needs Assessment for New Zealand**

An Overview and Guide

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# 1 Introduction

This document is a guide for District Health Boards (DHBs) on how to undertake health needs assessments of their population. The document also has clear implications for the Ministry of Health in its role of overseeing national datasets and facilitating effective use of information.<sup>1</sup> It will:

- ?? describe what health needs assessments are
- ?? describe how they fit into the DHB planning cycle
- ?? outline how to collect appropriate data
- ?? suggest sources for data
- ?? suggest ways to analyse the collected data
- ?? identify prioritisation frameworks.

This document will not detail all the methods available to do this. There is a considerable body of literature on the concept of health needs assessments and how to conduct them. Much of this is described in the companion background document *Health Needs Assessment for New Zealand: Background paper and literature review*.<sup>2</sup> This companion paper gives a more detailed review including definitional issues, different approaches to the needs assessment process, experience within New Zealand and internationally, and some key learning points.

This paper provides a minimum description of what a global health needs assessment conducted by a DHB will contain. This description is consistent with both the body of literature and the legislative requirements of DHBs. It should be noted that this is a minimum – some DHBs will wish to go beyond this – perhaps drawing upon previous analysis carried out by HHSs, Regional Health Authorities or the Health Funding Authority.

The Ministry of Health can provide further assistance on health needs assessment and contact points are given in Appendix 2.

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<sup>1</sup> For example, if individual DHBs want to access a particular data source, it may be more cost effective for the Ministry of Health to undertake this on their behalf.

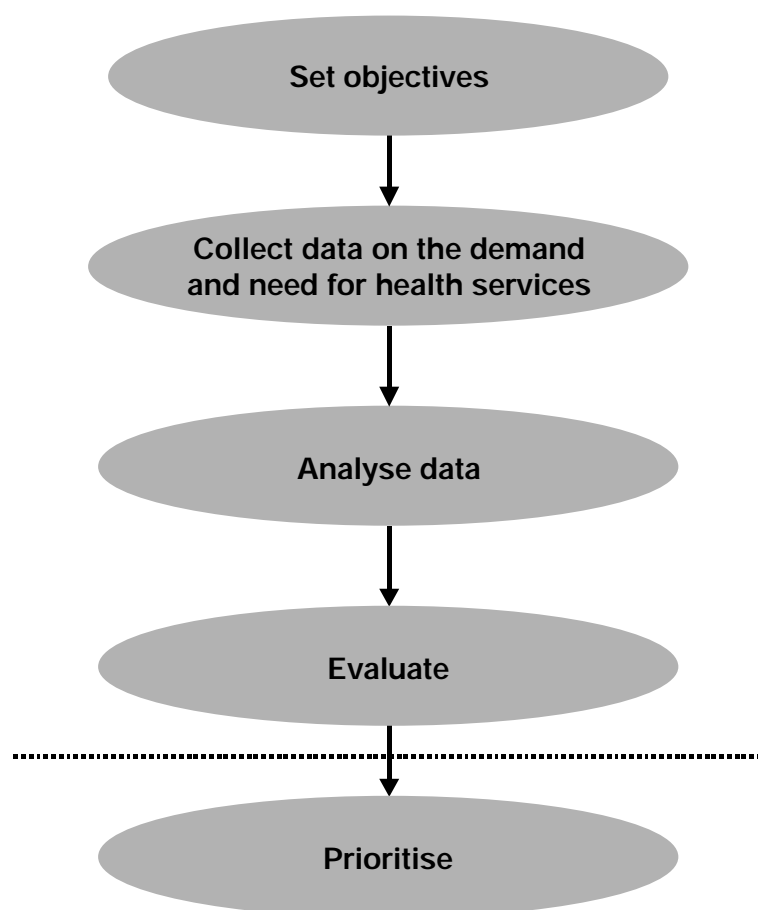
<sup>2</sup> This document has been distributed to DHBs and is also available on the Ministry of Health Web site at [www.moh.govt.nz](http://www.moh.govt.nz)

## 2 What is a Health Needs Assessment?

The term 'health needs assessment' itself and its components have been the subject of many differing definitions over time.<sup>3</sup> Much of this debate is driven by different interpretations of the meanings of the component terms, in particular 'health' and 'needs'. Implicit in this debate also is the concept of prioritisation. The different understanding of these terms has impacted on the ways that different assessments have been conducted.

Health needs assessment is summarised in the diagram below.

**Figure 1:** The Health Needs Assessment Process



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<sup>3</sup> See the companion document *Health Needs Assessment for New Zealand: Background paper and literature review* for more detail.

The process involves collecting data on the population's demand and need for health services. These data are then analysed to look at future needs and the capacity of services to meet these needs. If needs are not being met then there is a process of evaluation of different options that feeds into the prioritisation process of DHBs. In essence the health needs assessments provide much of the evidence for decisions that DHBs will make.

It should be noted that health needs assessments are only part of a package to ensure that the public are explicitly involved in determining the type of, and priorities for, health services that are purchased. Other means include publicly elected members of DHBs, Board and Committee meetings being open to the public and public consultation during the strategic planning processes of DHBs.

A health needs assessment can be global (covering all the issues in a DHB) or addressed to more specific areas or population groups. For newly established DHBs the process of health needs assessment will initially involve a global examination of the health care needs of their populations.<sup>4</sup> This paper provides a guide to that global review. Over time DHBs will probably extend the range of issues covered in the assessment, and carry out reviews of the needs of specific population groups and areas, for example, a rural area or people with disabilities.

Health needs assessment should not be confused with needs assessment for people with disabilities. This latter process assesses the needs of individuals with disabilities.

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<sup>4</sup> This global examination is also known as population needs assessment.

# 3 DHBs and Health Needs Assessments

## 3.1 DHBs' responsibility for conducting health needs assessments

The New Zealand Public Health and Disability Act 2000 requires DHBs to improve, promote and protect the health of the people and communities in their region. DHBs will be responsible for funding most health services that are delivered in their region, either directly through services such as hospitals and their staff or through funding other provider organisations such as general practices, Māori health providers or residential care providers.

The New Zealand Public Health and Disability Act 2000 notes that one of the functions of DHBs is:

*To regularly investigate, assess, and monitor the health status of its resident population, any factors that the DHB believes may adversely affect the health status of the population, and the needs of that population for services (Clause 23(1)(g)).*

This process will be done through health needs assessments that will provide DHBs with a wide range of information about their resident populations to help them make funding decisions. Health needs assessments will be a key input into both DHBs' strategic plans and annual plans. There will not be a requirement for individual health needs assessments to be submitted to the Ministry of Health. Funding agreements between the Minister of Health and DHBs will, however, specify that DHBs must carry out health needs assessments in accordance with the minimum content and data definitions contained within this and associated documents. Health needs assessment reports may be used during funding agreement negotiations as they will, in effect, provide 'evidence' for priorities reflected in that agreement.

In addition DHBs will be interested in comparing and benchmarking themselves with other DHBs. Using consistent data definitions will be essential for this. The Ministry of Health will be looking at the role it can play in facilitating benchmarking, and it is feasible that health needs assessment reports will play a key role in benchmarking.<sup>5</sup>

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<sup>5</sup> Benchmarking is seen as more than just comparison of numbers, but a process that takes comparisons and seeks to identify practices that enable some areas to provide better outcomes than others. The quantitative and qualitative information within health needs assessment reports will facilitate this process.

## 3.2 The objectives of health needs assessments

Health needs assessments will help DHBs' decision-making by:

- ?? describing the health and disability support needs of the local population covered by the DHB, and the differences between district, regional and national populations
- ?? learning about the broad health and disability support needs and priorities of communities through community consultation
- ?? highlighting the areas of unmet needs, ascertaining whether there are health and disability support sector responses that are effective, and prioritising these
- ?? deciding rationally how to prioritise the use of resources to maximise health gain and the distribution of health gain to improve the health of the population in the most effective and efficient way
- ?? influencing policy, interagency collaboration and co-ordination, as well as promoting evaluation, research and development priorities.

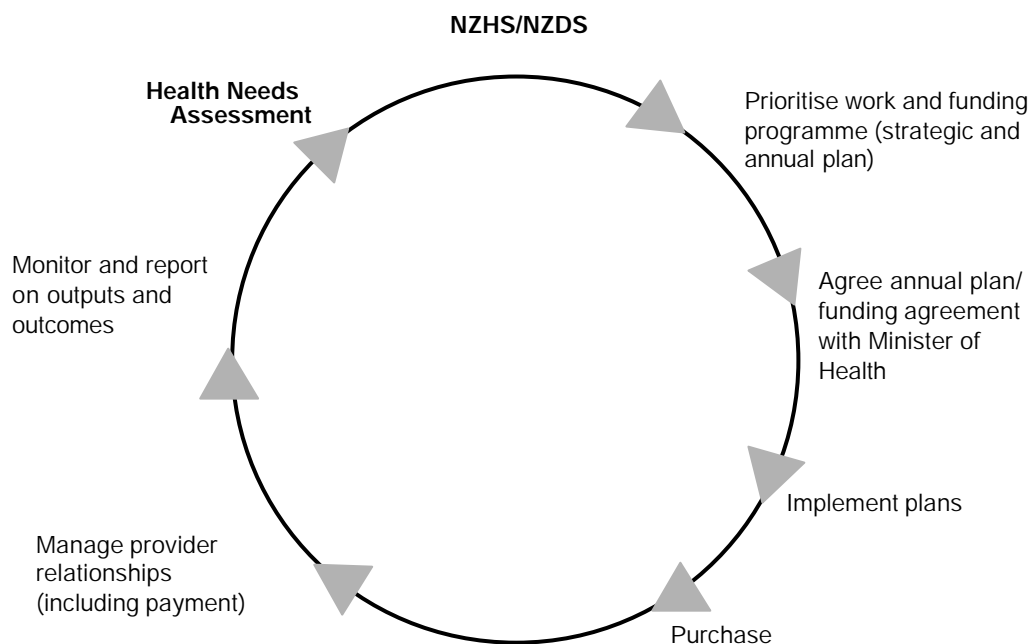
The global health needs assessment will provide DHBs with a picture of the health and independence status of their population at a given time. Further health needs assessments will provide information on improvements (or declines) in the health status of the region and provide DHBs with a picture of the progress that they are making in different areas. Implicit within this is the recognition that health needs assessments are ongoing. They should not be considered as a one-off activity.

Health needs assessments will need to be reviewed annually to look at the impact of DHB activities (as reflected in the funding agreement). The health needs assessment is a 'living' document as it will be affected by changes in provision, community views, new priority areas and so on, and will need to be updated at least once every three years.

### 3.3 How do health needs assessment fit into DHB processes?

The following diagram represents the planning cycle of a DHB and demonstrates the role of health needs assessments within it.

**Figure 2:** The DHB Planning Cycle



National priority areas have been defined within the New Zealand Health Strategy (NZHS) and the New Zealand Disability Strategy (NZDS). DHBs will determine the order in which they address the goals and objectives outlined in the Strategies. Health needs assessments will provide DHBs with the local data needed to do this. Health needs assessments will also provide evidence to identify additional areas that are of local importance but that have not been prioritised by the New Zealand Health Strategy or New Zealand Disability Strategy.

Health needs assessments provide the evidence that will underpin DHBs' purchasing decisions and should give:

- ?? a view of the services required by the population
- ?? available services
- ?? gaps in current service provision
- ?? strategies to meet those gaps.

This evidence will go into DHBs' prioritisation processes. On the basis of this evidence, DHBs will produce strategic and annual plans outlining how they intend to purchase and develop services to meet needs.

# 4 The Stages of Health Needs Assessments

Health needs assessments are as much a process as an outcome and much of their value comes through the process itself. This is particularly important with regard to community consultation as discussed in Chapter 5.

The method outlined in this chapter is for the global population needs assessment that all DHBs should carry out. The approach leads to identification of 'service gaps', and may identify services that are no longer considered effective, or meet current health care requirements for a variety of reasons.

The approach was illustrated in Figure 1. Each of the areas identified must be addressed within the DHBs' needs assessment report.

## 4.1 Set objectives

The objectives of the needs assessment exercise should be clearly laid out and should include:

- ?? reference to the legislative requirements to look at the health status of the population
- ?? explanation of how it fits into the DHB's planning process
- ?? purpose of the health needs assessment
- ?? expected outcomes from the assessment
- ?? explanation of how the needs assessment links in with local consultation.

It will also be important to consider the priority areas of the New Zealand Health Strategy (listed in Appendix 1). DHBs will be required to report on progress in these priority areas and the analysis required for this will overlap with that required for health needs assessments. This is also discussed in section 4.4.

## 4.2 Collect data on the demand and need for health services

Data will be collected from a variety of sources. This will include data on population health as well as some areas that influence health. Data items will then be identified together with the source of these data items and how best DHBs can access these data items. The Ministry of Health will be issuing some specific national datasets and providing them free of charge to DHBs to enable them to start the process of health needs assessments. The Ministry will also act as a central clearing house for other national data, such as other health data, and data from other sectors, such as education.

### 4.2.1 Defining population and area characteristics

Data are presented on the base socio-demographic and geographical characteristics of the population.

The socio-demographic data items to be collected are:

Data	Purpose	Source
Sex	Size and composition of population	Statistics NZ
Age	Size and composition of population	Statistics NZ
Births	Size and composition of population	Statistics NZ
Fertility rates	Size and composition of population	Statistics NZ
Migration	Size and composition of population	Statistics NZ
Ethnicity	Size and composition of population	Statistics NZ
Household size and composition	Size and composition of population	Statistics NZ
Marital status and families	Single parent households	Statistics NZ
Deprivation	Indicator of morbidity	NZHIS
CSC holders	Indicator of morbidity	WINZ

These data items will feed into the needs analysis in various cross tabulations to give a picture of the socio-demographic characteristics of the DHB. Age should be collected in five-year age bands which can be aggregated into suitable age bands for analysis.<sup>6</sup> Categories for sex and ethnicity are given in the NZHIS Data Dictionary. Deprivation will be measured by NZDep 96.

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<sup>6</sup> Five-year age bands are collected for base data. The exception is that the age bands should start with 0, 1–4. They will then move into five-year age bands 5–9, up to 85+.

Geographical data items to be collected are:

Data	Purpose	Source
Transport routes	Defines natural communities	Local
Physical geography	Defines natural communities	Local
Local industry/environmental factors	Environmental factors on morbidity	Local

In addition to the above a clear aim of the needs assessment exercise is to collect local data on the perceived needs of the local population. This will include:

- ?? community and providers' views of service and disability support provision
- ?? community views on services that are not provided
- ?? information on 'hard to reach' populations from interagency sources.

See Chapter 5 for more detail.

It is again emphasised that these data items are a minimum. Some DHBs may consider, for example, that other measures of deprivation in addition to NZDep96 should be used.

### Accessing data

Socio-demographic data from the 1996 Census are freely available. Data broken down by DHB are available on the HFA Web site [www.hfa.govt.nz](http://www.hfa.govt.nz) (or after 1 February 2001 [www.moh.govt.nz](http://www.moh.govt.nz)). Population projections by Census area unit are available. Births data are available and include birth statistics up to 1998. Births data include ethnicity, domicile, weight and mother's age. Population projections are available and the Ministry of Health can provide advice on how best to access.<sup>7</sup>

Data on local environmental and geographical characteristics need to be gathered locally. Local public health units have Geographical Information Systems that DHBs will be able to utilise. These systems will allow mapping down to street level and also allow geocoding. In addition many local authorities keep these types of data and, together with other local agencies will be a key source of information.

### 4.2.2 Classifying current demand for health care services

Reporting on current disease and disability patterns in the DHB ie, 'what conditions do people present with' will be a major factor in determining what current levels of 'expressed demand' are.

This includes data on:

- ?? morbidity patterns (both prevalence and incidence) including predictions

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<sup>7</sup> Demographic data may also be derived from the National Health Index (NHI) database, although knowledge of how to use this database is required.

- ?? mortality patterns including predictions
- ?? information on priority population health areas from the New Zealand Health Strategy (see Appendix 1 for details)
- ?? risk factors.

The analysis should consider the total population. It should then consider Māori, Pacific peoples and other population groups separately.

These data should be collected at an individual patient level and aggregated for the purposes of this report into five-year age bands.

## Accessing data

It is relatively easy to access information on hospital utilisation through the use of hospital data captured within the National Minimum Dataset (NMDS), for example, hospital discharges. This database is likely to be the only nationally consistent database that all DHBs are able to access and is therefore important.

Analysts need to be aware of what information is collected within the NMDS. All inpatient events are collected but outpatient treatments are not. Caution needs to be taken when using these data to analyse services which have a large component of outpatient care, such as mental health.

The New Zealand Health Information Service (NZHIS) has developed a separate collection for mental health information called the Mental Health Information National Collection (MHINC). This will be a valuable source of community and inpatient mental health information for DHBs to access. NZHIS also manages the Cancer Registry which contains information on cancer incidence and the National Booking Reporting System which holds information on patients waiting for treatment, and booking status. Data definitions for all collections are included within the NZHIS Data Dictionaries.

Births, Deaths and Marriages supplies both Statistics New Zealand and NZHIS with death registration data. NZHIS codes the underlying cause of death using various sources including medical certificates, coroners' findings and post mortem reports. NZHIS can advise on access to these data.

Information on the reasons that people present to primary care and community services is more difficult to access. However it is important that DHBs collect available information and increase access to this over time. It will be necessary to liaise with the providers to acquire available information and to arrange the collection of future data.

If available the following datasets should also be used:

- ?? outpatients' data by age/sex, ethnicity and locality
- ?? primary care data by age/sex, ethnicity and locality
- ?? community-based data by age/sex, ethnicity and locality
- ?? datasets held by non-governmental organisations by age/sex, ethnicity and locality.

### 4.2.3 Stocktaking health care services

There are two areas to this. The first area is the ‘stocktake’ of the numbers, availability and distribution of health care providers in the DHB.<sup>8</sup> The second area of information on health care providers is the capacity of these services, which will clearly link in with the data collection of section 4.2.2.

Providers (and services) that should be included are:

- ?? public health providers including public health nurses, health promotion, health education staff and others
- ?? primary health care providers including general practitioners, practice nurses, nurse practitioners, dentists and dental therapists, accident and emergency clinic staff, physiotherapists and occupational therapists
- ?? Māori health services
- ?? Pacific health services
- ?? community service providers including staff in rest homes and providers at homes
- ?? secondary care services including doctors, specialists, nurses, radiographers and laboratory staff.

It will also be necessary to collect information on the availability and utilisation of staff available through other sectors who provide services related to health and its determinants. These include local authorities, education, Social Welfare and housing.

Information on the availability of services will probably be collected through a survey. The numbers per head of population is a calculation that will be done by the analyst. It is important to notice that availability of providers will probably vary considerably within a DHB’s boundaries.

#### Accessing data

The source of data for this stocktake will vary. Some data are held centrally, particularly related to publicly funded health care services, educational facilities and housing. Other data such as local availability of voluntary services will be easier to access at a local level.

Many health professional bodies or provider organisations, for example, Independent Practitioner Associations should be able to give you an idea of the numbers of their members in that DHB. The DHB itself should be able to provide information on the numbers of staff directly employed by them. Collecting data on other providers may be more difficult at first. Ideally an ongoing relationship with a range of providers will make this an easier exercise after the initial data collection.

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<sup>8</sup> This includes providers who are not physically located in the DHBs but provide regular (and measurable) services.

Information on utilisation also varies. Some is available from private and public services. Primary care referral and utilisation data are available from Independent Practice Associations and Health Benefits Limited.<sup>9</sup> DHBs should have information on the utilisation of their services although this will not always be directly related to individual providers. Other data will often need to be collected from the providers themselves.

## 4.3 Data analysis

Part of the analysis of the data gathered will be a simple 'gap analysis' whereby the 'needs' gathered from the analysis of current utilisation, projections and community views are compared with actual service availability. One of the most difficult steps may be the projecting forward of expected needs and this will require experienced analysts with an understanding of appropriate statistical methodologies.

The steps undertaken will include:

- ?? collation of datasets identified in section 4.2
- ?? forecasting of demographic data and service utilisation data
- ?? identifying other local service gaps that have become apparent
- ?? analysis of local community views of service provision
- ?? tabulating current and predicted service gaps and possible areas of unnecessary provision now and in the future.

This process will lead to listing areas of need. Some areas will be met, others partially met and others not met at all. There will then be a process to identify services to fill these gaps or to improve the outcomes of existing services.

There will clearly be an overlap here with other data requirements, for example the requirement to produce indicators defined within funding agreements. The steps include:

- ?? collating outcome and output targets from funding agreements
- ?? analysis of existing data for performance against indicators
- ?? identifying gaps against indicators within funding agreements.

DHBs will then prioritise how they use their resources to address the needs identified.

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<sup>9</sup> The exact relationships between Health Benefits Limited and the remainder of the health sector has not been finalised by the Government.

## 4.4 Evaluation

Data on the effectiveness of services is available at a number of levels.

For the priority areas of the New Zealand Health Strategy a series of ‘toolkits’ are being established. These 13 toolkits will contain the following:

- ?? evidence on the best ways to achieve health gain for different population groups
- ?? evidence on the ways that different health sector and non-health sector providers can help achieve health gain
- ?? research gaps where evidence is lacking
- ?? performance measures.

These toolkits will be distributed to DHBs and will be updated when additional relevant research is carried out.

Where there are options between different ways to address needs, as there often are, the review of effectiveness will need to consider the appropriateness of these effective services for the DHBs’ populations. Issues to be considered include the nature of the population needing the services, the availability of services and costs of services. The information collected at earlier stages of the assessment will be valuable at this stage.

## 4.5 Prioritisation

Health needs assessments are a key input into the evidence that DHBs will require for prioritising services and have been the subject of much debate. Other factors will feed into prioritisation, but health needs assessments should be seen as a core input.

A number of attempts have been made in New Zealand to provide guidelines for the process of prioritisation. These include those by the National Health Committee, Midland Health and the Health Funding Authority. Each of these areas is discussed in depth in the companion document *Health Needs Assessment for New Zealand: Background paper and literature review*.

The Health Funding Authority approach suggested five ‘decision principles’ when considering priorities:

- ?? effectiveness
- ?? cost
- ?? equity
- ?? Māori health
- ?? acceptability.

Assessments will provide much of the information required to make decisions. They will have provided an outline of the requirements, data related to the decisions and the preferences of users and providers of health care services.

The decision-making process itself involves a wide range of factors including:

- ?? Government requirements as demonstrated in funding agreements with the DHBs
- ?? the guidance provided by the New Zealand Health Strategy and the New Zealand Disability Strategy
- ?? the elected board members
- ?? the opinions of users and providers of health care services
- ?? information provided by the health needs assessment.

The Ministry of Health has experience in the prioritisation process. A series of workshops will be run for DHBs to go through prioritisation principles and processes. In addition separate guidance in this area will be issued.

## 5 Health Needs Assessment and Local Communities

Consultation with local communities is an important part of the function of DHBs. The presence of elected representatives on boards is one key part of local accountability, but DHBs should also seek to be as transparent in decision-making as possible and, where appropriate, include and inform the community in decision-making processes. For this reason health needs assessments should be seen as something that is done *with* local communities, not something that is done *to* local communities.

Communities (members and groups) will be the repository of much of the 'data' that will inform a health needs assessment. There are a wide range of methods of obtaining this information. They include:

- ?? meetings with individuals and representatives of groups
- ?? interviews and focus groups
- ?? postal surveys
- ?? public meetings
- ?? rapid appraisal methods.

These methods are described in greater detail in *Health Needs Assessment for New Zealand: Background paper and literature review*. Guidelines for consultation in DHBs are being prepared at present and will be available in 2001. This will include specific guidance on consulting with Māori and Pacific peoples. In addition the New Zealand Health Strategy gives a detailed discussion on consultation issues in Appendix 3.

Many of the most needy in society are often the most difficult to obtain information on. Many of the techniques used to assess the needs of such hard-to-reach communities such as multiagency enumeration methods<sup>10</sup> depend crucially upon good local communication.

Communication with local communities should be regarded as an ongoing commitment for DHBs.

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<sup>10</sup> Multiagency enumeration can incorporate well developed statistical techniques such as capture-recapture methods.

## 6 Skill Requirements

The key competencies needed to implement health needs assessments include:

- ?? statistical analysis
- ?? public health
- ?? economic evaluation
- ?? epidemiological knowledge
- ?? knowledge of qualitative assessment of community needs
- ?? local knowledge
- ?? knowledge of effective communication with specific population groups – particularly Māori and Pacific peoples.

The knowledge to effectively undertake health needs assessments for Māori is a specific skill. Knowledge of the limitations of official datasets (for example, problems with consistent definitions of ethnicity) and the most effective ways to consult with Māori are essential.

The resource of skilled people to conduct health needs assessments is not large, and for global assessments at least, and maybe others, it makes sense for efforts to be pooled, and where necessary outside expertise obtained. The Ministry of Health will be able to assist with datasets and guidance.

At a minimum, however, it is expected that DHBs will need to have an internal analytical capability to effectively use and interpret any data produced by outside agencies. This internal capability will need to have the competency to understand, critically appraise and apply work produced by outside organisations.

# Appendix 1:

## New Zealand Health Strategy

### Priority Population Health Areas

- ?? To reduce smoking
- ?? To improve nutrition
- ?? To reduce obesity
- ?? To increase the level of physical activity
- ?? To reduce the rate of suicides and suicide attempts
- ?? To minimise harm caused by alcohol, illicit and other drug use to both individuals and the community
- ?? To reduce the incidence and impact of cancer
- ?? To reduce the incidence and impact of cardiovascular disease
- ?? To reduce the incidence and impact of diabetes
- ?? To improve oral health
- ?? To reduce violence in interpersonal relationships, families, schools and communities
- ?? To improve the health status of people with severe mental illness
- ?? To ensure access to appropriate child health care services including well child and family health care, and immunisation.

# Appendix 2:

## Sources of Information

For general information on the process of health needs assessment, please contact the Sector Policy Directorate of the Ministry of Health – telephone (04) 496 2000.

In terms of data sources and analysis please contact the Health Services Analysis Section of the Personal and Family Health Services Directorate at the Ministry of Health on (04) 496 2000. This group will be able to give specific advice on:

- ?? sources of data
- ?? data quality
- ?? analytical techniques
- ?? the provision of centrally held health and disability support data
- ?? data available from other central agencies.

The New Zealand Health Information Service (NZHIS) can give specific advice on data collections it holds and data formats and definitions. They can be contacted on (04) 922 1800.