An Overview of the Health and Disability Sector in New Zealand
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Introduction

This document gives a general overview of the New Zealand health and disability sector. It provides information about New Zealand and the demographics of the population, a description of the structure of the health and disability sector, information about financing health and disability services, and detail of expenditure within the sector. It describes some health professional workforce statistics and issues facing the health and disability workforce. Information about the health and disability status of New Zealanders and important health and disability outcome measures is also presented.

Key points to note:

- New Zealand is a small country where the majority of the population live in cities, and the minority of the population are widely dispersed in rural areas.

- Over the last decade in New Zealand there has been a general increase in the number of health professionals including the numbers of doctors and nurses, although there are some speciality areas where shortages still exist.

- Expenditure on health and disability services in real terms has risen consistently over the last decade.

- Health expenditure as a proportion of GDP is similar to most other OECD countries.

- Life expectancy has risen over the last half century. Disparities in life expectancy based on ethnic and socioeconomic differences remain however.

New Zealand in Context

New Zealand is a small island nation in the South West Pacific with a population of 3.84 million people. Eighty-five percent of people are concentrated in urban areas. The main ethnic groups are European (71.7%), Māori (14.5%), Pacific (4.8%) and Asian (4.5%). The populations of New Zealand’s main cities are shown in figure 1.
As in many Western countries, the population is slowly growing older. It is projected that, in 2031, 22 percent of the population will be aged 65 or over, compared to only 12 percent in 1998. Māori and Pacific populations show a younger population structure with roughly twice the proportion of children under 15 compared to the rest of the population.

**Demographics**

- The population grew at an average annual rate of 1.4% between 1992 and 1997.
- Ageing of the population – proportion of population over 65 years:
  - 12% in 1998
  - 22% in 2031.
- Sex – 50.7% female, 49.3% male.
- Nineteen percent of the population live with the long-term effects of a disability.
- The population is moving northward.
The Economy

New Zealand’s economy is heavily dependent on overseas trade. In the past 20 years, New Zealand has developed its agriculture and manufacturing industries to suit the needs of niche markets. At the same time it has moved away from its dependence on dairy, meat and wool exports – as forestry, tourism, horticulture, fisheries and manufacturing have become more significant. Asian markets are becoming more dominant. New Zealand’s largest export markets are currently Australia, Japan, USA, the UK and Korea.

New Zealand faced a prolonged period of low economic growth in the 1980s, with severe overseas debt and budget deficit burdens. The New Zealand economy has recovered from this period. New Zealand’s per capita gross domestic product (GDP) in 1998 was estimated at US$14,000. Per capita health expenditure in 1996 was US$1,251. The unemployment rate in March 2000 was 6.4 percent.
The New Zealand Health and Disability Sector

The organisation of health and disability support services within New Zealand has gone through a number of changes within the last decade. These have ranged from a ‘purchaser/provider’ market-oriented model in place at the beginning of the 1990s to the more community-oriented model being implemented in 2001.

Health and Disability Sector Changes 1990–2000

At the beginning of the 1990s Area Health Boards (AHBs) were responsible for the provision of public health, secondary and community care services. AHBs did not provide primary care services, although primary care was subsidised by the Government. AHBs were introduced under the Area Health Boards Act 1983. The first AHB was established in Northland in 1984 and by 1989 the country was covered by 14 AHBs.

In 1993 the Health and Disability Services Act introduced a system which separated out the purchasing of health care services from those organisations that provided services. Responsibility for the purchasing of services lay with four Regional Health Authorities (RHAs). These RHAs contracted with providers of services in both the primary and secondary care sectors. The RHAs did not have elected representatives on their boards although they did have a commitment to reflect the views of users of services. The RHAs did not have responsibility for public health services. These were the responsibility of a fifth organisation known as the Public Health Commission. The operation of the health and disability sector at this time reflected an international trend toward market-based systems.

The 1996 Coalition Agreement on Health, whilst retaining the purchaser/provider split in health removed the emphasis upon competition between hospitals. In addition, the four RHAs (the Public Health Commission having been dissolved) were replaced by a single Transitional Health Authority that subsequently became the Health Funding Authority (HFA). The board members of the RHAs/HFA were appointed by the Minister of Health and there were no elected members. The RHAs/HFA were, however, expected to reflect the needs of users of services and have a commitment to community consultation. They also retained locality offices across the country.
In 2000, the Government initiated change in the sector which amalgamated the purchase and provision of services in the same organisations and decentralised decision-making to community-focused District Health Boards (DHBs). Figure 2 shows the structure of the New Zealand health and disability sector in 2001 under the New Zealand Public Health and Disability Act 2000.

- The Minister of Health has overall responsibility for the health system. The Minister works through the Ministry of Health to enter into accountability arrangements with DHBs, determines the health and disability strategies, and agrees how much public money will be spent on the public health system with government colleagues.

- The Ministry of Health has a number of key functions including providing policy advice to the Minister of Health on all aspects of the health and disability sector, acting as the Minister’s agent and providing a link between the Minister of Health and DHBs (and other health organisations), and providing general ministerial servicing functions.
In addition, the Ministry of Health provides public health surveillance, management of the pharmaceutical schedule, and information services. In the 2001/2002 year the Ministry of Health retains responsibility for funding some services such as public health, although, over time, the majority of funding for health and disability support services is likely to be devolved to DHBs.

- **DHBs** are Crown Entities whose Boards are responsible to the Minister of Health (administration is through the Ministry of Health). The majority of board members – seven members – are elected by the community. A minority of members – up to four – are appointed by the Minister of Health. In recognition of the Crown’s partnership with Māori, each board must have at least two Māori members, or a greater number if Māori make up a higher proportion of the DHB’s population. There are currently 21 DHBs in New Zealand as shown in figures 3 and 4.

DHBs are responsible for both the provision of health care services to a geographically defined population and the running of acute hospital services. This reflects a move away from the purchaser/provider split in secondary care. DHBs are responsible for improving, promoting and protecting the health and independence of their populations. DHBs must assess the health and disability support needs of the people of their regions, and manage their resources appropriately.

Central Government provides broad guidelines on what services the DHBs must provide and national priorities have been identified in the New Zealand Health Strategy. Services can be purchased from a range of providers including public hospitals, non-profit health agencies, iwi groups or private organizations. Funding is allocated to DHBs using a weighted population-based funding formula.

- **Service providers** – acute hospitals and most public health units – come under the wing of DHBs, while general practitioners (GPs), rest homes, and midwives are independent and are contracted to supply services by DHBs or the Ministry of Health. Overall, there are approximately 80 public hospital facilities in New Zealand and a large number of privately operated aged-care facilities.
Figure 3: District Health Board Boundaries – North Island
The New Zealand Health Strategy

Under the New Zealand Public Health and Disability Act 2000, the Minister of Health is required to determine a New Zealand Health Strategy to provide the framework for the government’s overall direction of the health and disability sector in improving the health of people and communities. The same Act also requires the Minister of Health to report annually to the public and the House of Representatives on progress in implementing the New Zealand Health Strategy.

Following extensive public consultation, the first New Zealand Health Strategy was launched in December 2000. It places particular emphasis on improving population health outcomes and reducing disparities between all New Zealanders, including Māori and Pacific peoples.

The New Zealand Health Strategy identifies seven fundamental principles that should be reflected across the health and disability sector. Any new strategies for development should relate to the principles.

The seven principles of the New Zealand Health Strategy are:

1. acknowledging the special relationship between Māori and the Crown under the Treaty of Waitangi
2. good health and wellbeing for all New Zealanders throughout their lives
3. an improvement in health status of those currently disadvantaged
4. collaborative health promotion and disease and injury prevention by all sectors
5. timely and equitable access for all New Zealanders to a comprehensive range of health and disability services, regardless of ability to pay
6. a high-performing system in which people have confidence
7. active involvement of consumers and communities at all levels.
The New Zealand Health Strategy also highlights 13 population health objectives which were chosen, among other things, for the contribution they can make to improving the health status of the population, and their potential for reducing health inequalities.

<table>
<thead>
<tr>
<th>The 13 population health objectives for the short to medium term are to:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. reduce smoking</td>
</tr>
<tr>
<td>2. improve nutrition</td>
</tr>
<tr>
<td>3. reduce obesity</td>
</tr>
<tr>
<td>4. increase the level of physical activity</td>
</tr>
<tr>
<td>5. reduce the rate of suicides and suicide attempts</td>
</tr>
<tr>
<td>6. minimise harm caused by alcohol and illicit and other drug use to both individuals and the community</td>
</tr>
<tr>
<td>7. reduce the incidence and impact of cancer</td>
</tr>
<tr>
<td>8. reduce the incidence and impact of cardiovascular disease</td>
</tr>
<tr>
<td>9. reduce the incidence and impact of diabetes</td>
</tr>
<tr>
<td>10. improve oral health</td>
</tr>
<tr>
<td>11. reduce violence in interpersonal relationships, families, schools, and communities</td>
</tr>
<tr>
<td>12. improve the health status of people with severe mental illness</td>
</tr>
<tr>
<td>13. ensure access to appropriate child health care services including well child and family health care and immunisation.</td>
</tr>
</tbody>
</table>

Under the ambit of the New Zealand Health Strategy, Toolkits identify actions that need to be taken to address the priority objectives.

**The New Zealand Disability Strategy**

Alongside the New Zealand Health Strategy, the New Zealand Public Health and Disability Act 2000 also requires the development of a New Zealand Disability Strategy. After extensive consultation, the first New Zealand Disability Strategy was launched in April 2001 to guide action to promote a more inclusive society. It is an intersectoral document with relevance across the whole of the public sector in New Zealand.
The New Zealand Disability Strategy presents a vision of a society that values disabled people’s lives and continually enhances their full participation in society. The Strategy acknowledges that disability is not something that people have, but rather that disability is the process which happens when one group of people create barriers by designing a world only for their way of living, taking no account of the impairments other people have.

The New Zealand Disability Strategy identifies 15 objectives, underpinned by detailed actions, to advance New Zealand towards being a fully inclusive society.

The 15 objectives of the NZDS are to:

1. encourage and educate for a non-disabling society
2. ensure rights for disabled people
3. provide the best education for disabled people
4. provide opportunities in employment and economic development for disabled people
5. foster leadership by disabled people
6. foster an aware and responsive public service
7. create long-term support systems centred on the individual
8. support quality living in the community for disabled people
9. support lifestyle choices, recreation and culture for disabled people
10. collect and use relevant information about disabled people and disability issues
11. promote participation of disabled Māori
12. promote participation of disabled Pacific peoples
13. enable disabled children and youth to lead full and active lives
14. promote participation of disabled women in order to improve their quality of life
15. value families, whānau and people providing ongoing support.

Departments and Ministries across the government sector are developing implementation plans for the New Zealand Disability Strategy. This planning will become part of the annual cycle for departments and progress must be reported annually to the public and the House of Representatives by the Minister for Disability Issues.
Monitoring of Achievements and Accountability

A key part of the New Zealand health and disability sector is ensuring accountability for using scarce resources. Considerable effort is being invested by the Ministry of Health in the collection, analysis and interpretation of information, and in the provision of advice on the performance of the health system. This is being assisted by the development of a nationwide performance indicator system. The move to develop performance indicators is of major significance because it allows a reorientation from a focus on input to a focus on outputs and outcomes.

To reflect the integration of health delivery and purchasing functions in DHBs, the Ministry of Health monitors all aspects of performance across the health and disability sector. This includes both the delivery of services and the Government’s ownership interests in public hospitals and related services. The New Zealand Public Health and Disability Act 2000 provides for a number of sanctions on DHBs if the Minister of Health is seriously and repeatedly concerned about the performance of a DHB.

Financing of the Health System and Expenditure on Services

New Zealand’s health system is predominantly publicly funded. In 1998/99 the proportion of publicly funded health and disability support services accounted for around 77.5 percent of the total expenditure. Around 16 percent of total government spending is currently spent on health care and disability support. Total public funding for health and disability services in 1998/99 was NZ$6.5 billion and total expenditure (including both public and private spending) was $8.4 billion.
An Overview of the Health and Disability Sector in New Zealand

The cornerstone of New Zealand’s health system is public finance through taxes of the majority of health services with access to those services based upon need. In addition to taxes there are two other sources of finance for health services:

- private health insurance. Individuals may be covered by health insurance which may pay for a variety of treatments
- out-of-pocket payments. Payments made directly by individuals for health care services.

The majority of the finance for health and disability services is likely to be devolved to DHBs once they have demonstrated their capability. DHBs will then be the main funder of health services. The Accident Rehabilitation and Compensation Insurance Corporation (ACC), which pays for health care services for individuals who require health and disability services as a result of accidents, is also an important funder.

Most health care in New Zealand is provided free of charge – the one exception to this is primary care where a fee-for-service system exists. In addition, individuals may also use private health services if they wish. Over the last two decades the proportion of health expenditure financed privately has risen from 12 percent to 22.5 percent. Figure 5 shows that the majority of this rise has been within health insurance and private household (out-of-pocket) payments.
The total amount of money that New Zealand pays for health funding has risen consistently over the last decade and this rise is shown in figure 6.
It is most useful to compare health expenditure internationally as a proportion of Gross Domestic Product (GDP). This comparison is shown for OECD countries in figure 7 below. Figure 7 shows that the level of funding for New Zealand is at the level one would expect for its level of GDP although, there is no ‘correct’ level of expenditure on health.

**Figure 7: Health expenditure as a proportion of GDP**

The proportion of the New Zealand population aged over 65 years is expected to rise dramatically over the next 50 years from 12 percent to 26 percent. Figure 8 shows the much higher than average cost of providing services for older people. As the number of older people increases, increased funding will be required to provide the same level of service in the future. Although some areas of government expenditure are likely to decrease due to an ageing population (eg, education), the extra costs in superannuation are likely to overshadow these.
The Health and Disability Support Workforce

A competent, adaptable health and disability support workforce is a crucial ingredient for quality health and disability support services. By international standards, the New Zealand health and disability support workforce is highly skilled and knowledgeable and well equipped to provide the wide range of technical and complex health services available.

Over the last 10 years many health workforce issues have reflected domestic and international labour market issues such as, factors influencing the supply and demand for labour, and the time lags for training. Perceived shortages and surpluses during the period reflected the combination of unusually slowly working labour markets and rapid policy-driven changes such as the expansion of mental health services. In this environment, the employers of health professionals managed short-term difficulties in filling vacancies by bringing in personnel from overseas. Greater difficulty was experienced in areas of international shortage, for example psychiatrists, and more recently, medical radiation therapists.

DHBs are the largest employer of health professionals in the public sector. The private sector, however, provides nearly 60 percent of the services and can directly affect employment practices in the public sector. General practitioners and other primary health care providers, rest homes and private hospitals are all private providers who may well receive public funding for services delivery.
During the 1990s significant policy decisions have been taken which have impacted on health and disability sector workforce education and training. These include:

- the establishment of separate purchasers of pre-entry education and post-entry clinical training. The Clinical Training Agency was established in February 1995 and purchases national post-entry clinical training
- transferring funding for pre-entry education of health professionals from Vote Health to Vote Education from 1 January 1995. Nearly all health professionals are educated through the tertiary education sector with the clinical training component purchased from health providers.

Some of the issues related to the health workforce which need to be addressed are:

- difficulties faced in some rural areas in retaining the services of general practitioners and other health professionals
- the pressures faced by hospitals in providing training to pre- and post-entry medical staff while at the same time providing quality health services
- developing the roles of advanced practice nurses and health care assistants
- encouraging the training of Māori and Pacific health professionals to deliver services to their people
- ensuring that there are appropriately trained health professionals to accommodate an expanded role for the provision of primary care.

**Trends in Workforce Development**

**Increasing Numbers of Health Professionals**

Over the last decade in New Zealand there has been a general increase in the number of health professionals. The number of nurses increased from 6.2 per 1000 people in 1980 to 9 per 1000 people in 1997\(^1\). As at March 2000, there were 48,621 registered or enrolled nurses and midwives who had qualified for and purchased an annual practising certificate for the 1999/2000 year.

\(^1\) OECD Data
The same is true for doctors. In 2000 there were 226 active doctors per 100,000 New Zealanders, compared to 156 per 100,000 in 1980. That is an increase per head of population of 42 percent. These figures do not include doctors on temporary or probationary registration or doctors in their first and second year of postgraduate training.

Due to the different methods of delivering health care in different countries there is no international benchmark for the appropriate number of practitioners per capita. When analysing the number of nurses or doctors per 1000 people across OECD countries, as figures 9 and 10 show, New Zealand fares well however.

**Figure 9: Density of practising certified or registered nurses/1,000 population**

![Density of practising certified or registered nurses/1,000 population](image-url)
These numbers do not differentiate between full-time and part-time health professionals. This is an important differentiation when a growing proportion of health professionals are women. Although the number of doctors per head has increased, the proportion of the medical workforce that are women has risen from 24 percent in 1990 to 32.6 percent in 2000.

Demand for some health services has increased substantially over the past 10 years and, despite overall increases in the numbers of health professionals, some speciality areas have suffered shortages. This is a particular problem in areas where New Zealand has a small number of health professionals servicing a speciality area and there are international shortages of these specialists.
Trends that are increasing the demand for health services include:

- increasing complexity of patient conditions and increased throughput of patients in hospital settings requiring an increasingly skilled workforce
- a shift of care from hospitals to ambulatory and community-based settings
- new technologies and discoveries continue to increase our ability to prevent, diagnose and cure illnesses and injuries
- increasing consumer expectations
- the ‘medicalisation’ of conditions such as obesity and depression.

Work to increase the proportion of Māori health professionals

In New Zealand it is recognised that health outcomes are enhanced when services are delivered in ways that meet the cultural needs of Māori and there has been a drive to increase the provision of culturally appropriate services. One aspect of this approach is the need to increase the number of Māori health providers. Some of the recent work addressing the shortage of Māori in the health and disability sector has been driven through the Clinical Training Agency. The strategic direction of the CTA includes:

- Māori Health Workforce Development – supporting the principle of ‘by Māori, for Māori’ programmes (including Māori traditional healing practices), the Māori Health Diploma and Community Health worker pre-entry clinical training course to help build the Māori health workforce, and the Intensive Clinical Training programme with RNZCGP and Te ORA (Māori Medical Practitioners Association) to increase the number of Māori and Pacific Island doctors training as general practitioners.

- Encouraging Māori to enter the health workforce – for example, the University of Auckland established a certificate designed specifically for Māori and Pacific Island students who would not usually enter university or enter the health and disability sector workforce in 1999. All of the 40 students who have attended the Certificate in Science went on to further health-related studies.

- Māori Provider Development – the Ministry of Health funds providers for infrastructure support, workforce development, integrating of services, accreditation and developing best practice models through the Māori Provider Development Scheme which totals $10 million (including GST) a year.
Work to increase the proportion of Pacific providers in the health and disability sector

Workforce development is one component of the Pacific Provider Development Scheme. The workforce development component supports the development and enhancement of business management skills amongst existing Pacific providers. It contributes to strengthening the management capacity of existing providers and provides infrastructural support for workforce development. In addition to this, it supports health and disability sector fellowships to encourage a broader understanding of the varying roles of health and disability sector agencies.

Increased flexibility of the workforce to allow more appropriate alignment of health professionals skills with scopes of practice

The Ministry of Health has made ground in improving the flexibility of health professionals to adapt to the needs of consumers. For example, amendments have been made to the Medicines Act 1999 to allow the extension of prescribing rights to nurses and other health professionals, and work has been done to develop a scope of practice for a registered nurse practitioner. Initiatives such as these have twofold merits, they both improve the delivery of services and enhance career opportunities for health professionals which, in turn, improves retention rates.

Better recognition of the difficulties of providing care in rural areas

Rural areas in New Zealand have small dispersed populations, have a smaller number and range of healthcare providers, and have greater distances for people to travel to health and disability support services. These characteristics combine to make access to health services difficult in some rural areas.

The following support mechanisms have been put in place to support rural primary health care practitioners:

- locum support for GPs
- rural bonuses
- upskilling nurses
- project on Primary Health Care Strategy in rural areas
- telemedicine
- raising the profile of rural general practices.
Increased recognition of the importance of community workers and health care workers

In the past 10 years the Ministry of Health has improved its understanding of the contribution of community workers, however there is still a lack of robust data on this workforce.

Health Workforce Advisory Committee

New Zealand has a pool of highly trained health professionals delivering quality health services. However, the global market for health professionals is increasing and New Zealand must ensure that it can continue to maintain its pool of health professionals, as well as address shortages and gaps.

An independent Health Workforce Advisory Committee has been set up to advise the Minister of Health on how to ensure that there is an adequate and appropriately trained workforce to meet current and emerging health and disability sector needs. The Committee’s key tasks are to:

- provide an independent assessment for the Minister of current workforce capacity and foreseeable workforce needs to meet the objectives of the New Zealand Health Strategy and New Zealand Disability Strategy
- advise the Minister on national goals for the health workforce and recommend strategies to develop an appropriate workforce capacity
- facilitate co-operation between organisations involved in health workforce education and training to ensure that a strategic approach is taken to health workforce supply, demand and development
- report progress on the effectiveness of recommended strategies and identify required changes.
Activity in the Health and Disability Sector

The health and disability sector is large and complex. It would be impossible to accurately measure all of the interactions that individuals have with it on a regular basis. Some summary statistics are given below, however there are many other interactions that people have with the sector through, for example, accessing clean water or health promotion material.

On a typical day:

- 42,700 people will see a general practitioner
- 1650 people will be admitted to hospital
- 2000 visits will be made to accident and emergency departments
- there will be almost 27,400 older people in long-stay residential care
- 115 people will apply for environmental support services.

Trends in service delivery include:

- Hospitals are treating more patients than they have in the past. Raw discharge rates have increased and even after adjusting for changes in the age and sex structure of the population there has been an increase in the number of discharges.
- From 1991/92 to 1999/2000 the raw number of day patients has risen by 120 percent, while the number of inpatients has increased by 37 percent. From 1988/89 to 1999/2000 the average length of stay of patients has decreased from 6.5 days to 3.1 days.
- GPs were the most widely used of all the health professionals covered in the 1996/97 New Zealand Health Survey, being visited at least once in the past year by four out of five people.
Outcomes

The main outcome for the health and disability sector is an improvement in health status at both individual and population levels. This section describes the health status of New Zealanders and health outcome measures.

The actual measurement of outcomes attributable to health services is difficult as health status is affected by a wide variety of factors, many of which are outside the influence of the health and disability sector. For example, ethnicity, sex, income and employment status. Mortality (deaths) and morbidity (illness) are two measures affected by these factors. Nonetheless, they provide a useful indicator of health status and allow comparisons internationally and over time.

Mortality

Mortality is a very direct indicator of the overall health of a nation, although the rates do not measure the quality of life. Overall, mortality rates in New Zealand have declined dramatically over the last half century and life expectancy at birth reached 75.9 years for males and 80.9 years for females in 2000. Mortality is now concentrated into old age with 76 percent of deaths occurring after the age 65 and 54 percent after the age 75. The probability of survival to 45 years now exceeds 95 percent for the population as a whole. Over 85 percent of people who survive to age 45 will see their 65th birthday and more than 75 percent of those reaching 65 will survive to 75 or beyond.
In terms of international comparisons, figure 11 above shows that life expectancy in New Zealand is above the USA and the UK, but below Australia.
Overall life expectancy figures do not give any indication of the quality of life. The World Health Organization has undertaken a global project to look at Health Adjusted Life Expectancy (HALE) in countries across the globe. The fundamental concept of HALE is that it measures the number of years of healthy life that an individual in a particular country can expect to live. Figure 12 above illustrates that New Zealand fares better than Canada and the USA and slightly worse than Australia.
Overall life expectancy figures hide disparities between different social groups. Within New Zealand there are marked discrepancies in life expectancy between different ethnic groups and different socioeconomic groups.

Table 1: Life Expectancy by Ethnicity

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Male</th>
<th>Female</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Māori</td>
<td>75.3</td>
<td>80.6</td>
<td>5.3</td>
</tr>
<tr>
<td>Māori</td>
<td>67.2</td>
<td>71.6</td>
<td>4.4</td>
</tr>
<tr>
<td>Pacific</td>
<td>69.8</td>
<td>75.6</td>
<td>5.8</td>
</tr>
</tbody>
</table>

Table 1 shows differences in life expectancy for different ethnicities and figure 13 shows life expectancy by socioeconomic group. Within New Zealand a deprivation index has been developed known as NZDep96. This index is a composite one that classifies neighbourhoods into one of ten bands where 1 is the least deprived and 10 the most deprived.

Figure 13: Life Expectancy by Socioeconomic Group
As in all OECD countries, most New Zealanders now die of (often multiple) chronic diseases. In 1996 chronic diseases accounted for 82.8 percent of all deaths, a proportion that has remained constant since 1986. Chronic disease mortality is dominated by cardiovascular disease (in particular ischaemic heart disease and stroke) and cancers. Figure 14 summarises, by sex, the main causes of death.

**Figure 14: Cause of Mortality by Sex 1998**

Note: IHD – Ischaemic heart disease; CORD – Chronic obstructive respiratory disease; LRTI – Lower respiratory tract infection.

**Morbidity**

Morbidity is a term for illness. Illness will range from minor colds during winter months, through to chronic diseases such as heart disease and trauma (injury) caused by accidents.

About three-quarters of the population will experience illness or injury in an two-week period – the majority of these will not be serious and will be fairly easily resolved. Fewer than 1 in 10 will result in consultation with a GP or other primary care provider. Fewer than 1 in 100 of the GP encounters will then result in a referral to hospital. Table 2 shows the main reasons for hospitalisation.
### Table 2: Disorders diagnosed in hospitals, 1997

<table>
<thead>
<tr>
<th>Disorder</th>
<th>Percentage of all public hospital day and inpatient discharges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infectious diseases</td>
<td>9.6</td>
</tr>
<tr>
<td>Maternal and infant conditions</td>
<td>12.3</td>
</tr>
<tr>
<td>Complications of pregnancy, childbirth and the puerperium</td>
<td>6.6</td>
</tr>
<tr>
<td>Perinatal conditions</td>
<td>4.3</td>
</tr>
<tr>
<td>Congenital anomalies, chromosomal abnormalities, and hereditary disorders</td>
<td>1.4</td>
</tr>
<tr>
<td>Injuries</td>
<td>19.2</td>
</tr>
<tr>
<td>Unintentional injuries</td>
<td>12.8</td>
</tr>
<tr>
<td>Intentional injuries</td>
<td>5.1</td>
</tr>
<tr>
<td>Adverse effects</td>
<td>1.3</td>
</tr>
<tr>
<td>Chronic diseases</td>
<td>45.3</td>
</tr>
<tr>
<td>Cancer (all sites)</td>
<td>6.6</td>
</tr>
<tr>
<td>Endocrine disorders (including diabetes)</td>
<td>1.3</td>
</tr>
<tr>
<td>Cardiovascular diseases</td>
<td>11.0</td>
</tr>
<tr>
<td>Respiratory diseases</td>
<td>6.1</td>
</tr>
<tr>
<td>Digestive diseases</td>
<td>7.4</td>
</tr>
<tr>
<td>Diseases of the blood and lymphoid tissues</td>
<td>0.7</td>
</tr>
<tr>
<td>Kidney diseases</td>
<td>1.8</td>
</tr>
<tr>
<td>Reproductive system diseases</td>
<td>3.9</td>
</tr>
<tr>
<td>Disorders of the musculoskeletal system</td>
<td>4.4</td>
</tr>
<tr>
<td>Skin diseases</td>
<td>0.9</td>
</tr>
<tr>
<td>Dental disorders</td>
<td>1.2</td>
</tr>
<tr>
<td>Neuropsychiatric conditions</td>
<td>6.1</td>
</tr>
<tr>
<td>Vision disorders</td>
<td>2.2</td>
</tr>
<tr>
<td>Hearing and balance disorders</td>
<td>1.6</td>
</tr>
<tr>
<td>Neurological disorders</td>
<td>1.6</td>
</tr>
<tr>
<td>Organic brain syndromes</td>
<td>0.6</td>
</tr>
<tr>
<td>Ill-defined disorders</td>
<td>7.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>
Excluding normal pregnancy and childbirth, the leading reason for hospitalisation is management of chronic diseases with the leading one being cardiovascular disease. Cardiovascular disease accounted for 11 percent of public hospital discharges in 1997.

Injuries made up approximately 20 percent of discharges in 1997 with the highest rates found amongst older people as shown in figure 15.

**Figure 15: Hospitalisations for unintentional injury by age and injury type 1997**
Other Information

For further information about the New Zealand health and disability sector, including access to publications please refer to the Ministry of Health website: www.moh.govt.nz

For general statistics about New Zealand, including many useful health statistics, please refer to the Statistics New Zealand website: www.stats.govt.nz