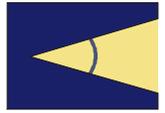


European

**Observatory**

on Health Care Systems



# Health Care Systems in Transition

**New Zealand**



The European Observatory on Health Care Systems is a partnership between the World Health Organization Regional Office for Europe, the Government of Greece, the Government of Norway, the Government of Spain, the European Investment Bank, the Open Society Institute, the World Bank, the London School of Economics and Political Science, and the London School of Hygiene & Tropical Medicine.

# Health Care Systems in Transition

## New Zealand

2001

Written by  
Sian French, Andrew Old  
and Judith Healy

RESEARCH AND KNOWLEDGE FOR HEALTH

By the year 2005, all Member States should have health research, information and communication systems that better support the acquisition, effective utilization, and dissemination of knowledge to support health for all.

Keywords

DELIVERY OF HEALTH CARE  
EVALUATION STUDIES  
FINANCING, HEALTH  
HEALTH CARE REFORM  
HEALTH SYSTEMS PLANS – organization and administration  
NEW ZEALAND

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## Foreword

The Health Care Systems in Transition (HiT) profiles are country-based reports that provide an analytical description of each health care system and of reform initiatives in progress or under development. The HiTs are a key element that underpins the work of the European Observatory on Health Care Systems.

The Observatory is a unique undertaking that brings together WHO Regional Office for Europe, the Governments of Greece, Norway and Spain, the European Investment Bank, the Open Society Institute, the World Bank, the London School of Economics and Political Science, and the London School of Hygiene & Tropical Medicine. This partnership supports and promotes evidence-based health policy-making through comprehensive and rigorous analysis of the dynamics of health care systems in Europe.

The aim of the HiT initiative is to provide relevant comparative information to support policy-makers and analysts in the development of health care systems and reforms in the countries of Europe and beyond. The HiT profiles are building blocks that can be used to:

- learn in detail about different approaches to the financing, organization and delivery of health care services;
- describe accurately the process and content of health care reform programmes and their implementation;
- highlight common challenges and areas that require more in-depth analysis;
- provide a tool for the dissemination of information on health systems and the exchange of experiences of reform strategies between policy-makers and analysts in the different countries of the European Region.

The HiT profiles are produced by country experts in collaboration with the research directors and staff of the European Observatory on Health Care Systems. In order to maximize comparability between countries, a standard template and questionnaire have been used. These provide detailed guidelines

and specific questions, definitions and examples to assist in the process of developing a HiT. Quantitative data on health services are based on a number of different sources in particular the WHO Regional Office for Europe health for all database, Organisation for Economic Cooperation and Development (OECD) Health Data and the World Bank.

Compiling the HiT profiles poses a number of methodological problems. In many countries, there is relatively little information available on the health care system and the impact of reforms. Most of the information in the HiTs is based on material submitted by individual experts in the respective countries, which is externally reviewed by experts in the field. Nonetheless, some statements and judgements may be coloured by personal interpretation. In addition, the absence of a single agreed terminology to cover the wide diversity of systems in the European Region means that variations in understanding and interpretation may occur. A set of common definitions has been developed in an attempt to overcome this, but some discrepancies may persist. These problems are inherent in any attempt to study health care systems on a comparative basis.

The HiT profiles provide a source of descriptive, up-to-date and comparative information on health care systems, which it is hoped will enable policy-makers to learn from key experiences relevant to their own national situation. They also constitute a comprehensive information source on which to base more in-depth comparative analysis of reforms. This series is an ongoing initiative. It is being extended to cover all the countries of Europe and material will be updated at regular intervals, allowing reforms to be monitored in the longer term. HiTs are also available on the Observatory's website at <http://www.observatory.dk>.

## Acknowledgements

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The current series of Health Care Systems in Transition profiles has been prepared by the research directors and staff of the European Observatory on Health Care Systems.

The European Observatory on Health Care Systems is a partnership between the WHO Regional Office for Europe, the Governments of Greece, Norway and Spain, the European Investment Bank, the Open Society Institute, the World Bank, the London School of Economics and Political Science, and the London School of Hygiene & Tropical Medicine.

The Observatory team working on the HiT profiles is led by Josep Figueras, Head of the Secretariat and the research directors Martin McKee, Elias Mossialos and Richard Saltman. Technical coordination is by Suszy Lessof.

Administrative support, design and production of the HiTs has been undertaken by a team led by Myriam Andersen, and comprising Jeffrey V. Lazarus, Anna Maresso, Caroline White, Wendy Wisbaum, and Shirley and Johannes Frederiksen.

Special thanks are extended to the Regional Office for Europe health for all database from which data on health services were extracted; to the OECD for the data on health services in western Europe, and to the World Bank for the data on health expenditure in central and eastern European countries. Thanks are also due to national statistical offices that have provided national data.

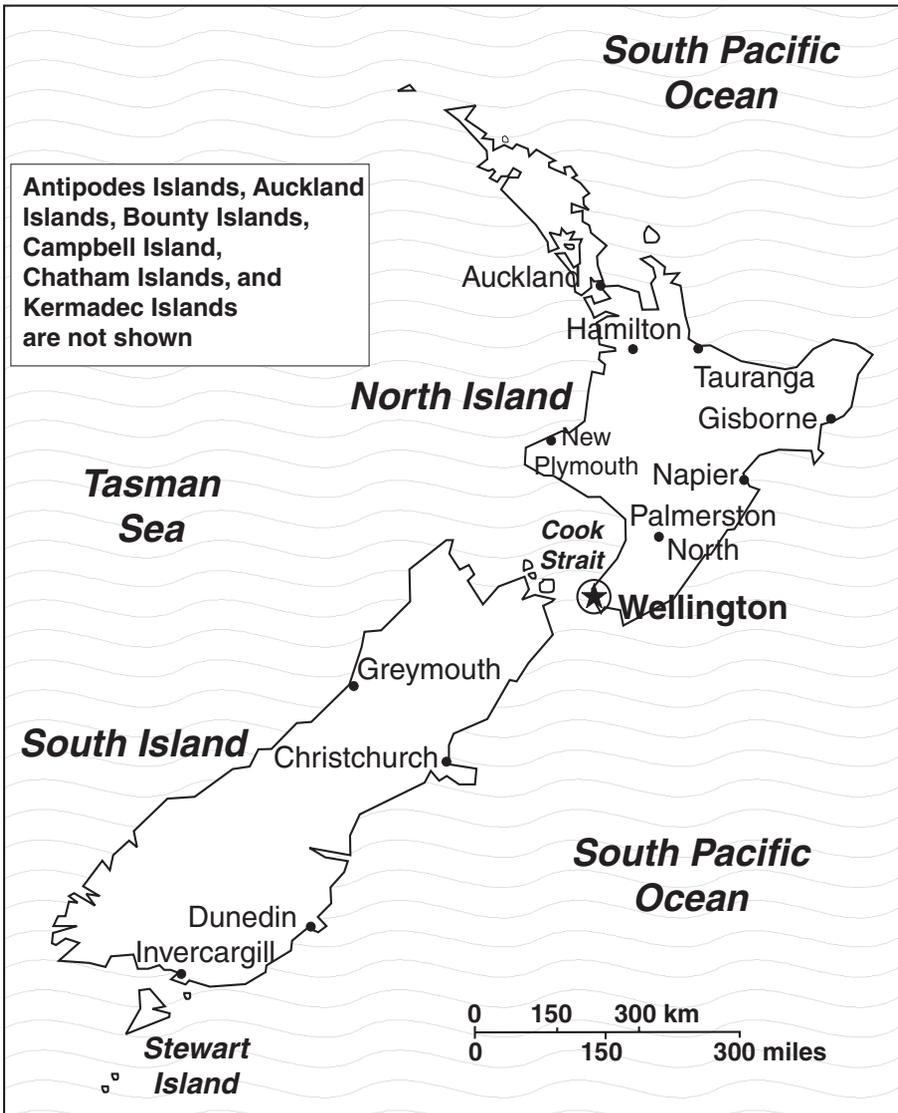
# Introduction and historical background

## Introductory overview

New Zealand lies in the southwest Pacific Ocean and comprises two main and a number of smaller islands. Their combined area of nearly 270 000 km<sup>2</sup> is similar to the size of Japan or the British Isles. New Zealand or Aotearoa (in Māori – the land of the long white cloud) is more than 1600 kilometres long, with a temperate “marine” climate although subject to extremes of wind and rain (Statistics New Zealand 1998). The population numbers 3.79 million (in 2001), the capital is Wellington (population 424 000) and Auckland (population 1.17 million) is the largest city (Statistics New Zealand 2001).

After millions of years of isolation from other landmasses, the spectacularly beautiful islands of New Zealand had some of the world’s oldest and unique plants and animals. There were no large mammals, but a multitude of bird species, many of which were flightless (Flannery 1994; Park 1995). The ecology began to change with the arrival of Polynesian settlers more than one thousand years ago, followed by Europeans about 800 years later. Captain James Cook made three voyages to the region between 1768 and 1779. The first European settlers (initially whalers) arrived from Britain in the 1790s, taking advantage of the warring Māori groups to usurp their lands. An agreement, The Treaty of Waitangi, was eventually signed between the British Crown and some Māori tribes in 1840. About 200 years ago, therefore, the population and cultural heritage of New Zealand was wholly that of Polynesia, but is now dominated by European cultural traditions (Statistics New Zealand 1998:100).

The total resident population in New Zealand is 3 792 654 (provisional result 2001 Census) with 85% residing in urban areas, and roughly three quarters living in the North Island (Statistics New Zealand 2001a). The main ethnic groups (self-identified in the 1996 census) are European/Pakeha (79.6%), Māori

Fig. 1. Map of New Zealand<sup>1</sup>

Source: Central Intelligence Agency World Fact Book.

<sup>1</sup> The maps presented in this document do not imply the expression of any opinion whatsoever on the part of the Secretariat of the European Observatory on Health Care Systems or its partners concerning the legal status of any country, territory, city or area or of its authorities or concerning the delimitations of its frontiers or boundaries.

(14.5%), Pacific Island people (5.6%) and Asian (3.4%). The population of European descent came mostly from Great Britain and Ireland. Migration from the Pacific Islands and South-East Asia has further diversified the cultural mix of the country. The three countries that have provided the most immigrants over the last seven years are (in decreasing order) Great Britain, China and South Africa (New Zealand Immigration Service 2001). A significant number of migrants come from Australia each year, but due to reciprocal residence arrangements do not appear in these statistics. Immigration has been substantially reduced since the 1980s and the largest groups of immigrants traditionally remain from the United Kingdom and Australia.

Māori people are of Polynesian ancestry and are believed to have descended from a small group who arrived in the tenth century. Their descendants were scattered in settlements around the coastline by the twelfth century and diversified into different tribes (iwi) controlling their own lands and fishing grounds, although they continued to speak one language (te reo). From the dominant population in 1840, Māori numbers fell dramatically after European colonisation due to wars, epidemics and the effects of cultural disintegration. Population numbers then recovered somewhat, have grown steadily since the 1950s, and are projected to increase to 22% of the population by 2051 (Statistics New Zealand 2001). Nearly 90% of Māori live in the North Island and areas with Māori concentrations include Gisborne (42.3% of the local population), Northland (30.3%), Bay of Plenty (28.0%) and some parts of South Auckland.

People from the Pacific Islands have increased over the last fifty years from under 0.1% to 6% of the population and (assuming current fertility patterns) are projected to increase to 12% by the year 2051. The Pacific population consists of at least 13 distinct languages and cultural groups, with the Samoan community the largest (50%), followed by Cook Islanders (22.5%), Tongans (15.5%), Niueans (9%), Fijians (2%) and Tokelaueans (1%). Pacific peoples make up approximately 60% of the population in some South Auckland suburbs making Auckland the largest Polynesian city in the world. These Pacific peoples share a common migrant history but many have retained the unique language and cultural characteristics of their islands of origin.

The Asian population consists of around 2.2% Chinese and 1.2% Indians (in the 1996 census). This population has grown mainly since the 1980s with immigrants from Hong Kong, Taiwan, Korea, China and Japan.

## **Demography and health status**

The New Zealand population of European descent has moved through the “demographic transition” common to most western countries (a shift from high

mortality/high fertility to low mortality/low fertility). Substantial reductions in mortality mean that New Zealanders can now expect to live, on average, over 20 years longer than they did a century ago. In 1998 life expectancy in New Zealand was 80.4 years for women and 75.2 years for men (Table 1). These life expectancies are comparable to European Union averages (World Health Organization 2001). Average life expectancy in New Zealand varies according to ethnicity, however, as discussed in the next section.

Changing levels of fertility have influenced the size and structure of New Zealand's population. The total fertility rate (children per women aged 15–49) has dropped from 2.37 in 1975 to 1.91 in 1998 (Table 1). Pacific women in 1996 had the highest fertility rate at 3.3 compared with 2.6 for Māori and 1.8 for European and Asian women. The crude birth rate per 1000 population for New Zealand continued to decrease throughout the 1990s to 14.9 in 1999 (Table 1), although remains higher than the European Union average birth rate of 10.9 per 1000 population in 1997 (World Health Organization 2001).

**Table 1. Demographic indicators**

Indicators	1970	1975	1980	1985	1990	1995	1997	1998	1999
Total population (millions)	2.8	3.1	3.1	3.3	3.4	3.6	3.8	3.8	3.8
% 0-14 years	31.9	30.6	27.2	24.6	23.0	23.3	23.0	23.0	–
% over 65 years	8.4	8.6	9.7	10.3	10.9	11.5	11.5	11.6	–
Crude live birth rate per 1000	22.1	18.3	16.1	15.8	17.8	16.2	15.3	14.6	14.9
Crude death rate per 1000	8.8	8.1	8.5	8.4	7.8	7.9	7.3	7.0	7.2
Total fertility rate	–	2.37	2.03	1.93	2.18	1.98	1.97	1.91	–
Female life expectancy at birth	74.6	75.4	76.4	77.1	78.7	79.6	79.6	80.4	–
Male life expectancy at birth	68.6	69.0	70.4	71.7	72.9	74.3	74.3	75.2	–
Infant mortality per 1000 live births	16.7	16.0	13.0	10.9	8.4	6.7	6.8	5.6	–

Source: (New Zealand Health Information Service 2001).

New Zealand thus has a younger population structure than many western European countries with 23.2% aged under 15 years (compared to 19.2% in the United Kingdom), and with 11% of the population aged 65 years and over in 1997 (compared to 15.7% in the European Union). Given the different fertility and mortality patterns among groups in New Zealand, the average age of the population of European descent will increase faster over the next few decades than that of the Māori and Pacific Island populations.

Infant mortality per 1000 live births has been decreasing in New Zealand, down to 5.6 in 1998, which is on a par with the European Union average of 5.7 (World Health Organization 2001).

Demographic change has been accompanied by an epidemiological transition, with a shift from communicable to noncommunicable disease, and to the

conditions associated with an ageing population. The crude death rate for all causes per 1000 population has decreased from 8.8 in 1970 to 7.2 in 1999 (Table 1).

## **The health of New Zealanders**

In December 2000, the Minister of Health, Annette King, released *The New Zealand Health Strategy* (Ministry of Health 2000), the stated intentions being to: develop a framework for action; identify the government's key priority areas; and provide the District Health Boards with the context within which to operate. It also aimed to identify key health issues for New Zealanders and to provide a framework for future action. The strategy identifies seven fundamental principles for the health sector:

- acknowledging the special relationship between Māori and the Crown under the Treaty of Waitangi
- good health and wellbeing for all New Zealanders throughout their lives
- an improvement in health status of those currently disadvantaged
- collaborative health promotion and disease and injury prevention by all sectors
- Timely and equitable access for all New Zealanders to a comprehensive range of health and disability services regardless of ability to pay
- a high-performing system in which people have confidence
- active involvement of consumers and communities at all levels.

Of the 61 objectives in the Strategy, 13 population health objectives were chosen for implementation in the short to medium term (which are set out later in this report under "Health for all policy"). The strategy identifies 10 broad goals as follows:

- a healthy social environment
- reducing inequalities in health status
- Māori development in health
- a healthy physical environment
- healthy communities, families and individuals
- healthy lifestyles
- better mental health
- better physical health
- injury prevention
- accessible and appropriate health care services.

Papers have followed the *New Zealand Health Strategy* (Ministry of Health 2000) on specific aspects of health, including *He Korowai Oranga: Māori Health Strategy Discussion Document* (Ministry of Health 2001), the *Primary Health Care Strategy* (Ministry of Health 2001a), and the *New Zealand Disability Strategy* (Ministry of Health 2001b).

New Zealanders of European descent enjoy good health with increasing life expectancy and a low incidence of life-threatening infectious disease. The main improvements in life expectancy over the last few decades have occurred through reduced death rates among older adults especially from diseases of the circulatory system, including a downturn in cardiovascular death rates (Table 2). Most of the burden of disease (premature mortality in terms of years of life lost) can be attributed to cardiovascular disease, cancers and injury. The five major causes of death, in terms of disease categories, are ischaemic heart disease, cerebrovascular disease (stroke), chronic obstructive pulmonary disease, lung cancer and colorectal cancer (Ministry of Health 1999b).

**Table 2. Causes of death, crude rates per 100 000 population, 1970–1998**

	1970	1975	1980	1985	1990	1995	1998
All causes	881.0	813.6	852.3	838.2	784.9	785.0	697.6
Diseases of circulatory system	433.0	400.4	415.2	382.0	343.6	330.1	286.5
Malignant neoplasms	158.2	162.2	174.5	188.1	199.6	208.4	199.9
Diseases of respiratory system	103.5	76.2	96.6	103.3	76.3	84.8	56.6
External causes, injury & poison	68.0	65.8	65.5	58.7	57.5	50.7	44.1
Mental disorders	1.3	3.4	5.3	7.7	8.7	13.3	21.1
Diseases of nervous system	13.9	10.5	10.4	13.1	12.5	13.9	12.7
Diseases of digestive system	18.9	23.1	21.3	23.9	23.8	21.5	16.5
Endocrine/metabolic diseases	18.7	18.8	18.1	15.7	16.5	20.0	26.3
Genitourinary system diseases	12.2	8.7	10.4	11.8	12.7	12.2	7.5
Infectious/ parasitic diseases	9.8	7.8	5.5	6.2	6.4	5.9	4.2
Diseases of the blood	2.0	2.3	2.2	2.7	1.9	1.8	1.8

Source: (New Zealand Health Information Service 2001).

New Zealand has analysed the contribution of various conditions to premature mortality and disability outcomes, measured as disability adjusted life years (DALYs). Much of this burden of disease, which falls unequally on different population subgroups, can be linked to modifiable risk factors (Table 3). These include behaviours, such as smoking, alcohol, diet and exercise, and (often associated) physiological risk factors, such as diabetes, obesity, high blood pressure and high cholesterol (Ministry of Health 1999b). In terms of behavioural health risk factors, New Zealand has succeeded in considerably reducing tobacco consumption and is concerned to reduce the consumption of alcohol, as discussed under *Public health*.

**Table 3. Conditions causing at least 10 000 DALYs, 1996**

Cause group and condition	DALYs lost	% total Daly	Major modifiable risk factors
<b>Cardiovascular disease</b>			
Ischaemic heart disease	73 804	13.1	Smoking, high blood pressure, high blood cholesterol, physical inactivity, obesity, high-fat low-vegetable diet, diabetes
Stroke	30 115	5.4	High blood pressure, diabetes, smoking, physical inactivity
<b>Respiratory disease</b>			
Chronic obstructive pulmonary disease	27 848	4.9	Smoking
Asthma	18 800	3.3	(Passive) smoking, allergen avoidance
Lower respiratory tract infection	11 621	2.1	Lack of vaccination (pneumonia, influenza)
<b>Diabetes</b>	21 263	3.8	Physical inactivity, obesity
<b>Cancers</b>			
Lung cancer	17 919	3.2	Smoking, low-vegetable diet, physical inactivity
Colorectal cancer	16 262	2.9	Low-vegetable diet, physical inactivity
Breast cancer	13 522	2.4	Lack of mammography screening
<b>Neuropsychiatric</b>			
Depression	20 497	3.6	Stress, physical inactivity
Anxiety disorder	17 930	3.2	Stress
Dementia	14 710	2.6	Physical inactivity, other stroke risk factors
<b>Injury</b>			
Road traffic injury	17 634	3.1	Speed, alcohol, non seat belt use
Suicide	12 940	2.3	Depression, stress
<b>Osteoarthritis</b>	11 264	2.0	Obesity, physical inactivity

Source: (Ministry of Health 1999b).

## Māori health

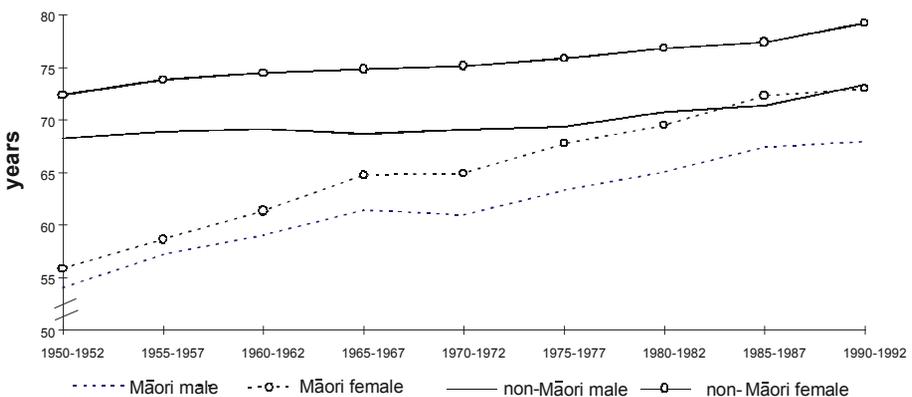
Despite a significant improvement in Māori health status over the past four decades, it continues to lag behind that New Zealanders of European descent (Pakeha). The New Zealand government regards the elimination of these health inequalities as a high priority policy issue (Ministry of Māori Development/Te Puni Kokiri 1998), the New Zealand Health Strategy 2000; *He Korowai Oranga: Māori Health Strategy Discussion Document* (Ministry of Health 2001). Māori also experience considerable socioeconomic disadvantages compared to other New Zealanders (see *Socioeconomic impacts*). Given the complex determinants of health and the link with social inequalities, health policy-makers recognize that health strategies intended to improve the health outcomes of these groups must be part of wider societal and economic strategies. There are data difficulties however, in measuring and monitoring health status, since ethnicity is self-reported in the census and health service providers vary on whether and how they record ethnicity.

Māori experience an excess burden of mortality and morbidity across the age spectrum. This starts with a higher infant mortality rate, higher rates of death and hospitalization in infancy, childhood and youth (predominantly from

injuries, asthma and respiratory infections), and higher morbidity and mortality in adulthood and older age, especially from injuries, cardiovascular disease, cerebrovascular disease, diabetes, respiratory disease and cancers (National Health Committee 1998: 40).

Life expectancy at birth remains eight years less than that for non-Māori. (The 12-year gap in 1950 had narrowed to an 8-year gap in 1996). There is some evidence, however, that the gap is widening again as non-Māori gains accelerate faster than Māori. In 1997, the life expectancy of Māori men was 67.2 compared to 75.3 for non-Māori, while Māori women could expect to live for 71.6 years compared to 80.6 for non-Māori women (Ministry of Health 1999e).

**Fig. 2. Life expectancy at birth, by sex and ethnicity, 1950–1992**



Source: (Ministry of Health 1999b).

Note: As the ethnicity question was changed in the 1996 census, the 1995–1997 series are not included here.

Some differences in disease patterns across the life course are highlighted here, based on available statistics mostly from the mid-1990s. The rate of sudden infant death syndrome (SIDS) was more than five times higher in Māori than non-Māori with rates of 3.6 and 0.6 per 1000 births respectively in 1997 (New Zealand Health Information Service 2000). This represents a significant improvement, however, from a peak of 9.9 per 1000 births in 1989. Rates of Māori youth suicide are also higher, 34 per 100 000 compared with 24 per 100 000 for non-Māori (Ministry of Health 1999f). In addition, admission to psychiatric hospitals among young adults was 2–3 times higher; age-standardized lung cancer rates among both men and women were 3–4 times higher;

age-standardized rates for ischaemic heart disease were nearly twice as high; and the prevalence of diabetes was twice as high accompanied by much higher mortality. Māori also have higher rates of hypertension, and much higher rates of smoking – nearly half of all Māori adults (49%) report that they smoke compared to 22% of Pakeha (Ministry of Health 1999e).

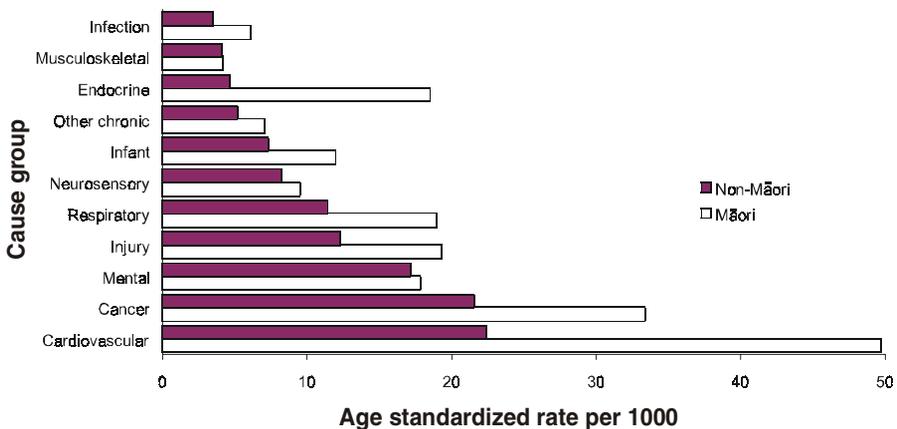
The measure for disability adjusted life years (DALYs) estimates the number of healthy years lost by combining premature mortality and disability. These measures show that Māori bear a much heavier burden of disease and injury than non-Māori across a range of conditions, and more markedly for cardiovascular and endocrine diseases (Fig. 3).

### Pacific peoples' health

The health status of people from the Pacific Islands compares poorly to other groups in New Zealand. Like Māori, and in comparison to European New Zealanders, they have a higher birth rate, a high prevalence of noncommunicable diseases and medium prevalence of communicable diseases. Pacific people have the highest national rates for meningococcal disease, measles, rheumatic fever, and rheumatic heart disease. They also have high rates of diabetes, tuberculosis, liver cancer, and sudden infant death syndrome (SIDS). Again, differences in disease patterns across the life course are highlighted here, based on statistics mostly from the mid-1990s.

The perinatal mortality rate for Pacific children was 12.4 per 1000 births in 1997, compared with rates of 11.0 for Māori and 9.4 for non-Māori/non-Pacific

**Fig. 3. Disability adjusted life years (DALYs) lost, by cause and ethnicity**



Source: (Ministry of Health 1999b).

Islanders (New Zealand Health Information Service 2001). Rheumatic fever rates for Pacific children continue to be much higher than for Māori children (47 compared to 13 per 100 000) while this condition is virtually non-existent for children of European descent. The incidence of meningococcal meningitis was six times higher than for Europeans, and twice that of Māori in 2000 (New Zealand Health Information Service 2001). Noncommunicable diseases were the leading causes of morbidity and mortality for Pacific adults, particularly cardiovascular disease, while diabetes was nearly four times as common as in European New Zealanders. Obesity is a major contributor to morbidity for Pacific adults and an increasing problem among the children.

## **The economy**

New Zealand entered the 1950s and 1960s with an expanding and successful agriculture-based economy. During this period of sustained full employment, GDP grew at an average annual rate of 4% and agricultural prices remained high. Signs of weakness were becoming apparent, however, and the Economic and Monetary Council advised the government in 1962 that New Zealand's productivity growth between 1949 and 1960 had been one of the lowest amongst the world's highest earning economies.

In the late 1960s, faced with growing balance of payments problems, successive governments sought to maintain New Zealand's high standard of living with increased levels of overseas borrowing and protective economic policies. Problems mounted for the New Zealand economy in the 1970s. Access to world markets for agricultural commodities became increasingly difficult, while sharp rises in international oil prices in 1973 and 1974 coincided with falls in prices received for exports. As in many OECD countries, policies in New Zealand were aimed principally at maintaining a high level of economic activity and employment in the short term. High levels of protection of domestic industry undermined competitiveness and the economy's ability to adapt to the changing world environment. The combination of expansionary macro policies and industrial assistance led to macroeconomic imbalances, structural adjustment problems and a rapid rise in government indebtedness.

After the election of the fourth Labour government in 1984, the direction of economic policy in New Zealand turned towards the elimination of many forms of government assistance. Macroeconomic policies aimed to achieve low inflation and a sound fiscal position, while microeconomic reforms were intended to open the economy to competitive pressures. These reforms included floating the exchange rate; abolishing controls on capital movements; ending industry assistance; removing price controls; deregulating a number of sectors

of the economy; corporatization and privatization of state-owned assets; the introduction of a value-added Goods and Services tax (GST) in 1987, and labour market legislation aimed at facilitating wage bargaining. The National Party elected to government in 1991 continued this process of reform, particularly in the labour market and welfare sector.

Adjusting to this new economic framework took time. During the mid-to-late 1980s, the economy stagnated and then entered recession in the early 1990s. The beginning of a fiscal consolidation process in the early 1990s, along with a cyclical downturn among key trading partners (the United States, Australia and the United Kingdom) combined to tip the economy into recession.

From the end of 1992 until late 1997, however, the New Zealand economy enjoyed continuous growth, rapid by past standards with annual growth reaching 5% to 7% in the 1993-94 period. The unemployment rate fell from a peak of 10.9% in late 1991 to 6.0% at the end of 1996. A large net inflow of migrants also provided a boost to activity.

The pressures on the economy nevertheless continued. In order to contain inflationary pressures, monetary conditions were tightened between 1994 and 1996, which involved a rapid rise in the exchange rate and a doubling in short-term interest rates. Nevertheless, inflation picked up, being fuelled by strong housing market activity. Against a background of tighter monetary conditions and declining net migration flows, the economy slowed markedly from the heights of 1994. The sharp rise in the exchange rate while interest rates were falling meant that the tradeables sector of the economy slowed. Overall economic growth slowed to around 2.5% to 3% over 1996 and 1997.

During 1997, the slowing economy was adversely affected by the onset of the Asian crisis that reduced the demand for exports, and by a drought that affected agricultural and related production. Asia, including Japan, takes around 30% of New Zealand's merchandise exports and is also an important market for tourism. By the end of 1997, the economy was slipping into recession and over the first half of 1998 contracted by 1.7%.

In the 1991-1994 period, the current account deficit remained low by historical standards at around 1% to 2.5% of GDP. Since then, the current account deficit has deteriorated, standing at 8.0% in 1999. The merchandise trade surplus has declined, while the deficit on the international investment income balance has increased to around 7% of GDP.

This investment income deficit reflects the servicing of the country's large net external debt, which at March 1999 was just over 90% of GDP. The country's indebtedness is, in the main, a result of private sector decisions reflecting both a demand for investment funds from the business sector and a demand from

households for funds to finance house purchases. Following a period of large and persistent deficits, New Zealand's fiscal position improved over the first part of the 1990s assisted by fiscal consolidation and the economic recovery. In 1990/1991, the country was running a fiscal deficit equivalent to nearly 3% of GDP, but by 1995/96 was in surplus of just over 3% of GDP and by 0.4% in 2000. Following the recession in the first half of 1998, the economy averaged 3.5% growth over 1999.

New Zealand has moved away from its traditional dependence on dairy, meat and wool exports, as forestry, tourism, horticulture, fisheries and manufacturing have become more significant, while also developing its agriculture and manufacturing industries to suit niche markets. Sector shares of GDP in 1999 were 23.2% goods producing industries, 47.3% service industries, 8.3% primary production (including 5.8% from agriculture) and 10.7% general government services.

**Table 4. Macro-economic indicators**

Indicators	1981	1985	1990	1995	1998	1999	2000	2001
GDP annual % change	1.08	4.93	0.85	5.38	2.00	-0.03	4.47	–
CPI % change	15.2	13.4	7.0	4.0	1.3	-0.1	1.5	3.1
GDP US\$ per capita	19 235	10 708	13 071	14 700	12 585	12 353	–	–
GDP NZ\$ per capita	19 739	21 681	21 891	22 395	23 450	23 322	–	–
Average weekly earnings NZ\$	–	425 <sup>a</sup>	440	488	528	539	546	558
Unemployment rate	4.5	–	7.8	6.3	7.5	6.8	6.0	–

Source: (OECD 2000; Statistics New Zealand 1998a).

Figures are to March of stated year except weekly earnings, which are data from the February quarter. <sup>a</sup> = 1986 data.

## Socioeconomic impacts

Not everyone has shared in the economic recovery of the late 1990s and income differentials have grown over the last 15 years. This is important in relation to health policy since many major health outcomes vary considerably according to socioeconomic factors (National Health Committee 1998). The bottom 50% of households have experienced a real decline in their standard of living, with more people on social security benefits, lower real benefits levels, and falls in real wages for low-income earners; the highest incidence of poverty is among sole parents, and among Māori and Pacific communities given their larger family size and lower levels of employment (Stephens 2000).

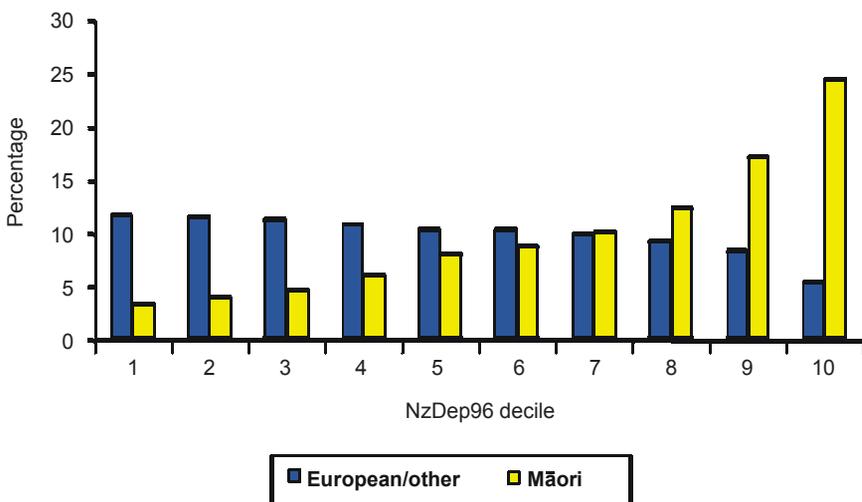
There are substantial socioeconomic differences between population groups. Data from the June quarter 2001 showed the Māori unemployment rate was three times the Pakeha rate at 11.9% compared to 4.0% (Statistics New Zealand

2001). At the 1996 census, 45% of Māori households earned less than an annual income of \$31 400 compared to 39% of non-Māori households; and only 50% of Māori compared to 72% of non-Māori households owned their own homes (Ministry of Health 1999b). It should be noted that data relating to ethnicity rely on self-identification, and it is not uncommon for many Māori to identify with both Māori and non-Māori groups as a result of their mixed heritage.

Pacific peoples also fare poorly with adverse consequences for their wellbeing. Their rate of unemployment was 9.1% in June 2001 (Statistics New Zealand 2001), and the median annual income for adults at the 1996 census was \$12 400, amongst the lowest for all New Zealanders. Pacific peoples are over-represented in occupations with the lowest ratings using the New Zealand Socioeconomic Index (NZSEI) rating, an occupationally derived indicator of socioeconomic status (Statistics New Zealand 1997), and are more likely to be in poor housing and on government income support. This is compounded by comparatively low educational achievement rates.

Life expectancy at birth declines for both men and women living in deprived residential areas. Residential areas are rated from 1=least deprived to 10=most deprived on the NZDep96 index (Ministry of Health 1999b). This area-based measure of deprivation combines variables relating to deprivation taken from the 1996 census. Māori are over-represented in the lower socioeconomic groups and tend to live in the more deprived geographic areas (Fig. 4).

**Fig. 4. Deprivation profile in population group deciles, Māori and non-Māori, 1996**



Source: (Ministry of Health 1999b).

## Political system and government administration

New Zealand is an independent state, a monarchy with a parliamentary government. The Governor-General represents Queen Elizabeth II (the nominal head of state). New Zealand's constitutional history dates back to 1840 when the Treaty of Waitangi (Te Tiriti O Waitangi) was signed between some Māori groups and the British Crown. (See Appendix 1 for a list of key historic events and health-related legislation). The Māori ceded sovereignty in exchange for the guaranteed protection of their lands, fisheries and cultural treasures, along with the same citizenship rights as British subjects. The Treaty of Waitangi is now regarded as a founding document of New Zealand, although it is widely accepted that the Crown has not honoured the Treaty in full. Phrased in broad terms, the preamble to the Treaty contained the objectives, while the three articles provided for a transfer of sovereignty (Article One), a continuation of existing property rights (Article Two), and citizenship rights (Article Three). Of the two texts, English and Māori, the English version was more expansive in Article One and the Māori version broader in its interpretation of Article Two (Durie 1994: 83). Many of the conflicts that have arisen around the Treaty relate to different interpretations of the Māori and English versions. For example, the Māori concept of "taonga" (predominantly lands and fishing grounds) is very broad incorporating both these physical elements and more spiritual ones such as language and health.

With the establishment of the Waitangi Tribunal in 1975 to respond to Māori claims over their taonga, the Treaty of Waitangi became a pivotal public policy issue, with its principles now explicitly expressed in a number of Acts including the Treaty of Waitangi Act 1975, the Environment Act 1986, the State-Owned Enterprises Act 1986, and the NZ Public Health and Disability Act 2000. In the health sector, any discussion of Māori health policy now begins by acknowledging the special relationship between the Crown and Māori under the Treaty.

The first New Zealand Constitution Act was passed in 1846. The current Constitution Act 1986 addresses the four parts of the governmental structure: the sovereign, the executive, the legislature, and the judiciary.

The Governor-General exercises sovereign powers but has no day-to-day influence over the process of government. These sovereign powers became more significant under the Mixed Member Proportional electoral system introduced in 1996 (as explained later). If there is no party with a clear majority following an election, the Governor-General will issue an invitation to form a government to the party leader best placed to command a simple majority on a vote of confidence in the House (Boston *et al.* 1996a: 43). The main sovereign powers of the Governor-General are:

- to appoint or remove ministers on the recommendation of the Prime Minister
- to summon, prorogue, or dissolve Parliament on the advice of the Prime Minister
- to give royal assent to legislation
- to make statutory regulations by Order in Council on the recommendations of ministers, and
- to grant pardons.

The Governor-General also plays important ceremonial and community roles. In addition to these constitutional powers, the Governor-General has reserve constitutional powers that are personal to her (Dame Silvia Cartwright since 4 April 2001) and are not exercised on the advice of Ministers, although the last two powers have never been invoked in New Zealand. These reserve constitutional powers are:

- to request the leader of the political party that gains the support of Parliament following a general election to form a government, and to appoint as Prime Minister the leader of that party;
- to order a dissolution of Parliament and order a general election;
- to refuse a Prime Minister's request for an election.

The political executive is established by convention rather than by statute and comprises the Prime Minister (Helen Clark since 10 December 1999) and the cabinet and ministers not in cabinet. The Constitution Act provides that: "a person may be appointed and may hold office as a member of the Executive Council or as a Minister of the Crown only if that person is a member of Parliament" (Constitution Act 1986, s6 (1)).

The Constitution Act 1986 constitutes a House of Representatives those persons elected as Members of Parliament. The Electoral Act 1993 prescribes the rules governing the size of parliament, its composition, and the election of its members. New Zealand is relatively unusual in being a unitary state with a unicameral legislature and no exhaustive constitutional enactment and no supreme bill of rights. The upper house, the Legislative Council, established in 1854, was abolished in 1951. Its members were appointed by the Governor (later the Governor-General) and could amend or reject legislation from the House of Representatives. Although the need for an upper house is occasionally suggested, there has been no significant public pressure for its restoration (Boston *et al.* 1996a: 46–48).

The judiciary comprises the fourth component of the constitutional structure. The judicial system arranges the courts in a clear hierarchy. The strong convention is that the appointment of judges be entirely non-political. This

convention, and the responsibility of judges to administer the law impartially and objectively, gives rise to the sense that the judiciary is not part of the political system (Boston *et al.* 1996a: 52).

## The electoral system

The Royal Commission on the Electoral System recommended in 1986 that the First-Past-the-Post (FPP) voting system should be replaced by a “Mixed Member Proportional” (MMP) system (based on the German system) (Electoral Commission 1996: 47). In an “indicative” or non-binding referendum on electoral reform in September 1992, voters were given the option of a number of different voting systems including the status quo. The majority voted to change the system, and MMP was the preferred option. A second referendum asking for a choice between First-Past-the-Post and the Mixed Member Proportional system was held on 6 November 1993, the day of the 1993 general election. Earlier that year, Parliament passed the Electoral Act 1993 that implemented Mixed Member Proportional but provided that the Act would only come into force if approved by a majority of voters in the 1993 referendum (which it was).

The New Zealand version of Mixed Member Proportional normally elects 120 MPs in two ways. Sixty-seven MPs are elected to represent the 61 General electorates (16 of which must be in the South Island), and the 6 Māori electorates. The other 53 MPs are elected from lists of candidates nominated by registered political parties.

Māori seats were established in 1867 by the Māori Representation Act to give Māori a voice in Parliament, as they were not at that time entitled to stand in General electorates, that right not being extended until 1967. The number of Māori seats was initially set at four, with the number increasing to five in 1993 and six in 1999, based on the number of voters registered on the Māori Roll (explained later).

By law, all people aged 18 years and over who are eligible to enrol as a voter must do so, although voting itself is not compulsory. New Zealand was the first country in the world to give women the vote in 1893. New Zealand has two electoral rolls: the General Roll and the Māori Roll. Following each census (held every five years) Māori in New Zealand are given the option of whether they want to register on the General Roll and thereby cast votes for candidates in their local general electorate, or on the Māori Roll enabling them to cast votes in their local Māori electorate. The numbers of Māori choosing the so-called “Māori option” determines the number of Māori seats in Parliament –

currently set at six. Each person who is registered, as an elector for a General electorate or a Māori electorate, can cast two votes. The Electorate Vote is for an electorate MP to represent the General or Māori electorate for which the voter is registered as an elector. The Party Vote is for a registered political party that has nominated a party list for the general election.

The candidate in each electorate who wins more Electorate Votes than any other candidate is declared elected as the Member of Parliament for that electorate.

All the Party Votes cast in all the electorates are added up, and each party's entitlement to list seats is worked out, as follows:

- Each registered party's total number of Party Votes decides its share of the 53 list seats in Parliament.
- A registered party must cross the "threshold" before it is entitled to a share of seats based on its total number of Party Votes: either it must win at least 5% of all Party Votes cast at the election, or at least one General or Māori electorate seat.
- Each party that crosses the threshold will receive enough list seats to add to any electorate seats it has won so that its share of the total 120 seats is close to its share of the "effective Party Votes" cast at the election (Electoral Commission 1996).

## **Political parties**

There are two main political parties in New Zealand: The National Party and the Labour Party. With the advent of MMP in 1993, so-called minor parties have had an increasing role to play. The next section summarizes the parties (in alphabetical order) currently represented in the New Zealand Parliament: the text is taken from the websites of the political parties.

### **ACT New Zealand**

ACT New Zealand is a modern liberal party that promotes an open, progressive and benevolent society in which individuals have inherent freedoms and responsibilities. Its core values are individual freedom and choice, personal responsibility, respect for the rule of law and the protection of the life, liberty and property of each and every citizen. ACT is opposed to open-ended welfare that diminishes dignity and individual enterprise and believes that courage, hard work, thrift and enterprise should be encouraged and rewarded. ACT currently has nine Members of Parliament. (Source: [www.act.org.nz](http://www.act.org.nz)).

**Alliance Party**

The Alliance is a social-democratic, centre-left party that is an “alliance” of three political parties: New Labour, Mana Motuhake O Aotearoa and the Democrats. It combines a concern for the environment with the need to create a progressive mixed economy and welfare state. The Party believes in a country based on fairness where: “everyone gets free education and health; everyone has a job; those who can’t work have a decent income”. The Alliance currently has ten Members of Parliament and is in a coalition government with the Labour Party. (Source: [www.alliance.org.nz](http://www.alliance.org.nz)).

**Green Party of Aotearoa New Zealand**

The Green Party charter outlines four main principles that underpin the party: Ecological Wisdom, Social Responsibility, Appropriate Decision-making, and Non-Violence. The Green Party currently has seven seats in Parliament and votes with the government on issues of confidence and supply. (Source: [www.greens.org.nz](http://www.greens.org.nz)).

**New Zealand First**

“New Zealand First is a centrist party whose vision is to put New Zealand and New Zealanders first through enlightened economic and social policies, by placing control of New Zealand’s resources in the hands of New Zealanders, and by restoring faith in the democratic process”. New Zealand First has five seats in the current Parliament. (Source: [www.nzfirst.org.nz](http://www.nzfirst.org.nz)).

**New Zealand Labour Party**

The Labour party is a democratic socialist party whose stated objectives are: “To build and sustain an economy which can attract and retain the intelligence, skills and efforts of all citizens; To ensure the just distribution of the production and services of the nation for the benefit of all the people; To promote and protect the freedoms and welfare of all New Zealand citizens; To educate the public in the principles and objectives of democratic socialism and economic and social co-operation”. The New Zealand Labour party is currently the largest party in Parliament with 49 seats and is in government, in coalition with the Alliance Party. (Source: [www.labour.org.nz](http://www.labour.org.nz)).

**New Zealand National Party**

Individual freedom, opportunity and choice are important to National, who believe in getting ahead rather than making everyone the same. They believe in “that Kiwi spirit – a vision of a confident, dynamic and successful New Zealand”. National want a shared future for New Zealanders, where everyone enjoys the

benefits of a modern economy, where effort is rewarded, entrepreneurs and innovators are championed and high education standards are the norm. They are also determined that our unique environment and lifestyle will be preserved for future generations. The National Party is currently the second largest party in Parliament with 39 seats and makes up the Opposition. (Source: [www.national.org.nz](http://www.national.org.nz)).

### **United Future New Zealand**

“United New Zealand is New Zealand’s Liberal Party. They are one of 70 similar parties around the world, including the Free Democrats in Germany and the Liberal Democrats in Britain”. United New Zealand currently has one MP in Parliament. (Source: [www.united.org.nz](http://www.united.org.nz)).

### **Government administration**

New Zealand is a unitary state with a central government and a range of local government authorities. In recent history, local authorities have had little involvement in the provision of health care, although with the advent of District Health Boards (described later), this situation is changing.

In addition to the central government there are 12 regional councils, 74 territorial authorities (including city councils and district councils), 154 community boards and 6 special authorities (Statistics New Zealand 2001).

New Zealand has elected four governments since 1984, the more volatile recent politics of the country resulting from the introduction of proportional voting in 1993 (as explained in the previous section). This volatility has led to much restructuring throughout government agencies, and in particular the health system.

### **Labour government (1984–1990)**

1984 marked a fundamental break in the political continuity that had been a part of New Zealand life since 1840. Labour, a traditionally left-wing party, was faced with a foreign exchange crisis, and embarked upon a process of economic rationalisation usually the domain of right-wing parties. The currency had been devalued before in 1933, 1949 and 1967, but this time the incoming Labour government decided to ensure that the initial beneficial effects of devaluation lasted longer. It did so by removing most financial controls, floating the dollar on the world market in February 1985 so that it found its own level, and reducing the huge superstructure of regulations and controls that governed economic life. State-run trading enterprises (for example Forestry, Electricity, Post Office, Coal etc) were turned into State Owned Enterprises (SOEs) on

1 April 1987, and beginning in 1988 several SOEs including the national airline – Air New Zealand, State Insurance, and Government Print were sold off so as to reduce New Zealand’s level of foreign indebtedness. Air New Zealand recently was bought back in a government bailout. With the State Sector Act 1988 a new method of administration was introduced. A combination of SOEs and privatization, with the new disciplines of the State Sector Act, resulted in a steady reduction in numbers of state employees from a peak of 89 000 in 1986 to 33 000 by 1999. Health policy from 1984–1987 was more traditional but Areas Health Boards were gradually established. Attempts were made to target meagre extra resources at needy groups and efforts to streamline hospital services were stepped up (Hospital and Related Services Taskforce 1988), but no other major new policies were introduced.

### **National government (1990–1996)**

The incoming National government maintained the economic thrust of Labour’s reforms and extended their scope by tackling labour market problems. The Employment Contracts Act of 1991 legislated a move to individual employment contracts and was bitterly resisted by unions whose power waned quickly as a result of its passage. The Bank of New Zealand and Tranz Rail (the national rail carrier) were privatized, and eventually airports as well. The overseas debt was greatly reduced, thus removing one of the biggest drains on meagre overseas resources. Social welfare benefits were also reduced – a highly controversial and unpopular move. Major restructuring also took place in the health sector. For example, moves to abolish Area Health Boards and to introduce a purchaser/provider split commenced in 1991. The government suffered at the polls in 1993 but retained power albeit with a greatly reduced majority. The government reduced the pace of reform thereafter, and the economy began to gradually improve after years of change and the up swing in the world economy.

### **National/New Zealand First coalition (1996–1999)**

1996 saw the first MMP election in New Zealand but no party emerged with a clear majority. National was the largest party in Parliament with 44 seats (out of 120) and Labour the second largest with 37. The Alliance won 13 seats, ACT 8 and United 1. New Zealand First won a significant 17 seats (including a clean sweep of all five Māori seats) and with them, the balance of power. The dilemma for New Zealand First, being a centrist party, was who to join in a coalition. In a decision that ultimately cost them the majority of their supporters, they elected to join with National. After nine weeks of negotiations, the National/New Zealand First coalition took office with a majority of just one seat. The price of power for National was increased social spending with New Zealand

First extracting a promise of \$5 billion extra expenditure, the abolition of the taxation surcharge on National Superannuation, and increased subsidies for doctors' visits for children under 6 years, with the aim of making them free. The coalition reduced the government's capacity to make any fundamental reforms. Both National and New Zealand First were damaged by their coalition experience and this change of heart by the electorate was reflected at the polls in November 1999.

### **Labour/Alliance coalition government (1999– )**

The 1999 election saw Labour emerge as the largest political party, with 49 seats, but without a clear majority. National became the second largest party and subsequently the Opposition with 39 seats, the Alliance won 10, ACT 9, The Green Party 7, New Zealand First 5 (a big drop from their 17 in 1996), and United 1. Labour and the Alliance negotiated a formal coalition agreement giving them 59 seats in the house. With the Green Party agreeing to support them on motions of confidence and supply, the first elected minority government in New Zealand came into being. In the lead up to the 1999 election, Labour promised extensive structural reform and the incoming Labour-led coalition lost no time in its implementation, as discussed later in relation to the health sector.

### **Public sector reform**

The transformation of public sector management in New Zealand over the last two decades has been part of a comprehensive strategy of economic, social and political reform, the chief aim of which was to improve the country's economic performance and thus end almost three decades of relative decline. The fourth Labour government of 1984 pursued a stabilisation programme at the macroeconomic level based on tight monetary and fiscal policies; at the microeconomic level its liberalisation programme covered almost every sector of the economy. With the election of the National Party (conservative) in 1990, expenditure cuts were intensified and major changes were made to labour market policies and most areas of social policy – including accident compensation, education, health care, housing and income maintenance. In broad terms these changes were designed to extend the targeting of social assistance, cut the real value of most welfare benefits, and separate the state's roles as funder, purchaser and provider (Boston *et al.* 1996a: 6–7). Many public sector services, such as telecommunications and transport were privatized or required to operate competitively (addressed more fully elsewhere).

The application of “economic rationalism” to the health sector is discussed later, but has to be set in the context of wider public sector reforms intended to

introduce market model theories and practices into the public sector, and against the background of international shifts. This philosophy was influential throughout OECD countries but New Zealand was particularly enthusiastic in its adoption. The main public sector reforms in New Zealand that ushered in a new set of economic concepts were built upon four central legislative building blocks: the State-Owned Enterprises Act 1986, the State Sector Act 1988, the Public Finance Act 1989, and the Fiscal Responsibility Act 1994, which are summarized below (Boston *et al.* 1996a: 367–370).

The State-Owned Enterprises Act 1986 aimed to transform those government departments that delivered “tradeable” goods and/or services into more “business-like” entities to enable them to compete with the private sector. The Act allowed for the establishment of new state enterprises with the following characteristics:

- state-owned enterprises were given primarily commercial objectives
- significant managerial autonomy, arms-length relations with ministers
- removal of controls on inputs, finance, and operational scope
- transparent state subsidies for non-commercial functions
- substantial rationalization of assets and staff reductions and
- improved external monitoring and accountability requirements.

The State Sector Act 1988 made major changes to industrial relations and senior management of the public sector, including:

- new procedures for appointing departmental chief executives
- chief executives placed on performance-based contracts for terms of up to 5 years
- annual performance agreements between chief executives and ministers
- the end of a unified public service with chief executives becoming employers and thus responsible for pay fixing and conditions of employment
- abolition of annual general adjustments and other service-wide uniform employment determinations
- abolition of fair relativity with the private sector and
- increased emphasis on equal employment opportunities.

The Public Finance Act 1989 made sweeping changes to financial management in the public sector that included:

- chief executives made responsible for financial management
- introduction of accrual accounting throughout the public sector
- a distinction between the Crown’s ownership and purchaser interests

- a shift from input controls to output assessment
- comprehensive new reporting requirements including statements of service performance and
- more emphasis upon performance indicators.

The Fiscal Responsibility Act 1994 aimed to make government departments more accountable for the prudent management of their budgets, with the legislation requiring:

- regular and explicit fiscal reporting, a Fiscal Strategy Statement Report at the time of the budget, and comprehensive economic and fiscal updates before each general election
- a parliamentary review of fiscal reports, and
- the application of responsible fiscal management, such as reducing total Crown debt to prudent levels and prudent management of the fiscal risks facing the Crown.

## Historical background

From the early days of European settlement in New Zealand, a mix of providers offered health care services: the government, voluntary and “for-profit” sectors. The health system was based upon the English model familiar to the new settlers, including its Poor Laws that mandated local responsibility for the poor.

Medical practitioners worked independently and were paid directly by their patients. Public hospitals were established to treat those who could not afford medical and nursing care in private hospitals or their own homes, who had no homes, or who needed care or incarceration including in “lunatic” asylums. As hospital treatment became more effective, the middle classes increasingly used and paid for care. While some towns and districts financed their hospitals, as did some voluntary organizations, others found it impossible to maintain sufficient public support, and by the 1880s the government funded all hospitals (Royal Commission on Social Policy 1988: 43).

Public health boards previously had been set up in provinces and districts. The Public Health Act 1900 created a Department of Public Health headed by a Chief Health Officer while those appointed as local district health officers were to be medical practitioners with “special knowledge of sanitary and bacteriological science” (Royal Commission on Social Policy 1988: 44). New Zealand (earlier than other countries) thus set up a national department of health to oversee the health of the population.

The Department of Public Health gradually took on broader functions, merging with the Department of Hospitals and Charitable Aid in 1909 and eventually being renamed the Department of Public Health in 1920 (Dow 1995).

By the mid-twentieth century, hospitals had become the key component in the health care system. Advances in medical knowledge and technology meant that hospitals were able to offer effective treatment rather than just care, while caring for seriously ill people at home ceased to be the norm. The organization of hospitals also changed as they expanded and became more costly. Government funding gradually increased while patient fees made up an increasingly smaller share of revenue (Royal Commission on Social Policy 1988: 45).

### **A national health care system**

The first Labour government of New Zealand (1935–1949) substantially shaped the health care system of today, setting up a welfare state in the years following the 1930s World Depression. The Social Security Act 1938 marked the introduction of a comprehensive health system that mandated the provision of free care for all. Universal entitlement to tax-financed and comprehensive health care was established; free hospital treatment was provided for all (including mental hospitals, maternity hospitals and sanatoria); medicines were made free; and the government subsidised the cost of medical care. General practitioners insisted on remaining independent however, and after lengthy negotiations were subsidised by the government on a fee-for-service basis, rather than through patient capitation payments or salaries. Their view was that the subsidy attaches to the patient and is not a payment by the government to the practitioner. Some services, such as dental care and optometry, were still paid for privately (Department of Health 1974: 43). By 1947, however, New Zealand had set up a predominantly tax-funded health care system that made most services available free to the user at the point of delivery with mixed public and private provision.

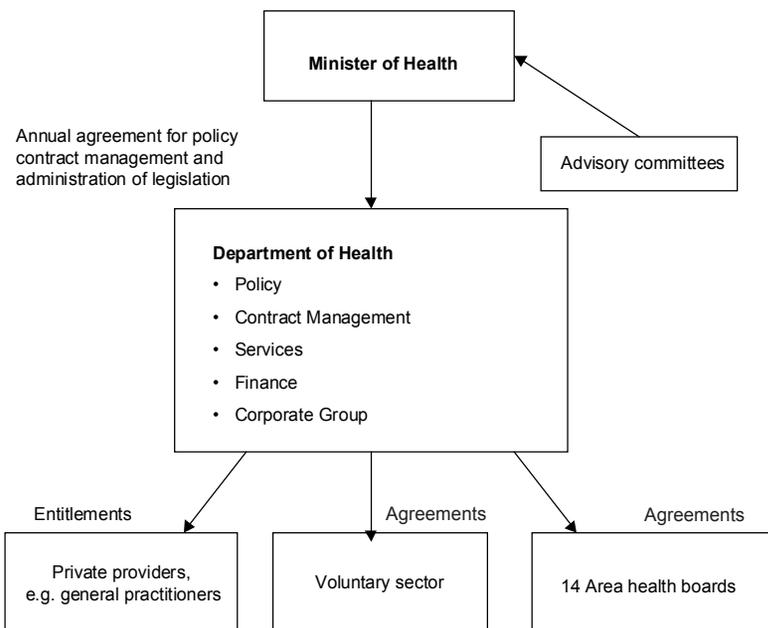
A government review in the early 1970s, *A Health Service for New Zealand* (Department of Health 1974) noted that health services had developed in a fragmented way and could not be described as a comprehensive national health care system. In the late 1970s, the Minister set up a Special Advisory Committee on Health Services Organization to advise on ways to integrate the array of health services. Their recommendations resulted in the Area Health Boards Act 1983, which provided the basis for establishing local boards, initially elected and later composed of both elected members and those appointed by the Minister of Health, to plan and manage the delivery of health services for their area (Royal Commission on Social Policy 1988: 46).

From the centrally funded and managed model of the 1940s, New Zealand’s health system gradually changed to a more devolved structure in the 1970s and 1980s with Hospital Boards having greater autonomy, and later to Area Health Boards who appointed their own chief executives. Thus the changes that occurred in the early 1990s with the move to Regional Health Authorities (described below), was not made from a highly centralized system, but rather one that was already substantially devolved.

### Area health boards

The centralized “welfare state” health system was decentralized in the mid-1980s when the Labour government elected in 1984 proceeded to regionalize health services. The first area health board was formed in 1984 and by late 1989 the country was covered by 14 boards, their population catchment areas varying from 35 000 to 900 000, with each area being organised around at least one large district hospital (OECD 1994: 230). The Department of Health maintained responsibility for subsidizing primary care and for services delivered by “national” providers, while the Area Health Boards were responsible for secondary and tertiary health care (mainly hospitals) and public health services. The hospital boards and public health offices in the Department of Health were merged into an Area Health Board. The new boards funded their own hospitals

Fig. 5. Organizational chart of health care system, 1989



and other health services, and were charged with consulting the community and with undertaking area needs assessments. The government set national guidelines and closely supervised their activities. The Department of Health initially allocated funds to the 14 boards partly on an historical basis, but from 1983 used a population-based formula, and exerted some control by capping hospital expenditures. Area Health Boards thus became the main health service authorities, being allocated around two-thirds of the government budget (Ashton 1995). The organizational structure of the health care system around 1989 is set out in Fig. 5.

### **The 1993 reforms**

The National government, elected in late 1990, set up a taskforce to recommend on further structural changes along market model lines. Its deliberations culminated in the so-called “Green and White Paper” *Your Health and the Public Health*, which stated as its primary objective to “secure, for everyone, access to an acceptable level of health care. Low income should not create a barrier to quality care” (Health Services Taskforce 1991). Costs had continued to increase in the health sector and the new government wished to achieve greater allocative and technical efficiency and “value for money” (Ashton 1995; Ashton 1997). The report acknowledged the achievements of Area Health Boards including better management and tighter contracting, gains in technical efficiency, and more community consultation. However, the reforms of the 1980s were regarded as failing to fully achieve certain policy goals, with the following problems being unresolved:

- Long and rising surgical waiting lists
- Conflict in the role of AHBs in that they both purchased and provided services. This led to blurred lines of responsibility between boards, the communities they served and government, and incentives for boards to buy their own services rather than contract with the most cost-effective and appropriate supplier.
- Legislative constraints on AHBs made it difficult for them to operate efficiently, for example, to lease out unused space to the private sector to raise revenue.
- Fragmentation of service funding in that different parts of the health system were funded in completely different ways. Hospitals were funded through the Area Health Boards; independent practitioners by the central government on a fee-for-service basis.
- Problems with access to services. For example, there was evidence that some people on low incomes could not afford doctor fees.

- Little assistance for doctors in making choices. Differences between benefit levels, for example between laboratory tests and X-rays, were hard to rationalize and influenced decision-making.
- Lack of consumer control. In spite of the AHBs being democratically elected, there was a perception that more consultation and opportunities for community involvement in health service delivery were needed.
- A lack of fairness. A perceived lack of fairness included inconsistencies in the way health care was funded and subsidised and in criteria for public and private hospital treatment.

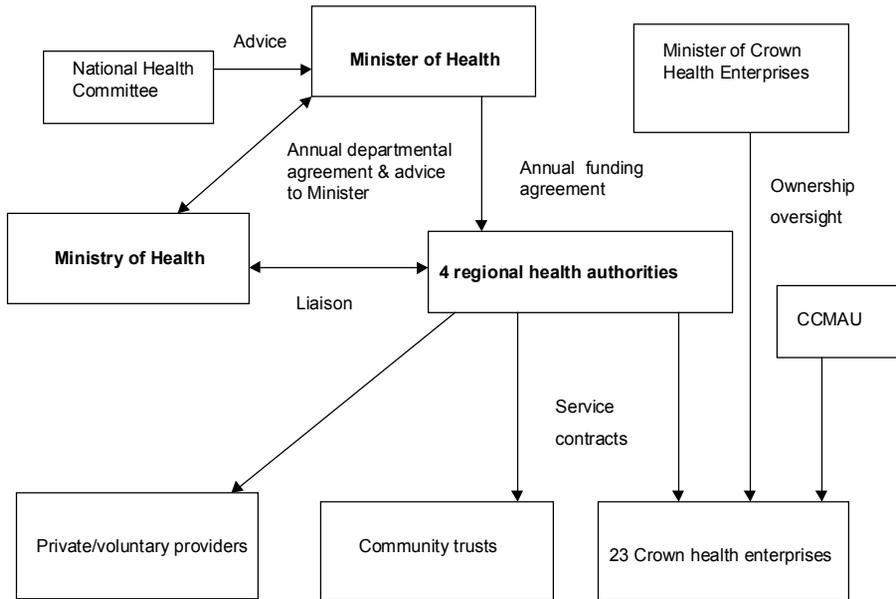
The area health boards were criticized, in particular, for maintaining pre-existing patterns of health service delivery. The taskforce's argument was that, first, incremental change had been insufficient, and second, a split between the purchase and provision of health services was required. The area health boards were disbanded in July 1991 and two years of intensive activity followed in planning the transition to a new system (Ashton 1995).

The Health and Disability Services Act 1993 was based upon the concept of separation between ownership, purchase and provision. The Crown remained the owner and four regional health authorities were established (North, Central, Midland, and South). The separate funding streams for general practitioner services and for hospitals and other services were merged, and each RHA was given a budget to purchase all personal health and disability services for their regional populations from both public and private providers. This integration of funding was intended first, to reduce cost shifting between agencies and services and second, to make it easier to redirect resources as appropriate from institutional to community care, from secondary to primary care, and from treatment to health promotion. Funding for public health services was assigned to a new body, the Public Health Commission. This Commission was responsible for coordinating and contracting for the provision of public health services, monitoring the public health, and identifying areas of need in order to advise the Minister of Health (Health and Disability Services Act 1993 s28). The 14 area health boards were converted into 23 Crown Health Enterprises (CHEs), which were to run hospitals, community and public health services. The CHEs were to function as commercial entities, being established as limited liability companies with government shareholders consistent with the 1986 State-Owned Enterprises Act. The newly created portfolio of Minister of Crown Health Enterprises, and later the Minister of Finance, represented the ownership shareholding interest of the government in the Crown Health Enterprises.

The legislation also provided for the establishment of a National Advisory Committee on Core Health and Disability Support Services (Core Services Committee) to advise the Minister of Health on the kinds and relative priorities

of health services that should be publicly funded, relative service priorities, and other matters that the Minister specifically requested. It was also at this time that the Department of Health became known as the Ministry of Health.

**Fig. 6. Organizational chart of health care system, 1993**



A separate operational unit of the Treasury, the Crown Company Monitoring Advisory Unit (CCMAU), also was set up in 1993, to represent the government's interest as a shareholder in all crown companies, which included Crown Health Enterprises. It advised the Ministers of Health, Crown Health Enterprises and Finance on ownership and monitoring aspects of CHEs. The advice included protecting the Crown's investment, setting service targets, and considering the impact on CHEs of proposed policies. It also advised ministers on how well the CHEs were performing against government objectives, and managed the appointment and performance assessment of company directors. The organizational structure of the health care system in 1993 is set out in Fig. 6.

The Public Health Commission was disestablished in late 1995 (legislation enacted in early 1996) with its policy advisory function being transferred to the Core Services Committee, re-named the National Advisory Committee on Health and Disability (the National Health Committee), and its purchasing function to the Regional Health Authorities. Public health activities thereafter

were protected by “ring-fencing” funds (pursuant to the Public Finance Act 1989) rather than through a separate administrative agency.

## The 1996 reforms

The National/New Zealand First coalition decided that the 1993 reforms had not achieved all that was expected of them and moved to abandon competition in favour of collaboration (Somjen 2000). The 1996 coalition document *Policy Area: Health*, described a health system in which “principles of public service replace commercial profit objectives” with cooperation and collaboration rather than competition between services. The coalition wanted to reduce administrative costs and eliminate geographic inequities. For example, the four regional health authorities had proved administratively expensive for a small country, while the effects of market competition could not prevail since the government had little choice but to meet the budgetary shortfalls of the Crown Health Enterprises (Gauld 1999). Three of the four regional health authorities had accumulated substantial deficits. The incoming government shifted the focus away from a quasi-market model approach, acknowledging that strict competition was not viable in the health sector.

The four Regional Health Authorities were abolished on 30 June 1997. Their functions transferred to a single health funding body: the Transitional Health Authority (renamed the Health Funding Authority on the 1 January 1998), which as a purchasing authority continued the split between purchase and provision. The Health Funding Authority (HFA) contracted with a range of providers for the provision of medical, hospital, public health, disability and other health services, and also was responsible for purchasing postgraduate clinical training. Its other functions were to monitor the need for health services and to monitor the performance of providers.

At the same time the Crown Health Enterprises were converted into 23 companies called Hospital and Health Services (HHS), which were relieved of the requirement to make a profit. They continued to run hospitals and related services, community and public health services, and contracted for their funds with the Health Funding Authority. These companies had independent legal and financial status and continued to operate in a framework of commercial law. A 24th Hospital and Health Service was established to manage blood services: the only publicly owned national-level health provider.

Hospital and Health Services continued as by far the largest health care providers, receiving about half of the government health budget (Vote: Health) each year (Poutasi 2000: 141). Other providers included community trusts

(including Māori health providers), voluntary sector providers (such as church-sponsored services), private “for-profit” providers such as dentists, and independent general practitioners.

The portfolio of Minister of Crown Health Enterprises was also disestablished, with the ownership oversight role being taken on by the Minister of Finance through the Crown Company Monitoring Advisory Unit (CCMAU).

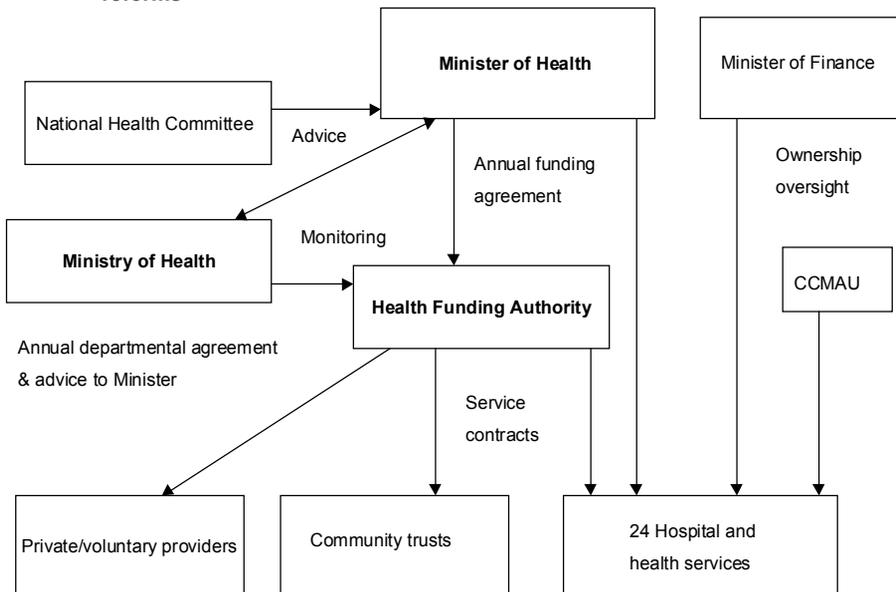
Over the next few years, however, the restructuring that had been undertaken by CHEs since 1993 continued within the Hospital and Health Services. For example, Health Care Otago sold off nursing homes and small rural hospitals and cut psychiatric services, in order to reduce deficits by concentrating upon its “core business”, which increasingly was seen as acute hospital care (Gauld 1999).

The organizational structure of the health care system around 1999 is set out in Fig. 7.

**The 2000 reforms**

At the end of 1999, the Labour/Alliance coalition government was elected on a platform that included the following: cutting waiting times for elective surgery; ensuring access to a comprehensive range of services; improving the overall health status of New Zealanders; and making hospitals non-commercial and

**Fig. 7. Organizational chart of the health care system, subsequent to the 1996 reforms**



more community oriented. The public sector market-oriented reforms of the 1990s in New Zealand were regarded as having failed to achieve their promises. While they had some success in constraining health costs, elective surgery waiting lists had grown and the view was that structural change was needed. No real competition had emerged within regional quasi markets and the private sector had not been stimulated to expand the range of services. Further, greater consumer choice had not emerged, and there had been little change in the distribution of health care providers and services, with the exception of an increased number of Māori providers (Ashton and Press 1997; Somjen 2000).

The health programme of the incoming government was swiftly enacted under the New Zealand Public Health and Disability Act 2000, which ushered in another radical reorganization of the health sector.

Regional governance was re-established by way of 21 District Health Boards (DHB) to replace the HHS, and the Health Funding Authority was disestablished, its role being split between the new DHBs and an expanded Ministry of Health. The legislation allowed a phasing-in period whereby the Ministry of Health took responsibility for existing service contracts until the new District Health Boards were set up and functioning.

This change ended the strict purchaser/provider split, as DHBs now hold their own budgets for the services they provide, but will continue to purchase a proportion of their services from other agencies. CCMAU ceased to monitor health ownership with this function being transferred to the Ministry of Health. While the move to regionalize health services has the potential for many positive gains, there are also concerns. One concern is that regional inequities may develop and another is that DHBs may make commitments that they cannot subsequently fund. The final stages to this restructuring were still in progress at the time of writing.

In some ways, the district health boards are similar to the old Area Health Boards that existed in 1989 under the previous Labour government, insofar as this returns an element of regional governance to health. The fundamental difference, however, is that the new DHBs are responsible for both purchasing and providing services for the people of their region, including primary care.

The remainder of this report describes and analyses the New Zealand health care system as it enters the twenty first century.



# Organizational structure and management

## Organizational structure of the health care system

The central state in New Zealand's unitary form of government has retained overall responsibility for ensuring the provision of health care services, which are funded mainly through taxation revenue. Responsibility for providing those services, however, has been shared between a variety of public, private and voluntary sector agencies for many years.

Publicly owned hospitals provide most secondary and tertiary medical care, while the small private hospital sector specializes mainly in elective surgery and long-term care. Independent medical practitioners and specialists provide most ambulatory medical services. The "third sector" refers to non-profit, non-government organizations, a sector which has expanded rapidly since the mid-1980s (Crampton *et al.* 2001). These providers offer most other services, many of which are publicly subsidised, including union-based health services and Māori tribally based (iwi) health services. An example is Health Care Aotearoa, an umbrella group for over 40 separate providers including capitation-funded general practitioners. A wide range of voluntary sector and other providers offer disability support services.

Fig. 8 sets out the structural changes to the health sector. The roles and functions of the main health organizations are explained in the following sections.

### District health boards

The New Zealand Public Health and Disability Act 2000 created 21 district health boards (DHBs) in place of the Health Funding Authority (HFA) and the

23 hospital and health services companies. The DHBs cover geographically defined populations and may either deliver services themselves or fund other providers to do so. DHBs are crown entities (statutory corporations), and are responsible to the Minister of Health for setting their strategic direction, for appointing their chief executive, and for their own performance. The DHBs are allocated resources to improve, promote, and protect the health of the population within their district, and to promote the independence of people with disabilities. DHBs are expected to cooperate with adjoining districts in delivering services, particularly where there are cross-border issues, and where specialist services draw patients from a larger region rather than a single district.

The HFA, although a central agency, had eleven locality offices throughout the country, the largest four being in Auckland, Wellington, Christchurch and Dunedin. With the abolition of the HFA and the move to DHBs, four “shared services agencies” were created as collaborative ventures between specific DHBs (rather than replicating some functions 21 times), which together take responsibility for:

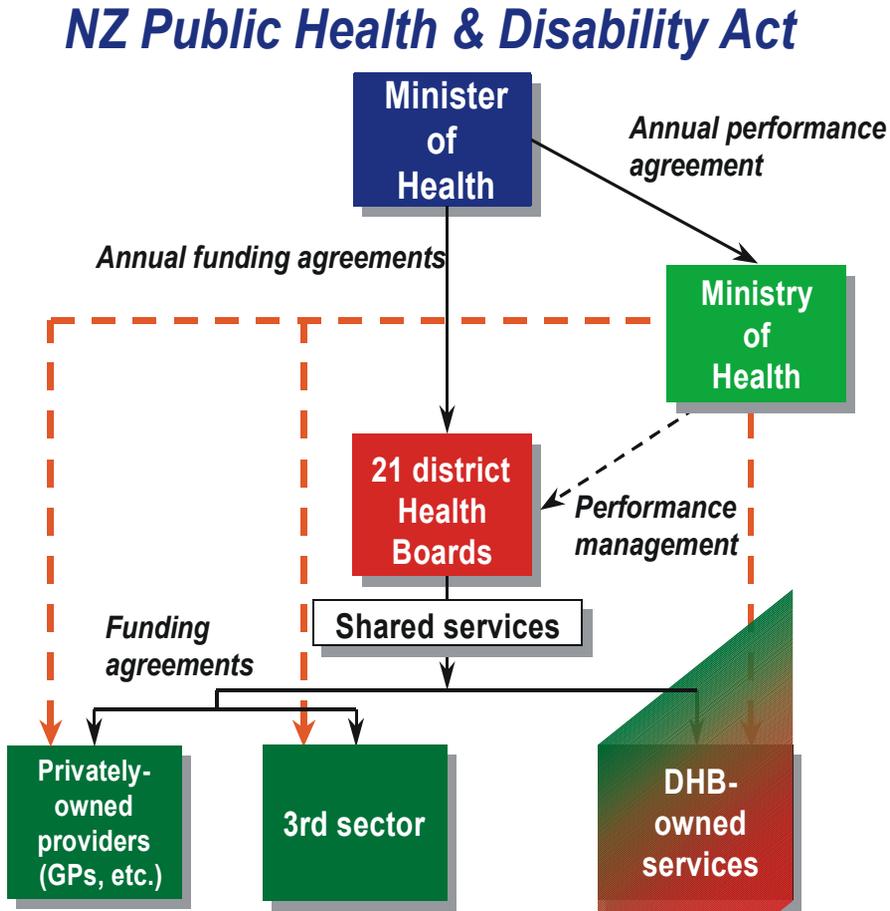
- health needs assessments, including analysing epidemiological data and community consultation
- contract negotiation, and
- contract monitoring.

District health board membership is intended to balance the need for community participation, skill mix, and the Crown’s partnership with Māori. Each district health board has up to 11 members, who serve three-year terms. The local community elects seven members (at the same time as local government elections), the Minister of Health appoints up to four members, and each board is expected to have at least two Māori members, in proportion to the local Māori resident population. Each board must establish three advisory committees: Community and Public Health, Hospitals, and Disability Support.

The legislation sets out several accountability requirements. District Health Boards are expected to ensure that communities can participate in board deliberations, are involved in planning, that information is made available, that the public is consulted on policies, funding and performance outcomes, and that the population has access to a full range of health services. Its plans must reflect the health policies of the government and the prudent management of Crown-owned assets. The District Health Boards must develop and make public the following accountability documents:

- a 5–10 year strategic plan developed in consultation with the community and endorsed by the Minister of Health
- an annual plan and funding agreement to be agreed with the Minister; and

Fig. 8. Organizational chart of the health care system, subsequent to the 2000 reforms



Source: Ministry of Health.

- regular monthly and quarterly reports against the annual plan.

The accountability framework is intended, in particular, to ensure that a district health board does not unduly favour its own hospital and other services above those of other providers (such as general practitioners, Māori health services, and disability services). A district health board also must produce a business case for the approval of the Ministers of Health and Finance if it wishes to undertake capital investment. They also are subject to a range of other legislation including the Public Finance Act 1989, the Official Information Act 1982, and the Ombudsman Act 1975.

Sanctions can be applied against individual board members or the whole board. The Act empowers the Minister of Health as follows: to direct district health boards; to appoint a Crown Monitor to report to the Minister on the performance of the board; to replace the board with a Commissioner; to dismiss board members and to replace the Chair or the Deputy Chair of the board. The Minister can also withdraw functions from a district health board if its performance is inadequate.

Crown funding agreements are to be drawn up between the Crown, district health boards and other providers of services. Providers must be given notice on the terms and conditions under which payments will be made. The Act requires these notices to be nationally consistent where possible in order to keep down transaction costs.

### **The Ministry of Health (Manatu Hauora)**

The Ministry of Health advises the Minister of Health and is responsible for the flow of public funds under Vote: Health, the government budget appropriation ([www.moh.govt.nz](http://www.moh.govt.nz)). The Ministry has national responsibility for policy formulation, monitoring, regulation and evaluation of the health system. The role of the Ministry of Health has been extended under the 2000 legislation, after a lesser role throughout the 1990s, and returns to the Ministry responsibility for district funding and monitoring of service delivery, tasks formerly undertaken by the now abolished Health Funding Authority.

The Ministry carries out the following functions:

- strategic policy advice on advancing the health status of New Zealanders and reducing the disparities in health status between Māori and other groups;
- administration of legislation and regulations;
- funding of the health and disability sectors;
- developing and maintaining a framework of regulatory health interventions and information services;
- establishing and promoting links with other sectors which influence health status and independence;
- monitoring performance of the sector against the objectives agreed with the government;
- provision of informed, independent advice to ministers about health sector performance;
- benchmarking the performance of New Zealand's health sector and disease prevention and control; and

- advice on the protection and improvement of biosecurity as it relates to health and the health impact of measures to control biosecurity.

### **Ministerial advisory committees, councils and services**

*The National Advisory Committee on Health and Disability* or “*National Health Committee*” advises the government on priorities regarding public health, personal health services and disability support services, and other health and regulatory matters. The New Zealand Public Health and Disability Act 2000 established an additional Public Health Advisory Committee to advise the Minister specifically on public health issues and the promotion and monitoring of public health. The Committee was set up as a sub-committee of the National Health Committee.

*The Mental Health Commission* was established in 1996 to monitor the implementation of the national mental health strategy, following the recommendations of the Mason Inquiry into Mental Health (Ministry of Health 1994; Ministry of Health 1996b). The Commission works with the Ministry of Health to promote a better public understanding of mental illness, to reduce the associated stigma and prejudice, and to strengthen the capacity of the mental health sector.

Other Ministerial advisory bodies include the following:

- National Ethics Committee on Assisted Human Reproduction
- National Advisory Committee on Health and Disability Support Ethics
- Cervical Screening Advisory Committee
- Blood Transfusion Trust
- Health Information Council
- Medicines Adverse Reactions Advisory Committee
- Medicines Assessment Advisory Committee
- Medicines Classification Committee
- New Prescribers Advisory Committee
- Medicines Review Committee
- National Kaitiaki Ropu (Cervical Screening)
- Radiation Protection Advisory Council
- Ministerial Advisory Committee on Complementary and Alternative Health
- Health Workforce Advisory Committee to advise the government on how to plan for a professional health workforce
- Mortality Review Committees on specified classes of death, and

- National Health and Epidemiology and Quality Assurance Advisory Committee.

*The Health Research Council* initiates, funds and supports health research; fosters the recruitment and training of health researchers; promotes and disseminates the results of health research; and advises the Minister of Health on national health research policy.

*The Health Sponsorship Council* was established under the Smoke-free Environments Act 1990 to promote health and encourage healthy lifestyles. The Council sponsors sporting, artistic, cultural and recreational organizations in order to replace tobacco company sponsorship and financial assistance.

*The New Zealand Blood Service* manages the donation, collection, processing, and supply of blood, controlled human substances, and related or incidental matters through out the country.

*The Office of the Health and Disability Commissioner* was established in 1994 to protect the rights of consumers of health and disability services. The Commissioner is independent and responsible only to the Minister of Health. The functions of the Commissioner are:

- to develop a Code of Rights and periodically review the Code
- to promote rights of consumers of health and disability services
- to investigate potential breaches of the Code
- to refer complaints for investigation, and decisions on action
- to prepare guidelines for operation of advocacy services, and
- to report to the Minister of Health.

*Health Benefits Limited* established in 1993 as a limited liability company is now a stand-alone business unit within the Ministry of Health. It collects and monitors data and pays subsidies to health professionals, including all primary care transactions subsidised by the government, such as visits to the doctor, pharmaceutical prescriptions, maternity services and immunization. They handle about NZ \$1.2 billion (equal to 1000 millions) annually across complex transactions, such as 34 million pharmacy items. Its audits and investigations have tightened up claiming procedures (for example, the government has taken fraud cases against some medical practitioners and pharmacists) and raised public awareness. It provides information on patterns of health spending, prescription costs and medicines usage, health trends and claiming patterns (Statistics New Zealand 1998: 161–162).

*The New Zealand Health Information Service (NZHIS)* is a group within the Ministry of Health responsible for the collection and dissemination of health-related information.

The *Pharmaceutical Management Agency (PHARMAC)* manages the New Zealand Pharmaceutical Schedule on behalf of the Ministry of Health. When recommending which drugs are subsidised, and at what levels, PHARMAC aims to get the best healthcare value from the New Zealand government's expenditure on pharmaceuticals, taking into account the needs of prescribers and patients, as well as the costs to the taxpayers. PHARMAC procedures are described later under 'Pharmaceuticals'.

*Medsafe*, the New Zealand Medicines and Medical Devices Safety Authority, is a business unit of the Ministry of Health, and is the authority responsible for the regulation of therapeutic products in New Zealand. Medsafe regulates by applying a framework that weighs up risks and benefits of medicines and medical devices, ensures there are therapeutic benefits and manages the potential risks associated with use of these products.

The *National Radiation Laboratory (NRL)* is a specialist business unit within the Ministry of Health that provides a national resource of expert advice, service provision and research capability on matters concerning public, occupational and medical exposure to radiation, the performance of radiation equipment, and the measurement of radiation and radioactivity.

## Other ministries

Successive governments over the last decade have sought to strengthen collaboration between health and other sectors, and in particular between health and welfare. The health system depends upon a number of other ministries and their health-related activities and programme budgets are identified below.

*The Treasury* has a strong ownership interest in health expenditure (and previously was a major shareholder in state-owned enterprises). *The Ministry of Social Development* came into being on 1 October 2001 as a result of a merger between the Ministry of Social Policy and the Department of Work and Income, and will combine their respective roles of social policy advice and service provisions. The Department of Work and Income New Zealand administered the bulk of health-related expenditure (mainly disability support services), previously administered by the former Department of Social Welfare, which was transferred to Vote Health between 1993–1997. A provision remains within Vote Veterans' Affairs, however, administered by the department, to fund assistance to war veterans by meeting the costs of medical treatment and equipment required as a result of disabilities caused by military service. The department also administered health-related benefits such as the sickness benefit payable to persons over the age of 16 who are temporarily incapacitated for work, and health concession cards (as explained later). Estimated

total health expenditure in 1998/1999 was NZ \$11.3 million (Ministry of Health 2000a).

*Te Puni Kokiri (Māori Development)* in this context advises the government on how to improve Māori health outcomes (Ministry of Māori Development/Te Puni Kokiri 1998). The department is concerned with several policy areas as follows: Māori mental health issues; funding health services that respond to the needs of hapu (sub-tribe), iwi (tribe) and Māori; making connections between health and other areas such as housing and income; monitoring Māori social and health outcomes; and reviewing the responsiveness of the Ministry of Health to Māori (Ministry of Health 1999a). Health-related expenditure under Vote: Māori amounted to NZ \$3.1 million in 1998/1999 (Ministry of Health 2000a).

*Ministry of Education* health-related activities include tertiary training and education for doctors, nurses, dentists, and other allied health professionals. Expenditure includes tuition subsidies but excludes student loans and allowances. Total estimated health-related expenditure in 1998/1999 was NZ \$117.5 million, \$94 million on teaching and \$23.5 million on research (Ministry of Health 2000a).

*Department of Corrections* provides health care services to prison inmates and those held in judicial custody. The total estimated health costs in 1998/1999 were NZ \$13.2 million including general medical treatment (NZ \$6.5 million), psychiatric treatment (NZ \$6.5 million) and psychiatric and other research (\$0.14 million) (Ministry of Health 2000a).

*Department of Labour* health initiatives include managing occupational health and safety hazards in the workplace, such as improving the regulatory and administrative frameworks for public and workplace health and safety, and for disability and accident compensation. The Health and Safety in Employment levy amounted to NZ \$25.2 million in 1998/1999 (Ministry of Health 2000a).

*The Department of Internal Affairs* administers the Lottery Grants Board, which funded health-related projects amounting to NZ \$12.0 million during 1998/1999, including research into the causes, prevention and treatment of disorders affecting the health of New Zealanders; health and biomedical science; and research and programmes on developing the skills of the health and biomedical workforce (Ministry of Health 2000a).

*The Ministry of Research, Science and Technology* is responsible for setting priorities and managing public science and technology investments. In 1997 the public investment in health research was transferred from Vote: Health to Vote: Research, Science and Technology. In 1998/1999 that expenditure amounted to \$27.6 million (Ministry of Health 2000a).

*The Ministry of Defence* includes the provision of health care services to Army, Navy and Air Force personnel. The estimates include the cost of medical and dental treatments carried out within the defence services as well as payments for services acquired from external professionals and organizations, but exclude expenditure related to medical examinations. The estimated total health-related expenditure for 1998/1999 was NZ \$7.5 million (Ministry of Health 2000a).

*Biosecurity* covers the biosecurity activities of the Ministries of Agriculture and Forestry, Fisheries, Health and the Department of Conservation. The appropriations under Votes: Biosecurity mainly are devoted to protecting and enhancing the environment. Health-related expenditure covers the costs of: border inspection and quarantine services; pest and disease surveillance services; pest and disease emergency response services; control of tuberculosis vectors; policy advice; and scientific advice to support pest management strategies as they affect public health. Expenditure in this area amounted to around \$206 million during 1998/99 (Ministry of Health 2000a).

*The Ministry of Women's Affairs, Ministry of Youth Affairs and Ministry of Pacific Island Affairs* each contributed in a small way to health expenditure. The total amount for all three agencies was about \$615 000 in 1998/1999 (Ministry of Health 2000a).

## Health Insurance

Health insurance companies insure people against “gap” and “supplementary” costs rather than providing comprehensive health cover. People can insure against some or all of the gaps between the government subsidy and the charges levied by providers on a range of health services. Insurers also provide supplementary insurance to reimburse consumers for surgery and other treatment by private hospitals and private specialists (Ministry of Health 1996a: 72). Although there are many players in New Zealand's private health insurance market, Southern Cross is by far the biggest with an estimated 75% of the market share.

*The Accident Compensation Corporation (ACC)* provides 24-hour comprehensive no-fault insurance, covering medical costs, compensation of up to 80% of weekly income, vocational and social rehabilitation, an independence allowance, and death and funeral benefits. Under the Accident Insurance Act 1998, the National/New Zealand First government set up a competitive insurance market for work-related injuries from registered private insurance companies or from a new state owned enterprise, Work Insurance, which came into force on 1 July 1999. The new Labour-led coalition government

re-nationalized the scheme from 1 July 2000. This is discussed further under *Complementary sources of finance*.

## **Community trusts**

Community trusts provide or contract for health care facilities and services for people in their local community and have been encouraged by the funding authorities to develop integrated health services. The community trusts are a small but significant part of the health care system. For example, about 6% of primary care services are provided by community trusts (Malcolm 2000). To receive funding, a community trust must show that it represents and serves its community.

The previous government encouraged community trusts to take over small district hospitals, mainly to convert into locations for community health services. In May 1996, the government offered NZ\$11 million over two years, under the Community Trusts Assistance Scheme, to help community groups buy surplus hospital facilities from the Crown, with the hope that such facilities could continue to be used productively. The government offered a 5-year loan with repayment required only if the community group ceased to provide health services or if the contract to provide services was not renewed (Ministry of Health 1998b: 5). Many of the community trusts are Māori health care groups, as discussed in the next section.

## **Māori health services**

Māori health care is now a high priority area for New Zealand, in response to demands for political self-determination by Māori, and given concerns about the poorer health status of Māori compared to other New Zealanders. Key issues include focusing health policy on making mainstream health services more responsive and whether Māori should be supported in running their own health system (health services by and for Māori). This section reviews the past history and present state of Māori health services.

Between 1900 and 1930, Māori were actively involved in shaping local health policies and delivering health services, with some tension between an approach based on Māori autonomy and self-determination, compared to an essentially monocultural western medical model. Control was increasingly exerted by the state, however, so that the Department of Health eventually assumed full responsibility and health professionals (medical officers and district nurses) displaced Māori community leaders (Durie 1994: 42).

Whereas in earlier decades Māori men had led the drive for better public health, from 1931–1974 Māori women became more active with the establishment of the Women's Health League (Te Rōpu o Te Ora) and the Māori Women's Welfare League. These women liased between a largely rural and conservative Māori society and a health sector dominated by institutions and health professionals. Māori women essentially were regarded as a support for professionals and as a community link for the mainstream health institutions (Durie 1994: 47). One indication of changing attitudes, however, was the repeal in 1964 of legislation forbidding traditional healers to practice, the 1907 Tohunga Suppression Act.

Although slow to appreciate the links between culture and health, New Zealand began to face this issue from the late 1970s. A resurgence of interest in Māori language (te reo) and culture, combined with a reinterpretation of the Treaty of Waitangi, led to a reassessment of the value assumptions underlying health and social services. Different models for describing Māori health were debated that took more account of cultural, social and economic factors (Pomare 1995). The Department of Health in 1984 hosted a national conference with Māori (Hui Whakaoranga) to identify ways to address health inequalities and to develop culturally relevant programmes. A Ministerial Committee was set up as a result of the hui (meeting) to provide advice on Māori issues to the Department of Health, to be implemented through its Māori health resources unit (Te Wahanga Hauora Māori). The Department of Health began to incorporate Treaty principles into its management philosophy and to train its staff to respond in more culturally sensitive ways to the needs of Māori patients and their whanau (family). Although Māori health initiatives were underway in many Māori communities by the early 1990s, these depended on the goodwill of area health boards and were vulnerable to the sudden withdrawal of funds (Durie 1994: 55).

The government strategy for Māori health in the early 1990s, *Whaia te Ora mo te Iwi*, outlined the general policy directions:

- greater participation by Māori people at all levels of the health and disability sector;
- priorities for resource allocation that take account of Māori needs and perspectives; and
- the development of culturally appropriate practices and procedures (Ministry of Health 1996a: 15).

The restructuring of the New Zealand health system and the new purchasing arrangements in 1993 opened up more opportunities to Māori health care

providers (Ashton 1996). Māori community trusts were encouraged to provide services, to contract with other providers, and to develop alliances with local health and social service providers (Ministry of Health 1996a: 43.)

For 2000/2001, direct expenditure for Māori health services is \$181.6 million (GST inclusive), an increase of \$54.8 million from the previous year's expenditure of \$126.8 million. In addition, \$10 million (GST inclusive) was budgeted and expended for the Māori Provider Development Scheme. The funding from this scheme is allocated on an annual basis, for provider and workforce development (including Māori health scholarships). The direct expenditure for Māori health services is grouped into two categories; services provided by Māori health providers (\$136 million), and Māori initiatives delivered by mainstream providers (\$46 million) (Ministry of Health 2001b).

The number of independent Māori health service providers increased tenfold from approximately 23 in 1993 to over 240 in 1998. Many iwi (tribe) and urban-based health organizations now manage a range of health and disability services for enrolled populations, typically offering public health services, screening, primary care, well-child services and home support.

With the Crown's growing commitment to the Treaty of Waitangi, any discussion of Māori health policy now acknowledges biculturalism and the special relationship under the Treaty between the Crown and Māori. The development of Māori health services during the 1990s, as set out in Section 8 of the 1993 Health and Disability Services Act, was based upon the principles that health inequalities must be reduced and that the "special needs of Māori" should be met. These strategies have included allocating more health funds to areas with a large Māori population, strengthening Māori health care provider organizations, improving skills in the Māori healthcare workforce, gathering better data on Māori health status, and making mainstream health services more responsive.

The bulk of funding for Māori health remains concentrated, however, in mainstream services. An unresolved issue is the extent to which Māori wish to control their own healthcare, through kaupapa services (by Māori for Māori), through community services, primary health care, and also some specialist clinical services. Māori goals include not only an improvement in health status and reduction in health inequalities, but also power through partnership or even self-determination (*tino rangatiratanga*). A model of Māori health describes four cornerstones: *Taha Whanau* (extended family); *Taha Wairua* (spiritual); *Taha Tinana* (physical); and *Taha Hinengaro* (mental) (Durie 1994). A strong emphasis is also placed on knowledge of *whakapapa* (ancestry), and the ability to speak *te reo* (the Māori language). For example, the New Zealand 1996 census found that only 5% of Māori adults, mostly older people, are fluent in *te*

reo, while over 80% either have little or no fluency (Statistics New Zealand 2001). These issues are associated with cultural and political aspirations for control over their own lives and health.

The new government set out its partnership with Māori in the New Zealand Public Health and Disability Act 2000 and in district health board accountability documents. These provisions require that district health boards:

- have Māori representation on the boards and their committees;
- involve Māori in decision-making and in the delivery of health and disability services;
- improve Māori health outcomes and thereby reduce disparities between Māori and other New Zealanders; and
- build the capacity of Māori to participate in the health and disability sector and to ensure that it responds to the needs of Māori.

The Māori Health Strategy Discussion Document released in April 2001, *He Korowai Oranga*, advocates the concept of Whanau Ora: healthy Māori families supported to achieve their maximum health and wellbeing. To achieve this, four pathways have been identified: Pathway One, the development of whanau, hapu, iwi (families, clans and tribes) and Māori communities; Pathway two, Māori participation in the health and disability sector; Pathway three, effective health and disability services; Pathway four, working across sectors (Ministry of Health 2001). The document urges greater partnership, participation and health protection. The 2000 legislation began the process to reduce health inequalities between Māori and non-Māori but does not offer preferential access to services or Māori control over their own separate health care system. The outcome of this discussion document will build on this platform.

## **Pacific peoples' health services**

The people from the Pacific Islands make considerable use of mainstream health services, especially for secondary care. They have high rates of hospitalisation for a number of communicable diseases and for accidents and injury, as well as for other preventable conditions such as asthma, diabetes and pneumonia (Ministry of Health 1999b). More priority, therefore, is being directed at earlier preventive and primary care for the Pacific population. While there is a perception that Pacific peoples (and to a lesser extent Māori) seek care in a secondary setting inappropriately, for example, attending a hospital emergency department for primary care needs, the 1996/97 Health Survey found no significant differences in the use of emergency departments amongst ethnic groups (Ministry of Health 1999e).

In 1999, there were 30 Pacific owned health providers. In addition, 24 Pacific churches were contracted to provide health education, health promotion and exercise programmes. Churches play a key role in the community since about 90% of all Pacific peoples attend church on a regular basis.

Specific services for Pacific people totalled \$21.3 million in the 2000/2001 financial year, including services delivered by Pacific providers and those delivered by mainstream providers. In addition, the Pacific Provider Development Scheme administered \$1.5 million in 2000/2001. The Pacific Provider Development Scheme aims to enhance management skills and health services skills in order to participate in the development of the health and disability sector. It includes courses in leadership and business administration, and offers post-graduate fellowships (Ministry of Health 2001e).

## Planning, regulation and management

### Planning

During the 1990s, a Crown Statement of Objectives was specified in annual Funding Agreements between the Crown and the purchasing authorities. Planning during this period was essentially part of the purchasing process and thus was devolved to purchasing authorities. With the abolition of the central purchasing authority (the HFA), the Ministry of Health now has regained greater policy and planning powers.

The New Zealand Public Health and Disability Act 2000 requires the 21 district health boards to submit an annual plan to the Minister of Health detailing the services that will be funded in their area over the coming year.

The New Zealand Health Strategy documents lay out the government's policy on promoting the health of the population (Ministry of Health 1999b; Ministry of Health 1999d; Ministry of Health 2000). The priorities are to ensure, first, that health services are directed at those conditions most likely to improve the health of the population, and second, that inequalities in health should be reduced (by targeting lower socioeconomic groups as well as Māori and Pacific Island peoples).

The Strategy identified seven broad principles, 10 goals and 61 objectives, with 13 population health objectives singled out for focus in the short to medium term, as discussed later under *Health for all policy*. In addition, the Strategy

highlights five service delivery areas as priorities in the short to medium term:

- public health
- primary health care
- reducing waiting times for public hospital elective services
- improving the responsiveness of mental health services, and
- accessible and appropriate services for people living in rural areas.

The Strategy sets broad goals but does not specify precise targets, nor the interventions needed to reach such targets. The responsibility for specifying goals and performance indicators, and for developing action plans, lies with the Ministry of Health and the District Health Boards who have:

- developed “toolkits” to identify the action that organizations or providers can take to address priority objectives
- developed action-oriented strategies and
- have drawn up performance and/or funding agreements.

The “Toolkits” ([www.newhealth.govt.nz/toolkits.htm](http://www.newhealth.govt.nz/toolkits.htm)) being developed by the Ministry and DHBs address the 13 priority areas, based upon:

- evidence and “best practice” for achieving health gains for different population groups;
- evidence on action that can be taken by different health providers and also agencies outside the health sector;
- indicators by which performance may be measured as the principal means of measuring progress on the priority objectives.

Some other healthcare strategies involve more collaboration with other sectors. Examples include the New Zealand Disability Strategy, Strengthening Families (a strategy that joins the Health, Education and Welfare Sectors to improve life outcomes for children) and its spin-off Family Start (programmes specifically targeting disadvantaged families), the National Drug Policy, the youth suicide initiative, and the National Road Safety Plan.

## Regulation

New Zealand governments traditionally were interventionist in regulating both public and private health care providers. During the 1990s, the government moved away from this somewhat, preferring “enabling legislation” that allowed flexibility in subsequently developing regulations and guidelines (Poutasi 2000: 143). Today a range of legislation protects consumers of health and disability

support services by regulating health professionals, therapeutic products, health and disability support services and facilities, and consumer rights.

Health care professionals are licensed by boards, which issue annual practising certificates, undertake disciplinary procedures, and set standards of competence which educational providers use for curriculum development (as discussed under “Human resources and training”). The proposed Health Professionals Competency Assurance Bill will replace the 11 existing occupational regulation statutes in a bid to simplify practitioner regulation and to ensure lifelong competency of health professionals.

Therapeutic products, such as pharmaceuticals, and equipment are licensed or assessed by the Ministry of Health (as discussed under *Health technology and assessment*).

The Ministry of Health licenses hospitals, other health-related facilities, and residential care facilities such as those for older people and people with intellectual disabilities. The Hospitals Act 1957 provides for the licensing of all hospitals whether operated by public or private owners, and sets out safety standards that hospitals must meet before being licensed to operate. Voluntary hospital accreditation is offered by Quality Health (formerly the NZ Council on Healthcare Standards), which was established in 1993 as a non-profit organization. About 60% of public hospitals and 43% of private hospitals are accredited or are undergoing the formal process (Bloom 2000: 37)

Rest homes are licensed under the Old People’s Home Regulations 1987 issued under the Health Act 1956, and disability support homes under the Disabled Persons Community Welfare Act 1975. The facilities used by other community or home-based services are subject only to general legislation such as the Building Act 1991.

The Health and Disability Services (Safety) Bill is currently before Parliament and will provide the legislative framework for a new set of standards for the sector. Health providers will be required to demonstrate compliance with these standards in order to gain and retain their accreditation.

Although not a regulatory body, the National Health Committee occasionally provides advice on specific conditions, procedures and services, using an evidence-based approach. These reports are submitted as advice to the Minister of Health.

## **Consumer rights and complaints**

The Health and Disability Commissioner (under the Health and Disability Commissioner Act 1994) is responsible for promoting and protecting the rights

of health and disability consumers, set out under a Code of Rights. The Commissioner ensures the fair, simple, speedy and efficient resolution of complaints relating to infringement of those rights. An independent report into the complaints process in New Zealand was released in March 2001 (Ministry of Health 2001f) and the Ministry of Health currently is reviewing the public submissions on its recommendations.

The Mental Health (Compulsory Assessment and Treatment) Act 1992 requires that a person in need of treatment be assessed, emphasises treatment rather than detention, and requires that treatment be carried out in the least restrictive environment possible. The legislation gives people with mental disorders specific rights and gives comprehensive powers of review over clinical decisions. A 1999 amendment extended patients' rights, especially regarding cultural appropriateness and family involvement. The Minister of Health appoints district inspectors (effectively ombudsmen) to protect the rights of individuals. The Director of Mental Health has general oversight and the area directors oversee the local administration of the Act.

The Health Research Council's Ethics Committee and the National Advisory Committee on Health and Disability Service Ethics oversee ethical reviews of research, new treatments and technologies. These two bodies work closely together and are both able to provide second opinions for the regional committees. In addition they are responsible for the review and maintenance of ethics guidelines, and accreditation of the regional groups. There are 13 regional human ethics committees, seven institutional ethics committees as well as specific national groups in the National Animal Ethics Advisory Committee and the National Ethics Committee on Assisted Human Reproduction.

The New Zealand Health Strategy identifies individual rights and consumer consultation as key issues (Ministry of Health 2000). This is important since a five-nation survey conducted in 1998 showed widespread public dissatisfaction with their health care systems (Donelan *et al.* 1999). In New Zealand, 89% said that fundamental change was necessary (compared to 79% in Australia, Canada 79%, United Kingdom 72% and the United States with 79%). Consumer satisfaction with the care received over the previous 12 months, however, was relatively high with 83% rating care as good, very good or excellent in New Zealand, 84% Canada, 81% United Kingdom and 82% in the United States. Issues raised in the public arena (by both providers and consumers) about the operation of the health system over the last few years have focused on:

- long waiting times
- closure of small hospitals
- lack of access to mental health services

- financial problems of some providers
- high transaction costs of contracting
- lack of interagency cooperation
- variable quality of care
- low professional staff morale, and
- a top-heavy management structure.

## Management and quality assurance

Health system management, as in all industrialised countries, involves ongoing tensions between clinicians and managers, and between different professional groups. The previous emphasis on importing professional managers from outside the health sector has receded, and health professionals increasingly are being trained as managers, thus replacing previous management models such as tripartite structures and managerialism (Alexander 2000).

New Zealand so far has no explicit policy, as in the United Kingdom, that requires a health care organization to set up the procedures necessary for “clinical governance” (Scully and Donaldson 1998). The issue of quality improvement, however, was addressed recently in a discussion paper on *Safe systems supporting safe care* (National Health Committee 2001). This paper proposes a model for quality improvement based on five dimensions: safety; effectiveness; efficiency; consumer responsiveness and access. This model would be implemented at four levels: individual, team, organization and system: the aim being to shift the focus away from blaming individuals to a system-wide approach. The paper notes that while many quality initiatives are already underway, a more coordinated approach is necessary. The New Zealand Health Strategy 2000 also identifies quality as a key area, in particular concerning “sector-wide continuous quality improvement mechanisms and initiatives” (Ministry of Health 2000).

## Decentralization of the health care system

Historically, district health authorities ran health services under powers devolved from the central Department of Health. From the late 1980s, public sector health care providers became statutory authorities in their own right under the auspices of the Area Health Boards. Throughout the 1990s, the government set national policies and guidelines, and devolved responsibility for planning and purchasing

health services to purchasing authorities, while at the same time implementing a split between the purchasers and the providers. Four regional purchasing authorities (RHAs) funded service providers (CHEs) 1993–1998, then one central authority (the HFA) from 1998-2000. Purchasing thus was regionalized and later centralized to streamline administrative costs. The new 2000 legislation has returned to a regionalized system and significantly weakened the purchaser-provider split with the creation of 21 district health boards, which now are responsible for both funding and providing health care in their districts. Thus, the provision of health services, traditionally decentralized, will be reinforced within the district model. The Ministry of Health has regained a stronger policy role and will be responsible for funding some national level services.

Independent Practitioner Associations, Māori groups and community trusts have become more numerous and more involved locally through budget holding and joint ventures. The extension of such initiatives in local communities is intended to increase responsiveness, innovation, quality and value for money (Ministry of Health 1996).



## Health care financing and expenditure

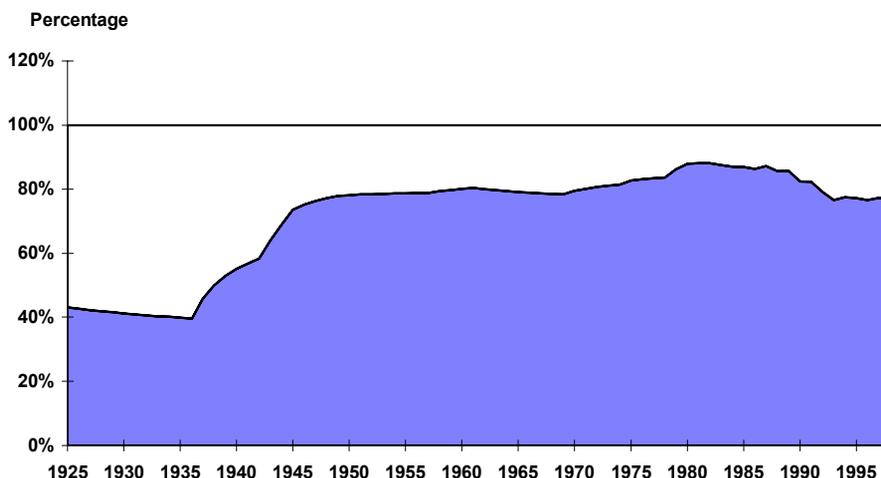
### Main system of finance and coverage

The New Zealand health care system is financed predominantly through general taxation. This remains the preferred method of raising revenue so that financing questions revolve around how much should be spent on health care and whether complementary sources of revenue should be expanded (Poutasi 2000: 137). In 1998/1999, 77.5% of health sector finance came from taxation, 15.9% from consumer out-of-pocket payments, and 6.2% from private insurance (Table 5). With the efforts over the last two decades to contain government spending, the public share of healthcare funding decreased from 88% in 1979/1980 to around 77% in 1994/1995 and thereafter has remained fairly stable (Fig. 9, Table 5).

**Table 5. Percentage of main sources of finance, 1980–1999.**

Source of Finance	1979/1980	1984/1985	1989/1990	1994/1995	1996/1997	1997/1998	1998/1999
<b>Public</b>							
Vote: Health	80.5	78.9	72.7	65.0	66.1	65.7	68.9
ACC	0.7	2.8	4.4	5.4	4.9	5.2	4.7
Other Govt agencies	6.6	5.0	4.8	2.9	2.7	3.0	2.9
Local Authority's	0.3	0.3	0.5	0.6	0.6	0.6	0.7
CHE/HSP deficit financing	–	–	–	3.2	3.0	2.5	0.3
<b>Total Public Funding</b>	<b>88.1</b>	<b>87.0</b>	<b>82.4</b>	<b>77.2</b>	<b>77.3</b>	<b>77.0</b>	<b>77.5</b>
<b>Private</b>							
out-of-pocket	10.4	10.8	14.5	16.2	15.6	16.3	15.9
private insurance	1.1	1.8	2.8	6.4	6.8	6.4	6.2
not-for-profit organizations		0.4	0.4	0.3	0.3	0.3	0.4
<b>Total Private funding</b>	<b>11.9</b>	<b>13.0</b>	<b>17.6</b>	<b>22.8</b>	<b>22.7</b>	<b>23.0</b>	<b>22.5</b>

Source: (Ministry of Health 1999a).

**Fig. 9. Publicly and privately funded expenditure shares 1925–1999**

Source: Ministry of Health.

New Zealand citizens contribute to health care revenue through general taxation based mainly upon Pay as You Earn (PAYE) income tax and Goods and Services Tax (a form of value-added tax). A part of general taxation is allocated to the government health system budget each year (Vote: Health). The second compulsory contribution is through the Accident Insurance scheme, as discussed later.

## Complementary sources of finance

The main components of private sector funding are consumer out-of-pocket expenditure, health insurance, and funding from charitable not-for-profit organizations. Nearly 23% of the country's total health revenue in 1998/99 came from private sources (Table 5). Out-of-pocket payments accounted for around 16% of total revenue and private health insurance 6%.

### Out-of-pocket payments

Out-of-pocket payments by consumers rose from 10% of health revenue in 1980 to 16% in 1999. In 1999, total private out-of-pocket health expenditure amounted to around NZ \$1.89 billion (equal to 1000 millions): a 6.2% per annum increase in real terms since 1980 (Ministry of Health 2000a).

The major components of household out-of-pocket expenditure are pharmaceuticals (24.3%), dental care (18.5%), general practitioner care (14.8%), and surgical and medical care (18.4%) (Ministry of Health 1999a: 17).

Most out-of-pocket payments are co-payments: the patient pays part of the cost of a service with a third-party payer, such as government, covering the balance (as explained under *Health care benefits and rationing*). Private insurance companies under many policies will reimburse for 80% of costs, or have an excess associated with them, so while the insurer bears most of the cost, a proportion is still contributed by the patient. Public hospital accident and emergency, medical, and surgical services are provided free of charge, leaving primary care as the major setting for out-of-pocket payments.

### **Private health insurance**

The population proportion covered by private health insurance in New Zealand is estimated to be between 33% and 37%, down from an estimated 51% in 1990 (Ministry of Health 2000). Since this insurance is supplementary rather than comprehensive, it accounts for only 6.2% of total health expenditure. Aggregate health insurance expenditure has grown from NZ \$15.8 million in 1979/1980 to NZ \$519.6 million in 1999/1999 (Ministry of Health 2000a). This equates to real growth of 12.2% p.a.

### **Accident insurance**

*The Accident Compensation Corporation (ACC)* provides 24-hour comprehensive no-fault insurance and covers medical and other costs. New Zealand was the first country (in 1974) to introduce comprehensive, no-fault insurance for accident-related injuries and disabilities, and thus removed the common law right to sue for damages (Statistics New Zealand 1998: 184). The ACC has responsibility for establishing and operating an insurance-based scheme to rehabilitate and compensate people who suffer personal injury. In order to meet this responsibility, the ACC directly purchases primary care, emergency transport, community and referred services, non-urgent (“elective”) treatment for patients directly from public and private hospitals, and ancillary services for people with injuries from accidents. In 1998/1999, ACC expenditure was \$393.8 million, which equated to approximately 0.4% of GDP, and about 4.5% of total health expenditure (Ministry of Health 2000). ACC receives income from five sources:

- employers, who pay a premium based on their total payroll and on the relative safety/risk involved in the type of work performed. The employer’s work record also influences the premium level;

- earners, who pay a premium based on their total earnings which is collected as PAYE tax;
- motor vehicle owners and drivers, where the premium is included in the annual vehicle registration fee and an excise duty component on petrol sales;
- an annual government payment to cover people who are not earning an income;
- investment earnings from the respective account reserves.

### **Voluntary organizations**

The remaining small share of health revenue (about 0.4%) is primarily from not-for-profit organizations, and has grown steadily from \$6.1 million in 1979/1980 to \$33.1 million in 1998/1999, representing a 2.2% p.a. increase in real terms (Ministry of Health 2000). Not-for-profit organizations offer health-related services funded from their own fund-raising and by government (Ministry of Health 1999a: 26). Major organizations include the Royal NZ Plunket Society (services to babies and young children), the NZ Family Planning Association, Barnados, the NZ Cancer Society, Diabetes New Zealand, NZ Catholic Social Services, Presbyterian Support Services, the Arthritis Foundation, and the Asthma Foundation.

### **Health care benefits and rationing**

New Zealand governments have long required most people to meet some or all of the costs of their own primary health care, and have chosen to target benefits to low-income patients, (using concession cards), rather than offer universal free services paid for through taxation or through statutory insurance (Hindle and Perkins 2000: 94). As noted earlier, the Primary Health Care Strategy has signalled a move toward a more universal approach (Ministry of Health 2001a).

New Zealand has considered ways to ration health care services; in other words, to explicitly limit the type of services that the government is willing to fund. The National Health Committee in the early 1990s was charged with defining what health and disability support services should be publicly funded. Although ultimately unsuccessful in determining exclusions, the Committee did succeed in defining criteria for service priorities. These criteria were based on identifying the most effective treatments for particular conditions according to clinical practice guidelines from “evidence-based” medicine.

The National Health Committee applied these concepts to the long waiting lists for elective surgery in public hospitals. It recommended a “booking system”, where clinicians would use clinical assessment criteria (plus social and other criteria) to score patients according to their ability to benefit from a particular operation. The aim was to engage in “priority-setting” rather than “rationing by delay”. Each patient was assigned a priority ranking along a 100-point scale. This “points” scheme was piloted in several hospitals from 1994, and then from July 1998 all hospitals were required to set up a booking system for surgical procedures. The booking system made the rationale for ranking patients more transparent, scheduled accepted patients for surgery within six months, and referred patients not accepted back to their physicians with a plan of patient care. This is in stark contrast to the previous “first-come first-served” system where condition severity was not taken into consideration. Waiting lists fell in New Zealand for the first time in 1996/1997, however there was considerable variation in waiting times for any given condition, since each hospital developed its own scale (Gauld 1999). A booking system using national criteria has now been implemented across all public hospitals to improve consistency. This system applies clinical priority assessment criteria to several high-volume, high-cost procedures such as cataract surgery and hip replacement (Hefford and Holmes 1999). The government also set up a Waiting Times Fund in 1996 which provided an additional \$280 million over four years and was intended to clear the backlog of elective surgery patients by June 2000. While the fund did help with elective surgery throughput, this was less than hoped due to some baseline cost shifting (Poutasi 2000).

## **Health care benefits**

Subsidies were extended throughout the 1990s to improve access to primary health care and pharmaceuticals for low-income patients and children, via concession cards. New Zealand primary health policy is selectivist being pro-natalist and anti-poverty oriented, with free or subsidised primary care offered for maternity services, children and people on low incomes. Other people in New Zealand however, pay more out-of-pocket for primary care than in the United Kingdom (with a fully tax-funded national health service) or in Australia (with a national health insurance system). Over 40% of the New Zealand population hold concession cards, but varying estimates suggest that perhaps another one-quarter of eligible people do not. Further, people whose incomes are just above the eligibility threshold for concession cards (another 5–10% of the population) face financial barriers in accessing primary care. In 1999, concession cardholders were estimated as 43% of Pakeha, 64% of Māori and 68% of Pacific people (Ministry of Health 1999).

Ambulatory care in hospital (day patient or outpatient) is free of charge to everyone eligible for publicly funded health services (i.e. individuals with residency or citizenship status). Co-payments were introduced for both inpatient and outpatient hospital treatment in the early 1990s but proved to be extremely unpopular. Inpatient charges were quickly dropped and outpatient charges were removed in 1997.

Inpatient services in public hospitals are free of charge to eligible people.

Pharmaceuticals are free for inpatients and people pay a maximum co-payment of NZ \$15 per item on the Pharmaceutical Schedule from community-based pharmacies. Co-payments are reduced for people with concession cards to \$3, while pharmaceuticals are free for children less than six years. These costs apply to pharmaceuticals on the Pharmaceutical Schedule (administered by PHARMAC), but any prescription written for a non-schedule or partially subsidised item will incur an additional charge, regardless of the patients card-holding status.

Medical aids and prostheses are free for children under 16 years. For adults over 16 years, the government fully subsidises medical items required for employment or educational training purposes; a small co-payment is required for some other items, for example, NZ \$37 for an artificial limb.

## Concessions

*The Community Services Card* was introduced in February 1992 to provide health care subsidies to people on low to middle incomes. This includes people on income-tested welfare benefits, and families who earn below a certain threshold. In 2001 the income limits start from \$18 586 for a single person sharing accommodation and increase depending on the size of the family. For example, the limit for a family of four is \$39 089. At 1 July 2001 there were 1 127 517 current cards in circulation.

*The High Use Health Card* offers the same subsidies as the Community Services Card, for people with greater health needs for general practitioner services. In 2001 the criteria were that the individual must have visited their general practitioner more than 12 times in the previous 12 months for an ongoing condition(s). This is irrespective of an individual's income. Unlike the Community Services Card, which is issued to families, the High Use Health Card is specific to one person. At 30 October 2001, 35 280 people held High Use Health Cards, 55% of these in the over-60 age group.

*The Free Child Health Scheme*, introduced by the coalition government in 1996, subsidises general practitioner consultations for children under six. The

subsidy of NZ \$32.50 was intended to cover most of the consultation fee, but the amount has not changed since its introduction, so that general practitioners are finding it increasingly difficult to maintain the service without co-payment. As noted earlier, pharmaceuticals are also free for under six-years-olds. Children between six and eighteen years also have their general practitioner visits subsidized, and children whose parents have a concession card attract a higher level of subsidy.

General practitioners can claim on consultations with cardholders, which reduce the co-payment made by a patient. The government subsidies in 2001 were as follows:

- NZ \$32.50 per visit for all children under six years
- NZ \$15 per visit for children aged 6–18 years (families without a concession card)
- NZ \$20 per visit for children aged 6–18 years (family with a concession card)
- NZ \$15 per visit for adults (over 18 years) with a concession card.

*The Pharmaceutical Subsidy Card* entitles the holder and their family to prescription charges of only NZ \$2 per item for the rest of the year after the first 20 pharmaceutical items. The government sets a standard charge of NZ \$15 for prescribed drugs, with children under six being exempt. This card is available for everyone who meets the above criteria. If the holder of a Pharmaceutical Subsidy Card also holds a Community Services Card then they pay no prescription fee at all after the first 20 prescriptions.

*Maternity services* are intended to be free (although some services such as extra ultrasounds are charged) and women can choose their provider (medical practitioner or midwife) and location for birth (hospital or home delivery). The government pays a set fee for each birth. Women register with their chosen professional (lead maternity carer), who undertakes a woman's care through pregnancy, birth and post-natally. The government also pays the maternity hospital with no cost to the patient (see *Maternity Services* in the next section).

## Health care expenditure

The public share of total expenditure on health care has decreased since 1979/1980 mainly because out-of-pocket payments by patients have increased since government subsidies are not adjusted for inflation. New Zealand, with only 77.5% public funding for health care, is thus closer to the insurance-funded

European health care systems such as France and the Netherlands than the United Kingdom tax-funded health system with 85% public funding (World Health Organization 2001).

Total expenditure on health care in New Zealand in constant prices (1998/1999-prices) increased steadily between 1991/1992 and 1998/1999, a 3.8% annual rise (Table 6). This rise, however, was from a relatively low level from the 1980s. In that decade, New Zealand spent less on health for its population than many other OECD countries.

New Zealand's total health care expenditure as a percentage of Gross Domestic Product (GDP) grew from 5.2% in 1970 to 7.1% in 1978 then fell steadily to 5.2% in 1987, reflecting the depressed economy of the time. Total expenditure as a percentage of GDP then rose slowly but steadily between 1990 and 1997, despite efforts to contain costs, and by 1997/98, health expenditure had risen to 8.2% of GDP (Fig. 10).

Health as a share of the government budget (Vote: Health) rose from 10.1% in 1990 to 12.7% in 1997. As in other countries, other government departments also have health-related expenditures (such as the armed forces and prisons). When health-related expenditures by these departments are added to the government health budget allocation (Vote: Health), publicly funded health and disability expenditure was 6.7% of GDP in 1998 (Ministry of Health 1999a). (See also *Other ministries* under *Organization and management*).

**Table 6. CPI deflated expenditure trends**

	Total expenditure (\$ million 1998/1999)			Expenditure per capita (\$1998/1999)					
	Public	Private	Total	"Usually resident" population			"Resident" population		
				Public	Private	Total	Public	Private	Total
1979/1980	4 369	596	4 965	1 417	193	1 610	–	–	–
1984/1985	4 204	629	4 833	1 298	194	1 492	–	–	–
1989/1990	4 973	1 061	6 033	1 484	316	1 800	–	–	–
1994/1995	5 489	1 624	7 112	1 548	458	2 006	1 512	447	1 959
1995/1996	5 534	1 683	7 218	1 537	467	2 004	1 500	456	1 957
1996/1997	5 843	1 717	7 560	1 600	470	2 070	1 561	459	2 020
1997/1998	6 208	1 851	8 059	–	–	–	1 642	489	2 131
1998/1999 <sup>a</sup>	6 490	1 886	8 376	–	–	–	1 705	496	2 201
RAAGR <sup>b</sup>	2.1%	6.2%	2.8%				2.4%	3.8%	2.7%

Source: Ministry of Health.

Notes: <sup>a</sup> Estimated; <sup>b</sup> Real annual average growth rate between 1979/1980 and 1998/1999 for total funding, and between 1991/1992 and 1998/1999 for per capita funding.

1. Totals may not always add up due to rounding.
2. 1997/1998 expenditure has been revised.

In real per capita terms, government spending rose through the 1990s with small dips in 1992/1993 and 1995/1996 reaching \$1705 per capita in 1998/1999. Private per capita expenditure rose too (in constant prices) from \$382 in 1991/1992 to \$496 in 1998/1999. Total per capita expenditure in real terms has thus risen reasonably consistently in New Zealand over the last decade.

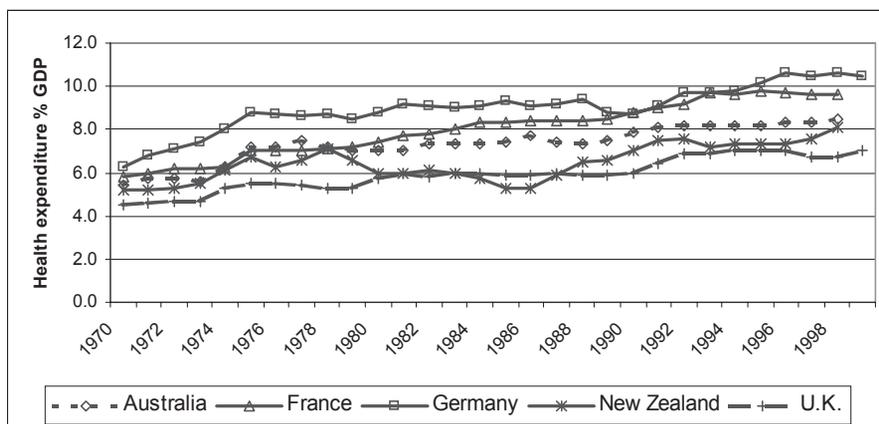
Compared to other OECD countries during the 1980s, New Zealand expenditure has fluctuated compared to the steadier growth in other countries (Fig. 10). By 1998, at 8.2% of GDP, New Zealand's total health care expenditure was just below the European Union average and higher than the United Kingdom (Fig. 11). In 1997, New Zealand was sixteenth for health expenditure in the OECD as a percentage of GDP and nineteenth for per capita health expenditure (OECD 2000). In terms of the relationship between health expenditure and GDP, New Zealand spends a similar amount on health care to an OECD country with a similar level of GDP (Ministry of Health 1999a: 36). These comparisons serve only to suggest that health expenditure in New Zealand is around what might be expected given its economy. There is no "right" amount to be spent on health and intercountry comparisons must be made cautiously given differing contexts and differing population health needs.

Total per capita expenditure increased steadily from US \$937 in 1990 to US \$1357 in 1997, controlling for purchasing power parity (PPP). This statistic provides a better comparison between countries. Using this measure, per capita expenditure in 1997 was lower than the European Union average of US \$1771 (Fig. 11), and about eighteenth in the OECD (Ministry of Health 1999a).

New Zealand reduced the role of government as the dominant provider of health care services in its quasi market environment, when purchasing authorities could purchase from either the public or private sector. The share of government spending on health that went to private and not-for-profit providers increased from 31% in 1992/1993 to 39% in 1996/1997 (Davies 2000: 75). Thus the government increased its spending in the private sector, particularly in long term care, but otherwise the historical structure of health services provision mainly remained in place (Ashton and Press 1997).

In December 2001, a three-year health funding package was announced with cumulative annual increases that will put almost \$3 billion extra in total into health and disability services (Minister of Health 2001). Thus the Vote Health operating fund in 2002/2003 was allocated 7% more than the previous year and in 2004/2005 will receive 21% above the 2001/2002 baseline.

**Fig. 10. Trends in health care expenditure as a share of GDP (%) in New Zealand and selected countries, years 1970–1999**



Source: (OECD 2000).

### Health care expenditure by category

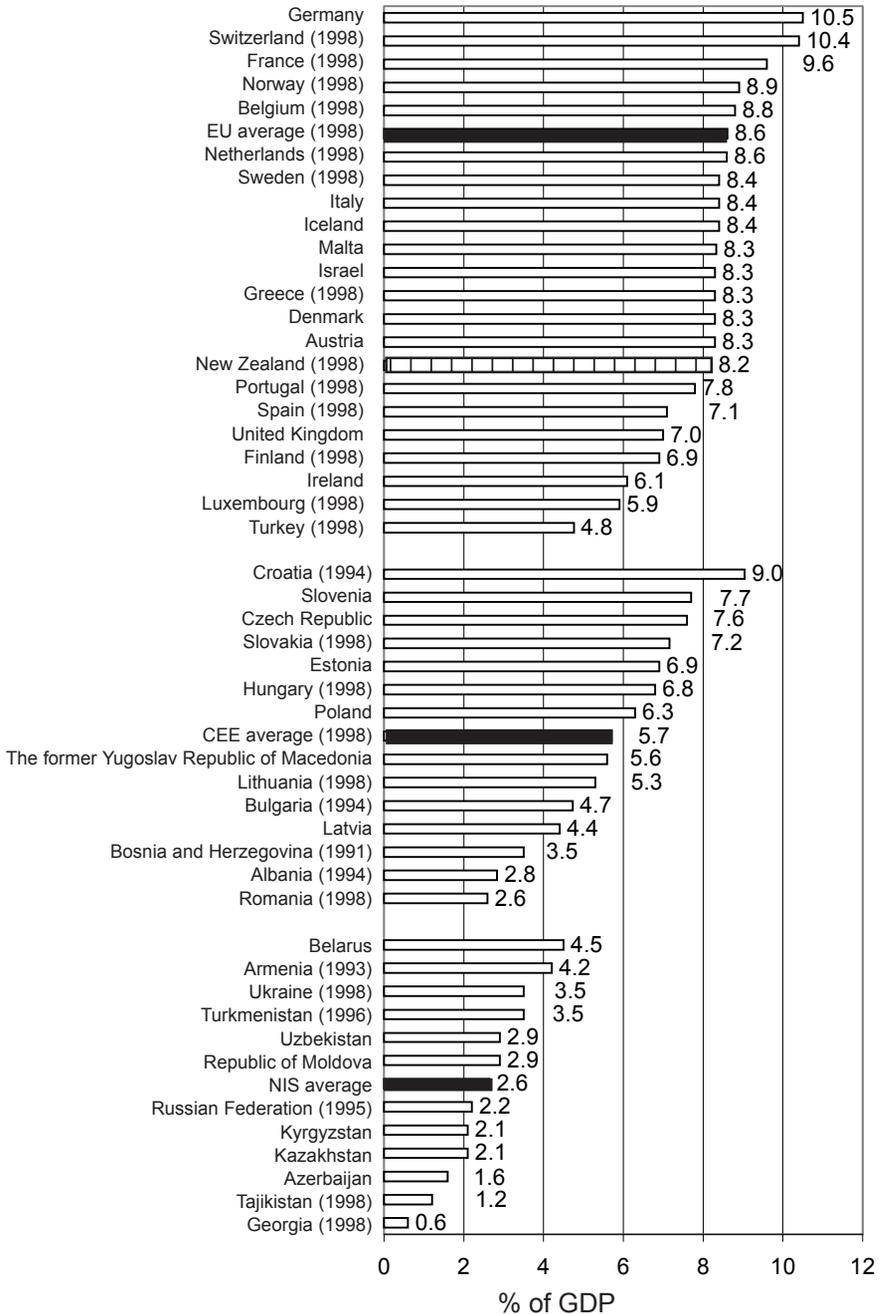
About 60% of total health expenditure went on inpatient care in the early 1990s (Table 7), which in OECD terms is a relatively high proportion. The shift in responsibility for funding and purchasing from the Ministry of Health to regional and then to the central purchasing authority means that trends within the health budget are difficult to trace. Further, the health budget in recent years does not give a more detailed breakdown in categories that are internationally comparable. A study comparing eight OECD countries in the mid-1990s found that New Zealand spent the highest amount of total health expenditure on hospital care, with 59% compared with a range in the other countries between 42–46% (Anderson 1998). Such comparisons are problematic however, and partly depend upon how much ambulatory care is provided through hospitals.

**Table 7. Health care expenditure by category, (%) of total expenditure, 1990–1997**

As a share of total expenditure on health care	1990	1991	1992	1993	1994	1995	1996	1997
Inpatient care	60.4	59.1	56.5	59.1	–	–	–	–
Psychiatric care	0.1	0.1	0.1	–	–	3.2 <sup>a</sup>	4.3 <sup>a</sup>	4.1 <sup>a</sup>
Outpatient care	7.4	7.3	7.1	–	–	–	–	–
Pharmaceuticals	–	–	–	–	12.8	13.3	12.5	12.2
Investment	2.8	3.6	3.5	3.9	–	–	–	–

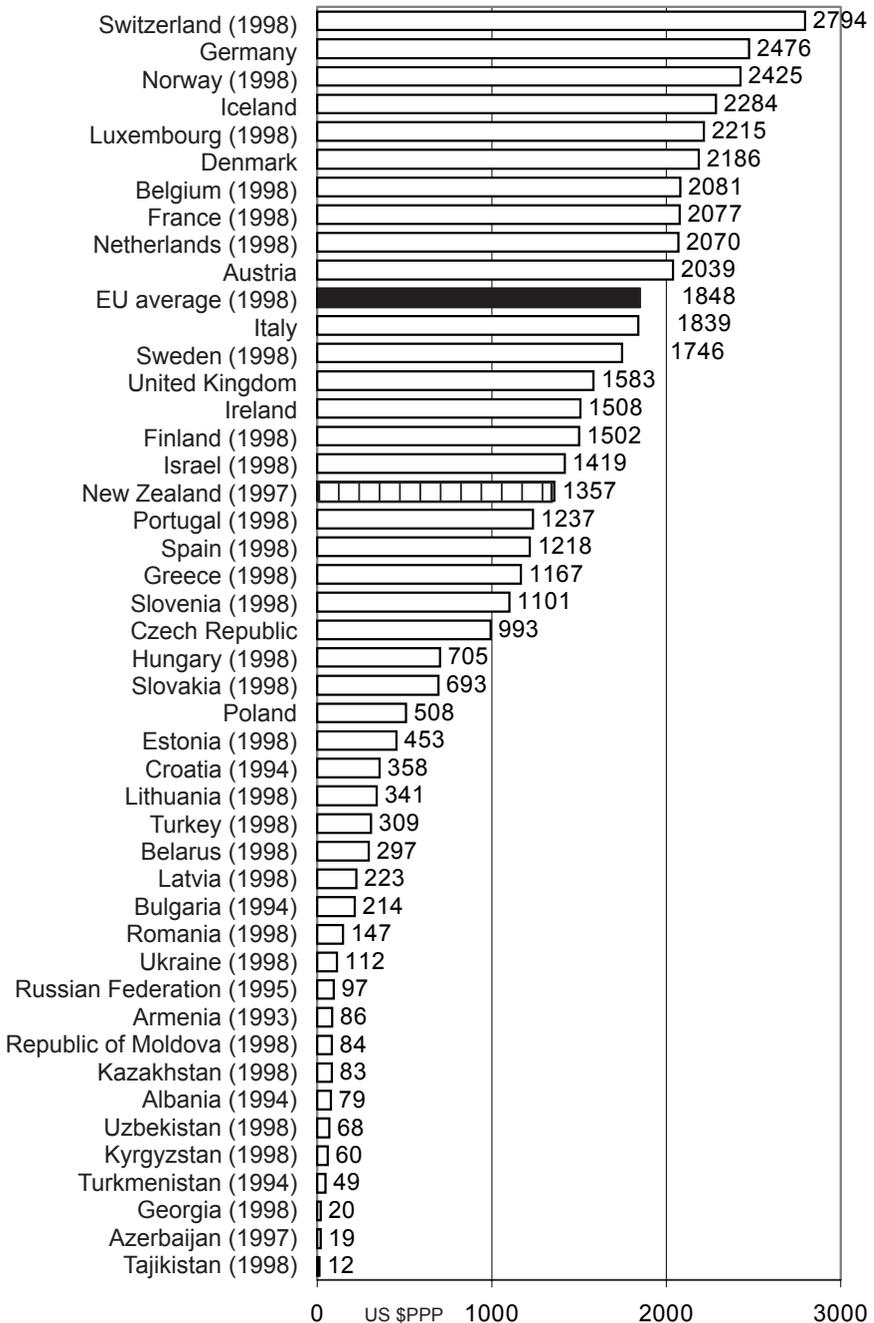
Source: <sup>a</sup> (Ministry of Health 1999a).

**Fig. 11. Total expenditure on health as a % of GDP in the WHO European Region and New Zealand, 1999 (or latest available year)**



Source: WHO Regional Office for Europe health for all database.

**Fig. 12. Health care expenditure in US \$PPP per capita in the WHO European Region and New Zealand, 1999 (or latest available year)**



Source: WHO Regional Office for Europe health for all database.

**Table 8. Components of Vote Health expenditure (excluding capital and including transfers)**

Expenditure categories	1996/1997		1997/1998		1998/1999	
	\$000	As a % of Vote Health	\$000	As a % of Vote Health	\$000	As a % of Vote Health
Personal health	3 874 185	71.2	4 168 623	71.6	4 463 445	70.6
DSS	1 363 354	25.1	1 453 152	24.9	1 535 888	24.3
Public health purchasing	95 646	1.8	101 238	1.7	107 952	1.7
Independent service providers	46 040	0.8	41,954	0.7	44,802	0.7
Other payments	1 076	0.0	0	0.0	115 875	1.8
Ministry of Health	60 266	1.1	60 984	1.0	57 985	0.9
<b>Total</b>	<b>5 440 567</b>	<b>100.0</b>	<b>5 825 951</b>	<b>100.0</b>	<b>6 325 947</b>	<b>100.0</b>

Source: (Ministry of Health 2000a).

Note: Totals may not add up due to rounding.

The amount spent on the budget category of personal health care has averaged 7.3% annual growth between 1997 and 1999, with the greatest total cost being for medical and surgical care, which makes up 49% of the \$4.46 billion (equal to 1000 millions) spent in the 1998/1999 year (Table 9) (Ministry of Health 2000a).

Outpatient care as a category can be traced only in terms of government subsidies on general practitioner consultations that grew annually during the 1990s. In 1998/1999, 6.6% of government expenditure on personal health services went on general practitioner services (Table 9). In a comparison of eight OECD countries, however, New Zealand spent the least upon physician (medical practitioner) services (Anderson 1998). Again, this may be partly because New Zealand hospitals may treat more ambulatory patients.

The proportion of the health budget spent on psychiatric care may have increased (Table 7), but it is difficult to be sure since the data originate from two different sources. Certainly, more public funds were allocated to mental health during the 1990s.

Pharmaceutical expenditure represents around 12–13% of total health expenditure in New Zealand (Table 7). This varies considerably across OECD countries, but New Zealand is low compared, for example, to the United Kingdom with 16% and France with 21% (World Health Organization 2001). This is due, in part, to the strict budget holding of PHARMAC through the 1990s.

Investment rose slightly during the early 1990s but remained below 4% of GDP. The lack of capital to invest in the health sector is a major problem for New Zealand as in many other countries. Of Vote: Health just 1.57% is

earmarked in 2000/2001 for new equity in public hospitals and other capital projects (Treasury: Vote Health 2001).

Spending on public health services (in the ring-fenced category under Vote: Health) was less than 2% of total health expenditure in 1999/2000 (approximately NZ \$122 million). Funding is also allocated to population health activities under the personal health care category, such as breast screening, cervical screening, immunization and hepatitis screening. Expenditure on public health services has increased from the mid 1990s through ring-fencing (specific purpose grants), since the earlier New Zealand experience was that public health funds are vulnerable when managed by organizations whose core business is the delivery of personal health services (Durham and Kill 1999).

**Table 9. Personal health expenditure by main service category 1998/1999**

Institutional <sup>a</sup>	\$ million	% of total	Community <sup>a</sup>	\$ million	% of total
Medical and surgical <sup>b</sup>	2 175.9	48.7	GP	286.6	6.4
Mental health	129.3	2.9	Maternity	147.4	3.3
Dental	62.5	1.4	Specialist	21.5	0.5
Maternity	242.2	5.4	Referrals	230.8	5.2
Other	116.8	2.6	Dental	20.5	0.5
			Mental health	171.8	3.8
			Medicaments	751.5	16.8
			Other	106.6	2.4
Total institutional	2 726.8	61.0	Total community	1 736.7	39.0
			<b>Total personal health</b>	<b>4 463.4</b>	<b>100.0</b>

Source: (Ministry of Health 2000).

Note: <sup>a</sup> For definitions of institutional and community, see Appendix 1.

<sup>b</sup> Includes clinical training.

Totals may not always add up due to rounding.

## Health care delivery system

**H**ealth services in New Zealand can be categorised in four groups: primary health care services; public health services; hospital and specialist medical and surgical services; and disability support services.

Primary health care, usually the first level of contact that people have with the health system, includes health education, disease prevention, self-care support, diagnosis, treatment and rehabilitation. General practitioners mainly provide medical primary care but nurse practitioners and midwives are increasingly important primary health care providers.

“Public health” or “population health” refers to the organized efforts of society to prevent disease, prolong life and promote health (Beaglehole and Bonita 1997). Public health services include, for example, ensuring food and water safety, screening programmes such as cervical screening, and promoting healthy lifestyles.

Secondary and tertiary care services are provided mainly by hospital inpatient services, outpatient hospital clinics and by specialists through private clinics. Hospitals now concentrate upon short-stay acute care while more patients are being treated as day cases.

Disability support services encompass care, support, information and advocacy to promote independence for people with age-related, psychiatric, sensory, intellectual or physical disabilities (Statistics New Zealand 1998:157). These services increasingly are based in the community rather than in institutions and generally provide long-term support. Worldwide, disability services can be the responsibility of either the health or welfare sector but in New Zealand come under the health portfolio. In this report, these services also are discussed under the *Social care* section.

## Primary health care and public health services

### Primary health care

General practitioners provide most primary medical care from their own private practices. In 2000, there were 3166 general practitioners working either full- or part-time. About 27% of general practitioners work in sole private practices, two thirds in group private practices and the remainder (about 6%) in other organizations such as universities (New Zealand Health Information Service 2001). Most sole private practices involve one doctor working alongside a practice nurse and possibly a receptionist, while larger practices can have managers and other health professionals such as physiotherapists, pharmacists and social workers.

Other primary care services can be classified under the following headings:

- Diagnostic services provide laboratory tests and diagnostic imaging in private community-based facilities on referral from a primary care practitioner.
- Pharmaceutical services include a comprehensive range of subsidised medications available through community pharmacists.
- Therapeutic and support services include physiotherapy, speech therapy, dietary advice, meals on wheels and home help services, some of which require a referral from a general practitioner.

People visit general practitioners more frequently than any other health professional. According to the 1996/97 Health Survey over 80% of the population visited a general practitioner at least once in the preceding year (Ministry of Health 1999e). General practitioners perform a gate-keeping role since an individual cannot access public secondary and tertiary services unless they are referred by their general practitioner (except for accident and emergency services). This is also the practice in the private health sector – most specialists only see patients referred by a general practitioner.

There is no national data collection on the number of general practitioner visits per person per year since data are collected only on subsidised visits. There is some evidence from the 1996/1997 Health Survey of under-use of general practitioners by lower socioeconomic groups, but also heavy use by some groups likely to have poorer health (Ministry of Health 1999e).

Patients are free to choose or change their general practitioner. They are charged a fee for each visit at a level set by the doctor. About 70% of consultations are subsidised (in part or whole), however, since the government

subsidises children and concession cardholders (as already explained). Government policy aims to lower the financial barriers to access to general practitioner services by targeting subsidies to lower income earners, higher users of health services, and children.

General practice in New Zealand has undergone considerable change since 1993, amounting, some argue, to a cultural revolution (Crampton 2001; Malcolm 2000: 199). New Zealand general practitioners, in response to the 1993 Health and Disability Services Act, organized themselves into Independent Practitioner Associations (IPAs), usually within defined geographic areas, applied to manage budgets for pharmaceuticals and diagnostic testing, and used the savings to fund other local health initiatives. In 1999, over 80% of GPs were members of IPAs, which ranged in size from 6–8 physician members to about 340 in a large association in Auckland, Pro Care Health (Malcolm 2000). Purchasing authorities under the 1993 reforms (the four Regional Health Authorities) aimed to contain laboratory and pharmaceutical costs by offering general practices a contract to manage their purchase, the incentive being that the practices could retain part of the savings. Most IPAs in 1999 held budgets for laboratory and pharmaceutical services, achieving savings of between 2% and 5% (Malcolm 2000: 190). General practice thus is one of the areas that flourished under a contracting system (Gauld 1999). IPAs are mostly for-profit entities that also act as professional bodies that seek to improve the quality of care. The savings accrued from managing these budgets are used to introduce information management systems and quality assurance, to run continuing education courses for their members, and to collaborate with other health services in offering integrated patient care. For example, about 98% of New Zealand general practitioner practices now have computers: a much higher level than in Australia. Although few systematic evaluations have been undertaken, the belief is that such activities have led to better quality care (Malcolm 2000).

The recently released of Primary Health Care Strategy announced the creation of Primary Health Organizations (Ministry of Health 2001a). These not-for-profit bodies will manage capitation funds for enrolled patients with funds allocated by the local district health board. People will be encouraged to join a Primary Health Care Organization, usually by enrolling with a “provider of first-contact” (a general practitioner) who will become responsible for managing their care. The practice would be paid a capitation fee per enrolled patient. Their basis is likely to be the Independent Practitioner Associations and other community-based groups although adjustments will be required to accommodate the new district health board boundaries and philosophies (i.e. not-for-profit or for-profit), and the need for greater transparency.

## Distribution and access

New Zealand has a lower ratio of medical practitioners for its population than many other OECD countries (as discussed under *Human resources and training*). Health Funding Authority data showed considerable variation in the distribution of general practitioners and in the use of general practitioner services, with rural areas, poorer towns and poorer areas in cities generally under-served. Research in Auckland in the mid-1990s showed that primary care expenditure in disadvantaged parts of the city was 30% below that expected in Health Funding Authority calculations, while wealthier areas were 40% above (Malcolm 2000: 195). The HFA calculation included general practitioner subsidies, pharmaceuticals and laboratory tests and was based on the local population size. This study showed that people living in disadvantaged areas were not making full use of the health services available to them, and that this under-use of primary care is almost certainly related to poorer health and to greater use of hospitals by these populations.

Since Māori tend to live in areas of higher deprivation, the “inverse care law” operates: those in greater need have less access to health care. While Māori certainly have greater health needs, the research on their use of health services, however, is equivocal: some studies show lower use of health services and others show higher use, suggesting different groups of high and low service users. The 1996/1997 Health Survey found that Māori, and people on low incomes, visited their primary care provider more often than the rest of the population, but also reported that more Māori than Pakeha said that they needed to see a general practitioner but had not (Ministry of Health 1999e).

## Rural health services

Rural areas in New Zealand have small, dispersed populations, a smaller number and range of healthcare providers, and greater distances for people to travel for treatment and assistance. Rural communities also have specific needs that must be taken into account as follows: poor health status among Māori and lower socioeconomic groups; people with disabilities who require assistance; more children and older adults; and a higher injury rate.

Rural communities have difficulty attracting and retaining physicians and other health professionals despite incentive payments and premiums on contracts. The doctor-to-patient ratio in rural areas is lower, and professional and lifestyle factors make rural practice a less attractive career choice. Ongoing professional development thus is critical for good quality and safe care and to overcome professional isolation.

The previous government released a *Rural Health Policy* in July 1999 that announced several initiatives including a rural pharmacy allowance and general practitioner premium, the PRIME (Primary Response in Medical Emergencies) scheme, and a “Healthline” 24-hour telephone advice and triage helpline (Ministry of Health 1999c). The current government also outlined several policy options as follows. The Health Workforce Advisory Committee has been established to advise the government on the health workforce needs of New Zealand, including the rural sector. The Rural Hospital Training Programme will be continued and other financial or training incentives investigated to encourage health professionals to practice in rural communities. A Rural Practice Support Scheme introduced in 1999 that guarantees a minimum income to some practices may be extended. The Rural Locum Scheme, initiated in July 2000, will be extended to assist rural GPs in providing locum cover. Telemedicine technologies are to be extended to reduce professional isolation and to facilitate the delivery of services closer to patients.

### **Maternity services**

Prior to the Nurses Amendment Act of 1990, all births had to be supervised by a doctor. The amendment permitted midwives to operate as fully independent providers of pregnancy and childbirth services without supervision by medical practitioners. Payments to providers under the Maternity Benefit Schedule then increased substantially, which gave rise to a review. The review tribunal in 1993 confirmed a single schedule for maternity payments encompassing both doctors and midwives (despite the doctors’ argument for separate schedules). The debate continued, particularly on the burgeoning costs and a perceived decline in quality of care, prompting the regional health authorities (RHAs) to consult widely and develop a framework for maternity care based on “well-informed women choosing a lead professional” (Health Funding Authority 2000).

In 1996 a new Notice was issued under Section 51 of the Health and Disability Services Act 1993. The Notice introduced the concept of a Lead Maternity Carer (LMC) who would have overall clinical responsibility for a woman’s maternity care. Modular funding was provided for the second and third trimesters, labour and birth and the postnatal period, with fee-for-service retained in the first trimester. The Notice also mandated the involvement of midwifery at the time of birth. While the NZ College of Midwives accepted the Notice (albeit with some reservations regarding the provision of rural and postnatal care), the NZ Medical Association rejected it outright. The Notice was amended in 1998 to separate the fee for doctor LMCs when using hospital based midwifery

support services. While midwifery input during labour and birth is still required, this change meant that the doctor LMC no longer needed to formalize subcontracting arrangements with midwives. The other significant change was the removal of ultrasounds from LMC budget holding, moving instead to a fee-for-service arrangement. Due to the controversy, so-called non-Section 51 LMC contracts were agreed in some areas, but since these proved more costly with no clinical improvement, it was decided in 1998 to subject these to strict criteria, and none have since been made. The National Health Committee reviewed the system in 1999 and identified areas for improvement but did not propose substantive changes to the framework (National Health Committee 1999). Currently there is a proposal to increase funding to LMCs, but remove funding for private specialist obstetricians. Recent data show that 61% of health professionals who attend births (the lead maternity carer) are midwives and 33% are general practitioners, which is a major change from the previously general practitioner-dominated maternity care.

### **Other primary care services**

Approximately 3000 practice nurses work alongside general practitioners, and there are also community-based child health nurses, district nurses and occupational health nurses. In some small and remote communities, nurses provide the main primary health care services.

Full emergency services (primary, secondary and tertiary care) are based in public hospitals. In addition, the number of private medical centres providing urgent primary care in cities has increased. Ambulance services (both road and air) are independent service providers, which contract with purchasers to provide emergency trauma and medical services. They also provide medical transport services to hospitals, and particularly with regards to the air ambulance, rely quite heavily on sponsorship for funding.

### **Integrated services**

“Integrated care” is broad term and New Zealand has set up various initiatives under this banner: merging funding streams; devolving purchasing arrangements; funding projects to coordinate the health needs of an identifiable population; and fostering closer collaboration between health services providers (Davies 1999). The aims in merging institutional and community funding streams were, first, to allow purchasers to transfer resources between service types, and second, to encourage more cooperation between service providers. The Independent Practitioner Associations are involved in various collaborative

activities. For example, several agencies collaborated in a project in Canterbury to integrate the care of older people across secondary and primary care and community support. One outcome attributed to this project was an improvement in coverage for flu vaccination (Millar 2000). The central Health Funding Authority funded ten demonstration projects intended to integrate the delivery of services to certain population groups. These pilots ranged from better-coordinated care for particular demographic groups such as the elderly (the ElderCare Canterbury pilot), to projects focusing on a specific disease such as diabetes (the Integrated Care Initiative for Diabetes Management). An evaluation process has not yet taken place due to the dissolution of the Health Funding Authority although reports from individual projects are positive.

## Public health services

Public health services in New Zealand have been part of the mainstream health care system since the 1983 Area Health Board Act, later coming under the Crown Health Enterprises, then the Hospital and Health Services companies, and now the district health boards. These public sector units provide basic health protection services, such as water and food safety, and health promotion services such as anti-smoking programmes. Their employees include public health physicians and other health care professionals, as well as officers who monitor and enforce public health legislation, such as the Health Act 1956, the Food Act 1981 and the Smokefree Environments Act 1990.

General practitioners and other primary care providers also provide prevention services for their patients, such as immunizations, as well as individual and group health education and promotion.

The voluntary (not-for-profit) sector is active in prevention and promotion, such as the New Zealand AIDS Foundation, the Cancer Society and the Heart Foundation. The Health Sponsorship Council established in 1990 offers sponsorship and funding for sports and other activities in return for the promotion of healthy lifestyle messages. The Smokefree programme was established in 1990 to ensure continuation of sponsorship for events that had previously relied on monies from the Tobacco industry. Tobacco industry advertising was banned by the Smokefree Environments Act 1990.

Public health programmes are discussed below under three headings: environmental and communicable disease control, preventive services, and health promotion and education.

**Environmental and communicable disease control**

Environmental and communicable disease control services include monitoring public health risks, advice on public health protection and regulatory services, investigating public health complaints, and taking action where necessary to protect public health. Public health protection and regulatory services run by public health units cover the following areas (although in some cases another organization, such as local government, is the lead agency):

- contaminated land
- drinking water quality
- sewage treatment and disposal
- waste management
- hazardous substances
- resource management
- environmental noise management
- air quality
- burials and cremation
- food safety and quality
- biosecurity and quarantine and
- communicable disease control.

A revised schedule of notifiable diseases came into effect on 1 June 1996. Medical practitioners are required to notify the Medical Officer of Health of any disease on this schedule that they suspect or diagnose. Notification data are recorded on a computerised database installed in each public health service and are used to guide local control measures. The data are collated and analysed at national level by the Communicable Disease Centre in the Institute of Environmental Science and Research. The Ministry of Health monitors the national incidence and prevalence of communicable disease as well as immunization coverage, develops policy, and promulgates regulations in fulfilment of international disease reporting requirements. The Ministry of Health also manages the control of communicable diseases through designated officers employed by the District Health Boards.

New environmental health programmes are being planned where there are threats to population health. For example, an eradication and surveillance programme is underway on the Southern Saltmarsh Mosquito (a vector for Ross River virus), with priority given to locations within five kilometres of an entry portal (for example, international airports, ports and major yachting harbours).

## Preventive services

Preventive services are targeted upon a range of conditions and population groups, and are linked to environmental and communicable disease control and to health promotion services. These programmes often involve a range of other organizations and providers. Some key programmes are outlined below.

## Immunization

Immunization has contributed significantly to the control of many infectious diseases, although some vaccine preventable diseases continue to be public health problems, such as pertussis and measles. Although New Zealand puts considerable effort into its immunization programme, coverage remains below the recommended levels and differs across population groups, in the absence of a clear allocation of responsibility. Immunization coverage is patchy around the country, hampered by a lack of national information and a system to follow up those children who miss being immunized.

Immunization 2000, the national immunization strategy launched in 1996, is composed of five elements:

- a simplified immunization schedule
- immunization certificates for school/early childhood centres
- standards for immunization providers
- local immunization coordination, and
- improved immunization surveillance.

Childhood immunizations are free. The Immunization Schedule protects children against nine serious diseases: diphtheria, tetanus, pertussis, poliomyelitis, measles, mumps, rubella, hepatitis B, and *Haemophilus influenzae* type b (Hib). Children can receive the full primary immunization course in four visits ideally occurring at 6 weeks, 3 months, 5 months and 15 months. There is a fifth visit for measles, mumps, rubella and polio at age 4, and a sixth for tetanus, diphtheria, and poliomyelitis at 11 years of age. Babies considered being at high risk of contracting tuberculosis, and those whose mothers are hepatitis B carriers, are offered immunization for these diseases at birth.

Health sector initiatives to improve immunization coverage include:

- increasing use of immunization recall systems by immunization providers
- immunization coverage targets in primary care provider contracts
- an updated Immunization Handbook for all vaccinators (due out 2001)
- reviewing of standards for vaccinators

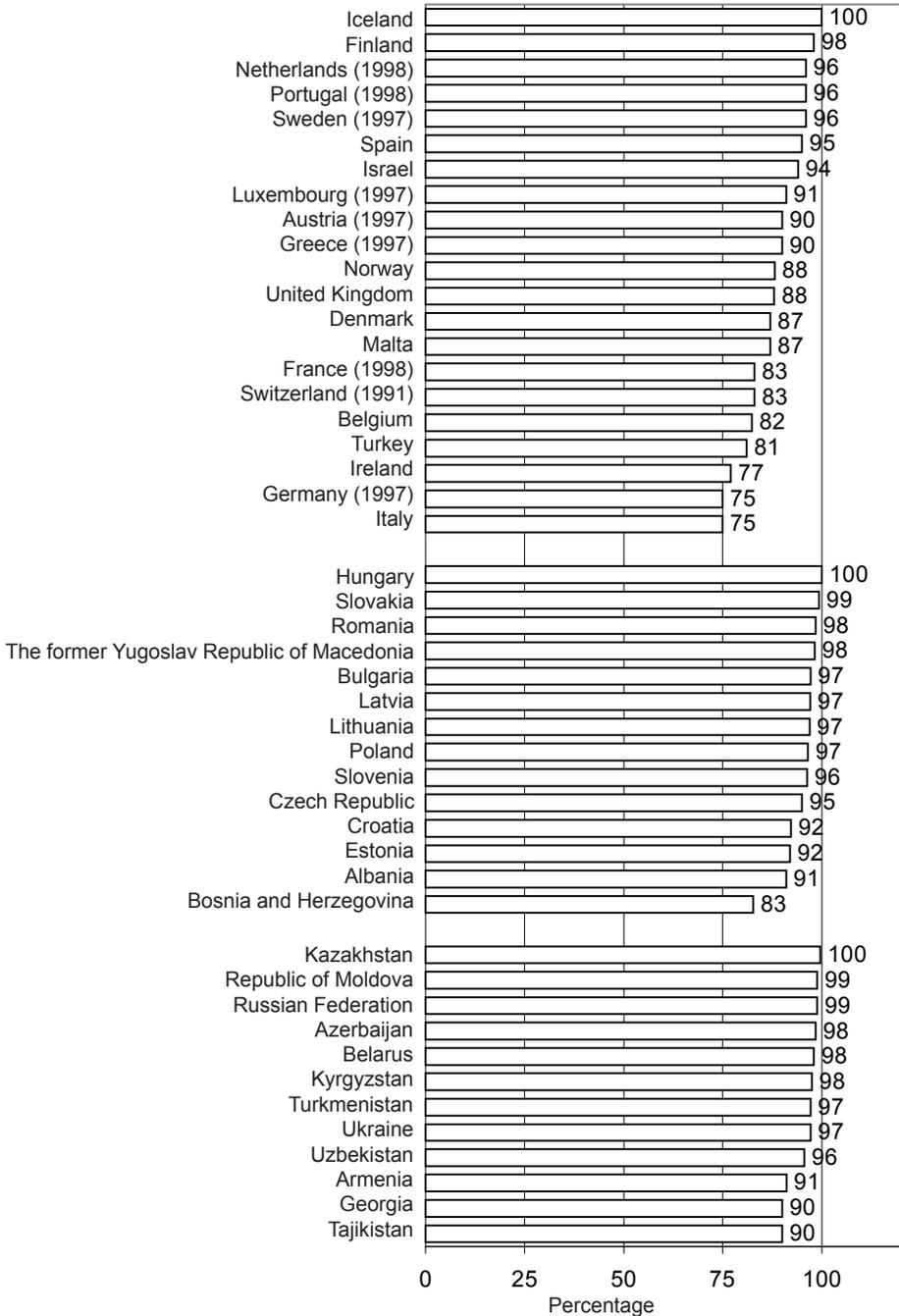
- immunization registers in early childhood centres and primary schools for all children
- introduction of an acellular pertussis vaccine
- promotion of immunization, particularly for Māori and Pacific children, and
- improved health education on the risks and benefits of vaccines so that parents can make an informed choice.

Since New Zealand does not collect comprehensive national data only limited international comparisons can be made. In 1995 and 1996, 84% and 87% respectively of children aged 15 months were immunised, which is lower coverage than in several European Union countries with over 95% coverage for children aged two years (Fig. 13). This is of concern to New Zealand since immunization coverage rates need to be maintained at 95% to eventually control and eradicate vaccine-preventable diseases.

A survey of immunization coverage in 1996 in the North Health region (one of the four previous regional health authority regions that includes Auckland) found that only 63% of children aged two years were fully immunized (up from 55% in 1992). However, there were marked differences between ethnic groups, with only 45% of Māori children immunized, 53% of Pacific children, and 72% of all other children (Northern Regional Health Authority 1996). Coverage is also estimated from immunization benefit claims data from health providers. Claims increased between 1994–1996 but declined in 1997 and 1998. The measles-mumps-rubella (MMR) vaccine showed the greatest decline, but estimates from these years are inaccurate as software errors, incomplete data and the practice of immunising in schools contributed to significant under-reporting. No information is yet available from more recent years.

The ongoing policy intention is to strengthen the immunization programme. For example, a Hepatitis B screening and surveillance pilot programme: the Hep B Free programme is currently underway in New Zealand's northern region (Auckland and Northland). This two-year government-funded programme is for people from many different backgrounds, languages and cultures living in New Zealand. It seeks to identify as many of these people as possible that are chronically infected with hepatitis B virus and offer them counselling and ongoing follow-up checks. People who have had no prior contact with hepatitis B virus are offered a series of three free immunizations with hepatitis B vaccine. The programme targets Māori, Pacific and Asian people aged 15 years and over, anyone who is a hepatitis B carrier, and the household, extended family and sexual contacts of carriers.

**Fig. 13. Levels of immunization for measles in the WHO European Region, 1999 (or latest available year)**



Source: WHO Regional Office for Europe health for all database.

### **Other preventive programmes**

New Zealand has a range of active preventive programs at national, regional and local level, some key programs being described below.

*Family planning* aims to assist people to make informed choices about their reproductive and sexual health. Family planning advice is offered from various sites: general practitioners, private specialists, Family Planning Association clinics, student health clinics, sexual health clinics, and marae-based health services (Māori community centres). Some public hospitals have family planning clinics within their obstetrics and gynaecology departments and also train doctors and nurses. From May 1996, the government has funded free contraceptives and consultations for those on low incomes, and increased the subsidies paid for oral contraceptives.

*Women's health services* include programmes on contraception, sexual reproductive health, infertility, pregnancy and childbirth services, terminations, breast cancer and cervical screening. These are provided by the district health boards, private health professionals and by many community and consumer groups. Two key programmes are described below.

*The National Breast Screening Programme* (Breastscreen Aotearoa New Zealand) was established in December 1998. Through early detection, it aims to reduce breast cancer mortality by offering free mammography services at two-yearly intervals to the high-risk group of women aged 50–64 years. Other high-risk groups of women continue to have access to publicly funded mammograms, including women who have had breast cancer, those with a family history of breast cancer, and those who had a breast histology demonstrating an at-risk lesion. A team of health professionals assesses a woman where an X-ray suggests a problem. Breast cancer accounts for 80% of all cancer deaths in New Zealand women 50 years and over (Ministry of Health 1998: 204). Māori age-standardized rates are higher than non-Māori rates (32 and 25 per 100 000 respectively).

*The National Cervical Screening Programme* established in 1990, is coordinated nationally but managed and delivered locally. The service providers include general practitioners, nurses and midwives, lay smear takers, health educators and laboratories. Local coordination of the national programme and register is managed through 14 geographical sites that are linked to a central database. Cervical cancer is a largely preventable disease if detected early. The goal is to reduce mortality and disability from squamous cell cancer of the cervix by ongoing nation-wide screening that can detect pre-cancerous changes. Treatment at this stage is very successful. Screening is offered 3-yearly for women aged 20–69 years. By December 1999, 90% of women were enrolled and 84% had had a smear in the previous five years. Recently, public confi-

dence in the system has been shaken by revelations that some laboratories were misreading slides resulting in missed diagnoses. The most prominent of these cases was in Gisborne where a single pathologist was responsible for reading all the region's slides. The Gisborne case resulted in a Ministerial inquiry, which found that there was an unacceptably high level of under-reporting, and suggested a number of areas of improvement (Ministry of Health 2001d). Subsequently the majority of their recommendations have been implemented

*Anti-smoking programmes* are actively pursued in New Zealand. In 2000, 25% of men and women report being smokers with 23% of men and 24% of women reporting daily smoking (Ministry of Health 2001). This is slightly lower than the European Union average of 29% of regular smokers among those aged 15 years and over (World Health Organization 2001). The prevalence of cigarette smoking is higher among Māori: 45% of men and 52.5% of women smoke (Ministry of Health 2001c).

In 1990 the government passed the Smokefree Environments Act. The Act banned smoking in office workplaces and certain other public enclosed spaces apart from in clearly defined smoking areas; restricted tobacco advertising and sponsorship; mandated labelling of products with health messages; and established the Health Sponsorship Council (as discussed earlier). An amendment currently being debated in Parliament would strengthen the Act in a number of areas, such as further restriction of minors' access to cigarettes, more labelling regulations, and protecting non-smokers by extending the restrictions on smoking to include all indoor workplaces, including hospitality venues.

The government launched a three-year smoke free strategy in 1995 aimed at reducing smoking among young people and particularly among young Māori. Components of this strategy included:

- Why Start? multimedia campaign
- increased enforcement of the ban on sales of tobacco products to minors
- a smokefree schools programme
- additional smokefree sponsorship of sports and cultural events and
- new legislation (passed in 1997) that raised the age at which people may legally be sold tobacco products from 16 to 18 years, and banned the sale of single cigarettes and small packs of tobacco (Statistics New Zealand 1998:172).

Additional initiatives introduced over the last few years include increasing the tax on tobacco and new smoke-free legislation, which is currently before Parliament that aims to tighten up smoking laws further. The Smoke-free Environments (Enhanced Protection) Amendment Bill and supplementary order paper proposals include:

- making smoking areas in restaurants and bars more physically separate and ventilated
- further restricting minors access to tobacco
- extending the smoke-free workplace legislation to include all work places where two or more people share a common air-space (excluding hospitality venues) and
- increasing labelling requirements.

*Alcohol programmes* are also a public health priority. Mean alcohol consumption in 1999 was 8.4 litres of pure alcohol per adult 15 years and over (Statistics New Zealand 1998), which is slightly lower than the EU average in 1996 of 9.4 (World Health Organization 2001). Heavy drinking over a long period has been linked to a number of health problems particularly liver and heart damage, hypertension and some cancers. The Alcohol Advisory Council promotes moderation in the use of alcohol, develops and promotes strategies to reduce alcohol-related problems, and funds research. The recently released National Alcohol Strategy outlines initiatives within three areas: supply control, demand reduction and problem limitation. A wide range of government and nongovernmental providers offer alcohol-related health promotion and treatment services.

### **Health promotion and education**

Services are provided in the following areas:

- social environments, such as healthy school and healthy community programmes;
- Well Child services, such as the promotion of immunization;
- injury prevention, such as the promotion of child restraints in cars and community based injury prevention programmes;
- mental health measures, such as programmes to reduce the stigma associated with mental illness;
- nutrition and physical activity, such as programmes to promote healthy diet and physical exercise;
- sexual health, such as “safe sex” and family planning programmes;
- alcohol and drugs, such as services to reduce and/or drug related harm; and
- tobacco, such as tobacco control programmes including monitoring smoke-free workplaces and restaurants, and public education programmes.

## Secondary and tertiary care

Specialist physicians and surgeons provide ambulatory care either in community-based public or private clinics or in hospital outpatient departments. Most specialists are employed by public sector hospitals but many also maintain their own private practices. Hospital outpatient and inpatient services are mainly provided by public sector hospitals that are now administered by the district health boards (DHBs).

The boundary between secondary and tertiary care is no longer clear since, with advances in technology including non-invasive surgery, procedures initiated in tertiary care hospitals are rapidly adopted in regional and district hospitals. Tertiary care services usually refer to high technology services of high cost and low volume. A second distinction, particularly for surgery waiting lists, is between acute services for urgent conditions that need immediate treatment, and elective services for non-urgent conditions. A third distinction is between acute care and long-term care hospitals. Hospitals now mainly treat people for conditions that require short-term and intensive treatment, with long-stay treatment and care being shifted to the private sector and to nursing homes.

New Zealand had 444 hospitals with 23 741 beds in 2001 (New Zealand Health Information Service 2001). The 84 public sector hospitals contain 12 364 beds, or 52% of the total bed stock (Table 10). These include the five large tertiary care hospitals in the major cities.

There are numerous but smaller private hospitals: 360 hospitals provide 11 377 beds (48% of the bed stock). These hospitals concentrate mainly on elective surgery and long-term geriatric care and generally do not provide highly specialized and high technology care. Between 1988/1989 and 2001, the number of private hospital beds grew by 45% and the number of public hospital beds dropped by the same amount (Ministry of Health 1999). The number of private hospitals increased from 200 to 360 between 1993 and 2001 (New Zealand Health Information Service 2001). The growth in the number of private hospitals occurred largely as a result of the move away from public provision of long-term geriatric care, with patients shifting into private hospitals or nursing homes. New Zealand has reduced its overall bed capacity over the last few decades. The number of beds in all hospitals dropped from 32 035 in 1980 to 23 741 in 2001, a 26% reduction. Most OECD countries have reduced their overall bed capacity since the early 1980s. New Zealand by the late 1990s had fewer overall hospital beds for its population, than for example, France and Australia, but more than the United Kingdom (Fig. 14). The population ratio of all hospital beds has dropped from 10.2 per 1000 population in 1980 to 6.2 in 1998.

New Zealand also has reduced its number of acute hospital beds although time series statistics are not available. In 1990, New Zealand had 8.0 acute beds per 1000 population, which was much higher than many other OECD countries, such as France with 5.2, Australia with 4.4 and the United Kingdom with 2.7 beds. During the 1990s most western European countries further reduced their supply of acute beds, with a European Union average of 4.4 beds per 1000 population in 1997 (Fig. 16).

One reason for the reduction in overall hospital beds was the shift of long-stay cases out of hospitals into either nursing homes or to treatment or care in the community. This applies particularly to population groups such as dependent older people, people with mental health problems, and those with physical or intellectual disabilities (as discussed further under *Social care*). A second reason is the push for greater cost-effectiveness in hospitals and hence shorter hospital stays and higher occupancy rates. A third reason is changes in patient management and treatment methods. Thus the acute care hospital system in many OECD countries is being substantially restructured, with reductions in bed numbers, much shorter lengths of stay, rises in admissions, greater patient throughput, and closures or mergers of small hospitals. The reductions in acute care hospital beds are attributed to changes in patient management, more intensive treatment during shorter hospital stays, and the substitution of community-based treatment such as day surgery.

Admission per 100 population to all New Zealand hospitals have decreased slightly over the last decade, but urgent medicine discharges from acute care hospitals rose from 6.1 per 100 population in 1988/1989 to 7.8 per 100 population in 1999/2000 (see Fig. 15). This is in line with upward trends in most OECD countries.

The average length of stay in acute care hospitals in New Zealand in 1998 was 4.9 days, similar to the United Kingdom (Table 11) and Australia with 4.2 days (Australian Institute of Health and Welfare 2000). Same-day cases are rising substantially in many countries with the expansion of non-invasive surgery. Day patients accounted for 25% of discharges from New Zealand hospitals in 1997/1998 (Ministry of Health 1996a). In Australia in 1997/1998, 46% of all hospital discharges were same day cases (Australian Institute of Health and Welfare 2000: 273).

Data on the occupancy rate in New Zealand are only available for around 1990, when the rate appeared low and hence inefficient. The occupancy rate throughout the 1990s in most OECD countries generally was over 80% for all hospitals and over 70% for acute care hospitals (Table 11).

**Table 10. Hospital bed status, 1993–2001**

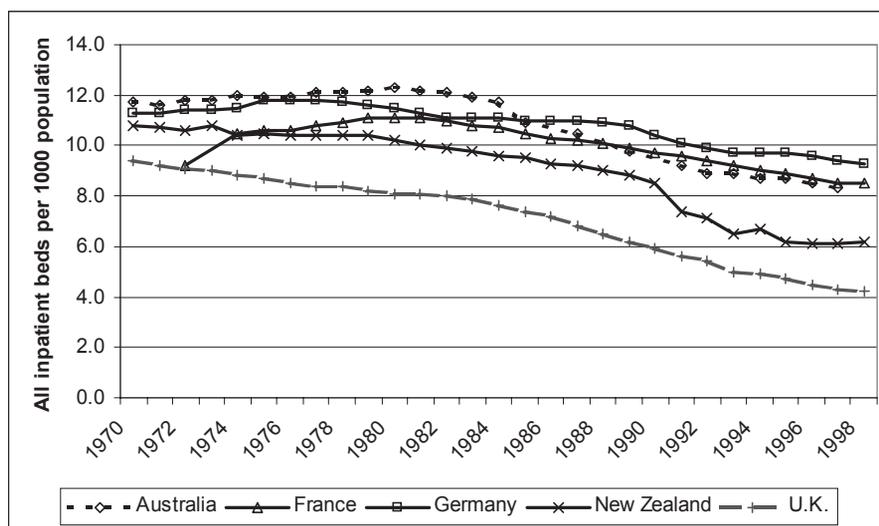
	1993	1994	1995	1996	1997 (September)	1998 (April)	2001 (May)
<b>Number of premises</b>							
Private hospitals (only)	200	205	207	249	263	116	125
Publicly operated hospitals	109	131	138	119	116	109	84
Old peoples homes (only)	798	807	809	792	786	602	536
Licensed hospital with exemption <sup>a</sup>	–	–	–	–	–	169	235
<b>Total old peoples homes</b>	<b>798</b>	<b>807</b>	<b>809</b>	<b>792</b>	<b>786</b>	<b>771</b>	<b>771</b>
<b>Total private hospitals</b>	<b>200</b>	<b>205</b>	<b>207</b>	<b>249</b>	<b>263</b>	<b>285</b>	<b>360</b>
<b>Total public hospitals</b>	<b>109</b>	<b>131</b>	<b>138</b>	<b>119</b>	<b>116</b>	<b>109</b>	<b>84</b>
<b>Number of beds</b>							
Private hospitals	7 149	7 881	7 218	7 218	8 658	15 653	20 147
Private hospitals (high level beds)	–	–	–	–	–	9 156	11 377
Private hospitals (exemption beds)	–	–	–	–	–	6 597	8 770
Publicly operated hospitals	15 897	16 295	15 555	15 270	14 930	14 298	12 364
Old peoples homes	23 537	23 030	23 537	23 729	24 075	17 755	15 999
<b>Total old peoples beds<sup>a</sup></b>	<b>23 537</b>	<b>23 030</b>	<b>23 537</b>	<b>23 729</b>	<b>24 075</b>	<b>24 352</b>	<b>24 769</b>
<b>Total Private Hospital beds<sup>b</sup></b>	<b>7 149</b>	<b>7 881</b>	<b>7 218</b>	<b>7 218</b>	<b>8 658</b>	<b>9 156</b>	<b>11 377</b>
<b>Total Public Hospital beds</b>	<b>15 897</b>	<b>16 295</b>	<b>15 555</b>	<b>15 270</b>	<b>14 930</b>	<b>14 298</b>	<b>12 364</b>

Please note that in the count of premises, some facilities are included in both the Total Old Peoples Homes and Total Private hospital numbers\* Licensed Hospital's with Exemption statistics are split off from Private Hospitals between 1997 and 1998

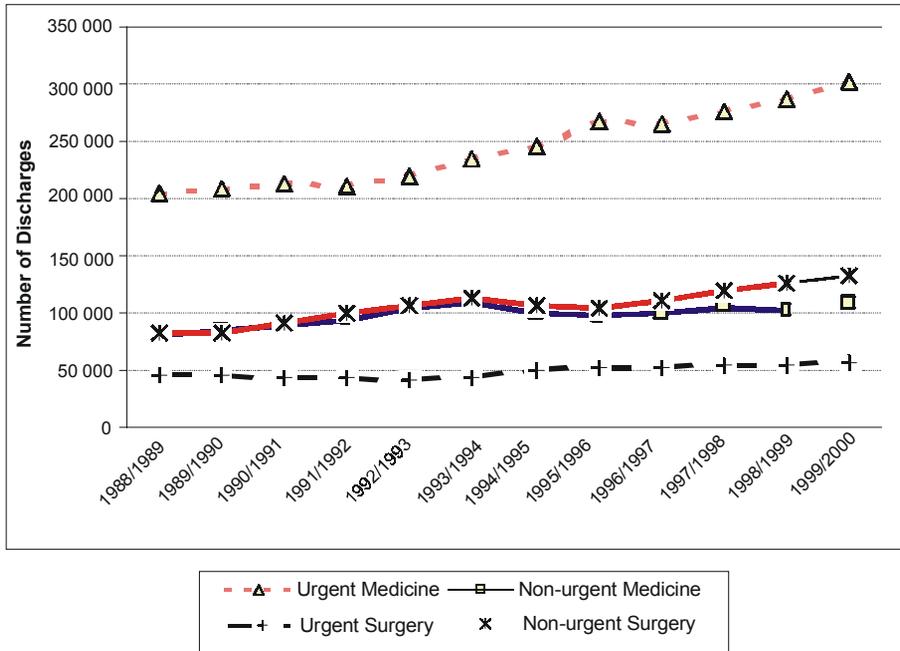
Source: (New Zealand Health Information Service 2001).

<sup>a</sup> Including beds in old peoples homes and private hospital exemption beds; <sup>b</sup> Excluding private hospital exemption beds.

**Fig. 14. Number of all hospital beds per 1000 population, New Zealand and selected countries, 1970–1998**



Source: (OECD 2000).

**Fig. 15. Discharges from New Zealand hospitals, 1988/1989 to 1999/2000**

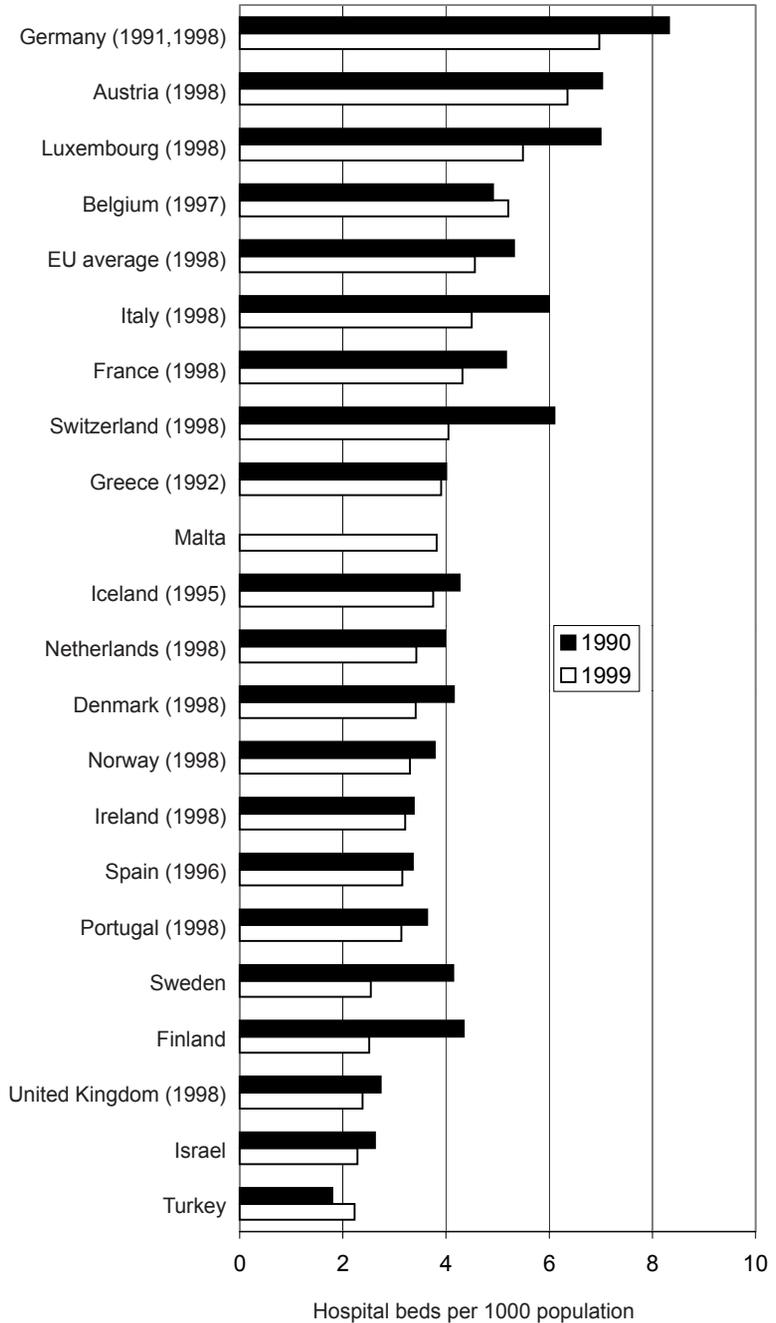
Source: Ministry of Health

## Hospital rationalization

During the 1990s many small hospitals around the country closed, as Crown Health Enterprises tried to contain costs, generating great emotion and anger in the local community. The government of the day was not immune to this displeasure and in September 1998 released a plan for the hospital system (Ministry of Health 1998d). While the report was widely expected to recommend hospitals closures and mergers, the government instead stated it would maintain the current distribution of hospital services for three years, and was willing to use alternative providers and facilities if that improved access, efficiency and quality of services. The government promised that change would be evolutionary and originate from local perceptions of needs. The five stated objectives for the hospital system were:

- timely access to hospitals
- safe and high-quality hospital services
- fairness across the country
- value for money, and
- acknowledging the special needs of rural and provincial communities.

**Fig. 16. Hospital beds in acute hospitals per 1000 population in western Europe, 1990 and 1999 (or latest available year)**



Source: WHO Regional Office for Europe health for all database.

**Table 11. Inpatient utilization and performance in acute hospitals in the WHO European Region, 1999 or latest available year**

Country	Hospital beds per 1000 population	Admissions per 100 population	Average length of stay in days	Occupancy rate (%)
<b>Western Europe</b>				
Austria	6.4 <sup>a</sup>	25.8 <sup>a</sup>	6.8 <sup>a</sup>	75.4 <sup>a</sup>
Belgium	5.2 <sup>b</sup>	18.9 <sup>c</sup>	8.8 <sup>b</sup>	80.9 <sup>c</sup>
Denmark	3.4 <sup>a</sup>	18.7	5.7	78.3 <sup>a</sup>
Finland	2.5	19.7	4.5	74.0 <sup>d</sup>
France	4.3 <sup>a</sup>	20.3 <sup>d</sup>	5.6 <sup>a</sup>	75.7 <sup>a</sup>
Germany	7.0 <sup>a</sup>	19.6 <sup>b</sup>	11.0 <sup>a</sup>	76.6 <sup>b</sup>
Greece	3.9 <sup>g</sup>	—	—	—
Iceland	3.8 <sup>d</sup>	18.1 <sup>d</sup>	6.8 <sup>d</sup>	—
Ireland	3.2 <sup>a</sup>	14.6 <sup>a</sup>	6.8 <sup>a</sup>	84.3 <sup>a</sup>
Israel	2.3	17.9	4.3	94.0
Italy	4.5 <sup>a</sup>	17.2 <sup>a</sup>	7.1 <sup>a</sup>	74.1 <sup>a</sup>
Luxembourg	5.5 <sup>a</sup>	18.4 <sup>a</sup>	9.8 <sup>c</sup>	74.3 <sup>e</sup>
Malta	3.8	—	4.2	79.3
Netherlands	3.4 <sup>a</sup>	9.2 <sup>a</sup>	8.3 <sup>a</sup>	61.3 <sup>a</sup>
Norway	3.3 <sup>a</sup>	14.7 <sup>c</sup>	6.5 <sup>c</sup>	81.1 <sup>c</sup>
Portugal	3.1 <sup>a</sup>	11.9 <sup>a</sup>	7.3 <sup>a</sup>	75.5 <sup>a</sup>
Spain	3.2 <sup>c</sup>	11.2 <sup>c</sup>	8.0 <sup>c</sup>	77.3 <sup>c</sup>
Sweden	2.5	15.6 <sup>a</sup>	5.1 <sup>c</sup>	77.5 <sup>c</sup>
Switzerland	4.0 <sup>a</sup>	16.4 <sup>a</sup>	10.0 <sup>a</sup>	84.0 <sup>a</sup>
Turkey	2.2	7.3	5.4	57.8
United Kingdom	2.4 <sup>a</sup>	21.4 <sup>c</sup>	5.0 <sup>c</sup>	80.8 <sup>a</sup>
New Zealand	—	—	4.9 <sup>a</sup>	—

Source: WHO Regional Office for Europe health for all database.

Note: <sup>a</sup> 1998, <sup>b</sup> 1997, <sup>c</sup> 1996, <sup>d</sup> 1995, <sup>e</sup> 1994, <sup>f</sup> 1993, <sup>g</sup> 1992.

Initiatives to improve timely access to hospitals included the PRIME scheme (see Rural Health section) and booking systems for elective surgery. With regards to safe, quality hospital services, the plan outlined wide consultation processes, and also changes to the Health and Safety Legislation. The report recognized that fair and equitable access had to take account of special needs; for example, funding premiums to rural hospitals would continue. Efficiency was emphasised in order to provide value for money but not at the expense of quality.

The plan described hospitals as fitting into five categories according to the complexity of the procedures carried out and the type of emergency care provided (Table 12). With the devolution of health services to the new district health boards, it remains to be seen what further hospital rationalization will occur.

## Access issues

There are currently no charges for inpatient or outpatient treatment in public hospitals. With the exception of charges for inpatient and outpatient services that applied briefly during the early 1990s, this has been the case since 1938.

**Table 12. Types of hospitals**

Category	What it provides
Health centre	Vary in size and scope, mostly offering primary and community health services, while some have inpatient beds for continuing care or low-risk births.
Sub-acute units	Inpatient medical beds and day surgery.
Secondary hospitals	Cater for most local population needs with 24-hour secondary care services. Most provide general medicine and general surgery, paediatrics, maternity, orthopaedics, gynaecology, ENT, ophthalmology and urology.
Lower-level tertiary hospitals	All services of a secondary hospital plus more sub-specialities such as oncology and regional public health units.
Higher-level tertiary hospitals	Usually have neurosurgery, burn/plastics, spinal, bone marrow, cardiothoracic, adult liver transplants, renal transplants, specialized neonatal units, and forensic mental health services.

Source: (Ministry of Health 1998d)

New Zealand has a good geographic distribution of hospitals since 90% of the population live within one hour's drive of a district hospital (Ministry of Health 1999). The increasing use of helicopters has reduced access time for emergency cases in rural areas, while telemedicine is bringing diagnosis and treatment closer to patients.

Considerable policy attention has focused upon waiting lists for hospital services. As well as variations in overall waiting lists, population rates of surgery for the same procedure varied enormously across the country. In the early 1990s, for example, there was a 200% range for cataract surgery (Davies 2000: 72). The introduction of a booking system from 1996 reduced waiting lists (partly by eliminating double booking) and improved the selection, management and scheduling of patients for surgery. The Health Funding Authority also tied a minimum level of hospital funds to elective services since otherwise surgery schedules concentrated upon acute cases. Finally, the government set up a special fund to clear the public hospital backlog by contracting out for elective surgery.

## Hospital management

Since the merging of the Department of Public Health and the Department of Hospitals and Charitable Aid in 1909, public hospitals in New Zealand have experienced numerous changes in management. By the 1950s most public sector hospitals were fully funded and also owned and managed by the central Department of Health. Increasing autonomy for hospital boards followed until

Area Health Boards began to take over between 1985 and 1989. Area health boards were charged with appointing their own chief executives who were responsible for the day to day running of the health services and accountable to the board. Area health boards only endured for a short time before being transformed into Crown Health Enterprise companies after 1993. Five years later (1998) in a largely cosmetic change, these enterprises were converted into non-profit statutory companies called Hospital and Health Services. Finally, from 2000 hospitals were moved under the management of district health boards.

In the early 1990s, managers with business credentials were recruited to run New Zealand hospitals. Efficiencies did not eventuate to the extent expected and by the mid-1990s, clinicians were being brought back into management roles and training opportunities were expanded. For example, in 1998 New Zealand joined with Australia to form the Royal Australasian College of Medical Administrators (Alexander 2000).

Hospitals have been expected to operate according to commercial principles since the 1990s, funding not only services, but also repairs, maintenance and capital development from their own funds. Since a key priority was to use the funds to reduce the waiting lists for elective surgery, little capital improvement occurred during the early 1990s. An enduring argument is whether the then Crown Health Enterprises were adequately funded to invest in their capital assets. More capital expenditure has occurred in recent years with a large project currently under construction to amalgamate Auckland District Health Board's inpatient services on one site.

## **Social care**

This section reviews four areas that are closely linked to the health care system: mental health services, disability support services, the care of dependent older people, and strengthening families.

### **Mental health services**

“Mental health services” describe a range of services for the treatment of mental illness and drug and alcohol dependency, as well as support services for the chronically mentally ill. As in many other countries, the field of mental health services has changed radically over the last few decades. New Zealand in the 1990s rather belatedly overhauled its mental health services. The main change was the closure of large mental hospitals and the movement of care into the

community, facilitated by new drugs and pushed by the deinstitutionalization movement. The rights of patients were protected under the Mental Health (Compulsory Assessment and Treatment) Act 1992, which aimed for a balance between personal rights and protection of the public.

New Zealand embarked upon a national mental health strategy with the publication of *Looking Forward* (Ministry of Health 1994) followed by an implementation plan *Moving Forward* (Ministry of Health 1996b). The strategy focused on the severely ill (estimated to be 3% of the population), while the implementation plan outlined steps for achieving more and better services and set targets and delivery dates. Funding for social support services was transferred from Social Welfare to Health between 1993 and 1997 in order to improve the links between clinical services and social support.

A Mental Health Commission report in 1999 on the implementation of the national strategy noted significant progress, but evaluation was constrained by the lack of information. The Mental Health Information Project, initiated in July 2000, is intended to address the information gap on mental health problems among the population and the outcomes of mental health services.

Mental health services, both hospital and community, are predominantly publicly funded and are offered by a mix of public and private providers. Most specialist services are provided by district health boards, and most community-based residential and day services are provided by around 250 nongovernmental organizations. Typically, a person with a psychiatric disability living in the community is treated by a public sector community mental health team but receives day-to-day support from nongovernmental organizations.

Māori mental health is of particular concern given higher rates of drug and alcohol problems, suicides, and various mental disorders (Horwood and Fergusson 1998). By the time treatment is sought, Māori patients tend to be sicker and need specialist mental health services, and so are more likely to be hospitalised. In response, mental health services are paying more attention to Māori models of mental health; more Māori mental health workers are being trained, and demonstration projects have been funded.

Forensic Services provide mental health services to the criminal justice system, and secure care for a small number of people with very severe behavioural disorders. Until recently New Zealand operated a single national secure unit but that was closed in October 1999 with inpatients being shifted to regional facilities. In September 1999, the Ministry of Health and the Department of Corrections jointly released the results of a commissioned study, which found high rates of mental disorders among prison inmates, many whom had not previously diagnosed.

## **Disability support services**

Disability support services aim to increase the independence of people with long-term disabilities and to promote their participation in the community. The disability sector has strong philosophical underpinnings, has adopted a social model of disability, and has an active disability rights movement. The social model of disability focuses on removing barriers to a person's opportunities for independence and participation in community life.

Funds and responsibilities were transferred from the Department of Social Welfare to the Ministry of Health between 1993 and 1997. Service providers include the government, not-for-profit and private sectors. Historically, most community-based services for people with disabilities under the age of 65 years have been provided by not-for-profit agencies, ranging from very small groups to large monopoly providers. The various purchasing authorities throughout the 1990s shifted more funds to smaller community groups.

Disability support services are required to undertake an individual needs assessment, plan and coordinate services, and refer individuals, where appropriate, to a range of support services (such as personal care, household help, equipment and home modifications, and residential care). Users pay charges or part charges for some services.

Other government departments and agencies also provide services to people with disabilities. For example, the Ministry of Education runs the Special Education 2000 initiatives; the Accident Compensation Corporation provides support for people disabled as a result of an accident; and the Ministry of Social Development (via its service arm Work and Income New Zealand) administers benefits and allowances for people with disabilities.

The New Zealand Disability Strategy released in April 2001 lays out a national strategic plan intended to eradicate barriers to participating in society for people with disabilities (Ministry of Health 2001b).

## **Aged care**

Many disability support services also apply to older dependent people. The care of older people will become a more important public policy issue in New Zealand, since the proportion of people aged 60 years and over is projected to increase from 15.6% of the population of the population in 2000 to 29.3% in 2050 (United Nations Population Division 2000).

The Health of Older People Strategy discussion document (released in September 2001) aims to draw together health services for older people in a more integrated way to improve the delivery of care, and to build upon the Positive Ageing Strategy that was released earlier in 2001.

The Ministry of Health is responsible for monitoring nursing homes for older people. Patients in these homes are means-tested for their ability to pay for their own care. Responsibility for the rest home subsidy has been transferred from the Department of Social Welfare with the merging of Disability Support Services into the Ministry of Health during the mid-1990s. About \$215 million was spent on the rest home subsidy in 1998/1999 (Ministry of Health 2000a).

### **Strengthening families**

This national strategy aims to improve life outcomes for children in families at risk and is supported by several government departments. Families at risk are defined as “families who are experiencing multiple and persistent disadvantages which compromise family functioning and increase the chances that their children will have poor long-term outcomes”. Around 5% of New Zealand families (20 000 – 30 000 families) are caught in a cycle of disadvantage, while up to a further 45% of families might also be “at risk” (Fergusson *et al.* 1994). The strategy aims to improve coordination and collaboration between the many agencies both at local level and central level. For example, the Family Start programme identifies and concentrates upon high-risk families, while several programmes aim to improve child and youth mental health outcomes.

### **Human resources and training**

The health sector workforce comprises between 5–10% of the total workforce in most OECD countries, with health employees per 1000 population growing during the 1980s before levelling off in the 1990s (OECD 2000). The OECD statistics available for New Zealand (but only for 1990) appear to show a smaller health workforce for its population than other OECD countries.

Predicting the future requirements for a healthcare workforce is not easy. Labour market factors influence supply and demand, but the healthcare force also involves long time lags in training health care professionals, although it has been expected to respond to rapid policy-driven changes. Currently, there are shortages of medical practitioners including some specialists such as psychiatrists, shortages of mental health workers, and there are long standing problems in attracting professionals to rural areas. Turnover rates are high in some occupational areas, and New Zealand’s highly trained staff are in demand on the international market (Medical Council of New Zealand 1997). Resident Medical Officer retention problems have been highlighted over recent years with many new graduates heading overseas in search of better pay and

conditions, leaving hospitals struggling to fill staff places. These shortages were exacerbated after fees for medical students were increased. Women are under-represented in the medical workforce with only 33% of medical practitioners being female (New Zealand Health Information Service 2001), but this is likely to change as more women are entering medical training.

Two areas received particular attention in the 1990s: the mental health workforce and the Māori healthcare workforce. After the National Working Party on Mental Health Workforce Development identified critical shortages in this workforce, training opportunities were expanded such as the National Support Worker (Mental Health) Certificate (Ministry of Health and Ministry of Education 1996).

Māori and Pacific people are markedly under-represented among health care professionals. Greater Māori participation in the health sector requires improvements in Māori education as well as more resources for professional training and development. For example, the Māori Provider Development Scheme offers health-training scholarships and the Auckland Medical School offers a “bridging programme” into undergraduate courses, in addition to its Māori and Pacific Admission Scheme, which allocates 15 places each year.

In 2000, 198 doctors identified themselves as Māori, making up only 2.3% of the medical workforce, but a 38% increase (to 274) is forecast by 2005 when others graduate. Between 1985 and 1987, only 10 Māori graduated from medical schools but 102 were in training in 2000 (Medical Council of New Zealand 2000).

Pacific People made up 1.1% of the active medical workforce in 2000, including 95 doctors, up from 67 in 1997. A 35% increase in number is forecast by 2005 based on the increased numbers entering training. In 2000, there were 41 Pacific people studying at the Auckland Medical School (figures are not available for Otago) (Medical Council of New Zealand 2000).

The Health Workforce Advisory Committee was set up in 2001 to advise the government on human resource planning. This had been a function of the Department of Health prior to 1993 market-based reforms but since “the market” did not systematically address such workforce issues, there has been a reversion to centralized workforce planning. Planning the future health and disability workforce will require decisions on its skill-mix while taking into account other changes in the health system environment as follows:

- the ageing population;
- changing patterns of disease
- cultural influences, in particular, Māori and Pacific Islands culture

- rapid developments in medical technology
- more consumer-style demands by the public
- more emphasis on a partnership model in the patient-health professional relationship, and
- increasing demands for specialization and multi-skilling.

## Medical practitioners

The number of active medical practitioners in New Zealand has increased steadily from 1.56 per 1000 population in 1980 to 2.25 in 2000 (Table 13). In 2000, there were 8615 practising medical practitioners, of whom 3166 (37%) were general practitioners (OECD 2000). New Zealand with 2.3 medical practitioners per 1000 population has fewer than many OECD European countries (Fig. 17, Fig. 18). For example, Australia has 2.5 medical practitioners per 1000 population, France 3.0, Germany 3.5, although the United Kingdom is lower with 1.7 (OECD 2000). There is enormous variation across countries, however, and no consensus on what the “right” number might be. Further, as noted later, New Zealand has a relatively large supply of well-trained nurses, who undertake some work that in other countries is performed only by physicians.

New Zealand also has fewer general practitioners than some other OECD countries with 0.83 per 1000 population in 2000, compared to 1.1 in Australia (1998) and 1.5 in France (1998), but only 0.6 in the United Kingdom (1998) (OECD 2000). The lower proportion in New Zealand may be in part due to the role of Plunket nurses in children’s health and the role of midwives in providing primary maternity care.

**Table 13. Health care personnel, 1980–2000**

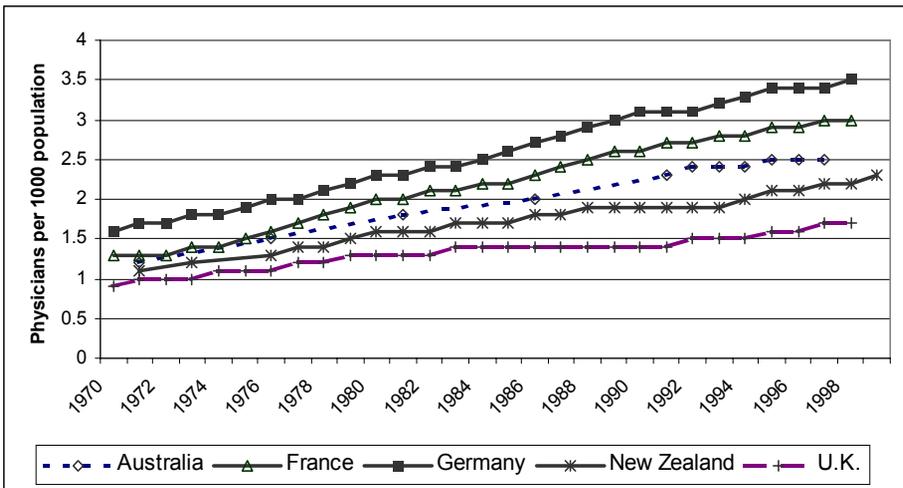
Persons per 1000 population	1980	1985	1990	1995	2000
Medical practitioners	1.56	1.69	1.88	2.11	2.25
Registered nurses & Midwives	–	–	7.3	8.3	8.5
Enrolled Nurses	–	–	1.9	1.8	1.1
Dentists	–	–	0.36	–	0.42
Pharmacists	–	–	1.03	–	0.99
Physiotherapists	–	–	0.53	–	0.65
Occupational Therapists	–	–	0.23	–	0.36
Optometrists	–	–	0.08	–	0.13

Source: (New Zealand Health Information Service 2001).

### Nurses

The number of registered nurses in New Zealand has increased since 1980, with large increases in the early 1990s, with 8.5 nurses per 1000 population in 2000 (Table 13). In 2000, there were 32 676 registered nurses and midwives, and 4300 enrolled nurses in New Zealand (New Zealand Health Information Service 2001). New Zealand has a well qualified and large nurse workforce, with a higher number for its population than many western European countries (Fig. 18). For example, in 2000 or the latest year, New Zealand with a total of 9.6 nurses per 1000 population was closer to Sweden with 10.2, than Australia

**Fig. 17. Number of physicians per 1000 population in New Zealand and selected countries, 1970–1997**



Source: (OECD 2000)

with 8.4 and the United Kingdom with only 5.0. The medical practitioner/nurse workforce ratio in New Zealand, as in some other countries, thus is weighted towards a skilled nursing workforce. However, New Zealand currently has a shortage of nurses to staff its public hospitals.

Nurses have expanded their jurisdiction as midwives and as nurse practitioners. Limited prescribing rights were given to registered midwives under the Nurses Amendment Act 1990, and the Medicines Amendment Act 1999 extended these rights further to nurses and to other health professions including the use of standing orders. Nurse prescribing was introduced with considerable caution followed by copious regulations. For nurses in rural practices, in

particular, limited prescribing rights are expected to be a useful and cost-effective complement to the services provided by rural general practitioners and to increase people's access to timely services (Ministry of Health 1999b: 28).

### **Allied health professionals**

Since 1990, the number of dentists has risen by 30%, while the number of physiotherapists has increased by 40%, occupational therapists by 76% and optometrists by 86% (in absolute numbers). Pharmacists on the other hand have experienced a 9% reduction in numbers (New Zealand Health Information Service 2001). It should be noted that these numbers are based on the number of annual practising certificates issued and therefore do not give an indication of full-time-equivalent positions (FTEs) or active practitioners.

### **Professional training and regulation**

Funding for professional education and training was restructured during the 1990s, and funding for professional education was transferred from Vote: Health to Vote: Education in 1995. The Ministry of Education funds undergraduate education and training while students also pay fees. From 1993 onwards, separate purchasers were set up for graduate and post-graduate training, so that most professional education is funded through the tertiary education sector with clinical training purchased from health providers. The Clinical Training Agency was established in 1995 to purchase postgraduate education either from universities or professional bodies (such as the medical colleges).

University Medical Schools in Auckland and Dunedin train medical practitioners in six-year undergraduate courses. The courses are divided into pre-clinical training, predominantly lecture based, and training in a clinical setting. Dunedin Medical School operates three clinical schools in Dunedin, Wellington and Christchurch, where students can complete their training. Auckland has a clinical school in Hamilton where students mainly do their final year's training. The number of subsidized places available for medical school students is capped, however, at 285 nationally. The Health Workforce Advisory Committee will be addressing numbers and training levels in their report.

Nurses are trained in three-year tertiary level courses that are offered both in universities and polytechnics. Training consists of both theoretical and practical placements, with clinical experience being introduced from the first year. Enrolled nurse training (a lesser credential) ceased in 1993, but work is currently under way to again develop a second tier qualification.

Each recognised health occupation has its own board or council that licenses and regulates its members. These are professions that carry out procedures considered to be potentially harmful to the patient, while other groups, such as naturopaths, where the risk is considered low, are not formally regulated. Boards/councils exist for the following occupations:

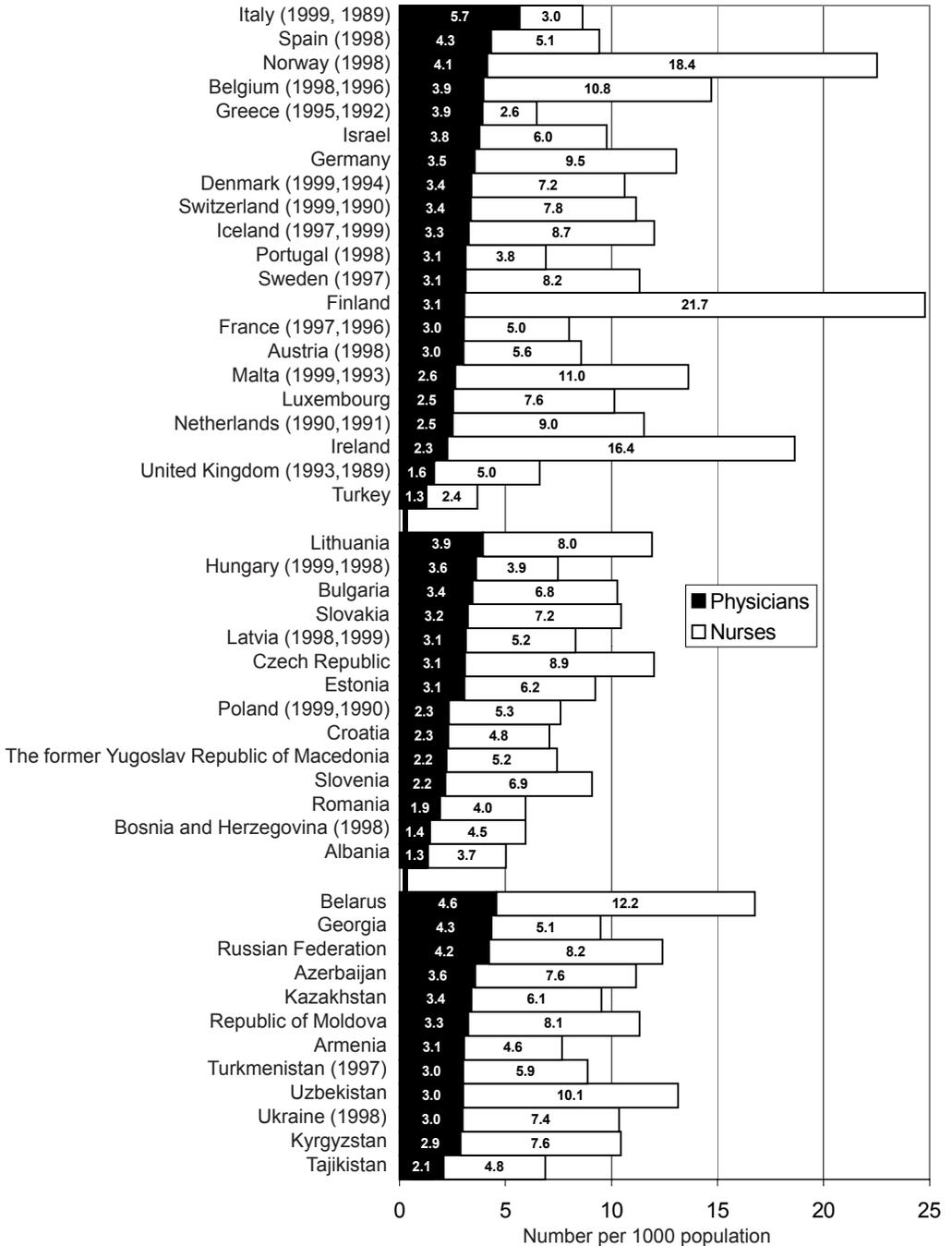
- medical practitioners
- dentists
- nurses and midwives
- psychologists
- physiotherapists
- occupational therapists
- dieticians
- optometrists and dispensing opticians
- podiatrists
- chiropractors
- pharmacists
- medical radiation technologists
- medical laboratory technologists, and
- clinical dental technicians and dental technicians.

Registration boards or councils set standards of competence that educational providers use for curriculum development. They monitor educational providers and educational standards of students by examination (in some instances set by the registration board) or in formal approval/accreditation processes. Nurses are regulated under the Nurses Act 1977. The Medical Practitioners Act 1995 introduced provisions for ensuring continuing competence for doctors. The competency model is likely to be followed for other occupational regulation boards through a new Health Professionals Competency Assurance Bill (to be introduced in 2001). This bill draws upon criteria designed to accredit senior medical officers by requiring ongoing professional education, and will repeal the individual Acts regulating the different professions (eleven in total), replacing them with an all-encompassing document.

## Pharmaceuticals

Two government organizations regulate the use of pharmaceuticals in New Zealand: the New Zealand Medicines and Medical Devices Safety Authority (Medsafe), and the Pharmaceutical Management Agency (PHARMAC).

**Fig. 18. Number of physicians and nurses per 1000 population in the WHO European Region, 1999 or (latest available year)**



Source: WHO Regional Office for Europe health for all database.

*Medsafe* administers the Medicines Act 1981 and Regulations 1984, and parts of the Misuse of Drugs Act 1975 and Regulations 1977, in order to manage the risk of avoidable harm associated with the use of medicines. Medsafe is also responsible for ensuring that the therapeutic products available in New Zealand can be expected to have greater benefits than risks if used appropriately. Pre-marketing approval must be obtained for new and changed medicines. Data that satisfactorily establish the quality, safety and efficacy of the product, for the purposes for which it is to be used, must be submitted for evaluation before consent can be granted. Post-marketing surveillance monitors the safety of medicines and medical devices in use. Products shown to be unsafe are removed from use, and prescribers are advised about new safety information for products. Medsafe thus is the gatekeeper to the New Zealand market, charged with ensuring medicines are safe and effective, and PHARMAC decides on subsidy levels after Medsafe has approved drugs for use.

*PHARMAC* was set up in 1993 as a Crown Agency to manage the country's Pharmaceutical Schedule, and then became a limited liability not-for-profit company under the Health Funding Authority. Following the New Zealand Public Health and Disability Act 2000, PHARMAC became a separate Crown Agency with its functions and responsibilities largely unchanged.

The PHARMAC Board makes decisions on listing, subsidy levels, and prescribing guidelines and conditions, with input from independent medical experts on the Pharmacology and Therapeutics Advisory Committee and its specialist sub-committees. Pharmaceutical suppliers may apply to have a medicine listed on the Pharmaceutical Schedule for subsidy, following Ministry of Health registration of the product. PHARMAC publishes updates of the Pharmaceutical Schedule, which involves continual assessment of drug performance and cost, usually by reviewing trends within defined groups of drugs (therapeutic group reviews). PHARMAC sets its review priorities by taking into account the reports of the National Health Committee, known patient needs, the size of the therapeutic group relative to total drug usage, and cost trends within that therapeutic group.

A wide range of subsidised medicines, approved appliances and related products are listed on the Pharmaceutical Schedule, and can be prescribed by medical practitioners, midwives, nurses and dentists. Consumers make a small co-payment, (a dispensing charge) while concession mechanisms ensure that people can afford drugs (as explained under *Health care benefits and rationing*).

The Pharmaceutical Schedule lists almost 3000 drugs and services that are subsidised by the government. This schedule, updated monthly and reprinted

three times a year, also sets out prescription guidelines, and records the price of each drug and the subsidy. About 50 new products are added to the Schedule each year (Statistics New Zealand 1998:162).

PHARMAC decides what drugs should be listed on the Pharmaceutical Schedule based on evidence of effectiveness and also decides the price that government is prepared to pay the supplier. As a monopoly purchaser with considerable bargaining power, PHARMAC has applied supply-side controls. It uses reference pricing and risk sharing with suppliers to control pharmaceutical expenditure. PHARMAC manages pharmaceutical expenditure through negotiations and contracts with pharmaceutical suppliers, and is estimated to have saved over NZ\$80 million over 1993 to 1996/97 (Statistics New Zealand 1998: 15-6). Pharmaceutical expenditure has remained at around 12% of total health care expenditure during the 1990s (OECD 2000).

Reference pricing is based on the classification of pharmaceuticals into therapeutic groups and sub-groups. A *therapeutic group* is defined as a set of pharmaceuticals that are used to treat the same or similar conditions, and a *therapeutic sub-group* is defined as a set of pharmaceuticals that produce the same or similar therapeutic effect in treating the same or similar conditions.

The application of reference pricing means that all pharmaceuticals in a given sub-group are subsidised at the level of the lowest priced pharmaceutical. PHARMAC can consult on the method for calculating the reference price and is not bound to apply reference pricing in every situation where pharmaceuticals have been classified into a therapeutic sub-group.

Demand side controls have been less successful. The Health Funding Authority contracted with general practitioners to manage pharmaceutical budgets although general practitioners retained up to one half of these “savings”; slightly more efficient contracts were negotiated with pharmacies; and more efficient and effective prescribing by GPs and specialists was encouraged, including more use of generic drugs. Consumer co-payments for pharmaceuticals were also intended to manage consumer demand and contain expenditure (Statistics New Zealand 1998: 15–16).

## Health care technology assessment

Medsafe must license a drug before it can be listed on the Pharmaceutical Schedule. The Ministry of Health is currently seeking the government’s approval to strengthen the Medicines Act 1981 to ensure that:

- health care and therapeutic products conform to acceptable standards of safety, quality (for example, products are as claimed and not contaminated), and efficacy;
- personnel, premises and practices used to manufacture, store and distribute healthcare and therapeutic products comply with safety requirements; and
- information about the safe selection and use of health care and therapeutic products is provided to consumers and prescribers.

Legislation regulates technology in various areas. For example, the Radiation Act 1965 sets out the controls for the importation, exportation, sale, use, storage, and disposal of radioactive materials and irradiating apparatus. The Act requires persons using radioactive materials and/or irradiating apparatus to be licensed.

Service providers (currently the District Health Boards) make decisions on the purchase of new technology. Given the many structural changes, decentralized purchasing and funding constraints, there has been little overall planning or regulation of new technologies. Pharmaceuticals are the exception to this, with PHARMAC having vetted new drugs since their inception in 1993.

New Technology Assessment is an important area for the future of health decision-making, and projects currently underway in the Ministry of Health and National Health Committee hope to outline a framework that will ensure consistency and transparency across the sector.

## Financial resource allocation

### Third-party budget setting and resource allocation

The health budget is determined in the government annual budgetary process. Health care is centrally funded with no funds (except some environmental health funds) channelled through local government. The Ministry of Health negotiates the health budget, principally with the Treasury, with the final appropriation determined in the Vote: Health budget line. The appropriation is divided into departmental and non-departmental blocks, with the non-departmental block being the District Health Board funding that becomes effectively ring-fenced. Ring-fencing protects some other funds also, such as public health and disability support services. The concept of ring-fencing funds for certain areas is set to change as funds are devolved to District Health Boards. The health budget proposal for Vote: Health takes into account any increased costs for existing services as well as the costs of any new initiatives. In addition, there may be one-off injections of funds during the year usually in response to a political crisis, such as elective surgery waiting lists.

The level of health funding is calculated based on increases from the previous year using a “sustainable funding path” formula, which takes into account the following pressures on health expenditure:

- projected population changes (in size and age structure with yearly automatic adjustment);
- predicted price increases (estimated each year);
- the net effect of technological changes and efficiency gains (estimated each year).

Funding structures and processes have changed several times during the 1990s. Before 1993, the Ministry of Health allocated funds to Area Health Boards (for hospital services and most public health and community care), and retained funds for most primary care and some public health, while the

Department of Social Welfare funded some disability support services. Between 1993–1997, funds were allocated to four Regional Health Authorities and the Public Health Commission to purchase health and disability services through contracts with providers, while from 1998–2000 funds were channelled through one Health Funding Authority. Its budget was allocated under an annual Funding Agreement between the Minister of Health (on behalf of the Crown) and the Board of the Health Funding Authority, that set out the government's health policy objectives, key performance expectations, and the various funding lines.

The New Zealand Health and Disability Act 2000 abolished the Health Funding Authority and its functions transferred to the Ministry of Health and 21 new District Health Boards. The Ministry of Health now allocates the state health budget to the 21 District Health Boards, as well as to a few national programmes. The essential change in the flow of financing is that where the Health Funding Authority was allocated the state health budget and purchased services from local and national providers, the Ministry of Health now divides the budget between the 21 District Health Boards who now have a dual purchase and provision role.

State health funds are allocated to the district health boards on historical provider contracts, but the intention is to move to population-based funding from July 2003, based on the number of people living in each region, the ethnicity and age structure, and population characteristics that affect the need for health and disability services. The details of a formula are currently being worked out between Treasury and the Ministry of Health.

In December 2001, the Minister of Health announced a three-year health funding package. The previous arrangement had committed funds for one year, while indicative funds identified for the next two years could be changed in subsequent budget rounds. The three year cycle is intended to allow the district health boards and others in the health sector to plan ahead with more certainty (Minister of Health 2001).

Methods of funding some service providers are described in the next sections.

## **Payment of hospitals**

The funding sources and methods of payment for hospitals have changed considerably over the decades. Early in the twentieth century, government supplemented the voluntary sector by offering matched grants to hospitals. Under the 1938 Social Security Act, hospitals were subsidised on a bed-day basis (still a preferred method for funding long-term care). By 1957, the Department of Health was responsible for funding most hospitals (Hindle and

Perkins 2000). Hospital boards were given block grants and this “historical” budget was incrementally increased each year. Between 1985–1989 area health boards funded hospitals, with this role transferring to purchasing authorities between 1993–2000, and District Health Boards from 2000.

Hospitals thus have been paid through a combination of methods: historical budgets, capped price/volume contracts for procedures, and case weights for each patient. Other methods include payment by budget line item, per patient day, and per procedure. Currently hospitals are given a fixed operating budget for the year, which is intended to cover all operating expenses apart from major capital expenditure. Hospitals are paid for each patient on the basis of case weights (diagnosis-related groups), which set a price/volume schedule for the year, although within this hospitals can trade volumes between specialities to fill areas of needs. These numbers are based on the previous year’s throughput. It is in the hospital’s interests, therefore, to have high throughput in order to maintain their funding stream. While overspending is not technically covered, deficit funding or short-term equity adjustments are often made in these situations. Adjustments also are made for rural areas, tertiary services, areas with perceived inequalities and a further adjuster for capital expenditure.

The shift from a patient case-weight system to a population-based model will mean a shift in the Ministry of Health’s role from specifying volumes of procedures to monitoring outputs to the adoption of a “big picture” approach.

For significant capital projects the Crown provides separate equity funding on a quasi-market basis to represent its interests as a shareholder. The Crown takes a greater stake in the area initially (the capitalisation) with the “loan” paid back over the coming years.

Some agencies, such as mental health services, are paid on the basis of capacity (such as number of beds) or according to inputs (such as the number of staff).

## **Payment of health care professionals**

### **Payment of hospital based doctors**

The majority of specialists in public sector community-based and hospital settings are paid a salary, that is, a fixed amount for time at work regardless of the quantity/type of services provided or the number of patients treated. In the private sector, doctors providing services to hospitals are paid primarily on a fee-for-service basis.

After the Employments Contracts Act 1991, most public sector contracts were based upon individual rather than collective bargaining, but the new Employment Relations Act 2000 encourages collective agreements. The government throughout the 1990s ceased to regulate salary award rates, although some rates and conditions of employment remained covered by industrial relations legislation. Thus house surgeons (junior resident medical officers) in the late 1990s took industrial action over work conditions and pay. Hospital specialists' employment contracts are negotiated directly with their employers. Most hospital specialists also supplement their incomes with private practice to a greater or lesser extent.

### **Payment of general practitioners**

General practitioners receive their income from several sources. The main sources are government subsidies for consultations (received as fee-for-service subsidies by 85% of GPs) and via capitation payments (received by 15% of general practitioners), while the other main source is patient fees.

Issues for the government with a fee-for-service payment mechanism are as follows. First, GPs have a financial incentive to over-service. Second, the subsidy covers all types of consultations rather than specific services that the government may wish to prioritise. Third, general practitioners are not accountable for the outcomes of subsidized services. Finally, the government is unable to contain costs to patients, something they hope to achieve better through a move to capitation.

Capitation payments are made to about 15% of general practitioners who receive a block sum to look after an enrolled patient population, usually in a low-income area, but the practice can still charge direct patient fees (Crampton *et al.* 2000). The Health Funding Authority in 1998 proposed a move to capitation funding following considerable debate (Cumming and Mays 1999; Gribben and Coster 1999; Malcolm 2000), and this proposal was taken up in the Primary Health Care Strategy 2001. The advantages for general practitioners are a predictable cash flow and greater flexibility in delivering services. For example, nurse practitioners could take on more clinical tasks thereby lightening the workload of GPs and leaving them free to tackle more complex work. The advantages for government are greater control over budgets and funds for primary care services. Further, the expectation is that there will be more incentive for GPs to provide more "population-based" health care. It remains to be seen whether GPs will retain the right to charge a fee-for-service, and if so, what that will mean for the success of a system where the aim is to decrease costs and improve access.

## Health care reforms

### Aims and objectives

The series of structural changes to the New Zealand health care system were driven by the pressures evident in many OECD countries: rising costs, rising demand, higher consumer expectations, and political ideology (Somjen 2000: 67). New Zealand was unusual, however, in implementing quite major reforms in a short time. A convergence of conditions in the early 1990s produced a climate for change: economic stress; the perceived failure of government; a new political government; and a new set of economic concepts (Poutasi 2000: 134). New Zealand's unicameral and unitary form of government and a series of governments further widened the opportunities for continuing change throughout the 1990s (Bloom 2000).

The 1993 reforms aimed to make more effective and efficient use of resources to achieve the following objectives:

- health gains for the people of New Zealand
- greater coordination of care
- services more responsive to consumers, including Māori
- clearer and stronger lines of accountability
- cost containment
- increased focus on public health and
- the removal of conflicts of interest (Ministry of Health 1996: 16).

The objectives of the Labour/Alliance coalition government formed in 1999 do not differ significantly from the above list but, as discussed in this report, the new government has set in place very different means to achieve these

goals. In addition, it is focusing upon the goals of equity, producing better health outcomes, and offering incentives for professionals to improve their practice.

## Reform implementation

New Zealand health sector reform, having gone through three major phases over the last two decades, has embarked upon a fourth. Health sector changes were introduced from the mid-1980s in many countries such as the United Kingdom, the Netherlands, Scandinavia and Australia (Ministry of Health 1996: 19). The structural changes of the early 1990s can be categorized as “big bang” rather than incremental (Ham 1997), but these New Zealand market reforms, which went further than most, have been pulled back in the health sector since 1996 (Davis and Ashton 2001).

The first phase, from 1983 to 1992, introduced structural changes to the public sector. Notably, health care funding and service management was decentralized in the hands of 14 Area Health Boards. A Labour government (1984–1990) introduced wide-ranging public sector reforms, such as more autonomy for managers and purchase-of-service contracting (OECD 1994: 240). The problems defined in 1993, along with the ongoing reforms designed to overcome them, are shown in Table 14.

The second phase from 1993–1996 was implemented under the 1993 Health and Disability Services Act. One aim was to introduce market model principles and practices into the public sector such as competition; another was to improve the allocation of finances within health care system (Poutasi 2000: 138). The mechanisms included the following. First, purchaser and provider roles were split in order to avoid bias in resource allocation; second, purchasers were encouraged to buy services from best-value providers; third, budgets were integrated for primary and secondary services under one purchaser; and finally, decision-making was decentralized within broad national priorities.

In the third phase from 1996–1999, the National/New Zealand First Coalition government re-branded the Crown Health Enterprises as Hospital and Health Services. The notion of hospitals as businesses had been very unpopular among the public and health professionals. This change relieved hospitals of the requirement to make a profit, but expected them to function in a commercially responsible manner.

The fourth and current phase began from late 1999 under a Labour/Alliance coalition government. The Ministry of Health, in a briefing paper to the incoming Minister of Health, assessed the gains from the previous reforms as follows:

**Table 14. Health system problems and solutions, 1993**

Key Area	Problems pre-1993	Solutions
Resource allocation	Hospital dominance. Resources allocated for historical reasons.	Split purchaser and provider roles to remove hospital bias and improve quality and efficiency through contestability where appropriate.
Coordination of care	Separate funding made coordination difficult.	Integrated funding for primary and secondary care. Disability support services funded through a single integrated budget.
Responsive services	Not always responsive, including to Māori	Flexibility in purchasing health services to best fit local needs. Increased "ownership" of services by Māori and Pacific groups.
Accountability	Diffused accountability to area health boards and Minister of Health. Lack of maintenance of assets and long-term viability of public hospitals.	Single chain of contractual accountability. Separate, stronger accountability for "ownership interest" in hospital providers.
Expenditure	Open-ended spending where funding increased as spending grew regardless of priority.	Defined funding path.
Promotion of public health	Public health services funding prone to erosion by acute care.	Public health purchasing with "ring-fenced" budget.

Source: (Ministry of Health 1996: 17).

- improved information on the cost and use of services;
- better mechanisms to manage fiscal pressures;
- integration of funding streams, raising the potential for desirable shifts of resources and service integration;
- emergence of new community-based providers, particularly Māori health, mental health, and disability support services in the nongovernmental organizations sector;
- comprehensive needs assessment and coordination services for disability support;
- improved national equity of funding;
- general practice groupings enabled quality initiatives, budget holding and population approaches; and
- more investment in public hospitals (Ministry of Health 1999: 29).

It went on to identify areas for improvement as follows:

- relationships among agencies and between health professionals
- slow uptake opportunities for service integration
- inhibiting regulations
- variable service quality
- high transaction costs
- slow improvements in efficiency
- low investment in workforce and systems development
- public confidence.

The Labour/Alliance government elected in 1999 reversed some changes made by its predecessors, particularly some market model methods. For example, it has combined funding with some aspects of service delivery in the new district health boards. The New Zealand Health and Disability Act 2000 significantly blurs the purchaser/provider split by disestablishing the Health Funding Authority, creating district health boards in place of Hospital and Health Services, and expanding the power and functions of the Ministry of Health. The incoming government believed that the “internal market” had not delivered significant improvements in efficiency, and that high costs resulted from the many transactions involved in a purchaser/provider split, and also from the transition costs involved in frequent structural changes. The emphasis upon efficiency was also seen to preclude long term investment in future capability (for example, workforce training and information systems). Competition was perceived as not appropriate for the health care “market” given both the small number of providers and the small population. Nor was competition compatible with a health sector ethos that called for more collaboration and better working relations. Finally, there was seen to be a loss of public confidence in the health care system.

As a consequence, the health sector is being subjected to another round of restructuring. Implementing these changes will not be easy since the health sector has become both “weary and wary of change” (Somjen 2000: 68). To counter this reluctance, the government has promised ongoing consultation. This is extremely important since health care is a labour intensive sector and the current reforms to the health sector must involve all staff as well as the clinicians who make the case-level decisions (Alexander 2000). Second, there is an element of “back to the future” in invoking some of the regional collaboration ethos of the 1980s (Devlin *et al.* 2001).

The New Zealand public consistently rates health as a major issue. In a five-nation survey (New Zealand, Australia, Canada, the United Kingdom and the

United States), New Zealanders were particularly worried about cost and access issues (Donelan *et al.* 1999). However, over 90% of the New Zealanders in another survey said that they were satisfied or very satisfied with the overall quality of care (Ministry of Health 1998c).

## Health for all policy

New Zealand health care policy and structural reform throughout the 1990s paid considerable attention to setting population health objectives and to directing more funds to population health (Ministry of Health 1998). Progress on 88 health outcome targets was annually monitored during the 1990s, with improvements most evident for ischaemic heart disease, cervical cancer, road traffic injuries, alcohol-related diseases and control over HIV/AIDSs. Some other conditions continued to increase, however, such as diabetes.

The 1999 New Zealand Health Strategy laid out the new government's platform for action on health (Ministry of Health 1999b). It highlights 13 population health priorities for the Ministry of Health and District Health Boards to focus on for action in the short to medium term. These priorities were based upon three criteria: the size of the burden of premature death/disability; the distribution of the burden (equity); and whether the means were available to modify these health outcomes. The 13 population health objectives are to:

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



## Conclusions

The New Zealand health care sector has undergone major structural changes over the last two decades, more so than in most other OECD countries. It has moved from a traditional and centralized “welfare state” model in the post-War years, through regionalized services in the 1980s, to variations on a quasi-market model in the 1990s, to the current model where regional governance is again a major feature.

The New Zealand health sector reforms throughout the 1990s concentrated upon structural and microeconomic reforms intended to improve allocative efficiency and to produce more cost-efficient services. This was against the background of a major overhaul of the faltering economy from the 1980s onwards. The context for health policy, therefore, was economic policy that concentrated upon debt reduction and the control of inflation. Quasi-market model structures and practices were seen as the answer to cost and demand pressures while also offering greater consumer choice and improved quality of care. The market stance was softened late in the decade with the move to Hospital and Health Services, which involved removal of the requirement to realize a profit and to compete with other hospitals and health areas.

In 1999, the Labour/Alliance government greatly reduced the purchaser/provider split by returning responsibility for health care funding and delivery to the regions via 21 District Health Boards. The view was that the “internal market” had not delivered significant improvements in efficiency, the quality of care had not improved, and the public had lost confidence.

Equity remains a key issue to be addressed. The health care system still lacks a fair method of financing, particularly for primary health care, either through taxation or a single public insurer system. Out-of-pocket expenditures have risen with an increasing array of charges and patient co-payments. This is

an important issue particularly for primary health care, since studies show that significant proportions of eligible people do not hold concession cards that are intended to target low-income health service users, and also suggest that low-income people continue to under-use primary health care. The proposed primary health organizations funded through patient capitation are intended to extend access and improve the quality of care for such patients. There is also a perception that the health care system is under-funded since many district health boards are in deficit. The health budget accordingly was increased in a 3-year funding package from 2002/2003.

Citizen participation in decision-making has been reinforced with the establishment of elected district health boards. While these will be more democratic than a purely appointment based system, there is the danger they may be captured by special interest groups. The challenge will be to balance the needs of special interest groups against the population needs identified in assessment exercises.

Finding the right balance between different sectors and services is an ongoing process. During the 1990s more funds were spent in the private sector but there was little structural change, despite the goal of increasing the range of providers and increasing competition between public and private providers. For example, New Zealand retains a small private insurance industry, while public sector hospitals remain highly concentrated. Health sector expansion did occur, however, among community providers. In terms of service types, the new district health boards face the old problem of the continuing dominance of hospitals within the New Zealand health care system. Integrated care was encouraged by merging funding streams to allow purchasers to transfer resources between service types, but there is no evidence so far of significant shifts of funds from hospitals to primary care.

The expansion and development of Māori health care has been a policy priority as has making mainstream providers more culturally sensitive. Māori claims for more say over their own health care are linked to the political goals of indigenous people for greater power in their own land. Despite the continued disparities in health, there have been significant gains for Māori health over the last decade. In addition to the ten-fold growth in the number of independent Māori providers, some initiatives have demonstrated an improvement in intermediate health outcomes for Māori in areas such as asthma, immunization, respiratory problems and mental health. It is still too early to assess whether Māori-provided health services provide better quality care and better health outcomes.

Some gains were made in cost-efficiency in terms of allocative efficiency.

There was fairer allocation between geographic regions by using population formulae, by reducing bias through a purchaser/provider split, and by directing more funds to reduce social inequalities such as increased funds to Māori providers.

Quality of care is a current policy priority with initiatives planned to promote clinical excellence. There is no evidence as to whether quality of care improved or faltered during the 1990s and there are few outcome measures in place to evaluate hospital or physician performance. As in other countries, more emphasis is being placed upon the difficult tasks of evaluating policy changes and health outcomes.

The New Zealand health care system has embarked upon a difficult phase of reform. The new policies have retained the impetus to greater cost-effectiveness and have returned to decentralized regional structures. Policy-makers and planners have learned a considerable amount about what works and what does not in the New Zealand context, but there remain large gaps in the knowledge base. Health care providers are weary of change and the public is anxious about the future. The citizens of New Zealand, as well as policy-makers in other countries, will follow with interest the developments in establishing a twenty-first century health care system for New Zealand.



# Appendix 1

## The New Zealand health system: historical background and legislation

- 1840 Treaty of Waitangi signed at Bay of Islands.
- 1846 New Zealand Constitution Act.
- 1872 Public Health Act. Boards of health were set up in each province supplemented by a network of local boards.
- 1876 Public Health Act. Retained many features of its 1872 predecessor but was adapted to suit new central-local government relationships. Administrative and financial control of hospitals taken over by central government.
- 1885 Hospitals and Charitable Institutions Act. Laid the foundations for hospital administration and provided a uniform system for whole colony.
- 1900 Public Health Act. Set up the Department of Public Health in 1901. This act and five short amending acts, consolidated in 1908, remained in force until 1920.
- 1907 Tohunga Suppression Act. The government insisted that health care would be based on Western concepts and methods and forced Māori healers underground.
- 1909 Department of Public Health renamed the Department of Public Health, Hospitals and Charitable Institutions to reflect its expanded role.
- 1920 Health Act. Changed the title from Department of Public Health to Department of Health to reflect the expansion of its activities. A Division of Māori Hygiene was established and Dr Peter Buck was appointed its first director.
- 1921 Hospital Commission set up to reorganize the hospital system.
- 1937 Creation of the Medical Research Council of New Zealand.
- 1938 Social Security Act. Established a pension structure and the basis of a national health service. General practitioner, hospital, pharmaceutical and maternity services were intended to be free and universal.
- 1941 Pharmaceutical and general practitioner medical benefits introduced.
- 1947 Hospitals Act. The government established a new basis for hospital administration.
- 1951 Abolition of Legislative Council (Upper House of Parliament).
- 1956 Public Health Act.
- 1957 Hospitals Act. Provides for the licensing of hospitals.

- 1964 Social Security Act.
- 1965 Radiation Act.
- 1964 Repeal of the Tohunga Suppression Act.
- 1968 Allocations Committee established to improve the basis for allocating funds.
- 1970 Special Advisory Committee on Health Services Organization recommended that regional boards undertake strategic planning.
- 1975 Disabled Persons' Community Welfare Act.
- 1977 Nurses Act.
- 1981 Medicines Act.
- 1983 Area Health Board Act enabled their formation.
- 1984 Election of labour party government.
- 1984 Hui Whakaoranga, the first national health hui (meeting) re-examined Māori health philosophy and strongly advocated Māori health initiatives.
- 1986 Health Benefits Review was instituted to consider and make recommendations for the primary care sector and for the whole system of health benefits.
- 1985 Royal Commission on the Electoral System
- 1986 State-Owned Enterprise Act
- 1986 Constitution Act
- 1987 Taskforce on Hospitals and Related Services set up to recommend measures to increase equity and efficiency.
- 1987 Old Peoples' Homes Regulations.
- 1988 State Sector Act. Corporatization or privatization of state assets.
- 1988 Gibbs Report on hospital services recommended separation of health funders and providers.
- 1989 Public Finance Act. Shifted public service from input to output planning and to purchase of service contracts.
- 1990 Election of National Party government.
- 1990 Smoke-free Environments Act.
- 1991 Green and White paper "Your Health and the Public Health".
- 1991 Employment Contracts Act. Individual rather than collective bargaining.
- 1991 Abolition of Area Health Boards
- 1992 Mental Health (Compulsory Assessment and Treatment) Act.
- 1992 Four Regional Health Authorities established. Hospitals became Crown Health Enterprises with a commercial focus.
- 1993 Electoral Act. Set up Mixed Member Proportional voting.
- 1993 Referendum endorsed new voting system.
- 1993 General election re-elected National Party.
- 1993 Health and Disability Services Act established a purchaser/provider split.
- 1994 Health and Disability Commissioner Act.
- 1994 Fiscal Responsibility Act.
- 1995 Medical Practitioners Act.
- 1995 Abolition of Public Health Commission (legislation enacted 1996)
- 1996 Election with formation of New Zealand First Coalition.

- 1997 Regional Health Authorities disestablished and the Transitional Health Authority set up to facilitate a transition to the Health Funding Authority.
- 1998 Crown Health Enterprises replaced by Hospital and Health Services. The Health Funding Authority set up as a national funding body.
- 1999 Second election under Mixed Member Proportional with formation of coalition Labour and Alliance government.
- 1999 Medicines Amendment Act. Extended the prescribing rights of nurses.
- 1999 Accident Insurance Act. Abolished private insurer.
- 1999 Proposals to establish District Health Boards based on the areas covered by Hospital and Health Service Boards. Guidelines for traditional Māori healing published by the Ministry of Health.
- 2000 New Zealand Public Health and Disability Act.



## Appendix 2

### Glossary of Māori terms

Aotearoa	New Zealand – “Land of the long white cloud”
Hapū	Sub-tribe
Iwi	Tribe
Mana	Integrity, prestige, jurisdiction, authority
Pakeha	White, European. Commonly used to refer to New Zealanders of European descent
Taonga	Asset, heritage, treasure
Te reo	Accent, enunciation. Commonly used to refer to the Māori language
Tohunga	Expert, learned. As a noun used to refer to traditional Māori healers
Whānau	Family – more commonly, extended family

Note: Many Māori words have different meanings depending on the context they are used in. The definitions used here represent some of the common uses, but are by no means exhaustive.



## Appendix 3

### New Zealand health-related websites

Alcohol Advisory Council	<a href="http://www.alcohol.org.nz">http://www.alcohol.org.nz</a>
Biosecurity Strategy Development	<a href="http://www.biostrategy.govt.nz">http://www.biostrategy.govt.nz</a>
Health & Disability Commissioner	<a href="http://www.hdc.org.nz">http://www.hdc.org.nz</a>
Health Benefits	<a href="http://www.hbl.co.nz">http://www.hbl.co.nz</a>
Health Research Council	<a href="http://www.hrc.govt.nz">http://www.hrc.govt.nz</a>
Medsafe	<a href="http://www.medsafe.govt.nz">http://www.medsafe.govt.nz</a>
New Zealand Blood Service	<a href="http://www.nzblood.co.nz">http://www.nzblood.co.nz</a>
New Zealand Guidelines Group	<a href="http://www.nzgg.org.nz">http://www.nzgg.org.nz</a>
New Zealand Health Strategy District Health Board Toolkits	<a href="http://www.newhealth.govt.nz/toolkits.htm">http://www.newhealth.govt.nz/toolkits.htm</a>
New Zealand Medical Association	<a href="http://www.nzma.org.nz">http://www.nzma.org.nz</a>
PHARMAC	<a href="http://www.pharmac.govt.nz">http://www.pharmac.govt.nz</a>
Statistics New Zealand	<a href="http://www.stats.govt.nz">http://www.stats.govt.nz</a>
Strengthening Families	<a href="http://www.strengtheningfamilies.govt.nz">http://www.strengtheningfamilies.govt.nz</a>
The Medical Council of New Zealand	<a href="http://www.mcnz.org.nz">http://www.mcnz.org.nz</a>
The Mental Health Commission	<a href="http://www.mhc.govt.nz">http://www.mhc.govt.nz</a>
The Ministry of Health	<a href="http://www.moh.govt.nz">http://www.moh.govt.nz</a>
The National Health Committee	<a href="http://www.nhc.govt.nz">http://www.nhc.govt.nz</a>
The National Radiation Laboratory	<a href="http://www.nrl.moh.govt.nz">http://www.nrl.moh.govt.nz</a>
The New Zealand Health Information Service	<a href="http://www.nzhis.govt.nz">http://www.nzhis.govt.nz</a>



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