

# Health Expenditure Trends in New Zealand

2000-2010

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#### **Foreword**

This report, *Health Expenditure Trends in New Zealand 2000–2010*, is the latest in a regular series prepared by the Ministry of Health (the Ministry). The primary purpose of the series is to provide information on expenditure in the New Zealand health and disability sector. This document focuses on expenditure for the two years 2008/09 and 2009/10. This series continues from the 2008 publication and relates to all sources of health funding channelled through the public and private sectors.

The report has been prepared for use by interested individuals and agencies to foster informed debate on health funding and expenditure issues. The health system is an important and growing component of the national economy and provides essential services for the people of New Zealand.

The information in this report provides a basis for identifying and measuring trends and changes in the patterns of health and disability expenditure in New Zealand. This data is also useful in evaluating policies related to health and disability expenditure levels and patterns, and provides a basis for comparing New Zealand's expenditure with other nations.

As the purpose of this document is to present an estimate of total expenditure on health, it does not include any discussions on health service quality, efficiency or effectiveness. These financial estimates, together with other information supplied by the Ministry and others that do focus on qualitative issues contribute information resources necessary for the public, researchers and policy makers to assess the performance of the health system over time. Readers interested in more qualitative aspects of the New Zealand health system can go to the quality improvement section of the Ministry's website (see www.health.govt.nz/new-zealand-health-system).

This report contains updated expenditure estimates for total current health and disability services¹ and health-related functions in New Zealand at the aggregate level, on a per capita basis, by source of funds, by function of care, of provider industry and in nominal and real terms since 1999/00. The estimates include both public and private health expenditure. The public source of funding is predominately administered by the Ministry, primarily consisting of funding for services provided by district health boards (DHBs). Other sources of public funding include social security (Accident Compensation Corporation (ACC)), other central government agencies (for example, Ministry of Justice) and local and regional councils. Private sector sources of health funding include private insurance, household out-of-pocket expenditure and

Total current health refers to the sum of activities performed by either institutions or individuals pursuing, through the application of medical, paramedical and nursing knowledge and technology, core health activities.

Total health refers to the sum of current health activities and health-related activities. See also Appendix 1: OECD System of Health Accounts.

non-governmental funding of not-for-profit organisations serving households, such as The Royal New Zealand Plunket Society and the National Heart Foundation of New Zealand.

In 2003/04, New Zealand adopted the System of Health Accounts (SHA) developed by the Organisation for Economic Co-operation and Development (OECD) for defining and aggregating total current health and health-related expenditure. This report contains seven years of information using the SHA categories. New Zealand has not yet incorporated expenditure for capital items in the expenditure estimates. Using the SHA means that the New Zealand estimates now and in the future will be more comparable with other countries; however, for earlier years some consistency at a detailed level is lost. To assess the impact due to changing to SHA reporting in 2003/04, and other refinements undertaken in that year, see the Health Expenditure Trends in New Zealand (HET) report for 1994–2004.

Please note that some of the data in this report has been collected by means of sample surveys and has consequently been estimated conservatively. Therefore, care should be taken in interpreting changes in individual categories of expenditure from year to year. In addition, future refinements in the accuracy of the estimates can be expected.

This document and prior editions in the series can be located on the Ministry's website at: www.health.govt.nz/publications

The Ministry is grateful for the assistance of those who have contributed data and analysis used in preparing this report.

John Hazeldine Manager National Health Board Business Unit

## Acknowledgements

The author is indebted to the many individuals and organisations that provided information and gave generously of their time to assist with this study. The people and organisations involved are numerous and are named in Appendix 7: Contributors.

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#### **Executive summary**

This report, *Health Expenditure Trends in New Zealand 2000–2010*, is the latest in a regular series prepared by the Ministry of Health (the Ministry). The primary purpose of the Health Expenditure Trends in New Zealand (HET) series is to provide information on the estimate of current expenditure in the health and disability sector, with a focus on the 2008/09 and 2009/10 estimates. This HET report provides updated estimates for total current health and disability services expenditure in New Zealand, at the aggregate level, on a per capita basis, by source of funds, and in nominal and real terms, since 1999/00.

In 2003/04, New Zealand implemented the System of Health Accounts (SHA)<sup>2</sup> developed by the Organisation for Economic Co-operation and Development (OECD) for defining and aggregating total current health expenditure and health-related expenditure for reporting to the OECD and HET. The New Zealand estimates now enable better comparisons to be made between OECD countries; however, for years prior to 2003/04, some consistency at a detailed level is lost. Therefore, this report provides consistent information only at a summary level, with SHA details only for the seven-year period 2003/04 to 2009/10.

This HET report follows the HET 1998-2008 report.

The most significant impact on the estimates due to implementing SHA is the broadening of the definition of 'health sector' to include additional disability and support and long-term care services. Prior to 2003/04, HET reports identified the funding transfer from social agencies, largely from the Ministry of Social Development to the Ministry of Health, and primarily in terms of disability support services, but excluded part of these services from the health expenditure. The bulk of health expenditure (mainly disability support services) previously administered by the Ministry of Social Development was transferred to the Ministry of Health between 1993/94 and 1995/96. For historical information covering the period 1995/96 to 2002/03, the estimates have been recalculated to include the previously excluded items.

The expanded definition of health functions takes into account recent changes in health care systems, especially the growing importance of services for the elderly (long-term care, including home care). Within the OECD, the most important factor affecting comparability remains the different treatment of long-term nursing care across countries (OECD 2005). New Zealand will continue to refine and improve estimates in this area in future HET editions.

<sup>&</sup>lt;sup>2</sup> See: www.oecd.org/dataoecd/41/4/1841456.pdf

Implementing the SHA provided an opportunity to review data collection sources, processes and assumptions involved in compiling health expenditure figures. As a result, several refinements have enhanced the accuracy of the estimates starting in 2003/04. To assess the impact due to changing to SHA reporting in 2003/04, and other refinements undertaken in that year, please refer to the HET report for 1994–2004.<sup>3</sup>

The main focus of this report is on the SHA-based total current health expenditure figures for 2008/09 and 2009/10. Trend information is also provided. Historical and current expenditure comparisons use the most appropriate points in time, given changes in methodologies and assumptions. The health and disability expenditure presented in this report includes goods and services tax (GST) at its prevailing rate, which was then 12.5%. Unless stated otherwise, all expenditure is expressed in nominal dollar values.

Chapter 1 provides an overview of New Zealand's health sector, which establishes the scope of the data in this report.

Chapter 2 sets out the approach and definitions used in preparing the report. It contains a brief overview of the SHA classifications, which cover three dimensions: health care by functions of care, providers of health care services and sources of funding. The set of core tables in the SHA addresses three basic questions.

- 1. What kind of services are performed and what types of goods are purchased?
- 2. Where does the money go to (provider of health care services and goods)?
- 3. Where does the money come from (source of funding)?

The implementation of SHA introduces the concept and estimates of 'health-related' functions that are distinguished from 'core health' care functions. Health-related functions can be closely linked to health care in terms of operations, institutions and personnel but are, as far as possible, excluded when measuring activities and expenditure belonging to core health care functions. They are mainly services that have a direct and beneficial impact on collective health and, if reported in historical HET reports, were included as public health services. For 2009/10, the estimate of health-related functions totals nearly \$2,997 million.

Estimates of current health and health-related expenditure for this report were derived from annual reports and direct survey responses.<sup>4</sup>

Chapter 3 presents the methods and conventions followed in the report, along with a description of the types of data collected.

- <sup>3</sup> See: www.health.govt.nz/publications
- <sup>4</sup> See Appendix 6.3: Current Expenditure on Health and Health-related Services by Function of Care and Funder (SHA Standard Table 5): 2009/10.

Chapter 4 discusses trends in nominal (actual dollars spent) and real (Consumers Price Index (CPI) adjusted dollars spent) total current expenditure, and nominal and real total per capita current expenditure on health between 2000 and 2010. Summary information on the source and final use of funds is also provided. All indicators report significant increased funding of health services; in total, constant dollar terms (real dollars), on a per capita basis, as a percent of gross domestic product (GDP) and as a percent of government funding. Chapter 4 explains that total current nominal health and disability expenditure rose 6.1% during 2009/10 to \$19,870.4 million, compared with \$18,729.5 million in 2008/09. Of this total, public funding increased to \$16,536.3 million in 2009/10. Real per capita aggregate expenditure increased by 3.1% to \$4,549 per person. Total current health expenditure as a percentage of GDP was 10.5% in 2009/10 compared with 10.2% in 2008/09.

Chapters 5 to 7 present a more detailed discussion of expenditure by funding source, covering the Ministry and other public and private funding channels for the years under review.

Chapter 5 provides detailed information on the Ministry's funding of health services. Separate profiles have been detailed for non-devolved services funded by the Ministry and devolved services funded through district health boards (DHBs). The Government's health funding through the Ministry's Vote Health was the largest contributor to total health and disability funding, at \$14,403.9 million in 2009/10, or 72.5% of total funding. The 2009/10 nominal dollar expenditure represented an increase of \$1,128.5 million compared with 2008/09 expenditure. In 2009/10, Ministry-funded DHB-devolved services represented \$11,582.2 million, of which personal health was the largest component at \$11,173.5 million.

Chapter 6 discusses other sources of public funding. The Accident Compensation Corporation (ACC) was the second largest public funder of health services at \$1,669.8 million in 2009/10, accounting for 8.4% of total current health expenditure. Other central government agencies contributing to direct health and indirect healthrelated expenditure that are included in this report are the Ministries or Departments of:

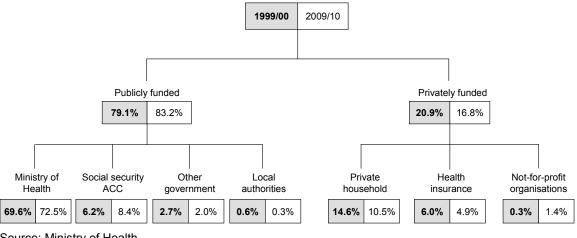
- Agriculture and Forestry
- Education
- Research, Science and Technology
- Defence
- Social Development
- Corrections
- **Internal Affairs**
- Te Puni Kōkiri (Māori Development)
- Pacific Island Affairs.

These other central government agency contributions to total current health expenditure totalled \$395.3 million in 2009/10. Regional and local councils funded \$67.2 million in current health expenditure in 2009/10 and a more significant \$1,691.3 million for health-related functions.5

Chapter 7 presents private sources of funding; comprising household out-of-pocket expenditure, health insurance and non-governmental funding of not-for-profit organisations. In total, this expenditure accounted for approximately \$3,334.1 million or 16.8% of total current health expenditure in 2009/10. Within the private funding increase, private health insurance expenditure increased by an average annual growth rate of 6.2% since 2003/04, to \$974.9 million in 2009/10. During the same period, private household spending grew 2.9% to \$2,086.5 million. Expenditure by the not-forprofit sector was estimated at \$272.6 million for 2009/10.

The following figure presents the major funder groups and their contribution to total current health expenditure in 2000 and 2010.

Figure 1: Percentage shares of New Zealand's total current health funding, 2000 and 2010



Source: Ministry of Health

Chapter 8 discusses New Zealand's current expenditure on health and disability services in the context of current health expenditure by other member countries of the OECD. The chapter provides comparisons of the level of current health expenditure, the proportion of current health expenditure to GDP and the percentage of publicly funded current health expenditure in OECD countries. One key finding from this analysis was that New Zealand's proportion of current health expenditure to GDP increased from 8.0% in 1999 to 10.3% in 2009. In comparison, the OECD weighted average increased from 7.9% in 1998 to 9.6% in 2009.

Estimates of health and health-related expenditure for this group of agencies were derived from annual reports and direct survey responses.

Appendices 1 to 6 give more in-depth definitions and provide further detailed historical information on expenditure. Appendices 5 and 6 provide standard SHA tables that show who provides and funds various services. Appendix 7 lists the organisations and individuals who provided information for this report.

Please note that some of the data in this report has been collected by means of sample surveys and has consequently been estimated conservatively. Care should be taken when interpreting changes in individual categories of expenditure from year to year. In addition, future refinements in the accuracy of the estimates are to be expected. For comparative purposes and trend analysis, the seven-year period 2003/04 to 2009/10 data provides consistent information using the SHA definitions and categories. Strict comparability for earlier years at the detailed level is no longer possible because of changes in scope and category definitions.

#### 1 Introduction

#### 1.1 Purpose

This Health Expenditure Trends (HET) report is the latest in a regular series prepared by the Ministry of Health (the Ministry). The series aims to provide information, including estimates of current expenditure, on the health and disability sector for use by interested agencies, individuals and the OECD. The expenditure estimates include all funding of health services in New Zealand channelled through the public and private sectors.

#### 1.2 Background

The Ministry's role in the funding of health services has remained relatively stable over the past 27 years. The health reforms of the 1980s and 1990s were not of the same magnitude as the changes that occurred during the middle of the 20th century. Prior to World War II, private funding of health care dominated in New Zealand, accounting for around 57% of total funding in 1925. By 1945, however, the public share had grown to 74% of total expenditure and steadily increased to peak at 88% by the early 1980s.

Over the past 30 years, the percentage of total current funding from public sources gradually reduced from a high of 88% to within the range of 77% to 83%, which has persisted since 1992. Of this public funding source, the Government's direct health funding through the Ministry is the largest contributor to the total health and disability funding, at approximately 72.5% in 2009/10 compared with 69.6% in 1999/00.

The organisation of publicly funded health and disability support services in New Zealand has undergone a number of changes in the last two decades. These have ranged from a 'purchaser/provider' market-oriented model introduced in 1993 to the more community-oriented model that is currently in place. The current system was implemented through the New Zealand Public Health and Disability Act 2000. This allowed for the creation of district health boards (DHBs), a key step in moving to a population-based health system. Figure 1.1, on page 4, shows the current structure of the New Zealand health and disability support sector.

#### 1.3 Ministry responsibilities and funding levels

DHBs are responsible for providing, or funding the provision of, health and disability services in their geographic district. There are 20<sup>6</sup> DHBs in New Zealand that have existed since 1 January 2001. The activities of the DHBs are guided by two overarching strategies for the health and disability sector: the New Zealand Health Strategy and the New Zealand Disability Strategy. DHBs are supported by the Ministry, which provides national policy advice, regulation, funding and monitors the performance of each DHB.<sup>7</sup>

The majority of the Ministry's health services funding is devolved to DHBs, making up 80.4% of Ministry expenditure in 2009/10. This equates to 70.0% of public expenditure and 58.2% of total current health expenditure in 2009/10.

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

The Ministry is responsible for ensuring the health and disability system works for New Zealanders. The Ministry is the government's primary advisor on health policy and disability support services and is responsible for:

- providing policy advice on improving health outcomes, reducing inequalities and increasing participation
- acting as the Minister's agent
- · monitoring the performance of DHBs and other Crown entities in the health sector
- implementing, administering and enforcing relevant legislation and regulations
- providing health information and processing payments
- · facilitating collaboration and coordination within and across sectors
- planning and maintaining service frameworks nationwide
- planning and funding public health services, disability support services and other service areas that are retained centrally.

To this end, the production and distribution of this HET document contributes to informed debate on health funding and expenditure issues.

- 6 Southland and Otago DHBs merged May 2009, reducing the number of DHBs from the original 21 DHBs to 20.
- <sup>7</sup> See: www.health.govt.nz/healthsystem for more details.

# 1.4 Structure of the New Zealand public health and disability sector

DHBs are responsible for planning and purchasing health and disability services for their districts and are governed by community boards that consist of a mix of elected and appointed members, with the majority (seven) elected by the community. DHBs are Crown entities whose boards are responsible to the Minister. In recognition of the Crown's relationship with Māori, each board must have at least two Māori members or a greater number if Māori make up a higher proportion of the DHB's population. DHBs are also principal providers of secondary and tertiary hospital care.

DHBs are responsible for both funding health care services to a geographically defined population and providing acute hospital services. They are responsible for improving, promoting and protecting the health and independence of their populations. Each DHB must assess the health and disability support needs of the people of its region and manage its resources appropriately.

Central government provides broad guidelines on what services the DHBs must provide. National priorities in health have been identified in the New Zealand Health Strategy. In addition, the Minister's priorities and health targets are reflected in DHB plans and accountability arrangements. DHBs enter into service agreements with a range of providers, including public hospitals, not-for-profit health agencies, iwi groups and private organisations to meet the health needs of their geographic populations.

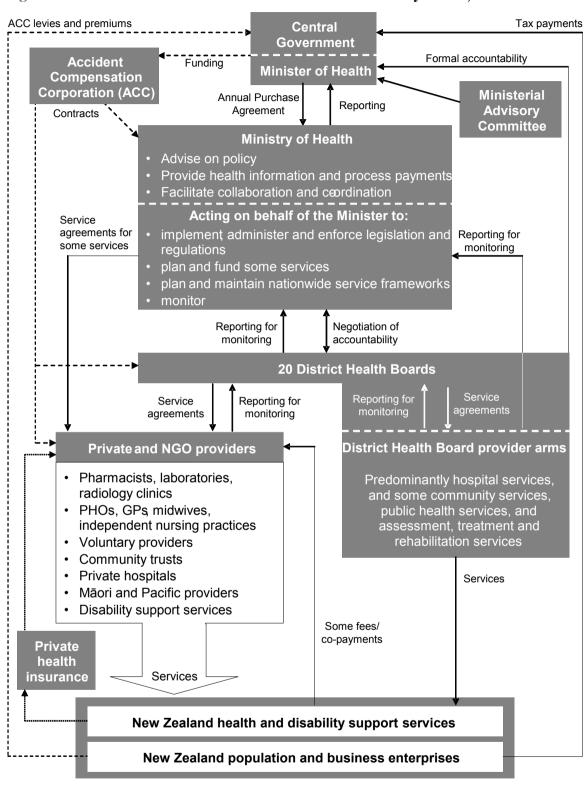


Figure 1.1: Structure of the New Zealand health and disability sector, 2010

# 1.5 Other funders of the New Zealand public health and disability sector

In addition to the Ministry, a significant amount of public funding on health services comes from the Accident Compensation Corporation (ACC). ACC is a statutory insurance organisation owned by the state that provides compulsory, comprehensive, no-fault insurance cover for accident-related injuries to all New Zealanders. The OECD defines ACC as 'social security'. In 2008/09, funding from ACC accounted for approximately 9.7% (\$1,820.2 million) of total current health expenditure. This decreased to 8.4% (\$1,669.8 million) in 2009/10.

In addition, relatively small amounts of personal health are funded by the Department of Corrections in relation to prisoners, the New Zealand Defence Force in relation to active duty military personnel and war pensioners. Other central government agencies fund prevention, public health, health administration and health-related services (see Chapter 6.2: Other government agencies).

The private funding of the health sector includes private insurance, household out-of-pocket spending and non-government funding of not-for-profit organisations. The expenditure estimates for private funding are largely based on surveys and sampling techniques. Consequently, this information is less consistent and reliable. Given this qualification, however, indications are that the private funding of health services has remained relatively stable over the past decade at approximately 20% of the total funding.

# 2 OECD system of health accounts – definitions and classifications

Below are brief definitions of the OECD System of Health Accounts (SHA) for the expenditure reported since 2003/04. A more detailed discussion of the definitions of OECD health services and health-related categories (OECD 2000) is provided in Appendix 1.

#### 2.1 Health services

At a fundamental level, expenditure on health care and health-related services included in HET reports conforms to the definition developed for the World Health Organization (WHO) (Abel-Smith 1963). In defining health services, Abel-Smith states that:

The purpose of health services is to promote health; to prevent, diagnose and treat diseases, whether acute or chronic, whether physical or mental in origin and to rehabilitate people incapacitated by disease or injury.

This general statement does not define which services are, or should be, included or excluded from SHA as 'total health expenditure' or 'health-related memorandum items'. Departing from the conventions of earlier HET reports, data starting in 2003/04 includes previously defined 'non-health' items transferred from social agencies to the Ministry. These services are now considered an integral part of health by the Ministry and the OECD.

Brief descriptions of the main service categories are given below.

The SHA cover three dimensions: health care by functions of care, providers of health care goods and services, and sources of health funding. The provision of health care and its funding is a complex, multi-dimensional process. The set of core tables in the SHA addresses three basic questions.

- What kinds of services are performed and what types of goods are purchased (functions of health care)?
- Where does the money go to (providers of health care services and goods)?
- Where does the money come from (source of funding)?

#### 2.2 Functions of health care

The broad underlying concept of health care is consistent with historical HET reports. Activities of health care comprise the sum of activities performed either by institutions or individuals pursuing, through the application of medical, paramedical and nursing knowledge and technology, the goals of:

- promoting health and preventing disease
- curing illness and reducing premature mortality
- caring for persons affected by chronic illness who require nursing care
- caring for persons with health-related impairment, disability and handicaps who require nursing care
- · assisting patients to die with dignity
- providing and administering public health
- providing and administering health programmes, health insurance and other funding arrangements.

(OECD 2000, p 42)

'Health care' includes personal health care services provided directly to individual persons, and collective health care services, covering the traditional tasks of public health such as health promotion and disease prevention, including setting and enforcing standards, and health administration and health insurance.

#### 2.3 Health-related functions

The OECD health-related functions are distinguished from the core health care functions. They are closely linked to health care in terms of operations, institutions and personnel but are, as far as possible, excluded when measuring activities and expenditure belonging to core health care functions. These are services that have a direct and beneficial impact on collective health and, when reported historically, were included in the HET reports as public health services.

The HET and OECD SHA categories include separate reporting for the following health-related functions:

- education and training of health personnel
- research and development in health
- food, hygiene and drinking water control
- environmental health.

The expenditure estimates are conservative because they do not fully include the administration and provision of social services and the provision of health-related cash benefits to private households. Furthermore, no provision has been made at this time for capital formation of health provider institutions (HC.R.1), administration and provision of social services in kind to assist living with disease and impairment (HC.R.6), and administration and provision of health-related cash benefits (HC.R.7).8 These are refinements that may be included in subsequent years and could be material.

#### 2.4 Providers of health-care services and goods

The SHA include a dimension for the provider sector: 'Where does the money go?' or 'Who provides the services?' This is a new element of expenditure reporting for New Zealand. The classifications used are based on draft common industrial classifications of North American Free Trade Organization (NAFTA) countries and the North American Industrial Classification System (NAICS 1998). These detailed classifications are condensed into the following groups: hospitals, nursing, residential care facilities, ambulatory care, retail and other providers, administration and other.

#### 2.5 Sources of funding

The HET report contains a breakdown of expenditure on health by funder type as follows:

- government-provided health care, which is further segregated by government agency – the Ministry (including DHBs), ACC, other central government, and regional and local government
- out-of-pocket expenditure by private households
- private insurance
- not-for-profit organisations.

This classification system corresponds to payer information contained in historical HET reports. The summary funder groups that remain intact are total public and total private funding.

<sup>&</sup>lt;sup>8</sup> Codes come from the SHA functions (see Appendix 1.2: OECD System of Health Accounts: Health-related functions).

#### 3 Methods and conventions

#### 3.1 Report coverage

This chapter introduces the methods and conventions used in collating SHA expenditure and describe the types of data collected. As already noted, the analysis in this report is based on the OECD SHA, which defines what categories of expenditure should be included or excluded when comparing current health and health-related expenditure internationally. This report provides information and comments on health and disability expenditure within the OECD definition of 'health services'.

Appendices 5 and 6 cover two key OECD SHA tables: expenditure by function of care and provider industry and total current expenditure on health, including health-related functions by funder category. There are three tables under each of these appendices, one for each year 2007/08 to 2009/10.

#### 3.2 Categories of health expenditure

Trend information covering the full 10-year period is aggregated by public and private funding of health, including values preceding SHA implementation in 2003/04. Information for the seven-year period from 2003/04 to 2009/10 is based on summary SHA information for the following categories.

#### 3.2.1 Personal health

- Inpatient care curative and rehabilitative, and long-term nursing care.
- Services of day care curative, rehabilitative and long-term nursing care.
- Outpatient care curative, rehabilitative, basic medical and diagnostic services, dental care, all other specialised care and all other outpatient care.
- Home care curative, rehabilitative and long-term nursing care.
- · Ancillary services to health care.
- Medical goods dispensed to outpatients pharmaceuticals and other medical nondurables, and therapeutic appliances and other medical durables.

The above services are the components of personal health care. In addition, trend information is provided for two other components of current health expenditure and health-related functions.

#### 3.2.2 Collective health

- Prevention and public health services.
- Health administration and health insurance.

#### 3.2.3 Health-related

- Education and training of health personnel.
- Research and development in health.
- Food, hygiene and drinking water control.
- Environmental health.

New Zealand does not report on two health-related functions: capital formation of health care provider institutions and the administration and provision of health-related cash benefits. Caution should be exercised when interpreting the disaggregated information, because New Zealand has only recently implemented SHA reporting and refinements are expected.

#### 3.3 Funding sources

Public sector health funding includes the government's direct health expenditure through the Ministry (including DHBs), as well as other central government funding, including ACC, other government agencies (Agriculture and Forestry; Defence; Education; Internal Affairs; Corrections; Te Puni Kōkiri (Ministry of Māori Development); Pacific Island Affairs; Research, Science and Technology; and Social Development), and local authorities (regional, district and city councils).

Private sector funding for health and health-related activities comes from out-of-pocket expenditure by private households, expenditure by health insurance companies on behalf of their policyholders and health-related expenditure by not-for-profit organisations met by funds from non-governmental sources.

# 3.4 Sources and assumptions for Ministry-funded services

Current Ministry expenditure is sourced and valued from internal financial records, segregated by services, and it relates to services purchased directly by the Ministry or via devolved purchasing through the DHBs. The Ministry head office departmental expenditure represents a third category of Ministry health funding.

#### 3.5 Ministry-funded services, excluding DHBs

The Ministry non-departmental expenditure for services purchased from non-DHB providers has been profiled according to SHA function codes in consultation with Ministry Corporate Finance. An apportionment was also performed for the SHA provider industry.

#### 3.6 DHB-funded services

The DHB-funded services are profiled directly from the DHB funder arm year-end financial templates as provided to the Ministry by DHBs. Expenditure within the funder arm represents the purchase of services from all providers, including the purchase of services from the respective DHBs' own provider arms and other DHBs. Revenues from other third-party purchasers, including other central or local government agencies, are not included in the funder arm, so there is no double counting of current health expenditure within DHB providers. The financial templates are at line-item level and thus match with SHA service function and SHA provider industry coding.

# 3.7 Crown Health Enterprise/DHB deficit financing

Deficits of DHBs, previously known as Crown Health Enterprises (CHEs) and Hospital and Health Services (HHS), have been included in HET reports since 1997/98 as part of publicly funded health expenditure. The operating deficits incurred by DHBs and CHEs reflect the difference between operating income and operating expenses. These deficits were incorporated into the government accounts funded by the Ministry. Since 2003/04, the deficits have been added to the DHB funder arm expenditure.

The inclusion of this deficit funding is necessary to provide an accurate picture of the expenditure on current health and health-related expenditure in New Zealand in a given year. This is because these are publicly owned entities and the government is ultimately responsible for their financing. Publicly funded health expenditure, including DHB deficit financing, amounted to 83.2% of total expenditure in 2009/10.

# 3.8 Sources and assumptions related to services funded by other central government agencies

Starting in 2003/04, the primary source for estimating other central government health expenditure changed from an annual survey conducted by the Ministry to the agencies' respective annual reports. This information is augmented by survey or direct responses when necessary. Additional information on the individual agencies is provided in Chapter 6.2: Other government agencies. These estimates are conservative in that they tend not to include an administrative component.

# 3.9 Sources and assumptions related to services funded by local government

Starting in 2003/04, the primary source for estimating local government health expenditure has been their annual reports. Changing source data for local governments is similar to the change for central government agency estimates and, likewise, this information is augmented by survey or direct responses when necessary. Additional information pertaining to local government expenditure is provided in Chapter 6.3: Regional and local authorities.

# 3.10 Sources and assumptions related to services funded by the private sector

Private sources of funding consist of out-of-pocket expenses, health insurance and not-for-profit organisations. The estimate for 2009/10 out-of-pocket expenditure is based on the Household Economic Survey (HES) for 2009/10.9 This survey has consistently been the source of data for the estimate of out-of-pocket expenditure. Estimates of health insurers' total current expenditure on health care is based on data provided by the Health Funds Association of New Zealand Inc (HFANZ). This source also remains unchanged; however, from 2004/05, the estimates have been based on aggregate information, whereas previous years' estimates were based on a direct survey. Estimates for the not-for-profit sector are based on an expanding sample of organisations' annual reports. Additional information pertaining to private sector expenditure is provided in Chapter 7: Private Sector Funding.

#### 3.11 Real dollar health expenditure

New Zealand has no index specific to health expenditure that can be used to remove the effect of price inflation from nominal expenditure on health and disability support services. As with previous reports in this series, the Consumers Price Index (CPI) has been used to inflate nominal dollars to 2010 real dollar value.

The CPI series used is given as part of Appendix 2. The series is based on the Statistics New Zealand long-term linked series for 'all groups'. Annual changes are based on the change from the previous June quarter.

<sup>&</sup>lt;sup>9</sup> The Household Enterprise Survey (HES) is a Statistics New Zealand survey that was conducted annually until 1998 but now takes the form of a tri-annual survey.

<sup>10</sup> Health insurance statistics, July 2010 (HFANZ 2010).

#### 3.12 Goods and services tax and overhead charges

The health and disability expenditure presented in this HET report includes goods and services tax (GST) at its prevailing rate, which was then 12.5%. Starting in 2005/06, central governmental financial reporting is GST exclusive. To retain consistency with prior years and report the full cost to consumers of health expenditure, a factor has been added when necessary for inclusion of this cost.

#### 3.13 Populations

The population data in this report is based on the definition of population commonly used by Statistics New Zealand. The estimated resident population is based on the census usual resident population count, with adjustments for residents missed or counted more than once by the census (net census undercount), and for residents temporarily overseas on census night.<sup>11</sup>

<sup>11</sup> See: www.stats.govt.nz

# 4 Trends in total current health expenditure by funding source

This chapter examines trends in New Zealand current health expenditure aggregated by public and private sources. This funding split has been consistent over the 10-year period and was not affected by the introduction of SHA definitions. The components of both public and private expenditure for 2005/06 to 2009/10 are examined in detail in the next three chapters and address trends for this five-year period.

#### 4.1 Aggregate health expenditure

Long-term trends (1925–2010) in health expenditure in New Zealand are shown below in relation to funding source (Figure 4.1) and public and private shares (Figure 4.2). The estimates for the years from 1995/96 to 2009/10 include previously excluded non-health items, primarily disability support services.

Total current health care expenditure in New Zealand has risen from around \$7 million in 1925 to around \$19.9 billion<sup>12</sup> in 2010 in nominal terms.<sup>13</sup> In real terms, total current health expenditure rose during this period at an annual average rate of 5.1% (see Figure 4.1). Publicly funded expenditure grew at an annual average rate of 6.0%, and privately funded expenditure, starting from a higher base, grew at the slower rate of 3.7% per year during this period.

Figure 4.2 shows that prior to World War II, private funding of health care dominated in New Zealand and accounted for around 57% of total funding in 1925. By 1945, however, the public share had grown to 74% of total expenditure and steadily increased to peak at 88% by the early 1980s, then gradually reduced to the range of 77% to 83% seen more recently.

<sup>12</sup> This figure does not include OECD health-related expenditure.

See Appendix 6.3: Current Expenditure on Health and Health-related Services, by Function of Care and Funder (SHA Standard Table 5): 2009/10.

Public funding has remained stable within this narrow range since 1992 (see Figures 4.1A and 4.2A). The actual average growth rate of 5.1% exceeded the population growth rate of 1.3%. The impact on a per capita basis reflects the same expenditure pattern as for the entire population, but at a slightly lower rate of growth. Figure 4.1B presents the same information as Figure 4.1A but on a per capita basis. Since 1999/00, total real expenditure on health care has grown at an average annual compound rate of 5.0% per year. Public and private funding of health has grown by 5.5% and 2.9% respectively.

Between 1999/00 and 2009/10, publicly funded real expenditure on health care increased by \$6,903 million (89.7% of the total increase). Over the same period, privately funded real expenditure rose by \$787 million (10.2% of the total increase).

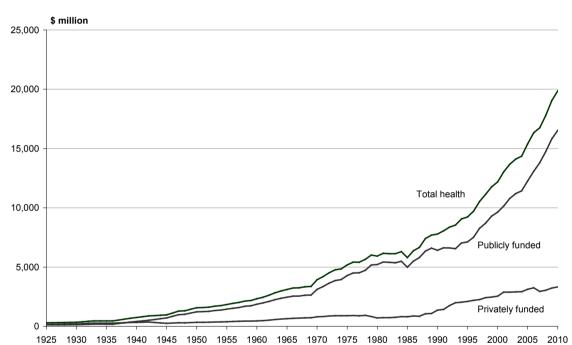
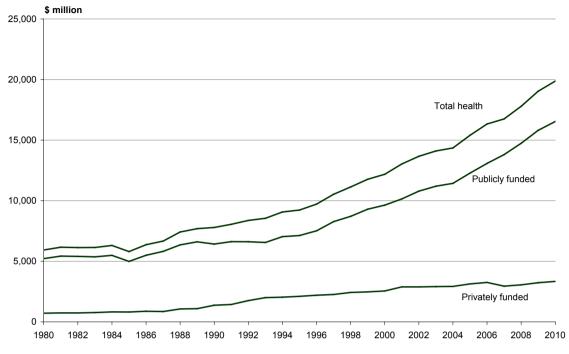


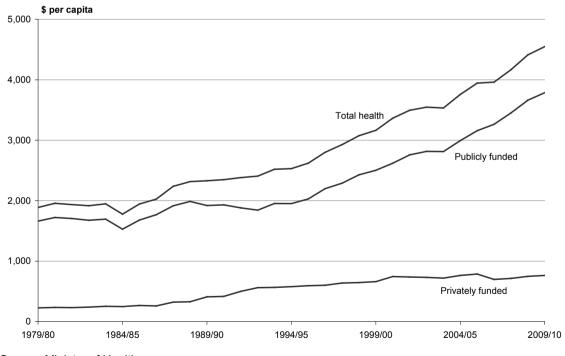
Figure 4.1: Aggregate real (\$ million 2009/10) health expenditure, 1925-2010

Figure 4.1A: Aggregate real (\$ million 2009/10) health expenditure, 1980-2010



Source: Ministry of Health

Figure 4.1B: Aggregate real (per capita 2009/10) health expenditure, 1980-2010



Privately funded

Publicly funded

Publicly funded

1925 1930 1935 1940 1945 1950 1955 1960 1965 1970 1975 1980 1985 1990 1995 2000 2005 2010

Figure 4.2: Publicly and privately funded expenditure shares, 1925-2010

Source: Ministry of Health

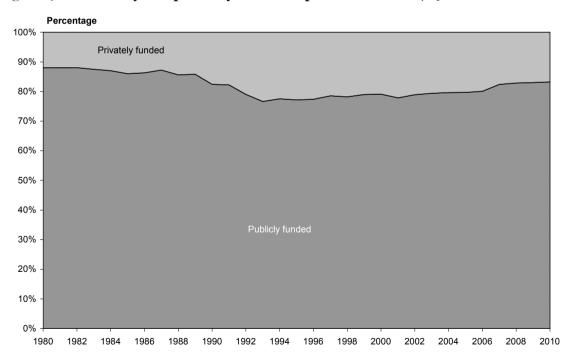


Figure 4.2A: Publicly and privately funded expenditure shares, 1980-2010

# **4.2** Trends in real per capita current expenditure on health

Table 4.1 and Figures 4.3 and 4.4 show the recent trends in real public and private current expenditure on health from 1999/00 to 2009/10. Table 4.1 also shows the gross domestic product (GDP) and the growth in GDP over this same period. As can be seen, total real current health expenditure per capita is growing considerably faster than the growth in real GDP per capita.

Table 4.1: Real current expenditure trends, 1999/00-2009/10

Year	6	l current h expenditur llion June	9	(\$	Expenditure per capita (\$ June 2010) 'Resident' population			Real gross domestic product (\$ June 2010)	
	Public	Private	Total*	Public	Private	Total*	Total	Per capita	
1999/00	9,633	2,547	12,181	2,502	662	3,164	150,081	38,987	
2000/01	10,144	2,885	13,030	2,620	745	3,365	156,664	40,459	
2001/02	10,787	2,882	13,670	2,758	737	3,495	159,790	40,856	
2002/03	11,197	2,910	14,107	2,816	732	3,548	168,431	42,363	
2003/04	11,430	2,923	14,353	2,814	720	3,533	176,234	43,381	
2004/05	12,270	3,130	15,400	2,994	764	3,757	179,599	43,816	
2005/06	13,075	3,255	16,329	3,159	786	3,945	181,692	43,892	
2006/07	13,803	2,949	16,752	3,264	698	3,962	191,369	45,259	
2007/08	14,740	3,053	17,793	3,453	715	4,168	188,382	44,129	
2008/09	15,809	3,232	19,041	3,663	749	4,412	187,619	43,473	
2009/10	16,536	3,334	19,870	3,786	763	4,549	189,295	43,340	
RAAGR <sup>†</sup>	5.6%	2.7%	5.0%	4.2%	1.4%	3.7%	2.4%	1.1%	

Source: Ministry of Health

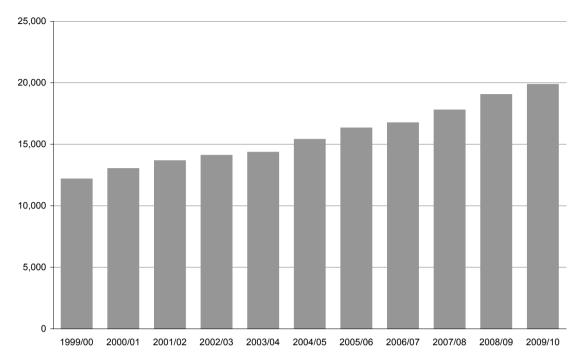
Table 4.1 shows that from 1999/00 to 2009/10, total per capita real expenditure increased at an average annual compound rate of 3.7%, rising at an average annual compound rate of 4.2% per year for public expenditure and at a lower rate of 1.4% per year for private expenditure.

In 2009/10, aggregate current expenditure per capita amounted to \$4,549. Of this total, publicly funded current expenditure amounted to \$3,786 per capita and privately funded current expenditure amounted to \$763 per capita.

<sup>\*</sup> Totals may be affected by rounding.

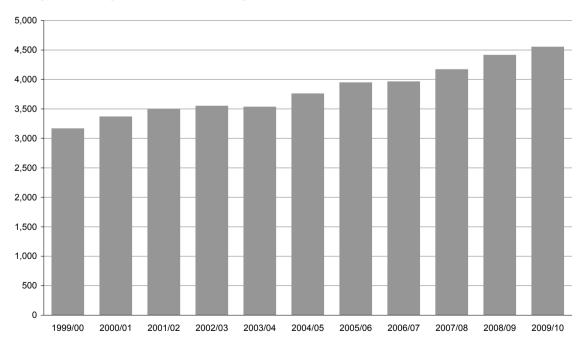
<sup>&</sup>lt;sup>†</sup> Real annual average growth rate (RAAGR) between 1999/00 and 2009/10.

Figure 4.3: Trends in real total current expenditure on health, 1999/00-2009/10 (\$ million 2009/10)



Source: Ministry of Health

Figure 4.4: Trends in real per capita current expenditure on health, 1999/00-2009/10 (\$ million 2009/10)



#### 4.3 Pattern of health care funding, by source of funds

Table 4.2 shows the trend by source of funds for the period 1999/00 to 2009/10. Figure 4.5 compares 1999/00 and 2009/10 in terms of their breakdown of funding by source.

Table 4.2: Health expenditure by source of funds (%), 1999/00-2009/10

	Ministry of Health	Deficit funding*	ACC <sup>†</sup> – social security	Other government agencies	Local authority	Total public funding	Private household	Health insurance	Not-for-profit organisations	Total private funding	Total
1999/00	69.5	0.1	6.2	2.7	0.6	79.1	14.6	6.0	0.3	20.9	100.0
2000/01	66.9	0.7	6.8	2.7	0.6	77.9	16.0	5.9	0.3	22.1	100.0
2001/02	66.3	2.2	7.2	2.7	0.6	78.9	15.3	5.5	0.3	21.1	100.0
2002/03	66.3	1.8	7.9	2.7	0.6	79.4	14.9	5.5	0.3	20.6	100.0
2003/04	69.7	0.0	7.7	1.7	0.5	79.6	14.1	5.5	0.8	20.4	100.0
2004/05	69.4	0.0	8.1	1.6	0.5	79.7	14.1	5.2	1.1	20.3	100.0
2005/06	69.3	0.0	8.5	1.7	0.6	80.1	13.8	5.1	1.0	19.9	100.0
2006/07	70.5	0.0	9.2	2.0	0.7	82.4	11.5	5.1	1.0	20.2	100.0
2007/08	70.6	0.0	9.5	2.2	0.5	82.8	11.2	5.0	0.9	17.2	100.0
2008/09	70.9	0.0	9.7	2.1	0.3	83.0	10.6	5.0	1.4	17.0	100.0
2009/10	72.5	0.0	8.4	2.0	0.3	83.2	10.5	4.9	1.4	16.8	100.0

<sup>\*</sup> Starting in 2003/04, the DHB operating deficits are reflected in the Ministry figures.

<sup>†</sup> Prior to 2003/04, ACC was classified as 'other government agencies'. Data series have been restated back to 2000 to reflect this reclassification.

Private funding as a percentage of total funding has remained between 16.8% and 22.1% from 1999/00 to 2009/10. Note, however, that 1997/98 was the last year the Household Economic Survey (HES) was conducted annually. The HES is now conducted every three years: 2001, 2004, 2007 and 2010. Estimates rather than survey results were used for out-of-pocket expenditure for the between years.

and 2010 1999/00 2009/10 Publicly funded Privately funded 79.1% 83.2% 20.9% 16.8% Ministry of Not-for-profit Private Social security Other Health Local Health organisations aovernment authorities household insurance 69.6% 72.5% 6.2% 8.4% 2.7% 2.0% 0.6% 14.6% 10.5% 6.0% 4 9% 0.3% 0.3% 1.4% Source: Ministry of Health

Figure 4.5: Percentage shares of New Zealand's total current health funding, 2000 and 2010

## 4.4 Trends in uses of aggregate health and healthrelated funds

The trends in total current expenditure for SHA health and health-related functions are shown in Table 4.3. These values have been estimated and reported in accordance with SHA definitions.

Overall, current health expenditure has increased on average by 8.1% per year for the five-year period 2005/06 to 2009/10. Total personal medical services and goods have increased on average by 8.0% and are the major contributors to total expenditure. Within personal health services, outpatient care, (curative, rehabilitative and long-term nursing care) has grown at a higher rate than inpatient care. The health function with the highest rate of growth is therapeutic appliances and other medical durables at 12.2%; medical goods dispensed to outpatients have the lowest increase at 6.4%.

Expenditure on health-related functions is growing at a slower rate of 5.9%. Environmental health has consistently been the largest contributor in dollar values to this category but shows a growth rate of 3.4%.

Table 4.3: Destinations of total health funding (including health-related), 2005/06-2009/10

Health care services and goods by function	ICHA-HC code <sup>14</sup>	2005/06 (000s)	2006/07 (000s)	2007/08 (000s)	2008/09 (000s)	2009/10 (000s)	Increase 2007/08 to 2008/09 (000s)	Increase 2008/09 to 2009/10 (000s)	Average annual growth rate
Services of curative and rehabilitative care	HC.1, HC.2	8,470,949	9,003,829	10,079,750	10,914,353	11,562,550	834,603	648,197	8.2%
Services of long-term nursing care	HC.3	2,150,625	2,305,806	2,551,131	2,677,403	2,892,551	126,272	215,148	8.9%
Ancillary services to health care	HC.4	769,867	770,079	856,449	997,264	1,030,295	140,815	33,031	8.0%
Medical goods dispensed to outpatients	HC.5	1,892,740	1,852,378	1,910,666	2,056,431	2,208,906	145,765	152,475	6.4%
Pharmaceuticals and other medical non-durables	HC.5.1	1,680,189	1,616,144	1,663,215	1,787,748	1,876,617	124,533	88,869	5.6%
Therapeutic appliances and other medical durables	HC.5.2	212,551	236,234	247,451	268,683	332,289	21,232	63,606	12.2%
Total personal medical services and goods	HC.1-HC.5	13,284,181	13,932,092	15,397,996	16,645,451	17,694,302	1,247,455	1,048,851	8.0%
Prevention and public health services	HC.6	947,426	996,901	1,075,798	1,294,101	1,387,903	218,303	93,802	9.9%
Health administration and health insurance	HC.7	626,815	619,085	703,505	789,938	788,191	86,433	(1,747)	7.3%
Total current expenditure on health		14,858,422	15,548,078	17,177,299	18,729,490	19,870,396	1,552,191	1,140,906	8.1%
Memorandum items: further health-related functions									
Education and training of health personnel	HC.R.2	577,111	624,911	670,691	724,267	747,567	53,576	23,300	7.0%
Research and development in health	HC.R.3	207,766	234,133	238,344	254,979	255,475	16,636	496	6.2%
Food, hygiene and drinking water control	HC.R.4	249,417	254,526	364,004	368,015	368,171	4,011	156	11.1%
Environmental health	HC.R.5	1,294,647	1,353,949	1,409,588	1,363,483	1,444,295	(46,105)	80,812	3.4%
Administration and provision of social services in kind to assist living with disease and impairment	HC.R.6	70,171	100,577	144,236	224,936	181,052	80,700	(43,884)	24.5%
Total health-related expenditures		2,399,112	2,568,096	2,826,863	2,935,680	2,996,560	108,818	60,880	5.9%
Total health and health-related expenditures		17,257,534	18,116,174	20,004,162	21,665,170	22,866,956	1,661,009	1,201,786	7.8%

<sup>&</sup>lt;sup>14</sup> ICHA-HC code: International Classification for Health Accounts – Health Care functions.

## 5 Public sector funding – Ministry of Health

Public sector funding is the major source of health funding in New Zealand. In 2009/10, this amounted to \$16,536 million or 83.2% of the total health expenditure. Within this source, the government's direct health funding through the Ministry is the largest contributor at \$14,404 million, or 72.5% of the total health expenditure. ACC and other government agencies, including regional and local governments, provide an additional \$2,132 million or 10.7% of current health expenditure. Other government agencies also provide a significant amount of funding for health-related services (Appendix 6.3).

Funding of health-related services represents an additional \$2,997 million, of which \$2,613 million is publicly funded.

This chapter discusses the trends in Ministry funding. Expenditure trends by the other government agencies are discussed in Chapter 6: Other Public Sector Funding.

### 5.1 Ministry of Health funding

Health expenditure estimates for 2009/10 reflect total current expenditure on health and health-related services, conforming to SHA conventions. The vast majority of the Ministry expenditure relates to bulk funds devolved to DHBs for purchasing health services at a local level. For historical information covering the period 1997/98 to 2002/03, the total estimates have been recalculated to include the previously excluded non-health items, primarily disability support services. Unlike HET reports prior to 2003/04, annual expenditure is no longer analysed both inclusive and exclusive of these non-health items. The difference between the two categories amounted to \$563 million in 2002/03. These disability support services are now considered a core health service.

Expenditure growth by the Ministry has accelerated in recent years. To show the movements in the Ministry's current expenditure, Table 5.1 gives details in aggregate and per capita expenditure (both nominal and real dollars) and as a percentage of both GDP and government expenses for the period 1999/00 to 2009/10. The Ministry's current funding of health services has increased by over 1.9% of GDP and has increased as a proportion of total central government funding by 3.1%.

Table 5.1 shows that the total Ministry expenditure over the 10 years ended June 2010 grew to \$14,404 million. This figure translates to an average annual compound rate of growth of 7.4% for this period.

Table 5.1: Ministry of Health expenditure, 1999/00-2009/10

	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10
Total (\$ million nominal)	6,550	7,030	7,662	7,990	8,507	9,362	10,303	10,959	12,124	13,275	14,404
Total real (June 2010)*	8,479	8,819	9,356	9,618	10,000	10,695	11,323	11,807	12,558	13,497	14,404
Per capita – resident population basis											
Per capita (\$ nominal)	1,702	1,815	1,959	2,010	2,094	2,284	2,489	2,592	2,840	3,076	3,298
Per capita real (June 2010)	2,203	2,278	2,392	2,419	2,461	2,609	2,735	2,792	2,942	3,127	3,298
GDP (\$ million nominal)	115,941	124,875	130,856	139,925	149,935	157,210	165,325	177,613	181,868	184,546	189,295
GDP real (June 2010)	150,081	156,664	159,790	168,431	176,234	179,599	181,692	191,369	188,382	187,619	189,295
Per capita real GDP (June 2010)	38,987	40,459	40,856	42,363	43,381	43,816	43,892	45,259	44,129	43,473	43,340
Total as % of GDP	5.65%	5.63%	5.86%	5.71%	5.67%	5.95%	6.23%	6.17%	6.67%	7.19%	7.61%
Total as % of government outlays	16.86%	17.03%	17.94%	17.01%	18.17%	18.00%	18.57%	18.04%	18.91%	18.44%	20.00%

Sources: Ministry of Health, Statistics New Zealand, the Treasury<sup>15</sup>

<sup>\*</sup> Real dollars are expressed in June 2010 currency.

<sup>15</sup> The source of total government outlays has changed from Statistics New Zealand to the Financial Statements of the Government of New Zealand from the year ended 30 June 2006.

The following trends are illustrated by Table 5.1.

- Nominal Ministry current expenditure grew steadily throughout the review period. Expenditure in 2009/10 was 119.9% higher than in 1999/00.
- Reflecting the trend in total Ministry current expenditure, nominal per capita spending increased throughout the period. Estimated 2009/10 nominal per capita spending was 93.8% higher than in 1999/00 (up on average 6.9% per year).
- Total real current expenditure growth averaged 5.5% per year since 1999/00.
- Real per capita growth averaged 4.1% per year from 1999/00.
- During this 10-year period, the Ministry's current funding as a percentage of GDP was at its lowest at 5.6% in 2000/01. It has steadily increased to 7.6% in 2009/10.
- The Ministry's current funding as a percentage of total government expenditure was 16.9% in 1999/00. It has increased steadily to 20% of government current expenses in 2009/10.

# 5.2 Ministry of Health funding by major expenditure category

The change in Ministry funding from 2005/06 to 2009/10 in accordance with SHA is presented in Table 5.2. Further detail dividing the total funding into subsets of funding by DHBs or other provider groups is given in Table 5.3. Expenditure is detailed for health and health-related functions.

#### 5.2.1 Personal health

Funding for health services provided to individuals for the purpose of improving or protecting their health is identified as personal health expenditure. In 2008/09, the Ministry's share of personal health expenditure totalled \$11,954.3 million or 71.8% of total personal health expenditure. This increased in 2009/10 to \$12,985.4 million or 73.4%. Total current expenditure has increased on average by 9.0% per year, and personal health care (the largest component) has also grown by 9.0%. Care provided in an institutional setting, both inpatient and day care, is growing at a lower rate than outpatient, home care and community-based services (ancillary services and medical goods dispensed to outpatients).

Outpatient curative and rehabilitative care have seen the largest increase at an average of 11.7%. This is the SHA function that includes the additional funding for primary health initiatives. In dollar terms, this function has increased by approximately \$1,193.6 million in the five-year period from 2005/06.

Table 5.2: Destinations of Ministry funding, 2005/06-2009/10

Health care by function	ICHA-HC		Total	Ministry fund	ling		Cha	ınge	Average
	code	2005/06* (000s)	2006/07 (000s)	2007/08 (000s)	2008/09 (000s)	2009/10 (000s)	2007/08 to 2008/09 (000s)	2008/09 to 2009/10 (000s)	annual growth rate
Inpatient care									
Curative and rehabilitative care	HC.1.1; 2.1	3,068,165	3,229 ,519	3,575,724	3,851,422	4,474,162	275,698	622,740	10.0%
Long-term nursing care	HC.3.1	1,019,181	1,050,072	1,137,838	1,193,689	1,276,510	55,851	82,821	7.4%
Services of day-care									
Curative and rehabilitative care	HC.1.2; 2.2	116,621	125,920	132,367	129,654	137,249	(2,713)	7,595	7.1%
Long-term nursing care	HC.3.2	89,380	100,314	104,449	108,211	113,290	3,762	5,079	9.5%
Outpatient care									
Outpatient curative and rehabilitative care	HC.1.3; 2.3	2,194,430	2,612,773	2,937,176	3,382,672	3,388,025	445,496	5,353	11.7%
Basic medical and diagnostic services	HC.1.3.1	1,699,679	2,030,137	2,209,421	2,517,809	2,440,660	308,388	(77,149)	9.1%
Outpatient dental care	HC.1.3.2	128,899	136,291	161,965	177,111	200,167	15,146	23,056	10.0%
All other specialised health care	HC.1.3.3	_	-	_	_	_	-	_	_
All other outpatient care	HC.1.3.9	63,355	104,444	201,791	285,520	275,302	83,729	(10,218)	40.6%
Outpatient rehabilitative care	HC.2.3	302,497	341,901	363,999	402,232	471,896	38,233	69,664	11.3%
Home care									
Curative and rehabilitative care	HC.1.4; 2.4	329,484	340,588	422,766	318,104	342,654	(104,662)	24,550	4.3%
Long-term nursing care	HC.3.3	866,130	956,549	1,101,701	1,145,917	1,259,428	44,216	113,511	10.6%
Ancillary services to health care	HC.4	512,402	495,080	527,706	582,293	617,655	54,587	35,362	4.8%
Medical goods dispensed to outpatients	HC.5	1,100,001	1,088,288	1,120,024	1,242,299	1,376,390	122,275	134,091	9.2%
Pharmaceutical and other medical non-durables	HC.5.1	1,033,562	1,021,988	1,052,616	1,166,274	1,229,983	113,658	63,709	8.2%
Therapeutic appliances and other medical durables	HC.5.2	66,439	66,300	67,408	76,025	146,407	8,617	70,382	24.1%

Health care by function	ICHA-HC		Total	Ministry fund	ding		Cha	ange	Average	
	code	2005/06* (000s)	2006/07 (000s)	2007/08 (000s)	2008/09 (000s)	2009/10 (000s)	2007/08 to 2008/09 (000s)	2008/09 to 2009/10 (000s)	annual growth rate	
Total expenditure on personal health care		9,295,794	9,999,103	11,059,751	11,954,261	12,985,363	894,510	1,031,102	9.0%	
Prevention and public health services	HC.6	594,470	572,597	621,862	833,428	934,905	211,566	101,477	11.8%	
Health administration and health insurance	HC.7	412,424	387,023	442,134	487,763	483,651	45,629	(4,112)	6.2%	
Total current expenditure on health care		10,302,688	10,958,723	12,123,747	13,275,452	14,403,919	1,151,705	1,128,467	9.0%	
Memorandum items: further health-related functions										
Education and training of health personnel	HC.R.2	126,771	139,994	154,277	170,573	166,202	16,296	(4,371)	6.5%	
Research and development in health	HC.R.3	_	-	_	5,279	124	5,279	(5,155)	_	
Food, hygiene and drinking water control	HC.R.4	_	-	_	_	-	_	_	_	
Environmental health	HC.R.5	_	-	_	_	-	_	_	-	
Total health-related expenditure		126,771	139,994	154,277	175,852	166,326	21,575	(9,526)	6.6%	
Total health and health-related expenditure		10,429,459	11,098,717	12,278,024	13,451,304	14,570,245	1,173,280	1,118,941	9.0%	

<sup>\* 2005/06–2007/08</sup> data restated due to revised DHB SHA classification of data.

#### 5.2.2 Public health

Public health funding, (also known as collective health) is for services relating to the whole population or population groups. This broad focus distinguishes public health funding from funding for individual personal health services. Public health services are primarily concerned with health protection, improvement and/or promotion. With the change to OECD SHA definitions and reporting in 2003/04, certain services historically reported as public health are now reported as administration or included in the health-related areas.

Specific objectives of public health service delivery include:

- ensuring that health and disability services meet population needs, and that health gains are maximised and provided efficiently
- improving regulatory frameworks so that they better protect the health and safety of New Zealanders while minimising industry compliance costs
- improving the health status of at-risk groups, especially Māori, by increased responsiveness to their needs.

Within public health services, functions of prevention and public health have grown considerably, by an average of 11.8% per annum, while administrative and insurance costs have grown at a much lower rate, by an average of 6.2% per annum.

Table 5.3: Destinations of DHB and non-DHB funding, 2005/06-2009/10

Health care by function	ICHA-HC		Minis	try direct fur	nding			DHI	B devolved fur	nding	
	code	2005/06 (000s)	2006/07 (000s)	2007/08 (000s)	2008/09 (000s)	2009/10 (000s)	2005/06 (000s)	2006/07 (000s)	2007/08 (000s)	2008/09 (000s)	2009/10 (000s)
Inpatient care											
Curative and rehabilitative care	HC.1.1; 2.1	196,383	186,471	218,209	203,676	369,619	2,871,782	3,043,048	3,357,515	3,647,746	4,104,543
Long-term nursing care	HC.3.1	107,592	109,200	107,357	109,100	128,774	911,589	940,872	1,030,481	1,084,589	1,147,736
Services of day care											
Curative and rehabilitative care	HC.1.2; 2.2	_	_	_	_	-	116,621	125,920	132,367	129,654	137,249
Long-term nursing care	HC.3.2	36,566	42,925	40,107	44,119	43,958	52,814	57,389	64,342	64,092	69,332
Outpatient care											
Outpatient curative and rehabilitative care	HC.1.3; 2.3	65,104	153,966	314,820	459,201	347,242	2,129,326	2,458,807	2,622,356	2,923,471	3,040,783
Basic medical and diagnostic services	HC.1.3.1	14,338	60,786	130,234	185,647	152,102	1,685,341	1,969,351	2,079,187	2,332,162	2,288,558
Outpatient dental care	HC.1.3.2	354	258	4,757	6,648	13,041	128,545	136,033	157,208	170,463	187,126
All other specialised health care	HC.1.3.3	_	_	_	-	_	_	_	_	-	_
All other outpatient care	HC.1.3.9	17,629	54,852	146,260	231,979	132,115	45,726	49,592	55,531	53,541	143,187
All other outpatient care	HC.2.3	32,783	38,070	33,569	34,927	49,984	269,714	303,831	330,430	367,305	421,912
Home care											
Curative and rehabilitative care	HC.1.4; 2.4	16,800	16,959	18,302	7,607	1,140	312,684	323,629	404,464	310,497	341,514
Long-term nursing care	HC.3.3	506,966	548,327	629,975	620,592	700,856	359,164	408,222	471,726	525,325	558,572
Ancillary services to health care	HC.4	167,891	123,969	144,018	166,506	190,785	344,511	371,111	383,688	415,787	426,870
Medical goods dispensed to outpatients	HC.5	97,388	78,501	15,055	13,925	29,473	1,002,613	1,009,787	1,104,969	1,228,374	1,346,917
Pharmaceutical and other medical non-durables	HC.5.1	97,388	78,501	15,055	13,925	29,473	936,174	943,487	1,037,561	1,152,349	1,200,510
Therapeutic appliances and other medical durables	HC.5.2	_	_	_	-	_	66,439	66,300	67,408	76,025	146,407
Total expenditure on personal health care		1,194,690	1,260,318	1,487,843	1,624,726	1,811,847	8,101,104	8,738,785	9,571,908	10,329,535	11,173,516
Prevention and public health services	HC.6	443,438	432,628	453,959	567,743	649,188	151,032	139,969	167,903	265,685	285,717
Health administration and health insurance	HC.7	338,760	293,646	338,289	371,783	360,674	73,664	93,377	103,845	115,980	122,977

Health care by function	ICHA-HC		Minis	try direct fur	nding		DHB devolved funding					
	code	2005/06 (000s)	2006/07 (000s)	2007/08 (000s)	2008/09 (000s)	2009/10 (000s)	2005/06 (000s)	2006/07 (000s)	2007/08 (000s)	2008/09 (000s)	2009/10 (000s)	
Total current expenditure on health care		1,976,888	1,986,592	2,280,091	2,564,252	2,821,709	8,325,800	8,972,131	9,843,656	10,711,200	11,582,210	
Memorandum items: further health-related functions												
Education and training of health personnel	HC.R.2	120,227	130,043	146,226	160,358	159,580	6,544	9,951	8,051	10,215	6,622	
Research and development in health	HC.R.3	_	-	_	5,279	124	_	_	_	-	_	
Food, hygiene and drinking water control	HC.R.4	_	-	_	-	-	_	_	_	-	_	
Environmental health	HC.R.5	_	-	-	_	_	_	_	-	-	_	
Total health-related expenditure		120,227	130,043	146,226	165,637	159,704	6,544	9,951	8,051	10,215	6,622	
Total health and health-related expenditure		2,097,115	2,116,635	2,426,317	2,729,889	2,981,413	8,332,344	8,982,082	9,851,707	10,721,415	11,588,832	

Note: 2005/06–2007/08 data restated due to revised DHB SHA classification of data.

#### 5.2.3 DHB and non-DHB expenditure

DHB expenditure as a percentage of Ministry funding increased from 79.2% in 2003/04 to 80.4% in 2009/10. This represents a funding shift and devolution of additional responsibilities to DHBs for the funding of health services. Over the five-year period 2005/06 to 2009/10, DHB expenditure increased by \$3,256.4 million or 39.1%, while non-DHB funding increased by \$884.2 million or 42.2%. The most significant items of non-DHB funding fall within long-term nursing care provided to individuals in their homes or the community; these consist largely of disability support services and prevention and public health services.

#### 5.2.4 Ministry of Health

The Ministry of Health is the Government's primary agent in the health and disability system of New Zealand, having overall responsibility for the management and development of that system.

The Ministry also acts as the Minister of Health's principal advisor on health policy and is the main funder and regulator of health and disability services. It provides an important leadership role and is the primary means of driving performance improvements within the system.

The following core functions of the Ministry are incurred in the administration of, but not provision of, health services as defined by the SHA conventions:

- improve, promote and protect the health of New Zealanders
- advise the Minister on strategy, policy and system performance, including advice on improving health outcomes, reducing disparities, ensuring fairness and increasing participation
- act on behalf of the Minister to monitor and improve the performance of the health sector Crown agencies and DHBs, which are responsible for the health of their local communities
- administer legislation and regulations on behalf of the Crown, and meet legislative requirements
- fund and purchase health support services on behalf of the Crown, including the
  maintenance of service agreements, particularly for public health, disability support
  services and other services funded by the Ministry
- service Minister's offices and ministerial advisory committees.

Table 5.4 provides a breakdown of funding by output class for the Ministry in 2007/08, 2008/09 and 2009/10. Output class definitions were changed in the year to 30 June 2008 to reflect the above outputs, meaning that some comparability to prior years has been lost.

Table 5.4 reflects the Ministry's 'head office' costs incurred in the administration of, but not provision of, health services. Information services are the largest output class, accounting for \$76.0 million or 31.4% in 2009/10 (\$69.0 million in 2008/09). Information services include the cost of administering the Sector Services (formerly HealthPAC) system, a claims payment facility. Strategy, policy and systems performance is the second largest cost incurred at \$54.0 million or 22.3%.

Table 5.4: Ministry of Health expenditure, by output class, 2007/08-2009/10

Output class*	200	7/08	200	8/09	2009/10		
	\$ million	% of total	\$ million	% of total	\$ million	% of total	
Health and disability policy advice	32.5	13.7%	30.7	13.0%	8.7	3.6%	
Performance management	14.1	6.0%	9.1	3.8%	19.9	8.2%	
Ministerial support services	24.3	10.3%	15.6	6.6%	38.8	16.0%	
Information services	75.1	31.8%	69.0	29.1%	76.0	31.4%	
Administration of legislation and regulations	36.0	15.2%	37.3	15.7%	29.4	12.2%	
Strategy, policy and systems performance	34.5	14.6%	53.7	22.7%	54.0	22.3%	
Payment services	19.9	8.4%	21.7	9.2%	15.0	6.2%	
Total <sup>†</sup>	236.5	100.0%	237.2	100.0%	241.7	100.0%	

Source: Ministry of Health

<sup>\*</sup> Output class definitions changed at 1 July 2007.

<sup>†</sup> Totals may be affected by rounding.

## 6 Other public sector funding

As discussed in Chapter 5, the main contribution to the public sector funding of health, comes from the government through the Ministry of Health. In addition, the Accident Compensation Corporation (ACC) contributes a significant amount to public sector health expenditure.

ACC is a statutory insurance organisation, owned by the state, which provides compulsory, comprehensive no-fault insurance cover for accident-related injuries to all New Zealanders. Other central government agencies and local authorities also incur expenditure that directly or indirectly affects the health status of New Zealand residents.

In 2009/10, funding from ACC, at \$1,669.8 million, accounted for 8.4% of total current health expenditure. This is a reduction from the \$1,820.2 million or 9.7% of total current health expenditure funded by ACC in 2008/09. Other central government agencies provided an additional \$395.3 million or 2.0%. Regional and local authorities contributed an additional \$67.2 million. Total other public funding for health services in 2009/10 (excluding the Ministry) amounted to \$2,132.4 million. Other central government agencies (excluding the Ministry and ACC) also contributed \$664.3 million to SHA health-related services.

Regional and local authorities contributed \$67.2 million or 0.3% of total current health expenditure, plus \$1,691.3 million to health-related expenditure.

In this chapter, trends in expenditure by ACC, other government agencies and local authorities are discussed in more detail.

Previous editions of HET combined ACC with other central government agencies. ACC is now reported separately, with the prior years restated in this edition for comparison purposes. The Department of Corrections funds personal health in relation to prisoners, the New Zealand Defence Force provides funding for active military duty and Work and Income funds personal health for war veterans.

Estimates of current health and health-related expenditure by other central government agencies for the period 2005/06 to 2009/10 are shown in Table 6.2. Table 6.3 provides information on local government funding and Table 6.4 presents information from all public funds except for the Ministry.

## **6.1 Accident Compensation Corporation**

The ACC compensation scheme is a 24-hour per day, seven-day per week, no-fault scheme that provides treatment, rehabilitation and compensation for New Zealand citizens, residents and temporary visitors to New Zealand who suffer personal injury through accident while in New Zealand. In return, people who have cover under ACC legislation may not sue for personal injury, other than for exemplary damages.

OECD SHA defines ACC as 'social security', being a social insurance scheme covering the community as a whole or large section of the community, which is imposed and controlled by government units. Table 6.1 presents ACC's total current health expenditure from 2005/06 to 2009/10.

Table 6.1: ACC current health expenditure (\$ million), 2005/06-2009/10

Health care by function	ICHA-HC code	2005/06 (000s)	2006/07 (000s)	2007/08 (000s)	2008/09 (000s)	2009/10 (000s)	Change 2007/08 to 2008/09 (000s)	Change 2008/09 to 2009/10 (000s)	Average annual growth rate
Inpatient care									
Curative and rehabilitative care	HC.1.1; 2.1	77,784	100,648	112,336	134,652	123,513	22,316	(11,139)	13.0%
Long-term nursing care	HC.3.1	3	_	_	_	_	_	_	N/A
Services of day care									
Curative and rehabilitative care	HC.1.2; 2.2	166,728	191,035	219,245	262,427	255,203	43,182	(7,224)	13.3%
Long-term nursing care	HC.3.2	_	_	_	_	_	_	_	N/A
Outpatient care									
Outpatient curative and rehabilitative care	HC.1.3; 2.3	405,083	467,569	520,389	528,608	453,224	8,219	(75,384)	5.8%
Basic medical and diagnostic services	HC.1.3.1	319,808	362,884	401,824	407,412	348,371	5,588	(59,041)	5.0%
Outpatient dental care	HC.1.3.2	27,312	30,795	27,960	31,231	28,724	3,271	(2,507)	10.9%
All other specialised health care	HC.1.3.3	22,080	30,815	33,298	24,328	16,296	(8,970)	(8,032)	(0.8)%
All other outpatient care	HC.1.3.9	_	_	_	_	_	_	_	N/A
Outpatient rehabilitative care	HC.2.3	35,883	43,075	57,307	65,637	59,833	8330	(5,804)	7.7%
Home care									
Curative and rehabilitative care	HC.1.4; 2.4	135,452	160,872	194,318	229,167	212,579	34,849	(16,588)	11.9%
Long-term nursing care	HC.3.3	_	_	_	_	_	_	_	N/A
Ancillary services to health care	HC.4	158,754	173,729	221,341	241,259	222,078	19,918	(19,181)	13.90%
Medical goods dispensed to outpatients	HC.5	99,915	116,782	117,869	125,684	116,605	7,815	(9,079)	5.5%
Pharmaceutical and other medical non- durables	HC.5.1	6,383	5,717	5,208	5,064	4,677	(144)	(387)	(9.3)%
Therapeutic appliances and other medical durables	HC.5.2	93,532	111,065	112,661	120,620	111,928	7,959	(8,692)	6.5%

Health care by function	ICHA-HC code	2005/06 (000s)	2006/07 (000s)	2007/08 (000s)	2008/09 (000s)	2009/10 (000s)	Change 2007/08 to 2008/09 (000s)	Change 2008/09 to 2009/10 (000s)	Average annual growth rate
Total expenditure on personal health care		1,043,719	1,210,635	1,385,498	1,521,797	1,383,202	136,299	(138,595)	9.5%
Prevention and public health services	HC.6	46,536	45,008	44,798	68,590	56,014	23,792	(12,576)	6.9%
Health administration and health insurance	HC.7	170,022	180,399	204,501	229,831	230,623	25,330	792	8.4%
Total current expenditure on health care		1,260,277	1,436,042	1,634,797	1,820,218	1,669,839	185,421	(150,379)	9.2%
Memorandum items: further health-related functions									
Education and training of health personnel	HC.R.2	_	_	-	-	_	-	_	N/A
Research and development in health	HC.R.3	_	_	_	_	_	_	_	N/A
Food, hygiene and drinking water control	HC.R.4	-	_	-	_	_	_	_	N/A
Environmental health	HC.R.5	_	_	_	_	_	_	_	N/A
Administration and provision of social services in kind to assist living with disease and impairment	HC.R.6	70,171	84,856	108,670	132,232	91,408	23,562	(40,824)	8.9%
Total health-related expenditure		70,171	84,856	108,670	132,232	91,408	23,562	(40,824)	8.9%
Total health and health-related expenditure		1,330,448	1,520,898	1,743,467	1,952,450	1,761,247	208,983	(191,203)	9.1%

Source: ACC surveys and annual reports

Notes:

<sup>1</sup> Values include a factor for GST at 12.5%.

<sup>2</sup> These figures include an estimate for accident prevention and administration and exclude public health acute services now included in the DHB funder arm expenditure.

ACC is the Crown entity responsible for administering the Accident Compensation Scheme. Responsibilities include:

- · preventing injury
- collecting accident levies
- determining whether claims for injury are covered by the scheme and providing entitlements to people who are eligible
- · paying compensation
- buying health and disability support services to treat, care for and rehabilitate injured people
- advising the government.

ACC is funded principally by levies collected from a range of sources, including employers, self-employed people, employees and motor vehicle licensing. ACC also receives direct government funding to cover people who are not earning an income. ACC is not funded from the Ministry; however, ACC does provide funding to the Ministry for acute accident services. This funding is reported in the funder arm of the DHBs.

ACC health expenditure information used in the HET reports is obtained by direct response from ACC. In addition, starting in 2003/04, the estimate for ACC current expenditure was increased to include components for accident prevention and ACC administration. These functions are estimated at \$56.0 million and \$230.6 million respectively for 2009/10.

In a broader context, all ACC income-related expenditure could be included in health or health-related categories; however, this approach has not been taken for estimates based on SHA definitions at this time. Various WHO and OECD documents address how countries could classify various income-related benefits (sickness, accident, agerelated, other social benefits). These services are likewise not included in these estimates as of 2009/10.

## **6.2** Other government agencies

Other central government agencies contributing to direct health and indirect healthrelated expenditure included in this report are the ministries or departments of Agriculture and Forestry (MAF); Education; Internal Affairs; Research, Science and Technology; Defence; Social Development; Corrections; Te Puni Kōkiri; and Pacific Island Affairs. Estimates of current health and health-related expenditure for this group of agencies were derived from annual reports and by direct surveys.

#### 6.2.1 Biosecurity

Vote Biosecurity brings together the biosecurity activities of the ministries or departments of Agriculture and Forestry (MAF), Health, Fisheries and Conservation. Expenditure by the Ministry of Health is discussed in Chapter 5: Public Sector Funding – Ministry of Health. Total current health expenditure incurred by Fisheries and Conservation appears to relate more directly to biodiversity than to public health. This expenditure has been excluded from this HET report. Since 2003/04, current expenditure by MAF has been sourced from their annual reports.

One strategic area that receives a large proportion of MAF's expenditure is vector control. Key responsibilities for this service include:

- developing and implementing strategies for managing risks posed by pests, weeds and diseases to the economy, biological diversity and people's health
- monitoring the effectiveness of policy and legislative frameworks for managing the risks posed by pests, weeds and diseases to the economy, biological diversity and people's health.

Current health expenditure incurred by MAF for biosecurity in 2009/10 totalled \$189.0 million, compared with \$202.6 million in 2008/09, and covers the cost of the following services and activities.

- Border inspection and quarantine services control quarantine risks at the border and undertake post-entry quarantine in line with the provisions of the Biosecurity Act 1993. Health activities include border clearance procedures for aircraft and vessels (including for passengers), investigating suspected illegal imports and identifying intercepted organisms. In 2009/10, MAF expenditure in this area came to \$66.7 million.
- **Pest and disease surveillance services** maintain the health of domestic animal and plant populations, report internationally on the health status of domestic animals and plants and detect unwanted organisms. Pest and disease emergency response services maintain a capability (personnel and diagnostic capacity) to respond to the introduction of unwanted organisms that are harmful to animals and plants. In 2009/10, MAF's combined expenditure on these services was \$89.1 million.
- **Control of tuberculosis vectors** covers the government contribution to implementing the bovine tuberculosis national pest management strategy. The objective of the strategy is to reduce the number of bovine tuberculosis-infected cattle and deer herds. This objective is jointly funded by government and industry. MAF expenditure in 2009/10 totalled \$33.2 million.

#### **6.2.2** The New Zealand Food Safety Authority (NZFSA)

NZFSA was established as a standalone Government department 1 July 2007, with the main aims being to:

- provide a coherent and seamless food regulatory regime
- reduce the incidence of domestic food-borne illness
- retain and develop policy and technical expertise in food safety
- create a centre for excellence in risk-management-based food safety administration
- provide advice and acknowledge the whole-of-government interest in food administration.

Expenditure on food safety amounted to \$100.3 million in 2009/10 compared with \$107.3 million in 2008/09. The most significant spending was on regulatory programmes and regulatory standards, at \$55.2 million and \$28.9 million respectively. Other expenditure included food safety policy advice, response to food safety emergencies, consultation and food safety information. These activities are reported as a health-related service under food, hygiene and drinking-water control in SHA.

#### 6.2.3 Education

Ministry of Education spending on current health-related activities includes the cost of providing tertiary training and education for doctors, nurses, dentists, dieticians, physiotherapists, clinical psychologists, audiologists, pharmacists, midwives and occupational and speech therapists. Starting in 2003/04, the estimates represent a significant change in the magnitude of the expenditure on educating health professionals and clinical research. The change involves a move to estimate the full cost of tertiary education not limited to the costs incurred by the Ministry of Education.

The source for these estimates has changed to the Tertiary Education Statistics on the Ministry of Education website<sup>16</sup> and the annual reports from four leading tertiary institutions:<sup>17</sup> Massey University, Auckland University of Technology (AUT), The University of Auckland and University of Otago. An adjustment for GST has been included (12.5%). The estimate is conservative as only the University of Otago provided a separate cost for their medical programme; these costs are significantly higher per pupil than those incurred for other programmes. For all other tertiary institutions, an unweighted cost per pupil was used.

The total estimates for 2009/10 are \$580.2 million for educating health professionals and \$136.9 million for clinical research undertaken by tertiary institutions, compared with \$552.6 million and \$130.4 million respectively for 2008/09. An estimate for the non-government portion of this funding is attributed to out-of-pocket private funding.

In accordance with SHA definitions and classifications, this function is a health-related expenditure.

- <sup>16</sup> See: www.educationcounts.govt.nz/statistics/tertiary education
- Prior estimates were sourced from the annual survey and included Ministry of Education bulk subsidies only.

#### 6.2.4 Research, Science and Technology

In July 1997, part of the public investment in health research was transferred from the Ministry of Health to the Ministry of Research, Science and Technology (MoRST). Health research is now included in the priority setting and management process applied to other public-good science and technology investments. In 2009/10, expenditure on health research was \$82.3 million, compared with \$83.9 million in 2008/09.

The 2009/10 estimate is sourced from the MoRST annual report. To conform to SHA definitions and classifications, research is now reported as a health-related service and not a core health service.

#### 6.2.5 Defence

The Ministry of Defence provides funding for health care services to army, navy and air force personnel. The estimate of current health expenditure includes the cost of medical and dental treatments carried out within the Defence service branches, as well as payments for services obtained from external professionals and organisations. The estimate excludes expenditure relating to medical examinations. The estimated expenditure on health care for 2009/10 is \$36.5 million, compared with \$37.7 million in 2008/09. The estimate for 2009/10 was sourced by direct response.

Vote Veterans' Affairs was transferred to the New Zealand Defence Force (NZFD) in the early part of 2008/09. The estimated total expenditure in 2009/10 is \$22.5 million, compared with \$21.6 million in 2008/09. Since 2008/09, the source for these estimates has been from the direct survey response. The expenditure has been distributed across SHA health functions of outpatient and home care for acute, rehabilitative and long-term care services.

#### 6.2.6 Social Development

The bulk of health expenditure (mainly disability support services) previously administered by the Ministry of Social Development was transferred to the Ministry of Health between 1993/94 and 1995/96. Work and Income, however, retains a significant disability funding capacity.

The Ministry of Social Development also administers the Community Services Card programme. Expenditure in 2009/10 for administering this programme amounted to \$8.0 million, compared with \$8.2 million in 2009/08. In accordance with SHA definitions, this activity is considered part of government administration of health services and is therefore part of core health expenditure. Funding for youth suicide prevention has been transferred to the Ministry of Health.

#### 6.2.7 Corrections

The Department of Corrections incurs costs relating to the provision of health care services for prison inmates and those held in judicial custody. The total estimated cost of \$49.0 million for 2009/10 covers expenditure on general medical treatment \$29.5 million, and psychiatric treatment \$19.2 million. This represents an increase of \$4.4 million or 10.0%, compared with the 2008/09 expenditure of \$44.3 million.

The current health expenditure estimates are consistently sourced by direct response. Starting in 2003/04, the expenditure has been distributed across SHA health functions of outpatient and home care for acute, rehabilitative and long-term-care services. There has been no change in methodology for this estimate.

#### 6.2.8 Internal Affairs

The New Zealand Lottery Grants Board, which is administered by The Department of Internal Affairs, funded health and health-related projects amounting to \$54.1 million during 2009/10. The data source for these estimates is the New Zealand Lotteries Commission 2009/10 Lottery Grants record.

Included in the above estimate are direct grants made to individuals with disabilities to purchase disability support equipment, not funded by other sources, to increase and maintain their participation, fulfilment, enjoyment and achievement in the community. These grants totalled \$4.4 million in 2009/10. Additional lottery grants totalling \$5.7 million were distributed to fund health research and are attributed to a health-related function. Grants to seniors are no longer separately identifiable and are not included in these estimates.

#### 6.2.9 Te Puni Kōkiri (Māori Development)

Health expenditure under Te Puni Kōkiri contributes to policy advice to the Government's objective of reducing inequalities between Māori and non-Māori in the delivery of health and disability services.

The policy advice has focused on three main areas:

- how to make progress towards reducing inequalities in health status between Māori and non-Māori
- how to improve Māori health outcomes by increasing Māori participation in the purchase and provision of health services
- the development of new Māori health initiatives for the wellbeing of Māori, including the development of strategies to increase Māori access to health services and the adoption of healthy lifestyle choices.

#### 6.2.10 Pacific Island Affairs

During 2007/08, the Ministry of Pacific Island Affairs incurred health expenditure of \$0.2 million for the provision of health policy advice. This service has been attributed to the SHA function: health administration, health expenditure. Starting in 2003/04, this information has been sourced from the Ministry of Pacific Island Affairs' annual report, whereas earlier estimates came from direct survey responses.

 $Table \ 6.2: Current \ health \ expenditure \ and \ health-related \ expenditure \ by \ other \ central \ government \ agencies, \ 2005/06-2009/10$ 

Health care by function	ICHA-HC code	2005/06 (000s)	2006/07 (000s)	2007/08 (000s)	2008/09 (000s)	2009/10 (000s)	Change 2007/08 to 2008/09 (000s)	Change 2008/09 to 2009/10 (000s)	Average annual growth rate
Inpatient care									
Curative and rehabilitative care	HC.1.1; 2.1	1,875	2,213	2,465	2,512	2, 650	47	138	11.3%
Long-term nursing care	HC.3.1	411	475	950	1,107	1,318	157	211	36.2%
Services of day care									
Curative and rehabilitative care	HC.1.2; 2.2	1,875	2,185	2,398	2,600	2,691	202	91	12.0%
Long-term nursing care	HC.3.2	411	475	528	528	596	-	68	13.9%
Outpatient care									
Outpatient curative and rehabilitative care	HC.1.3; 2.3	28,623	32,626	37,253	38,674	39,639	1,421	965	10.0%
Basic medical and diagnostic services	HC.1.3.1	4,093	4,293	4,733	4,915	5,203	182	288	5.1%
Outpatient dental care	HC.1.3.2	3,126	3,653	4,249	4,426	4,168	177	(258)	11.7%
All other specialised health care	HC.1.3.3	3,140	3,336	3,696	3,739	4,070	43	331	28.5%
All other outpatient care	HC.1.3.9	14,611	17,075	19,794	20,544	21,030	750	486	7.3%
Outpatient rehabilitative care	HC.2.3	3,653	4,269	4,781	5,050	5,168	269	118	26.9%
Home care									
Curative and rehabilitative care	HC.1.4; 2.4	19,480	20,926	22,231	25,114	28,548	2,883	3,434	22.5%
Long-term nursing care	HC.3.3	14,272	15,130	17,198	17,726	19,130	528	1,404	26.4%
Ancillary services to health care	HC.4	1,281	2,015	3,443	4,314	4,433	871	119	27.3%
Medical goods dispensed to outpatients	HC.5	10,205	11,968	18,246	19,411	18,910	1,165	(501)	17.8%
Pharmaceutical and other medical non- durables	HC.5.1	1,864	2,079	2,269	2,133	2,224	(136)	91	11.7%
Therapeutic appliances and other medical durables	HC.5.2	8,341	9,889	15,977	17,278	16,686	1,301	(592)	19.3%

Health care by function	ICHA-HC code	2005/06 (000s)	2006/07 (000s)	2007/08 (000s)	2008/09 (000s)	2009/10 (000s)	Change 2007/08 to 2008/09 (000s)	Change 2008/09 to 2009/10 (000s)	Average annual growth rate
Total expenditure on personal health care		78,433	88,013	104,712	111,986	117,915	7,274	5,929	16.0%
Prevention and public health services	HC.6	166,938	215,127	267,759	276,233	266,764	8,474	(9,469)	11.8%
Health administration and health insurance	HC.7	6,297	6,813	6,578	10,269	10,667	3,691	398	12.5%
Total current expenditure on health care		251,668	309,953	379,049	398,488	395,346	19,439	(3,142)	12.7%
Memorandum items: further health-related functions									
Education and training of health personnel	HC.R.2	216,163	232,591	232,591	276,340	290,163	43,749	13,823	8.2%
Research and development in health	HC.R.3	177,941	202,918	206,484	219,038	225,197	12,554	6,159	7.2%
Food, hygiene and drinking water control	HC.R.4	86,152	91,214	100,602	107,278	100,333	6,676	(6,945)	4.0%
Environmental health	HC.R.5	17,162	17,344	18,717	19,919	20,819	1,202	900	5.0%
Administration and provision of social services in kind to assist living with disease and impairment	HC.R.6	-	11,421	22,735	19,654	27,739	(3,081)	8,085	13.8%
Total health-related expenditure		497,418	555,488	581,129	642,229	664,251	61,100	22,022	7.1%
Total health and health-related expenditure		749,086	865,441	960,178	1,040,717	1,059,597	80,539	18,880	8.9%

#### **6.2.11** Other central government expenditure trends

In 2009/10, total current health expenditure by all the other central government agencies, excluding the Ministry of Health and ACC, totalled \$395.3 million, compared with \$398.5 million in 2008/09, a decrease of approximately \$3.1 million or 0.8%. As presented in Table 6.2, prevention and public health services expenditure represents the majority of current health expenditure by other central government agencies at \$266.8 million or 67.5% of the total health expenditure. This pattern is heavily influenced by MAF. For the five-year period, the SHA functions reflect a fairly consistent increase of approximately 12.7% across all functions.

### 6.3 Regional and local authorities

Prior to 2003/04, estimates for local government were based on the Ministry sample survey, with the results extrapolated to calculate an estimate for the total population of New Zealand. Starting in 2003/04, expenditure has been estimated by compiling information from local government annual reports. Regional governments, which are largely responsible for environmental services and in some cases water and sewage, had been excluded from the sample prior to 2003/04. Consequently the expenditure estimates for local government services were significantly undervalued for the periods before 2003/04.

As has been consistently stated from the inception of HET reporting in the early 1980s, health-related expenditure had been significantly under-reported. This was due to the application of the narrow WHO definition of public health prior to 2003/04. Examples of services previously excluded are: control of foul water, drainage, sewerage collection and treatment, rubbish collection and disposal, overflow prevention, stagnation of flood water and water purification. The estimate now includes these and other services. Specific services not included by the SHA definitions are civil defence and road safety. Consequently the original definitions have not been retained and internal consistency has been lost. The estimates have, however, gained greater international comparability and are now more accurate and complete.

The estimates since 2003/04 have been sourced from annual reports, augmented by survey responses where appropriate and necessary. An estimate for GST has been included by increasing the values by 12.5%. Significant activities, such as sewage systems and rubbish collection and disposal, are easily identified in annual reports. Other activities that are more on a line-item level are not consistently identified in regional or local government annual reports. Examples of this latter group include swimming pool testing and treatment, and road-cleaning costs. These less-material services are included in the overall estimates, using the survey results if they did not appear to be duplicative.

The estimates are conservative as most annual reports do not include an allocation of support and administration costs to services. In addition, if there was doubt as to whether a service should be included in the estimate, it was excluded. Appendix 7 contains a complete list of the regional and local authorities included in the 2009/10 sample.

One local authority operated a medical centre during this period under review.

Waimate District Council operated Waimate Medical Centre Ltd as a Council Controlled Trading Organisation to May 2009, when the incumbent doctor purchased the practice. The Council's involvement in the Waimate Medical Centre Ltd resulted from the request of the community of Waimate to preserve the Waimate Medical Centre and flows directly from the statutory directive that local government provides for the social, cultural, economic and environmental wellbeing of its community in a sustainable manner. This activity supports the following Community Outcomes as described in the second volume of the LTCCP 2006-16.

- The health needs of the district are adequately provided for.
- The governance provided by the local authority meets the needs of its citizens.
- The wellbeing of all ages is achieved.
- The security and safety of the community and its citizens meets their need.
- The community is positive about its continued wellbeing.
- Increases in quality of life, wellbeing and prosperity are shared and accessed by all citizens.

#### 6.3.1 Regional and local authorities expenditure trends

As Table 6.3 shows, total current health and health-related expenditure by regional and local authorities increased from \$1,523.7 million in 2005/06 to \$1,758.6 million in 2009/10. However, only a relatively small portion of this expenditure is health expenditure: prevention and public health services amounted to \$67.2 million in 2009/10.

## 6.4 Trends in the use of other public funding

Table 6.4 presents the trends in other public funding: ACC, other central agencies and regional and local authorities, excluding the Ministry. Other public funding for current health expenditure in 2009/10 is estimated at \$2,132.4 million, a decrease of \$142.2 million or 6.3% from 2008/09.

The five-year period reflects an average annual increase of 9.4% per annum on health expenditure, with the largest dollar value increases in outpatient curative and rehabilitative care of \$176.3 million. The expenditure pattern of other public funding is heavily influenced by ACC purchasing.

Table 6.3: Current health and health-related expenditure by local authorities, 2005/06-2009/10

Health care by function	ICHA-HC code	2005/06 (000s)	2006/07 (000s)	2007/08 (000s)	2008/09 (000s)	2009/10 (000s)	Change 2007/08 to 2008/09	Change 2008/09 to 2009/10	Average annual growth rate
Outpatient care									
Outpatient curative and rehabilitative care	HC.1.3; 2.3	621	603	732	924	-	192	(924)	N/A
Total expenditure on personal health care		621	603	732	924	-	192	(924)	N/A
Prevention and public health services	HC.6	82,371	106,072	92,672	55,000	67,238	(37,672)	12,238	(0.6)%
Health administration and health insurance	HC.7	_	_	_	_	_	_	_	N/A
Total current expenditure on health care		82,992	106,675	93,404	55,924	67,238	(37,480)	11,314	(0.6)%
Memorandum items: Further health-related functions									
Education and training of health personnel	HC.R.2	_	_	_	_	_	_	_	N/A
Research and development in health	HC.R.3	_	-	_	-	-	-	_	N/A
Food, hygiene and drinking water control	HC.R.4	163,265	163,312	263,402	260,737	267,838	(2,665)	7,101	15.8%
Environmental health	HC.R.5	1,277,485	1,336,604	1,390,872	1,343,564	1,423,476	(47,308)	79,912	2.8%
Administration and provision of social services in kind to assist living with disease and impairment	HC.R.6	_	_	_	_	_	-	_	N/A
Total health-related expenditure		1,440,750	1,499,916	1,654,274	1,604,301	1,691,314	(49,973)	87,013	4.2%
Total health and health-related expenditure		1,523,742	1,606,591	1,747,678	1,660,225	1,758,552	(87,453)	98,327	3.8%

Table 6.4: Total other public funding (excluding the Ministry), 2005/06-2009/10

Health care by function	ICHA-HC code	2005/06 (000s)	2006/07 (000s)	2007/08 (000s)	2008/09 (000s)	2009/10 (000s)	Change 2007/08 to 2008/09	Change 2008/09 to 2009/10	Average annual growth rate
Inpatient care									
Curative and rehabilitative care	HC.1.1; 2.1	79,659	102,862	114,800	137,164	126,163	22,364	(11,001)	12.9%
Long-term nursing care	HC.3.1	414	475	950	1,107	1,318	157	211	36.3%
Services of day care									
Curative and rehabilitative care	HC.1.2; 2.2	168,603	193,221	221,643	265,027	257,894	43,384	(7,133)	13.3%
Long-term nursing care	HC.3.2	411	475	528	528	596	-	68	13.9%
Outpatient care									
Outpatient curative and rehabilitative care	HC.1.3; 2.3	433,706	500,195	557,641	568,204	492,865	10,563	(75,339)	6.1%
Basic medical and diagnostic services	HC.1.3.1	323,901	367,178	406,558	413,250	353,575	6,692	(59,675)	5.0%
Outpatient dental care	HC.1.3.2	30,438	34,448	32,209	35,657	32,892	3,448	(2,765)	10.9%
All other specialised health care	HC.1.3.3	25,220	34,151	36,993	28,066	20,367	(8,927)	(7,699)	1.5%
All other outpatient care	HC.1.3.9	14,611	17,075	19,794	20,544	21,030	750	486	7.3%
Outpatient rehabilitative care	HC.2.3	39,536	47,343	62,087	70,687	65,001	8,600	(5,686)	14.8%
Home care									
Curative and rehabilitative care	HC.1.4; 2.4	154,932	181,797	216,549	254,280	241,127	37,731	(13,153)	12.6%
Long-term nursing care	HC.3.3	14,272	15,130	17,198	17,727	19,130	529	1,403	26.4%
Ancillary services to health care	HC.4	160,035	175,744	224,784	245,573	226,511	20,789	(19,062)	14.1%
Medical goods dispensed to outpatients	HC.5	110,120	128,749	136,116	145,096	135,515	8,980	(9,581)	6.6%
Pharmaceutical and other medical non-durables	HC.5.1	8,247	7,795	7,477	7,197	6,901	(280)	(296)	(5.1)%
Therapeutic appliances and other medical durables	HC.5.2	101,873	120,954	128,639	137,899	128,614	9,260	(9,285)	7.6%

Health care by function	ICHA-HC code	2005/06 (000s)	2006/07 (000s)	2007/08 (000s)	2008/09 (000s)	2009/10 (000s)	Change 2007/08 to 2008/09	Change 2008/09 to 2009/10	Average annual growth rate
Total expenditure on personal health care		1,122,152	1,298,648	1,490,209	1,634,706	1,501,119	144,497	(133,587)	10.0%
Prevention and public health services	HC.6	295,845	366,207	405,229	399,823	390,016	(5,406)	(9,807)	8.5%
Health administration and health insurance	HC.7	176,318	187,212	211,078	240,100	241,290	29,022	1,190	8.5%
Total current expenditure on health care		1,594,315	1,852,067	2,106,516	2,274,629	2,132,425	168,113	(142,204)	9.4%
Memorandum items: further health-related functions									
Education and training of health personnel	HC.R.2	216,163	232,591	232,591	276,340	290,163	43,749	13,823	8.2%
Research and development in health	HC.R.3	177,941	202,918	206,484	219,038	225,197	12,554	6,159	7.2%
Food, hygiene and drinking water control	HC.R.4	249,417	254,526	364,004	368,015	368,171	4,011	156	11.1%
Environmental health	HC.R.5	1,294,647	1,353,949	1,409,588	1,363,483	1,444,295	(46,105)	80,812	3.4%
Administration and provision of social services in kind to assist living with disease and impairment	HC.R.6	70,171	96,277	131,404	151,886	119,148	20,482	(32,738)	13.4%
Total health-related expenditure		2,008,339	2,140,261	2,344,071	2,378,762	2,446,974	34,691	68,212	5.4%
Total health and health-related expenditure		3,602,654	3,992,328	4,450,587	4,653,391	4,579,399	202,804	(73,992)	7.1%

## 7 Private sector funding

Private sector funding sources were the major contributors to total current health funding in the early years of the New Zealand health services. However, since the end of World War II, public sector funding has dominated.

Private sources of funding consist of out-of-pocket, health insurance and not-for-profit organisations. Together, they accounted for approximately 16.8% of total current health expenditure in 2009/10, compared with 20.9% in 1999/00 – considerably higher than the low of 12% in 1979/80 (see Figures 4.2 and 4.2A). Out-of-pocket expenditure by private households is the largest component of private sector funding, contributing approximately 10.5% to total current health expenditure in 2009/10, while health insurance and not-for-profit organisations contributed 4.9% and 1.4% respectively.

A minimal estimate has been included for privately funded long-term nursing care. This estimate is likely to be understated and is subject to refinement.

## 7.1 Out-of-pocket expenditure

Data on out-of-pocket expenditure for 2009/10 is based on the 2010 Household Economic Survey (HES) produced by Statistics New Zealand. Surveys were conducted for 2000/01, 2003/04, 2006/07 and 2009/10. The figures for 2005/06, 2007/08 and 2008/09 were estimated based on the Consumers Price Index (CPI).

Household consumption expenditure covers expenditure by resident households, whether this occurs in New Zealand or overseas. Resident households include individuals living in private dwellings or in non-private dwellings, such as boarding houses, rest homes and prisons.<sup>19</sup>

Out-of-pocket HES data is collected in three ways:

- a 12-month recall (for single payments of \$200 or more); \$100 for medical services
- latest payment (for regular commitments such as electricity, telephone, rates, rent)
- 14-day diary keeping.

<sup>&</sup>lt;sup>18</sup> The HES was an annual survey until 1998.

<sup>&</sup>lt;sup>19</sup> See: www.stats.govt.nz

It is believed that the HES underestimates expenditure in a number of areas, such as contributions to health insurance. This is because payments are often deducted at source from salaries and are sometimes overlooked in the survey data collection. <sup>20</sup> Health insurance premiums are recorded under private health insurance, while out-of-pocket co-payments to health insurance claims are recorded under the appropriate health care by function code in current expenditure on health care.

Consequently the HES produces conservative estimates. Use of this survey as a data source for out-of-pocket expenses remains unchanged. Table 7.1 presents the trends for out-of-pocket expenditure for 2005/06 to 2009/10 by health care function. During this period, total out-of-pocket expenditure on total health and health-related services increased on average by 2.5% per annum. All other specialised health care increased more significantly by 12.9%.

For 2009/10, the major components of out-of-pocket expenditure on total health and health-related services were outpatient care (37.5%) and pharmaceuticals (27.1%); most of these services were provided by the private sector.

#### 7.1.1 Out-of-pocket expenditure trends

The trends in total out-of-pocket expenditure from 1999/00 to 2009/10 are reported in Appendix 3.1. Total out-of-pocket expenditure on health increased from \$1,375.2 million in 1999/00 to \$2,086.5 million in 2009/10. In nominal terms, the rate of this increase was approximately 4.3% per year (2.0% in real terms). The actual growth rate in the actual survey years from 2000/01 to 2009/10 was used to project the expenditure for the non-survey years: 2005/06, 2007/08 and 2008/09.

In 2009/10, the total out-of-pocket funder category also included \$290.2 million for the cost of educating health professionals not covered by the government subsidy. This is a health-related function.

## 7.2 Health insurance

Estimates of health insurers' total current expenditure on health care during the review year are based on data provided by the executive director of the Health Funds Association of New Zealand Inc (HFANZ). The 2009/10 estimates show that current health expenditure by the insurance industry has increased from \$560.9 million in 1999/00 to \$974.9 million in 2009/10. During 2009/10, health insurance accounted for 4.9% of all current spending on health, compared with 6.0% in 1999/00.

Table 7.2 provides the 2003/04–2009/10 estimated destinations of insurance funding on personal health care based on aggregate information from the HFANZ statistics.

<sup>20</sup> See: www.stats.govt.nz

Table 7.1: Survey responses for out-of-pocket expenditure, using SHA, 2005/06-2009/10

Health care by function	ICHA-HC		(	Out of pocket			Change	Change	Average
	code	2005/06 (000s)	2006/07 (000s)	2007/08 (000s)	2008/09 (000s)	2009/10 (000s)	2007/08 to 2008/09 (000s)	2008/09 to 2009/10 (000s)	annual growth rate
Inpatient care									
Curative and rehabilitative care	HC.1.1; 2.1	330,650	333,620	342,054	351,475	361,056	9,421	9,581	2.4%
Long-term nursing care	HC.3.1	94,379	102,314	104,901	105,895	109,476	994	3,581	3.9%
Services of day care									
Curative and rehabilitative care	HC.1.2; 2.2	30,787	31,063	31,849	32,726	33,618	877	892	1.4%
Long-term nursing care	HC.3.2	_	_	_	_	-	_	_	_
Outpatient care									
Outpatient curative and rehabilitative care	HC.1.3; 2.3	919,249	698,386	820,901	849,971	897,625	29,070	47,654	2.2%
Basic medical and diagnostic services	HC.1.3.1	76,967	77,658	79,621	81,814	84,044	2,193	2,230	3.7%
Outpatient dental care	HC.1.3.2	457,706	349,541	358,377	374,708	399,800	16,331	25,092	(0.3)%
All other specialised health care	HC.1.3.3	194,555	151,637	260,331	267,501	284,400	7,170	16,899	12.9%
All other outpatient care	HC.1.3.9	190,021	119,550	122,572	125,948	129,381	3,376	3,433	(3.9)%
Home care									
Curative and rehabilitative care	HC.1.4; 2.4	_	_	_	_	-	_	_	_
Long-term nursing care	HC.3.3	_	_	_	_	-	_	_	_
Ancillary services to health care	HC.4	36,261	25,941	26,597	34,917	43,900	8,320	8,983	7.9%
Medical goods dispensed to outpatients	HC.5	644,849	589,505	604,407	615,075	640,800	10,668	25,725	1.7%
Pharmaceutical and other medical non-durables	HC.5.1	610,886	551,936	565,888	575,365	598,930	9,477	23,565	1.4%
Therapeutic appliances and other medical durables	HC.5.2	33,963	37,569	38,519	39,710	41,870	1,191	2,160	6.0%

Health care by function	ICHA-HC Out of pocket							Change	Average
	code	2005/06 (000s)	2006/07 (000s)	2007/08 (000s)	2008/09 (000s)	2009/10 (000s)	2007/08 to 2008/09 (000s)	2008/09 to 2009/10 (000s)	annual growth rate
Total expenditure on personal health care		2,056,175	1,780,829	1,930,709	1,990,059	2,086,475	59,350	96,416	2.0%
Health administration and health insurance	HC.7	-	_	_	_	-	_	_	-
Total current expenditure on health care		2,056,175	1,780,829	1,930,709	1,990,059	2,086,475	59,350	96,416	2.0%
Memorandum items: further health-related functions									
Education and training of health personnel	HC.R.2	234,177	251,974	283,471	276,341	290,163	(7,130)	13,822	6.4%
Total health-related expenditure		234,177	251,974	283,471	276,341	290,163	(7,130)	13,822	6.4%
Total health and health-related expenditure		2,290,352	2,032,803	2,214,180	2,266,400	2,376,638	52,220	110,238	2.5%

Source: Statistics New Zealand, Household Economic Survey 2010.

Table 7.2: Destinations of insurance funding on personal health care (\$ million), 2003/04-2009/10

	2003/04*	2004/05*	2005/06*	2006/07	2007/08	2008/09	2009/10	Change 2008/09–2009/10	Average annual growth rate
Public institutions	0.673	0.622	0.600	0.750	0.815	0.878	0.921	0.043	20.5%
Private institutions	454.240	485.765	548.839	546.363	593.924	639.794	670.912	31.118	6.9%
Community care	216.725	209.299	212.636	246.837	268.324	289.048	303.106	14.058	2.9%
Total	671.638	695.686	762.075	793.950	863.063	929.720	974.939	45.218	5.4%

Source: Health Insurance Association – Health Insurance Statistics July 2010.

<sup>2003/04–2005/06</sup> data restated for an estimate of health administration.

#### 7.2.1 Expenditure trends

Aggregate health insurance expenditure grew from \$671.6 million in 2003/04 to \$974.9 million in 2009/10. The average annual compound growth in insurance expenditure during the period was 6.4% (3.6% in real terms). A breakdown by category of trends in health insurance expenditure since 1999/00 is provided in Appendix 4.

The trend over the 10-year period to 2009/00 reflects an increase in 'major medical' insurance but a decline in comprehensive medical policies. This is in line with the Ministry's capitated primary practice services funding (subsidised GP visits for registered patients).

Table 7.3 gives details of insurance coverage by age group across the population for 2007 to 2010. There has been no material change in age distribution over this period.

Table 7.3: Proportion of the New Zealand population covered by medical insurance (by age group), 2007-2010

Age	2007	2008	2009	2010	Change 2009 to 2010	Percent % 2009 to 2010	Average annual growth rate
0–4	62,125	64,930	64,376	67,415	3,039	4.7%	3.4%
5–9	82,324	82,143	82,308	82,040	(268)	(0.3)%	(0.1)%
10–14	94,185	92,991	91,624	89,852	(1,772)	(1.9)%	(1.5)%
15–19	99,202	99,887	99,613	97,826	(1,787)	(1.8)%	1.0%
20–24	69,965	73,244	74,905	75,339	434	0.6%	2.9%
25–29	63,991	66,059	66,311	68,063	1,752	2.6%	2.2%
30–34	85,042	83,258	81,189	80,846	(343)	(0.4)%	(2.1)%
35–39	111,288	111,180	110,029	108,429	(1,600)	(1.5)%	(0.2)%
40–44	122,011	120,618	119,690	118,563	(1,127)	(0.9)%	(1.1)%
45–49	129,583	130,872	130,819	128,671	(2,148)	(1.6)%	0.4%
50–54	121,532	122,037	122,816	122,613	(203)	(0.2)%	0.3%
55–59	116,679	114,785	114,484	112,497	(1,987)	(1.7)%	(1.2)%
60–64	87,677	93,999	97,548	98,765	1,217	1.2%	5.0%
65–69	55,125	56,178	58,362	58,394	32	0.1%	4.0%
70–74	30,571	31,440	32,812	33,837	1,025	3.1%	3.6%
75–79	22,152	21,988	22,032	21,712	(320)	(1.5)%	(0.2)%
80–84	15,095	15,369	15,501	15,433	(68)	(0.4)%	1.8%
85–89	6,063	6,438	6,784	7,026	242	3.6%	6.2%
90+	1,878	1,989	2,046	2,256	210	10.3%	8.4%
Unknown	48	31	31	31	_	(0.0)%	(8.3)%
Total	1,376,536	1,389,436	1,393,280	1,389,608	(3,672)	(0.3)%	0.6%

Source: Health Funds Association, Health Insurance Statistics July 2010

## 7.3 Voluntary and not-for-profit organisations

In order to estimate the voluntary and not-for-profit contribution to health funding, a large sample of these organisations was compiled with data sourced from annual reports. <sup>21</sup> (See Appendix 7 for a list of the organisations.) The not-for-profit estimate represents funding from non-governmental sources, primarily contributions, donations, corporate grants and earnings on investments. <sup>22</sup> The sample of not-for-profit organisations is increasing as additional entities providing health and health-related services are located. An estimate for GST has been included by increasing the values by 12.5%.

The majority of this estimate has been attributed to SHA health expenditure as the main contributions of not-for-profit organisations are in primary health care, disability support and public health promotion and protection functions. Some organisations also contribute to health research, a health-related activity; this has been recognised on an organisational basis. For example, a portion of the Cancer Society's total funding has been apportioned to research.

This estimate remains conservative as it still reflects only a sample of the sector, with the full extent of this sector remaining unknown. The sample may be missing some key organisations that provide significant levels of service. For example, it is likely that patient transportation, especially fixed-wing and rotary-flight air transportation, is underestimated. Also, significant contributions for hospice services are also likely to be missing. In addition, where there has been doubt as to whether a revenue source should be included in the estimates, such sources have been excluded.

Major not-for-profit organisations include the Cancer Society of New Zealand, The Royal New Zealand Plunket Society, the National Heart Foundation of New Zealand, CCS Disability Action (formerly Crippled Children's Society), Presbyterian Support New Zealand, Arthritis New Zealand, Barnardos New Zealand, Asthma and Respiratory Foundation of New Zealand and many others that provide voluntary health or health-related services.

#### 7.3.1 Expenditure trends

Estimates for the not-for-profit sector have increased from \$32.0 million in 1999/00 to \$272.6 million in 2009/10. The values reported for periods prior to 2003/04 are significantly underestimated as they were based on a very small sample without an extrapolation to a national level. Each year, additional organisations are located and the sample grows. Therefore, the year-on-year change reflects both organisations being added to the sample and the change in funding by previously identified organisations.

- <sup>21</sup> Sourced from the Charities Commission website: www.register.charities.govt.nz/CharitiesRegister/Search.aspx
- Many of these organisations received income from the Ministry of Health, DHBs and other central or local government sources. To avoid double counting, revenues from these sources are not included.

## 7.4 Trends in uses of private source funding

The estimates for total private source funding by SHA from 2005/06 to 2009/10 are shown in Table 7.4. Details for 2009/10 by individual funder group are presented in Table 7.5.

Over the five-year period, the total private funding of health care and health-related services has grown by 4.7% on average per annum. Although this reflects significant growth, it is less than the total public funding growth rate of 8.3%. Within private funding, the growth on personal health care is slightly lower than the total at 4.1%, although this figure is skewed by the expansion of not-for-profit organisations in the sample and their significant contribution to prevention and public health functions.

The not-for-profit estimate increased significantly from 2007/08 to 2009/10 as additional entities providing health and health-related services were located. This estimate remains conservative as it reflects only a sample of the sector, with the full extent of the sector still unknown.

Insurance expenditure increase is attributable to both an increase in the number of claims and an increase in the cost of treatment.<sup>23</sup>

Out-of-pocket expenditure by private households is the largest component of private sector funding, contributing on average 65.0% of total private health funding with compound nominal dollar growth of 2.9% over this five-year period.

<sup>&</sup>lt;sup>23</sup> HFANZ, health insurance statistics, July 2010 (HFANZ 2010).

Table 7.4: Destination of private funding of health services, using SHA, 2005/06-2009/10

Health care by function	ICHA-HC				Total priv	vate sector			
	code	2005/06 (000s)	2006/07 (000s)	2007/08 (000s)	2008/09 (000s)	2009/10 (000s)	Change 2007/08 to 2008/09 (000s)	Change 2008/09 to 2009/10 (000s)	Average annual growth rate
Inpatient care									
Curative and rehabilitative care	HC.1.1; 2.1	734,775	738,125	780,664	824,298	856,864	43,634	32,566	5.3%
Long-term nursing care	HC.3.1	94,379	106,746	109,333	130,549	137,927	21,216	7,378	9.8%
Services of day care									
Curative and rehabilitative care	HC.1.2; 2.2	131,959	132,306	141,628	150,983	157,627	9,355	6,644	6.0%
Long-term nursing care	HC.3.2	29	22	24	26	27	2	1	5.8%
Outpatient care									
Outpatient curative and rehabilitative care	HC.1.3; 2.3	1,035,830	816,927	946,750	998,307	1,052,038	51,557	53,731	2.6%
Basic medical and diagnostic services	HC.1.3.1	94,830	105,755	110,087	114,686	118,510	4,599	3,824	5.0%
Outpatient dental care	HC.1.3.2	483,496	377,953	389,185	407,895	434,601	18,710	26,706	0.1%
All other specialised health care	HC.1.3.3	221,544	195,438	304,501	329,898	348,950	25,397	19,052	13.3%
All other outpatient care	HC.1.3.9	233,399	133,794	137,611	140,631	144,694	3,020	4,063	(5.6)%
Outpatient rehabilitative care	HC.2.3	2,561	3,987	5,366	5,197	5,283	(169)	86	21.6%
Home care									
Curative and rehabilitative care	HC.1.4; 2.4	22,783	29,596	32,042	34,237	35,885	2,195	1,648	9.0%
Long-term nursing care	HC.3.3	66,429	76,022	79,111	79,649	84,323	538	4,674	5.1%
Ancillary services to health care	HC.4	97,429	99,255	103,958	169,398	186,130	65,440	16,732	19.9%

Health care by function	ІСНА-НС				Total priv	ate sector			
	code	2005/06 (000s)	2006/07 (000s)	2007/08 (000s)	2008/09 (000s)	2009/10 (000s)	Change 2007/08 to 2008/09 (000s)	Change 2008/09 to 2009/10 (000s)	Average annual growth rate
Medical goods dispensed to outpatients	HC.5	682,620	635,341	654,526	669,035	697,002	14,509	27,967	3.1%
Pharmaceutical and other medical non-durables	HC.5.1	638,381	586,361	603,121	614,276	639,733	11,155	25,457	1.7%
Therapeutic appliances and other medical durables	HC.5.2	44,239	48,980	51,405	54,759	57,269	3,354	2,510	7.8%
Total expenditure on personal health care		2,866,233	2,634,340	2,848,036	3,056,482	3,207,823	208,446	151,341	4.1%
Prevention and public health services	HC.6	57,111	58,096	48,706	60,849	62,982	12,143	2,133	3.1%
Health administration and health insurance	HC.7	38,073	44,849	50,292	62,076	63,251	11,784	1,175	13.0%
Total current expenditure on health care		2,961,417	2,737,285	2,947,034	3,179,407	3,334,056	232,373	154,649	4.2%
Memorandum items: further health-related functions									
Education and training of health personnel	HC.R.2	234,177	252,326	283,823	277,354	291,203	(6,469)	13,849	6.5%
Research and development in health	HC.R.3	29,825	31,215	31,859	30,661	30,154	(1,198)	(507)	0.2%
Food, hygiene and drinking water control	HC.R.4	_	_	-	-	-	_	_	N/A
Environmental health	HC.R.5	_	-	-	_	-	_	_	N/A
Administration and provision of social services in kind to assist living with disease and impairment	HC.R.6	-	4,300	12,832	73,051	61,905	60,219	(11,146)	217.5%
Total health-related expenditure		264,002	287,841	328,514	381,066	383,262	52,552	2,196	9.5%
Total health and health-related expenditure		3,225,419	3,025,126	3,275,548	3,560,473	3,717,318	284,925	156,845	4.7%

Table 7.5: Destination of private funding of health services using SHA and funder, 2005/06-2009/10

Health care by function	ICHA-HC		N	ot-for-prof	fit				Insurance				0	ut-of-pock	et	
	code	2005/06 (000s)	2006/07 (000s)	2007/08 (000s)	2008/09 (000s)	2009/10 (000s)	2005/06 (000s)	2006/07 (000s)	2007/08 (000s)	2008/09 (000s)	2009/10 (000s)	2005/06 (000s)	2006/07 (000s)	2007/08 (000s)	2008/09 (000s)	2009/10 (000s)
Inpatient care																
Curative and rehabilitative care	HC.1.1; 2.1	_	_	_	339	343	404,125	404,505	438,610	472,484	495,465	330,650	333,620	342,054	351,475	361,056
Long-term nursing care	HC.3.1	_	4,432	4432	24,654	28,451	_	-	_	_	-	94,379	102,314	104,901	105,895	109,476
Services of day care																
Curative and rehabilitative care	HC.1.2; 2.2	_	_	_	_	_	101,172	101,243	109,779	118,257	124,009	30,787	31,063	31,849	32,726	33,618
Long-term nursing care	HC.3.2	_	-	_	_	_	29	22	24	26	27	_	_	_	_	
Outpatient care																
Outpatient curative and rehabilitative care	HC.1.3; 2.3	33,133	21,306	20,416	34,760	35,313	83,448	97,235	105,433	113,576	119,100	919,249	698,386	820,901	849,971	897,625
Basic medical and diagnostic services	HC.1.3.1	-	-	-	53	51	17,863	28,097	30,466	32,819	34,415	76,967	77,658	79,621	81,814	84,044
Outpatient dental care	HC.1.3.2	_	_	_	_	_	25,790	28,412	30,808	33,187	34,801	457,706	349,541	358,377	374,708	399,800
All other specialised health care	HC.1.3.3	_	14,859	12,788	28,591	29,100	26,989	28,942	31,382	33,806	35,450	194,555	151,637	260,331	267,501	284,400
All other outpatient care	HC.1.3.9	33,133	4,817	4,817	3,672	3,766	10,245	9,427	10,222	11,011	11,547	190,021	119,550	122,572	125,948	129,381
Outpatient rehabilitative care	HC.1.3.9	_	1,630	2,811	2,444	2,396	2,561	2,357	2,555	2,753	2,887	_	_	_	_	_
Home care																
Curative and rehabilitative care	HC.1.4; 2.4	_	585	585	350	350	22,783	29,011	31,457	33,887	35,535	_	_	-	_	_
Long-term nursing care	HC.3.3	43,675	47,033	47,678	45,788	48,816	22,754	28,989	31,433	33,861	35,507	-	_	_	_	_
Ancillary services to health care	HC.4	9,251	21,021	20,659	73,400	78,178	51,917	52,293	56,702	61,081	64,052	36,261	25,941	26,597	34,917	43,900
Medical goods dispensed to outpatients	HC.5	-	3,947	4,699	5,032	4,894	37,771	41,889	45,420	48,928	51,308	644,849	589,505	604,407	615,075	640,800
Pharmaceutical and other medical non-durables	HC.5.1	-	1,112	1,112	-	-	27,495	33,313	36,121	38,911	40,803	610,886	551,936	565,888	575,365	598,930
Therapeutic appliances and other medical durables	HC.5.2	_	2,835	3,587	5,032	4,894	10,276	8,576	9,299	10,017	10,505	33,963	37,569	38,519	39,710	41,870

Health care by function	ICHA-HC		N	ot-for-pro	fit				Insurance	•			0	ut-of-pock	æt	
	code	2005/06 (000s)	2006/07 (000s)	2007/08 (000s)	2008/09 (000s)	2009/10 (000s)	2005/06 (000s)	2006/07 (000s)	2007/08 (000s)	2008/09 (000s)	2009/10 (000s)	2005/06 (000s)	2006/07 (000s)	2007/08 (000s)	2008/09 (000s)	2009/10 (000s)
Total expenditure on personal health care		86,059	98,324	98,469	184,323	196,345	723,999	755,187	818,858	882,100	925,003	2,056,175	1,780,829	1,930,709	1,990,059	2,086,476
Prevention and public health services	HC.6	57,111	58,096	48,706	60,849	62,982	-	-	-	-	-	_	-	-	-	-
Health administration and health insurance	HC.7	_	6,087	6,087	14,456	13,315	38,073	38,762	44,205	47,620	49,936	_	-	-	-	-
Total current expenditure on health care		143,170	162,507	153,262	259,628	272,642	762,072	793,949	863,063	929,720	974,939	2,056,175	1,780,829	1,930,709	1,990,059	2,086,475
Memorandum items: further health-related functions																
Education and training of health personnel	HC.R.2	-	352	352	1,013	1,040	-	-	-	-	-	234,177	251,974	283,471	276,341	290,163
Research and development in health	HC.R.3	29,825	31,215	31,859	30,661	30,154	-	-	_	-	-	_	-	-	-	-
Food, hygiene and drinking water control	HC.R.4	-	-	-	-	_	-	_	-	-	-	_	-	-	-	-
Environmental health	HC.R.5	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Administration and provision of social services in kind to assist living with disease and impairment		-	4,300	12,832	73,051	61,905	-	-	-	-	-	_	-	-	-	-
Total health-related expenditure		29,825	35,867	45,043	104,725	93,099	-	-	-	-	-	234,177	251,974	283,471	276,341	290,163
Total health and health- related expenditure		172,995	198,374	198,305	364,353	365,741	762,072	793,949	863,063	929,720	974,939	2,290,352	2,032,803	2,214,180	2,266,400	2,376,638

# 8 International comparisons

This chapter compares New Zealand's expenditure on total current health and disability services with total current health expenditure by other member countries of the OECD: as a percentage of GDP, per capita spend and the percentage of publicly funded total current health.

# 8.1 Data comparison issues

Health expenditure is determined by a mix of social, political and economic factors, which means that no single figure represents the 'right' amount to spend on health. Therefore, care should be exercised when comparing data on international health expenditure, as these comparisons do not indicate whether:

- a country should spend more or less on health
- the mix of health care services is appropriate or directly comparable
- the production of health care services is technically efficient
- quality of care, equity and access considerations are appropriate
- the right quantity of health care reaches the right consumers.

Technical issues also mean that this data should be interpreted cautiously. The most important limitation is the lack of consistent and reliable time-series information on health expenditure for some countries. These are some of the factors contributing to such technical limitations.

- There are differences in the definitions of the variables included in the various categories of health expenditure, leaving open the possibility of differing interpretations between countries, especially in relation to long-term nursing.
- Countries do not have formal requirements for reporting health expenditure.
- It is difficult to measure and control social, medical, cultural, demographic and economic differences between countries.
- There are problems measuring health outcomes.

In this HET report, all tables reflect data from 1999/00 to 2008/09, or the most recent year with complete data for OECD countries. The following comparisons of health expenditure in OECD countries should be viewed with these limitations in mind.

Two modifications have been made to the historical OECD data. The first modification is to remove the capital component from total health expenditure for those countries reporting capital expenditure. This results in greater comparability with New Zealand. The second modification is to recalibrate the values reported for New Zealand to include previously excluded non-health expenditure, primarily disability support services directly funded by the Ministry. These modifications have been made for all the following OECD data.

# 8.2 Per capita health expenditure in US dollar purchasing power parities

The concept of purchasing power parities (PPPs) provides a mechanism for comparing the health spending of different countries on a common basis. PPPs are the rates of currency conversion that equalise the purchasing power of different currencies. Table 8.1 presents this information.

In 2009, the United States had the highest per capita health expenditure of the OECD countries, followed by Switzerland, Norway and then Luxembourg. Of the 29 countries reporting in 2009, New Zealand ranked 18th, after Italy and before Spain, and 21st of the 33 OECD countries reporting in 2008.

The complete listing of countries can be found in Table 8.1. For the 10-year period ending 2009, New Zealand's rate of growth increased to 6.3% and is comparable to the OECD 10-year average of 6.8%.

# 8.3 Health expenditure as a percentage of GDP

Table 8.2 presents information by country for the period 1999 to 2009 for the percentage of GDP spent on health.

New Zealand spent 10.3% of GDP on health in 2009 compared with 9.6% in 2008, higher than the weighted OECD average of 9.8% and 8.9% for 2009 and 2008 respectively (not all countries have reported for 2009). The actual weighted average for 2009 is subject to change once all countries provide information. Table 8.2 shows that New Zealand's health expenditure as a percentage of GDP was the 9th highest of the 33 OECD member countries reporting in 2008 and 10th of the 29 reporting for 2009. The rise in health spending share of GDP was particularly marked in countries hit hard by the global recession. In 2009, the United States had the highest proportion of current health expenditure to GDP at 16.6%, while Mexico, at 6.1%, had the lowest proportion.

For New Zealand, the proportion of current health expenditure to GDP increased from 8.0% in 1999 to 10.3% in 2009. In comparison, the OECD weighted average over the same period increased from 7.9% to 9.8%. New Zealand's rate of growth over the 10-year period was 2.6% compared with the OECD average annual 10-year growth rate of 2.2%.

Current health expenditure as a proportion of GDP is often used in international comparisons. However, given that expenditure contains price and volume components, high ratios of health expenditure to GDP could reflect a higher price rather than a higher volume of health care services, so this measure should be used with caution. Partly for this reason, there is no 'right' or 'wrong' proportion of a country's GDP to be spent on health, and it should be considered together with per capita health spending (see Table 8.1: Per capita current health expenditure (US\$ PPP) for OECD countries, 1999-2009). Countries having a high health spend to GDP ratio might have relatively low health expenditure per capita, while the converse may also apply.

Table 8.1: Per capita current health expenditure (US\$ PPP) for OECD countries, 1999–2009

Country	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Rank 2008	Rank 2009
Australia	1975	2135	2249	2407	2539	2722	2812	2976	3168	3266	DNR	15th	DNR
Austria	2568	2701	2753	2912	3048	3224	3281	3447	3588	3903	4045	5th	9th
Belgium	1841	2010	2134	2292	3034	3164	2972	3121	3304	3714	3946	10th	10th
Canada	2319	2414	2614	2747	2911	3065	3274	3482	3663	3823	4139	9th	28th
Chile	581	615	656	671	773	788	828	843	931	1069	1146	31st	27th
Czech Republic	894	932	1040	1138	1286	1341	1422	1509	1606	1793	2041	25th	22nd
Denmark	2299	2396	2555	2751	2780	2990	3099	3407	3611	3889	4185	7th	6th
Estonia	501	511	514	568	664	754	826	950	1097	1275	1337	29th	26th
Finland	1666	1774	1882	2042	2145	2345	2471	2621	2761	3000	3053	17th	16th
France	2344	2492	2665	2863	2912	3034	3212	3392	3575	3703	3872	11th	11th
Germany	2477	2564	2683	2816	2979	3050	3236	3439	3597	3824	4072	8th	8th
Greece§	1402	1382	1655	1856	1931	1998	2261	2505	2623	DNR	DNR	DNR	DNR
Hungary	774	820	932	1064	1240	1257	1368	1438	1384	1457	1476	28th	25th
Iceland*	2603	2673	2780	3078	3194	3334	3304	3193	3320	3571	3538	13th	14th
Ireland	1488	1653	1917	2170	2377	2595	2818	3080	3311	3617	3609	12th	12th
Israel	1533	1696	1803	1803	1688	1775	1769	1835	1951	2076	2103	24th	21st
Italy	1798	1968	2127	2141	2172	2277	2406	2603	2652	2937	3020	18th	17th
Japan	1753	1898	2001	2077	2171	2293	2434	2560	2707	2832	DNR	20th	DNR
Korea	656	782	912	955	987	1075	1221	1387	1549	1632	1784	27th	24th
Luxembourg	2373	2706	2902	3195	3349	3753	3724	3973	4105	4037	4808	4th	4th
Mexico*	470	508	552	580	629	688	731	776	842	892	918	32nd	29th
Netherlands	2076	2224	2439	2701	2847	3017	3171	3318	3615	3891	4585	6th	5th
New Zealand	1522	1607	1708	1841	1847								
New Zealand restated* <sup>†</sup>	1622	1689	1787	1889	1893	2044	2197	2467	2525	2784	2983	21st	18th

Country	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Rank 2008	Rank 2009
Norway	2565	2835	3029	3398	3588	3812	4029	4232	4582	4943	5128	2nd	3rd
Poland	553	562	622	705	717	771	806	882	1010	1182	1301	30th	27th
Portugal	1286	1529	1591	1672	1784	1884	2093	2156	2264	2374	DNR	22nd	DNR
Slovak Republic	586	591	653	724	757	970	1091	1290	1540	1769	1962	26th	23rd
Slovenia	1304	1453	1583	1612	1658	1771	1882	1982	2029	2314	2416	23rd	20th
Spain	1406	1490	1575	1682	1958	2068	2197	2445	2634	2870	2982	19th	19th
Sweden	2016	2177	2394	2579	2711	2833	2845	3067	3287	3475	3562	14th	13th
Switzerland*	3073	3221	3428	3673	3777	3936	4015	4150	4469	4930	5144	3rd	2nd
Turkey	357	414	413	432	436	495	556	662	729	817	DNR	33rd	DNR
United Kingdom	1579	1744	1916	2083	2209	2437	2618	2871	2909	3113	3311	16th	15th
United States	4300	4566	4916	5323	5713	6052	6395	6758	7084	7345	7598	1st	1st
Unweighted mean	1678	1798	1931	2076	2202	2342	2452	2612	2765	2973	3244		
Weighted mean	2121	2262	2416	2607	2759	2921	3031	3201	3373	3600	3907		
Average annual growth rate								6.6%	6.5%	6.6%	6.8%		

Source: OECD health data, July 2011, and Ministry of Health

DNR = Did not report.

<sup>\*</sup> Does not report investment on medical facilities for this period.

<sup>†</sup> New Zealand restated: Includes previously reported 'non-health' items now included in core health, primarily disability support services funded by the Ministry of Health.

 $<sup>\</sup>$  Includes impact of Greece upward revision of GDP of 26% as reported in May 2007.

Table 8.2: Current health expenditure as a percentage of GDP, 1999–2009

Country	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Rank 2008	Rank 2009
Australia	7.3%	7.6%	7.6%	7.9%	7.9%	8.1%	8.0%	8.0%	8.0%	8.3%	DNR	19th	DNR
Austria	9.5%	9.4%	9.6%	9.6%	9.8%	9.9%	9.8%	9.7%	9.7%	9.8%	10.4%	7th	9th
Belgium	8.1%	8.1%	8.3%	8.5%	10.0%	10.2%	10.1%	9.6%	9.7%	10.1%	10.9%	5th	7th
Canada	8.5%	8.5%	8.9%	9.2%	9.3%	9.3%	9.3%	9.5%	9.6%	9.8%	10.8%	8th	8th
Chile	DNR	DNR	DNR	DNR	7.4%	7.0%	6.8%	6.5%	6.7%	7.3%	8.1%	25th	21st
Czech Republic	6.2%	6.2%	6.4%	6.7%	7.1%	6.9%	7.0%	6.8%	6.5%	6.9%	8.0%	27th	22nd
Denmark	8.5%	8.3%	8.7%	8.9%	9.1%	9.3%	9.3%	9.5%	9.6%	9.8%	11.1%	6th	6th
Estonia	5.7%	5.2%	4.8%	4.7%	5.0%	5.1%	5.0%	5.0%	5.2%	5.9%	6.7%	31st	27th
Finland	7.1%	6.9%	7.1%	7.4%	7.8%	7.9%	8.1%	7.9%	7.6%	7.9%	8.7%	21st	19th
France	9.9%	9.8%	10.0%	10.3%	10.6%	10.7%	10.8%	10.7%	10.7%	10.8%	11.5%	2nd	2nd
Germany	9.9%	9.9%	10.0%	10.2%	10.4%	10.2%	10.3%	10.2%	10.1%	10.3%	11.2%	4th	4th
Greece <sup>†</sup>	8.2%	7.5%	8.3%	8.6%	8.5%	8.3%	9.2%	9.2%	9.3%	DNR	DNR	DNR	DNR
Hungary	6.9%	6.8%	6.9%	7.2%	8.0%	7.7%	8.1%	7.8%	7.2%	7.0%	7.3%	26th	25th
Iceland	9.1%	9.3%	9.1%	9.9%	10.4%	9.9%	9.4%	9.1%	9.1%	9.1%	9.7%	11th	11th
Ireland	5.7%	5.7%	6.3%	6.5%	6.9%	7.1%	7.3%	7.2%	7.3%	8.4%	9.1%	16th	17th
Israel	7.2%	7.2%	7.7%	7.7%	7.6%	7.5%	7.6%	7.4%	7.3%	7.5%	7.7%	24th	24th
Italy	7.4%	7.7%	7.8%	8.0%	8.0%	8.3%	8.5%	8.6%	8.3%	8.7%	9.1%	15th	12th
Japan	7.2%	7.4%	7.6%	7.7%	7.9%	7.9%	8.0%	8.0%	8.1%	8.4%	DNR	17th	DNR
Korea	4.0%	4.2%	4.8%	4.6%	4.9%	5.0%	5.4%	5.7%	5.9%	6.1%	6.6%	30th	28th
Luxembourg	5.8%	6.2%	6.8%	7.0%	7.1%	7.5%	7.1%	6.7%	6.5%	6.1%	7.8%	29th	23rd
Mexico	5.0%	4.9%	5.4%	5.5%	5.7%	5.9%	5.6%	5.5%	5.6%	5.7%	6.1%	32nd	29th
Netherlands	7.7%	7.6%	7.9%	8.5%	9.0%	9.1%	9.0%	8.9%	8.9%	9.0%	11.2%	12th	5th
New Zealand	7.6%	7.7%	7.8%	8.2%	8.0%								
New Zealand restated*	8.0%	8.0%	8.1%	8.4%	8.2%	8.3%	8.7%	9.1%	8.8%	9.6%	10.3%	9th	10th

Country	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Rank 2008	Rank 2009
Norway	8.6%	7.8%	8.2%	9.2%	9.4%	9.0%	8.5%	8.1%	8.3%	8.2%	9.2%	20th	15th
Poland	5.5%	5.3%	5.7%	6.1%	6.0%	5.9%	5.9%	5.9%	6.0%	6.5%	6.9%	28th	26th
Portugal	7.7%	8.6%	8.6%	8.8%	9.2%	9.5%	9.8%	9.4%	9.4%	9.5%	DNR	10th	DNR
Slovak Republic	5.6%	5.4%	5.4%	5.6%	5.6%	6.6%	6.7%	7.0%	7.4%	7.6%	8.6%	23rd	20th
Slovenia	DNR	DNR	DNR	8.2%	8.1%	8.0%	8.0%	7.8%	7.4%	7.9%	8.7%	22nd	18th
Spain	7.1%	7.0%	7.0%	7.0%	7.9%	8.0%	8.0%	8.1%	8.2%	8.7%	9.2%	15th	14th
Sweden	7.8%	7.8%	8.5%	8.8%	8.9%	8.7%	8.7%	8.6%	8.5%	8.8%	9.6%	13th	12th
Switzerland	10.2%	10.2%	10.6%	10.9%	11.3%	11.3%	11.2%	10.8%	10.6%	10.7%	11.4%	3rd	3rd
Turkey	4.6%	4.7%	5.0%	5.2%	5.2%	5.1%	5.1%	5.4%	5.5%	5.5%	DNR	33rd	DNR
United Kingdom	6.5%	6.7%	6.9%	7.2%	7.4%	7.7%	7.9%	8.1%	8.0%	8.3%	9.3%	18th	13th
United States	12.9%	13.0%	13.7%	14.5%	15.0%	15.0%	15.0%	15.1%	15.3%	15.6%	16.6%	1st	1st
Unweighted mean	7.5%	7.5%	7.7%	8.0%	8.2%	8.3%	8.3%	8.3%	8.2%	8.5%	9.1%		
Weighted mean	7.9%	7.9%	8.2%	8.5%	8.7%	8.7%	8.8%	8.7%	8.7%	8.9%	9.8%		
Average annual growth rate								0.8%	0.7%	0.9%	1.7%		

Source: OECD health data July 2011, and Ministry of Health

DNR = Did not report.

<sup>\*</sup> New Zealand restated: Includes previously reported 'non-health' items now included in core health, primarily disability support services funded by the Ministry of Health.

<sup>†</sup> Includes impact of Greece upward revision of GDP of 26% in May 2007.

# 8.4 Publicly funded current health expenditure as a proportion of total health expenditure

Table 8.3 shows the trends in publicly funded current health expenditure as a proportion of total current health expenditure.

As shown in Table 8.3, current public health expenditure in the OECD accounts for 70.6% of total health expenditure. Over the 10-year period under review, the Czech Republic, Denmark and Luxemburg had the highest public expenditure as a proportion of total current health expenditure (84–90%). The Netherlands had the highest public expenditure as a proportion of total current health expenditure (84.7%) in 2009, while Chile and Mexico had the lowest, at 45.5% and 46.0% respectively. New Zealand was ranked 8th, with public funding accounting for 80.5% of total health spending, out of the 28 countries reporting to date with 2009 information.

During the 1960s, there was a shift among OECD countries towards more public funding of health care. This pattern stabilised during the late 1970s and early 1980s and has reversed slightly in more recent years. Since 1992, New Zealand has remained within the narrow range of 77% to 80% and continues within this range in 2009/10.

Table 8.3: Publicly funded health expenditure as a proportion of total current health expenditure, 1999–2009

Country	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Rank 2008	Rank 2009
Australia	69.7	68.4	67.8	68.5	68.0	68.3	68.3	68.2	69.2	69.0	DNR	26th	DNR
Austria	77.2	77.3	76.7	76.5	76.2	76.4	77.1	77.2	77.5	78.6	79.1	11th	9th
Belgium	74.6	74.6	75.4	73.8	74.8	76.0	72.9	73.7	73.5	75.0	75.1	17th	15th
Canada	69.8	70.0	69.7	69.3	69.9	69.8	69.8	69.7	69.9	69.8	69.8	25th	20th
Chile	DNR	DNR	DNR	DNR	38.1	39.1	39.0	40.7	41.5	42.8	45.5	33rd	28th
Czech Republic	90.0	89.8	89.4	90.0	89.4	88.8	86.8	86.3	84.7	82.1	83.4	6th	5th
Denmark	83.2	83.1	83.4	83.8	83.9	83.5	83.7	83.9	83.8	84.0	84.5	1st	2nd
Estonia	77.0	77.0	78.4	76.6	76.8	75.4	76.6	73.2	76.0	78.4	78.2	13th	11th
Finland	71.2	71.0	71.6	72.1	74.3	74.7	75.1	74.4	74.3	74.3	74.3	18th	16th
France	78.9	78.9	78.9	79.2	79.2	79.1	79.1	79.0	78.5	77.9	78.1	14th	12th
Germany	80.3	80.1	79.9	79.6	78.8	77.1	77.1	76.9	77.2	77.0	77.3	15th	13th
Greece <sup>†</sup>	54.8	61.6	63.2	60.5	61.7	60.9	61.7	63.7	61.9	DNR	DNR	DNR	DNR
Hungary	71.2	69.6	68.2	69.6	72.3	71.9	71.8	72.0	70.0	70.7	69.6	23rd	21st
Iceland	81.1	80.6	80.5	81.4	81.7	81.2	81.4	82.0	82.5	82.6	82.0	3rd	6th
Ireland	75.5	75.4	76.7	76.7	76.1	76.6	76.3	76.5	76.5	76.6	75.7	16th	14th
Israel	65.0	63.1	62.7	64.0	62.5	61.8	59.9	59.9	59.0	58.9	58.8	29th	25th
Italy	71.7	73.4	75.9	75.7	75.7	77.0	77.7	78.2	78.0	78.5	78.5	12th	10th
Japan	79.9	80.0	80.7	80.7	79.8	80.3	81.1	79.1	81.6	80.5	DNR	9th	DNR
Korea	48.3	46.7	56.6	55.5	54.5	54.7	55.0	57.1	57.2	58.0	59.5	30th	24th
Luxembourg	89.7	82.0	82.7	83.0	82.9	83.3	83.2	82.8	82.6	82.4	DNR	4th	DNR
Mexico	46.8	45.2	43.8	42.7	42.9	44.2	42.9	43.2	44.0	45.3	46.0	32nd	27th
Netherlands	65.8	66.4	65.8	65.5	66.5	65.6	65.8	82.4	82.0	82.1	84.7	7th	1st
New Zealand	77.5	78.0	76.4	77.9	78.3								
New Zealand restated*	79.0	79.1	77.9	78.9	79.4	76.9	78.9	79.1	79.8	80.3	80.5	10th	8th

Country	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Rank 2008	Rank 2009
Norway	81.6	81.7	82.8	82.9	83.2	83.0	83.1	83.3	83.7	84.0	84.0	2nd	4th
Poland	70.1	68.9	71.0	70.4	69.2	67.7	68.7	69.2	70.6	72.2	72.3	22nd	18th
Portugal	66.5	68.8	68.8	70.0	69.1	68.7	68.9	66.9	66.6	65.6	DNR	27th	DNR
Slovak Republic	89.4	89.2	89.1	89.0	87.8	77.6	75.3	70.0	69.3	70.5	69.2	24th	22nd
Slovenia	DNR	DNR	DNR	73.4	72.7	73.0	72.5	72.6	71.4	72.6	71.9	20th	19th
Spain	71.8	71.4	71.0	71.0	69.8	69.9	70.0	70.8	71.2	72.2	73.2	21st	17th
Sweden	85.9	85.5	81.5	81.9	82.3	81.9	81.5	81.5	81.6	81.6	81.4	8th	7th
Switzerland	55.1	55.4	56.9	57.7	58.3	58.4	59.5	59.1	59.1	59.5	59.7	28th	23rd
Turkey	60.0	61.7	67.3	70.0	71.2	71.7	67.7	68.9	68.8	72.7	DNR	19th	DNR
United Kingdom	80.6	79.1	80.0	79.8	80.0	81.4	81.9	81.3	81.3	82.4	84.2	5th	3rd
United States	44.1	44.0	45.0	44.9	44.7	45.2	45.2	46.1	46.5	47.4	49.0	31st	26th
Weighted mean	74.1	73.7	74.1	74.2	71.8	71.3	71.2	70.4	70.5	71.2	70.6		

Source: OECD health data July 2011, and Ministry of Health

Public expenditure percentages reported by OECD are stated in US\$PPP.

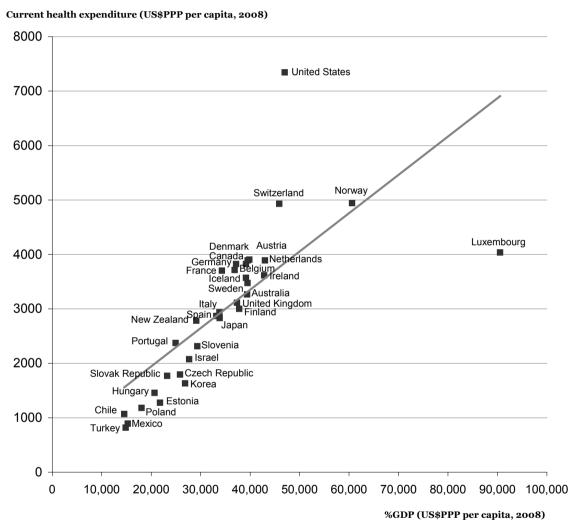
<sup>\*</sup> New Zealand restated: Includes previously reported 'non-health' items now included in core health, primarily disability support services funded by the Ministry of Health.

<sup>†</sup> Includes impact of Greece upward revision of GDP of 26% as reported in May 2007.

# 8.5 Health expenditure and GDP per capita

Figure 8.1 and Table 8.4 show the positive relationship between health expenditure and GDP for 33 OECD countries. There is a well-established relationship between GDP per capita and health expenditure per capita: the higher a country's GDP per capita, the greater its health expenditure per capita is likely to be compared with other countries. Figure 8.1 presents data for all countries in 2008.

Figure 8.1: Relationship between current health expenditure and GDP in OECD countries, 2008



Source: OECD health data July 2011 and Ministry of Health

As Figure 8.1 shows, New Zealand expenditure on health care is higher than OECD countries with a similar level of GDP. There is no agreed optimal level of health care spending relative to GDP.

Reasons for differences in international health spending and performance are outlined below.

- Some differences result from health service cost (and price) variations. Richer countries pay a higher price per unit of medical care consumed, given the higher labour costs and higher prices for services.
- The intensity of treatment differs between countries.
- The rates at which various invasive procedures are performed differ widely between countries.
- The rapid and extensive introduction of new medical technologies in the United States in particular explains a significant part of the difference in growth of expenditure outlays between the United States and elsewhere.
- As major determinants of health expenditure, demographic characteristics also vary significantly between countries. Some countries have high life expectancies and relatively old populations and therefore need to spend more on older people, whose health care costs are the highest per capita. (The converse is true of countries with younger populations.)
- Cultural and religious factors result in differences not only in the perception of morbidity but also in the choice of therapeutic responses.
- Variations in welfare philosophies and private insurance coverage affect public provision and the level of health care assistance provided in different countries.
- Differences between countries in the origin of funding can also significantly affect the demand for health care and expenditure.
- The incidence of litigation against health providers varies between countries. In countries with a higher incidence (as in the United States in particular), providers of health care are more likely to take out expensive insurance cover and complete higher levels of diagnostic testing to reduce this litigation risk.
- The Global Financial Crisis in 2007/08 and the resulting global recession has increased the portion of health spend to GDP in most OECD countries.

Table 8.4: Per capita GDP and per capita current health expenditure (US\$ PPP) for OECD countries, 2006-2009

Country	GDP per capita 2006	GDP per capita 2007	GDP per capita 2008	GDP per capita 2009	Current health expenditure per capita 2006	Current health expenditure per capita 2007	Current health expenditure per capita 2008	Current health expenditure per capita 2009
Australia	37,409	39,411	39,409	39,924	2,976	3,168	3,266	DNR
Austria	36,269	37,802	39,849	38,823	3,447	3,588	3,903	4,045
Belgium	34,143	35,585	36,872	36,287	3,121	3,304	3,714	3,946
Canada	36,771	38,302	39,156	38,230	3,482	3,663	3,823	4,139
Chile	13,036	13,897	14,568	14,131	843	931	1,069	1,146
Czech Republic	22,350	24,579	25,845	25,568	1,509	1,606	1,793	2,041
Denmark	36,042	37,749	39,516	37,706	3,407	3,611	DNR	4,185
Estonia	19,135	21,255	21,794	19,882	950	1,097	1,275	1,337
Finland	33,095	36,149	37,795	35,237	2,621	2,761	3,000	3,053
France	31,633	33,372	34,305	33,763	3,392	3,575	3,703	3,872
Germany	33,709	35,622	37,175	36,328	3,439	3,597	3,824	4,072
Greece <sup>†</sup>	27,095	28,251	30,077	29,310	2,505	2,623	DNR	DNR
Hungary	18,329	19,198	20,700	20,280	1,438	1,384	1,457	1,476
Iceland	35,808	37,179	39,166	36,655	3,193	3,320	3,571	3,538
Ireland	42,558	45,567	42,844	39,652	3,080	3,311	3,617	3,609
Israel	24,961	26,583	27,680	27,495	1,835	1,951	2,076	2,103
Italy	30,224	31,912	33,817	33,105	2,603	2,652	2,937	3,020
Japan	31,866	33,577	33,854	32,431	2,560	2,707	DNR	DNR
Korea	24,286	26,191	26,877	27,150	1,387	1,549	1,632	1,784
Luxembourg	78,450	84,543	90,540	85,521	3,973	4,105	4,037	4,808
Mexico	13,656	14,566	15,275	14,322	776	842	892	918
Netherlands	38,052	40,735	43,018	41,085	3,318	3,615	3,891	4,585

Country	GDP per capita 2006	GDP per capita 2007	GDP per capita 2008	GDP per capita 2009	Current health expenditure per capita 2006	Current health expenditure per capita 2007	Current health expenditure per capita 2008	Current health expenditure per capita 2009
New Zealand*	27,093	28,653	29,138	28,985	2,467	2,525	2,784	2,983
Norway	53,292	55,005	60,632	55,730	4,232	4,582	4,943	5,128
Poland	15,067	16,762	18,062	18,929	882	1,010	1,182	1,301
Portugal	22,870	24,206	24,953	25,070	2,156	DNR	DNR	DNR
Slovak Republic	18,397	20,912	23,236	22,868	1,290	1,540	1,769	1,962
Slovenia	25,463	27,347	29,340	27,829	1,982	2,029	2,314	2,416
Spain	30,348	32,252	33,173	32,254	2,445	2,634	2,870	2,982
Sweden	35,682	38,486	39,488	37,155	3,067	3,287	3,475	3,562
Switzerland	39,502	43,138	45,893	45,150	4,150	4,469	4,930	5,144
Turkey	12,260	13,216	14,848	14,106	662	729	817	DNR
United Kingdom*	35,463	36,232	37,352	35,656	2,871	2,909	3,113	3,311
United States	44,688	46,434	47,002	45,797	6,758	7,084	7,345	7,598

Source: OECD health data July 2011 and Ministry of Health

DNR = Did not report.

<sup>\*</sup> Does not report investment on medical facilities for this period.

<sup>†</sup> Includes impact of Greece upward revision of GDP of 26% in May 2007.

# **Appendix 1: OECD system of health accounts**

# A1.1 Functions of health care

Health care refers to the sum of activities performed either by institutions or individuals pursuing, through the application of medical, paramedical and nursing knowledge and technology, the goals of:

- · promoting health and preventing disease
- curing illness and reducing premature mortality
- caring for persons affected by chronic illness who require nursing care
- caring for persons with health-related impairment, disability and handicaps who require nursing care
- assisting patients to die with dignity
- providing and administering public health
- providing and administering health programmes, health insurance and other funding arrangements.

Health care can be divided into personal health care services provided directly to individual persons and collective health care services covering the traditional tasks of public health such as health promotion and disease prevention, including setting and enforcing standards, and health administration and health insurance.

Within the System of Health Accounts (SHA), personal health care services are defined as:

- 1 curative care
- 2 rehabilitative care
- 3 services of a (long-term) nursing type care
- 4 ancillary services to health care
- 5 medical goods dispensed to outpatients, which include self-medication and other goods consumed by households with or without a prescription from medical or paramedical professionals.

Much of personal health care (functions 1–5 above) is two-dimensional, combining the 'basic function of service' (curative, rehabilitative and long-term) with the 'mode of production' or settings of care (inpatient, day care, outpatient or home-based care).

### **Basic function of care**

Definitions of the components of the basic function of care have been developed by the Australian Health Data Committee and the United States Joint Commission on Accreditation of Healthcare Organisations (OECD 2000).

#### Curative

An episode of curative care has the purpose of relieving symptoms of illness or injury, reducing the severity of an illness or injury, or protecting against exacerbation and/or complication of an illness or injury that threatens life or normal function.

### Rehabilitative

An episode of rehabilitative care has the purpose of improving the functional level of the individual, when the limitations either are due to a recurrent event of illness or injury or are of a recurrent nature. Rehabilitative care is generally less intensive than curative care but more intensive than long-term care. It requires frequent and recurrent patient assessment and progresses in accordance with a treatment plan for a limited period.

### Long-term

Long-term care is not episodic. It consists of ongoing care of individuals who need assistance on a continuing basis due to chronic impairments and a reduced degree of independence, including activities of daily living. Long-term care is typically a mix of clinical and social services. Only clinical care expenditure is included as health expenditure.

# Mode of production

SHA functions of care are further stratified into modes of care based on the essential differences in the technical and managerial organisations of care. The fundamental differences relate to the substantially different information systems, including the administrative paperwork and statistics that are in place within these types of organisations.

### **Inpatient**

This is care provided to patients who are formally admitted to an institution for treatment and stay for a minimum of one night. Accommodation in institutions providing social services where health care is an important but not predominant component of care should not be included as a health function.

### Day care

This is care delivered to patients who are formally admitted to an institution and the intention is to discharge the patient on the same day. These patients are usually admitted and discharged after staying between three and eight hours.

### **Outpatient**

This care is delivered to patients who are not formally admitted and do not stay overnight. The boundary is wider than for institutional care and covers services provided at physicians' offices and ambulatory care centres.

#### Home-based care

This is care delivered to an individual in their own home. The New Zealand interpretation is that an individual's home is not limited to a private residence.

## Other personal health functions

### **Ancillary**

This covers a variety of services, mainly performed by paramedical or medical technical personnel, including diagnostic imaging, laboratory work and patient transport. These services can be provided either with or without referral and direct supervision by a medical doctor.

### Medical goods dispensed to outpatients

These services involve goods bought by a private household at their own initiative for the purpose of home care and cover items purchased with and without prescription.

### Other health functions

Health functions undertaken for the public, as opposed to the individual, are described below.

### Prevention and public health

Public health services are primarily preventative in nature and comprise a wide range of services with intended benefits for the public, or groups within the public, rather than the individual. Examples include epidemiological surveillance, disease prevention and the promotion of good health.

Health and safety is not covered under prevention and public health. Examples of functions specifically excluded are occupational health services relating to improving the working environment, such as ergonomics, environmental protection and accident prevention; road safety; product safety monitoring; and civil defence (OECD 2000). Some safety services are covered later at A1.2 Health-related functions.

### Administration and health insurance

This service includes the planning, management, regulation and collection of funds and handling claims of the health delivery system. It includes both public governmental agencies and the private insurance sector.

**Table A1: Functions of health care** 

HC.1	Services	of curative	care						
	HC.1.1	Inpatient cu	irative care						
	HC.1.2	Day cases	of curative care						
	HC.1.3	Outpatient	curative care						
		HC.1.3.1	Basic medical and diagnostic services						
		HC.1.3.2	Outpatient dental care						
		HC.1.3.3	All other specialised health care						
		HC.1.3.9	All other outpatient curative care						
	HC.1.4	Services of	curative home care						
HC.2	Services	of rehabilita	ative care						
	HC.2.1	Inpatient re	habilitative care						
	HC.2.2	Day cases	of rehabilitative care						
	HC.2.3	Outpatient	rehabilitative care						
	HC.2.4	Services of	rehabilitative home care						
HC.3	Services	of long-tern	n nursing care						
	HC.3.1	Inpatient lo	patient long-term nursing care						
	HC.3.2	Day cases	of long-term nursing care						
	HC.3.3	Long-term	nursing care; home care						
HC.4	Ancillary	services to	health care						
	HC.4.1	Clinical lab	oratory						
	HC.4.2	Diagnostic	imaging						
	HC.4.3	Patient tran	sport and emergency rescue						
	HC.4.9	All other mi	scellaneous ancillary services						
HC.5	Medical	goods dispe	ensed to outpatients						
	HC.5.1	Pharmaceu	ticals and other medical non-durables						
		HC.5.1.1	Prescribed medicines						
		HC.5.1.2	Over-the-counter medicines						
		HC.5.1.3	Other medical non-durables						
	HC.5.2	Therapeution	c appliances and other medical durables						
		HC.5.2.1	Glasses and other vision products						
		HC.5.2.2	Orthopaedic appliances and other prosthetics						
		HC.5.2.3	Hearing aids						
		HC.5.2.4	Medico-technical devices, including wheelchairs						
		HC.5.2.9	All other miscellaneous medical durables						

HC.6	Prevention	on and publ	ic health services											
	HC.6.1	Maternal ar	nd child health; family planning and counselling											
	HC.6.2	School hea	Ith services											
	HC.6.3	Prevention	of communicable diseases											
	HC.6.4	Prevention	evention of non-communicable diseases											
	HC.6.5	Occupation	cupational health care											
	HC.6.9	All other mi	scellaneous public health services											
HC.7	Health a	dministratio	n and health insurance											
	HC.7.1	General go	vernment administration of health											
		HC.7.1.1	General government administration of health (except social security)											
		HC.7.1.2	Administration, operation and support activities of social security funds											
	HC.7.2	Health adm	inistration and health insurance: private											
		HC.7.2.1	Health administration and health insurance: social insurance											
		HC.7.2.2	Health administration and health insurance: other private											

# A1.2 Health-related functions

The OECD health-related functions are distinguished from the core health care functions. They are closely linked to health care in terms of operations, institutions and personnel but are, as far as possible, excluded when measuring activities and expenditure belonging to core health care functions. For the most part, these are services that have a direct and beneficial impact on public health.

# **Capital formation**

This health-related function encompasses gross capital formation of domestic health care provider institutions (not all facilities), such as hospitals and nursing homes. New Zealand has not conducted an estimate of capital costs.

### **Education and training**

This health-related function covers the education and training of health professionals. The expenditure should include administration, inspection and support services but should distinguish between training and health service provision.

## Research and development

This health-related function covers many programmes directed towards the protection and improvement of human health, including good hygiene, biochemical engineering, medical information, rationalisation of treatment and pharmacology as well as research relating to epidemiology, prevention of industrial diseases and drug addiction (OECD 2000, p 125). Government involvement in health research and development is often classified as a health function and is split between health administration and research and development.

# Food, hygiene and drinking water

This health-related function comprises a variety of activities of public health concern. The boundaries as applied in New Zealand between health-related expenditure and non-health-related expenditure draw the distinction between supply and safety. For example, provision of the water supply is not included, but water testing and treatment to ensure safety for human consumption are included in this health-related function. The same boundary applies to other testing and treatment services.

### **Environmental health**

This health-related function includes a number of activities, including monitoring the environment and environmental control, when the specific focus of the service is a public health concern. Examples of these types of services are waste management, waste water and pollution abatement.

# Administration and provision of social services in kind to assist living with disease and impairment

This health-related function consists of non-medical social services in kind provided to people with health problems, functional impairments or limitations, where the primary goal is the social or vocational rehabilitation or integration of the individual. At the current time, New Zealand has not conducted an estimate for this function.

# Administration and provision of health-related cash benefits

This health-related function consists of non-medical social services in kind provided to people with health problems, functional impairments or limitations, where the primary goal is the social or vocational rehabilitation or integration of the individual. At the current time, New Zealand has not calculated an estimate for this function.

Table A2	: Health-related functions
HC.R.1	Capital formation of health care provider institutions
HC.R.2	Education and training of health personnel
HC.R.3	Research and development in health
HC.R.4	Food, hygiene and drinking water control
HC.R.5	Environmental health
HC.R.6	Administration and provision of social services in kind to assist living with disease and impairment
HC.R.7	Administration and provision of health-related cash benefits

# A1.3 Provider industry

The SHA includes a dimension for the provider sector 'Where does the money go?' or 'Who provides the services?' The classifications used are based on the North American Industrial Classification System, a draft common industrial classification of NAFTA countries (NAICS 1998).

Table .	A3: OECD	SHA provider industry
HP.1	Hospitals	
	HP.1.1	General hospitals
	HP.1.2	Mental health and substance abuse hospitals
	HP.1.3	Speciality (other than mental health and substance abuse) hospitals
HP.2	Nursing ar	nd residential care facilities
	HP.2.1	Nursing care facilities
	HP.2.2	Residential mental retardation, mental health and substance abuse facilities
	HP.2.3	Community care facilities for the elderly
	HP.2.9	All other residential care facilities
HP.3	Providers	of ambulatory health care
	HP.3.1	Offices of physicians
	HP.3.2	Offices of dentists
	HP.3.3	Offices of other health practitioners
	HP.3.4	Outpatient care centres
	HP.3.5	Medical and diagnostic laboratories
	HP.3.6	Providers of home health care services
	HP.3.9	Other providers of ambulatory health care
HP.4	Retail sale	s and other providers of medical goods
	HP.4.1	Dispensing chemists
	HP.4.2	Retail sales and other suppliers of optical glasses and other vision products
	HP.4.3	Retail sales and other suppliers of hearing aids
	HP.4.4	Retail sales and other suppliers of medical appliances (not glasses and hearing aids)
	HP.4.9	All other miscellaneous sales and other suppliers of pharmaceuticals and medical goods

HP.5	Provision	and administration of public health programmes											
HP.6	Health ad	ministration and insurance											
	HP.6.1	Government administration of health											
	HP.6.2	Social security funds											
	HP.6.3												
	HP.6.4	Other (private) insurance											
	HP.6.9	All other providers of health administration											
HP.7	Other indi	ustries (rest of the economy)											
	HP.7.1	Establishments as providers of occupational health care services											
	HP.7.2	Private households as providers of home care											
	HP.7.9	All other industries as secondary producers of health care											
HP.9	Rest of th	e world											

# **A1.4 Sources of funding**

This system provides a breakdown of expenditure on health into a range of third-party payment arrangements plus direct payments by households or other direct funders, for example, government-provided health care.

Table A4: OECD SHA sources of funding<sup>24</sup>

HF.1	General go	overnment											
	HF.1.1	General gov	ernment excluding social security funds										
		HF.1.1.1	Central government										
		HF.1.1.2	State/provincial government										
		HF.1.1.3	Local/municipal government										
	HF.1.2	Social security funds											
HF.2	Private se	ctor											
	HF.2.1	Private socia	al insurance										
	HF.2.2	Private insur	ance (other than social insurance)										
	HF.2.3	Private hous	eholds										
	HF.2.4	Non-profit in	stitutions serving households (other than social insurance)										
	HF.2.5	.5 Corporations (other than health insurance)											
HF.3	Rest of the	e world											

<sup>&</sup>lt;sup>24</sup> These sources of funding are directly comparable with New Zealand historical funder groups.

# Appendix 2: Nominal and real health expenditure (with 'non-health' items included for prior years) 1999/00–2009/10

	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10
Nominal expenditure (\$ million)											
Public	7,442	8,086	8,834	9,302	9,724	10,741	11,897	12,811	14,230	15,550	16,536
Private	1,968	2,300	2,361	2,418	2,487	2,740	2,961	2,737	2,947	3,179	3,334
Total	9,410	10,386	11,194	11,719	12,212	13,480	14,858	15,548	17,177	18,729	19,870
Percentage change	5.60%	10.37%	7.79%	4.69%	4.20%	10.39%	10.22%	4.64%	10.48%	9.04%	6.09%
Real expenditure (2008 \$ million)											
Public	9,633	10,144	10,787	11,197	11,430	12,270	13,075	13,803	14,740	15,809	16,536
Private	2,547	2,885	2,882	2,910	2,923	3,130	3,255	2,949	3,053	3,232	3,334
Total	12,181	13,030	13,670	14,107	14,353	15,400	16,329	16,752	17,793	19,041	19,870
Percentage change	3.49%	6.97%	4.91%	3.20%	1.75%	7.29%	6.03%	2.59%	6.21%	7.02%	4.35%
Real per capita expenditure (2008 \$ million) – resident population											
Public	2,502	2,620	2,758	2,816	2,814	2,994	3,159	3,264	3,453	3,663	3,786
Percentage change	3.05%	4.69%	5.28%	2.10%	(0.09)%	6.40%	5.51%	3.35%	5.77%	6.09%	3.36%
Private	662	745	737	732	720	764	786	698	715	749	763
Percentage change	2.38%	12.60%	(1.10)%	(0.68)%	(1.69)%	6.1%	2.97%	(11.28)%	2.52%	4.74%	1.92%
Total	3,164	3,365	3,495	3,548	3,533	3,757	3,945	3,962	4,168	4,412	4,549
Percentage change	2.91%	6.34%	3.87%	1.51%	(0.42)%	6.34%	4.99%	0.44%	5.20%	5.86%	3.11%

Source: Ministry of Health

Notes

1 Totals may be affected by rounding.

- 2 GST inclusive.
- 3 CPI for June 2010.
- 4 Nominal dollars are actual dollars spent. Real dollars have been adjusted to 2010 dollar value by CPI.
- 5 2003/04 to 2005/06 public expenditure data restated for DHB and ACC revised coding to SHA

# Appendix 3: Health expenditure trends in New Zealand (with 'non-health' items included for prior years)

#### Nominal dollars, 1999/00-2009/10 3.1

Sources of	1999/0	0	2000/0		2001/0	2	2002/0	3	2003/04	4	2004/0	5	2005/0	16	2006/0	7	2007/0	8	2008/0	9	2009/1	0
funds	(\$000)	% of total	(\$000)	% of total	(\$000)	% of total	(\$000)	% of total	(\$000)	% of total	(\$000)	% of total	(\$000)	% of total	(\$000)	% of total	(\$000)	% of total	(\$000)	% of total	(\$000)	% of total
Ministry of Health	6,543,778	69.5	6,952,914	66.9	7,418,078	66.3	7,773,876	66.3	8,507,429	69.7	9,361,675	69.4	10,302,689	69.3	10,958,724	70.5	12,123,747	70.6	13,275,453	70.9	14,403,918	2.5
Deficit financing	6,413	0.1	76,837	0.7	244,125	2.2	216,337	1.8	-	-	_	-	_	-	_	-	_	-	-	-	_	_
ACC – social security	581,078	6.2	709,561	6.8	801,330	7.2	924,253	7.9	945,608	7.7	1,095,557	8.1	1,260,278	8.5	1,436,042	9.2	1,634,796	9.5	1,820,216	9.7	1,669,838	8.4
Other government agencies	250,230	2.7	282,226	2.7	302,011	2.7	313,386	2.7	208,084	1.7	221,730	1.6	251,667	1.7	309,954	2.0	379,049	2.2	398,489	2.1	395,346	2.0
Local authorities	60,374	0.6	64,243	0.6	68,381	0.6	73,792	0.6	63,242	0.5	61,882	0.5	82,371	0.6	106,072	0.7	92,672	0.5	55,923	0.3	67,238	0.3
Public total	7,441,873	79.1	8,085,781	77.9	8,833,925	78.9	9,301,644	79.4	9,724,363	79.6	10,740,844	79.7	11,897,005	80.1	12,810,792	82.4	14,230,264	82.8	15,550,082	83.0	16,536,341	83.2
Out-of-pocket	1,375,165	14.6	1,656,853	16.0	1,714,843	15.3	1,740,565	14.9	1,722,649	14.1	1,896,704	14.1	2,056,173	13.8	1,780,830	11.5	1,930,708	11.2	1,990,059	10.6	2,086,476	10.5
Health insurance	560,857	6.0	610,198	5.9	612,315	5.5	640,632	5.5	671,638	5.5	695,686	5.2	762,074	5.1	793,949	5.1	863,063	5.0	929,720	5.0	974,938	4.9
Not-for-profit organisations	31,952	0.3	32,943	0.3	33,355	0.3	36,591	0.3	92,911	0.8	147,111	1.1	143,169	1.0	162,506	1.0	153,263	0.9	259,629	1.4	272,642	1.4
Private total	1,967,974	20.9	2,299,994	22.1	2,360,513	21.1	2,417,788	20.6	2,487,198	20.4	2,739,501	20.3	2,961,416	19.9	2,737,285	17.6	2,947,034	17.2	3,179,408	17.0	3,334,056	16.8
Total from all sources	9,409,847	100.0	10,385,775	100.0	11,194,438	100.0	11,719,432	100.0	12,211,561	100.0	13,480,346	100.0	14,858,422	100.0	15,548,077	100.0	17,177,299	100.0	18,729,490	100.0	19,870,398	100.0
% of GDP	8.1%		8.3%		8.6%		8.4%		8.1%		8.6%		9.0%	ı	8.8%		9.4%	ı	10.1%	Ď	10.5%	6

Source: Ministry of Health

1 Totals may be affected by rounding.

2 GST inclusive.

Nominal dollars are actual dollars spent.

2003/04 to 2005/06 public expenditure data restated for DHB and ACC revised coding to SHA.

# 3.2 Real dollars, 1999/00-2009/10

Sources of	1999/0	0	2000/0	1	2001/0	)2	2002/0	)3	2003/0	4	2004/0	5	2005/0	)6	2006/0	7	2007/08	3	2008/09	)	2009/1	0
funds	(\$000)	% of total	(\$000)	% of total	(\$000)	% of total	(\$000)	% of total	(\$000)	% of total	(\$000)	% of total	(\$000)	% of total								
Ministry of Health	8,470,686	69.5	8,722,891	66.9	9,058,297	66.3	9,357,601	66.3	9,999,641	69.7	10,694,887	69.4	11,322,655	69.3	11,807,488	70.5	12,557,962	70.6	13,496,505	70.9	14,403,918	72.5
Deficit financing	8,301	0.1	96,397	0.7	298,104	2.2	260,410	1.8	_	-	_	-	-	-	-	-	-	-	_	-	-	
ACC – social security	752,185	6.2	890,191	6.8	978,513	7.2	1,112,546	7.9	1,111,469	7.7	1,251,577	8.1	1,385,045	8.5	1,547,265	9.2	1,693,347	9.5	1,850,525	9.7	1,669,838	8.4
Other government agencies	323,914	2.7	354,071	2.7	368,789	2.7	377,230	2.7	244,582	1.7	253,307	1.6	276,582	1.7	333,960	2.0	392,625	2.2	405,125	2.1	395,346	2.0
Local authorities	78,152	0.6	80,597	0.6	83,501	0.6	88,825	0.6	74,335	0.5	70,694	0.5	90,526	0.6	114,288	0.7	95,992	0.5	56,855	0.3	67,238	0.3
Public total	9,633,237	79.1	10,144,148	77.9	10,787,204	78.9	11,196,612	79.4	11,430,027	79.6	12,270,466	79.7	13,074,809	80.1	13,803,001	82.4	14,739,925	82.8	15,809,010	83.0	16,536,341	83.2
Out-of-pocket	1,780,102	14.6	2,078,632	16.0	2,094,014	15.3	2,095,160	14.9	2,024,803	14.1	2,166,817	14.1	2,259,735	13.8	1,918,757	11.5	1,999,856	11.2	2,023,196	10.6	2,086,476	10.5
Health insurance	726,009	6.0	765,534	5.9	747,705	5.5	771,144	5.5	789,445	5.5	794,760	5.2	837,519	5.1	855,441	5.1	893,974	5.0	945,201	5.0	974,938	4.9
Not-for-profit organisations	41,361	0.3	41,329	0.3	40,730	0.3	44,045	0.3	109,207	0.8	168,062	1.1	157,343	1.0	175,093	1.0	158,753	0.9	263,952	1.4	272,642	1.4
Private total	2,547,472	20.9	2,885,495	22.1	2,882,449	21.1	2,910,349	20.6	2,923,455	20.4	3,129,638	20.3	3,254,597	19.9	2,949,290	17.6	3,052,583	17.2	3,232,349	17.0	3,334,056	16.8
Total from all sources	12,180,709	100.0	13,029,642	100.0	13,669,653	100.0	14,106,961	100.0	14,353,482	100.0	15,400,104	100.0	16,329,405	100.0	16,752,291	100.0	17,792,508	100.0	19,041,359	100.0	19,870,398	100.0

Source: Ministry of Health

#### Notes

1 Totals may be affected by rounding.

- 2 GST inclusive.
- 3 CPI for June 2010.
- 4 Real dollars have been adjusted to 2008 dollar value by CPI.
- 5 2003/04 to 2005/06 public expenditure data restated for DHB and ACC revised coding to SHA.

# Appendix 4: Private health insurance trends, 1999/00-2009/10 (\$000)

	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10
Institutional care											
Public	643	227	415	714	673	622	600	750	815	878	921
Private	339,616	371,350	385,552	418,270	454,240	485,765	548,839	546,363	593,924	639,794	670,912
Subtotal – institutional care	340,259	371,577	385,967	418,984	454,913	486,387	549,438	547,112	594,739	640,673	671,833
Community care											
General practitioners and maternity	69,025	70,880	66,074	63,349	54,732	44,883	36,230	57,424	62,423	67,244	70,514
Specialist services and referral services	88,971	108,322	106,651	109,367	116,371	122,814	137,028	138,966	151,063	162,730	170,645
Dental services	21,164	18,277	16,541	16,389	14,472	12,259	10,436	15,425	16,767	18,062	18,941
Medicaments	41,424	41,142	37,082	32,543	31,151	29,343	28,941	35,022	38,071	41,012	43,006
Subtotal – community care	220,584	238,621	226,348	221,648	216,725	209,299	212,636	246,837	268,324	289,048	303,106
Total	560,842	610,198	612,315	640,632	671,638	695,686	762,074	793,949	863,063	929,720	974,938

Source: Ministry of Health and HFANZ

2 2003/04–2005/06 data has been restated for an estimate of health administration.

<sup>1</sup> Totals may be affected by rounding.

# Appendix 5: Current expenditure on health by function of care and provider industry (SHA Standard Table 2)

# 5.1 2007/08

Health care by function	Function and industry codes		Nursing and residential care facilities	Providers of ambulatory health care	T. Offices of physicians	Offices of dentists	ত্তি Offices of other ভ health practitioners	T Outpatient care ஒ் centres	Medical and diagnostic	Froviders of home health care services	All other providers of ambulatory health care	Retail sale and other providers of medical goods	Dispensing chemists	All other sales of medical goods	Provision and administration of bublic health programmes	General health dedministration and insurance	Government 9 administration of 1 health	Social security 9-9-1 1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	Other (private)	ન All other health છ administration	V-d All other industries	Totals
														4.2-4.9								
Inpatient care																						
Curative and rehabilitative care	HC.1.1; 2.1	4,086,550	257,244	127,394	127,394	-	-	-	_	-	-	-	-	-	-	-	_	_	-	-	-	4,471,188
Long-term nursing care	HC.3.1	99,581	1,148,539	_	_	-	-	-	_	-	_	-	_	_	-	-	_	-	-	-	-	1,248,120
Services of day care																						
Curative and rehabilitative care	HC.1.2; 2.2	410,550	47,913	37,175	31,849	-	-	5,326	-	_	-	-	-	-	-	-	-	-	-	-	-	495,638
Long-term nursing care	HC.3.2	41,450	63,551	_	_	-	-	-	_	-	_	-	_	_	-	-	_	-	-	-	_	105,001
Outpatient care																						
Outpatient curative and rehabilitative care	HC.1.3; 2.3	1,545,562	74,001	2,820,065	877,042	569,635	609,823	694,541	1,004	19	68,001	1,940	_	1,940	-	-	-	-	-	-		4,441,568
Basic medical and diagnostic services	HC.1.3.1	1,222,737	21,943	1,481,385	678,637	-	191,563	582,990	-	_	28,195	-	-	-	-	-	-	-	-	-	-	2,726,065
Outpatient dental care	HC.1.3.2	14,899	-	568,460	_	568,460	-	-	_	-	_	-	_	_	-	-	_	-	-	-	-	583,359
All other specialised health care	HC.1.3.3	1,848	370	339,093	80,360	185	227,856	185	-	_	30,507	185	-	185	-	-	-	-	-	-	-	341,496
All other outpatient care	HC.1.3.9	37,663	15,862	304,681	72,501	990	123,606	100,126	_	19	7,439	990	_	990	-	-	_	_	-	_	-	359,196
Outpatient rehabilitative care	HC.2.3	268,415	35,826	126,446	45,544	-	66,798	11,240	1,004	-	1,860	765	-	765	ı	_	_	_	-	_	_	431,452

Health care by function	Function and industry codes	Hospitals	Nursing and residential care facilities	Providers of ambulatory health care	Offices of physicians	Offices of dentists	Offices of other health practitioners	Outpatient care centres	Medical and diagnostic laboratories	Providers of home health care services	All other providers of ambulatory health care	Retail sale and other providers of medical goods	Dispensing chemists	All other sales of medical goods	Provision and administration of public health programmes	General health administration and insurance	Government administration of health	Social security funds	Other (private) insurance	All other health administration	All other industries	Totals
		HP.1	HP.2	HP.3	HP.3.1	HP.3.2	HP.3.3	HP.3.4	HP.3.5	HP.3.6	HP.3.9	HP.4	HP.4.1	HP 4.2-4.9	HP.5	HP.6	HP.6.1	HP.6.2	HP.6.4	HP.6.9	HP.7	
Home care																						
Curative and rehabilitative care	HC.1.4; 2.4	166,541	4,748	445,120	14,409	-	15,253	189,342	-	226,116	_	-	-	-	-	-		_	-	1	54,948	671,357
Long-term nursing care	HC.3.3	73,372	93,823	1,030,815	50,235	_	15,253	13,311	ı	892,305	59,711	-	_	_	-	-	-	_	_	-	-	1,198,010
Ancillary services to health care	HC.4	23,150	-	790,817	-	-	-	1	502,292	129,831	158,694	-	_	-	9,999	1	1	-	-	1	32,483	856,449
Medical goods dispensed to outpatients	HC.5	-	-	-	-	-	-		1	-	1	1,910,666	1,426,954	483,712	-	1	-	-	-	1	1	1,910,666
Pharmaceutical and other medical non-durables	HC.5.1	-	-	-	-	-	-	-	-	-	-	1,663,215	1,426,954	236,261	-	-	-	_	-	-	-	1,663,215
Therapeutic appliances and other medical durables	HC.5.2	-	-	-	-	-	-	-	-	-	-	247,451	-	247,451	-	-	-	_	-	-	-	247,451
Total expenditure on personal health care		6,446,756	1,689,819	5,251,386	1,100,929	569,635	640,329	902,520	503,296	1,248,271	286,406	1,912,606	1,426,954	485,652	9,999	1	-	-	-	1	87,431	15,397,997
Prevention and public health services	HC.6	9,974	60	233,634	51,249	-	50,321	126,555	-	-	5,509	-	-	-	638,979	40,806	40,806	-	-	-	152,345	1,075,798
Health administration and health insurance	HC.7	_	-	-	-	-	-	-	-	-	-	-	-	-	-	697,418	448,712	204,501	44,205	-	6,087	703,505
Total current expenditure on health care		6,456,730	1,689,879	5,485,020	1,152,178	569,635	690,650	1,029,075	503,296	1,248,271	291,915	1,912,606	1,426,954	485,652	648,978	738,224	489,518	204,501	44,205	-	245,863	17,177,300

#### Notes:

<sup>1</sup> Public expenditure data restated for DHB and ACC revised coding to SHA.

<sup>2</sup> Insurance data restated for an estimate of health administration.

# 5.2 2008/09

Health care by function	Function and industry codes	Hospitals	Nursing and residential care facilities	Providers of ambulatory health care	Offices of physicians	Offices of dentists	Offices of other health practitioners	Outpatient care centres	Medical and diagnostic laboratories	Providers of home health care services	All other providers of ambulatory health care	Retail sale and other providers of medical goods	Dispensing chemists	All other sales of medical goods	Provision and administration of public health programmes	General health administration and insurance	Government administration of health	Social security funds	Other (private) insurance	All other health administration	All other industries	Totals
		HP.1	HP.2	HP.3	HP.3.1	HP.3.2	HP.3.3	HP.3.4	HP.3.5	HP.3.6	HP.3.9	HP.4	HP.4.1	HP 4.2-4.9	HP.5	HP.6	HP.6.1	HP.6.2	HP.6.4	HP.6.9	HP.7	
Inpatient care																						
Curative and rehabilitative care	HC.1.1; 2.1	4,400,438	274,825	137,622	137,622	-	-	-	-	-	-	-	_	-	-	-	-	-	-	-	-	4,812,885
Long-term nursing care	HC.3.1	100,983	1,224,363	_	_	_	_	-	_	-	-	-	_	-	_	_	-	_	-	-	_	1,325,346
Services of day care																						
Curative and rehabilitative care	HC.1.2; 2.2	460,055	47,240	38,369	32,726	-	-	5,643	-	-	-	-	_	-	-	-	-	-	-	-	-	545,664
Long-term nursing care	HC.3.2	40,996	67,770	-	-	-	-	-	_	-	-	-	_	_	-	_	-	_	-	_	_	108,766
Outpatient care																						
Outpatient curative and rehabilitative care	HC.1.3; 2.3	1,754,206	80,227	3,113,941	976,256	605,827	687,947	768,343	1,060	21	74,487	808	-	808	-	-	-	-	-	-	-	4,949,182
Basic medical and diagnostic services	HC.1.3.1	1,400,690	25,514	1,619,541	733,282	-	245,569	609,083	_	-	31,607	-	-	-	-	_	-	_	-	-	_	3,045,745
Outpatient dental care	HC.1.3.2	16,050	-	604,613		604,613	_	-	_	-	-	-	_	-	-	_	-	_	-	_	_	620,663
All other specialised health care	HC.1.3.3	1,869	374	355,721	82,562	187	239,735	374	-	-	32,863	-	-	_	-	-	-	-	-	-	-	357,964
All other outpatient care	HC.1.3.9	37,043	15,440	394,212	111,424	1,027	127,023	146,703	_	21	8,014	-	-	-	-	_	_	-	_	_	_	446,695
Outpatient rehabilitative care	HC.2.3	298,554	38,899	139,854	48,988	-	75,620	12,183	1,060	-	2,003	808	-	808	-	-	-	-	-	Ι	-	478,115
Home care						-																
Curative and rehabilitative care	HC.1.4; 2.4	27,019	7,794	501,752	15,522	-	16,431	218,185	-	251,614	-	-	-	-	-	-	-	-	-	_	70,055	606,620
Long-term nursing care	HC.3.3	79,571	95,323	1,068,396	54,421	-	16,431	12,238	_	922,331	62,975	-	-	-	-	_	-	-	-	-	_	1,243,290
Ancillary services to health care	HC.4	34,309	-	921,210	-	-	-	-	537,502	149,806	233,902	-	-	-	-	-	-	-	-	-	41,744	997,263
Medical goods dispensed to outpatients	HC.5	_	-	-	-	_	-	-	-	-	-	2,056,431	1,536,562	519,869		_	_	-	-	-	-	2,056,431
Pharmaceutical and other medical non-durables	HC.5.1	-	-	-	-	-	-	-	-	-	-	1,787,748	1,536,562	251,186	-	-	-	-	-	-	-	1,787,748
Therapeutic appliances and other medical durables	HC.5.2	_	-	_	_	_	-	-	_	-	-	268,683	-	268,683	_	_	_	-	_	-	-	268,683

Health care by function	Function and industry codes	Hospitals	Nursing and residential care facilities	Froviders of ambulatory health care	HP Offices of physicians	HP.3.2	H Offices of other မ်ာ health practitioners	H Outpatient care ن د centres	H Medical and ပဲ diagnostic တ laboratories	E Providers of home ப் ந் ந் services	All other providers ပဲ of ambulatory ပဲ health care	Retail sale and T other providers of Medical goods	H Dispensing -4 chemists	All other sales of medical goods	Provision and Hadministration of Supplie health programmes	General health To administration and Po insurance	Government administration of health	H Social security 9 funds	H Other (private)	H All other health 9 administration 6	4.4 All other industries	Totals
Total expenditure on personal health care		6,897,577	1,797,542	5,781,290	1,216,547	605,827	720,809	1,004,409	538,562	1,323,772	371,364	2,057,239	1,536,562	520,677	-	-	-	-	-	-	111,799	16,645,447
Prevention and public health services	HC.6	32,424	-	395,070	77,093	-	109,246	194,651	-	-	14,080	-	-	_	686,358	46,263	46,263	-	-	-	133,986	1,294,101
Health administration and health insurance	HC.7	-	-	-	-	-	_	-	-	-	-	-	-	_	-	775,483	498,032	229,831	47,620	-	14,456	789,939
Total current expenditure on health care		6,930,001	1,797,542	6,176,360	1,293,640	605,827	830,055	1,199,060	538,562	1,323,772	385,444	2,057,239	1,536,562	520,677	686,358	821,746	544,295	229,831	47,620	-	260,241	18,729,487

#### Notes:

- 1 Public expenditure data restated for DHB and ACC revised coding to SHA.
- 2 Insurance data restated for an estimate of Health administration.

# 5.3 2009/10

Health care by function	Function and industry codes	Hospitals	Nursing and residential care facilities	Providers of ambulatory health care	Offices of physicians	Offices of dentists	႕ Offices of other မှာ health practitioners	Outpatient care	Medical and diagnostic in laboratories	Health care	All other providers of ambulatory health care	Retail sale and other providers of medical goods	H Dispensing	All other sales of medical goods	Provision and administration of public health programmes	General health deministration and insurance	Government 9 administration of 1 health	Social security 9 funds	Other (private) 한 insurance	All other health e administration	V.4 All other industries	Totals
Inpatient care			111 .2	111 .5	111 .5.1	111 .5.2	111 .0.0	111 .5.4	111 .0.0	111 .0.0	111 .0.5	111.4	111 .4.1	4.2-4.9	111 .5	111.0	111 .0.1	111 .0.2	111 .0.4	111 .0.5		
<u> </u>	110 1 1	5,033,113	204 542	139,563	139,563																	5,457,188
Curative and rehabilitative care	HC.1.1; 2.1	5,033,113	284,512	139,563	139,563	_		_	_	_	_		_	_	_	_	_	_				5,457,188
Long-term nursing care	HC.3.1	120,850	1,294,906	-	-	-	_	_	-	-	-	-	-	_	-	_	_	_	_	_	_	1,415,756
Services of day care																						
Curative and rehabilitative care	HC.1.2; 2.2	463,008	50,068	39,693	33,618	-	_	6,075	-	-	-	-	-	-	-	-	_	_	-	-	-	552,769
Long-term nursing care	HC.3.2	44,106	69,808	-	=	_	_	-	_	-	-	-	-	-	-	-	-	_	_	_	-	113,914
Outpatient care																						
Outpatient curative and rehabilitative care	HC.1.3; 2.3	1,766,822	85,404	3,079,875	1,034,379	652,084	597,003	727,732	1,085	23	67,569	827	-	827	-	-	_	_	-	-	-	4,932,928
Basic medical and diagnostic services	HC.1.3.1	1,349,305	27,328	1,536,114	689,511	-	149,281	674,719	_	-	22,603	_	_	-	_	_	_	_	_	_	-	2,912,747
Outpatient dental care	HC.1.3.2	16,830	_	650,829	_	650,829	_	-	_	-	-	-	_	-	-	_	_	-	_	-	-	667,659
All other specialised health care	HC.1.3.3	2,035	407	366,875	84,859	204	246,944	407	-	-	34,461	-	-	-	-	-	_	-	-	-	-	369,317
All other outpatient care	HC.1.3.9	38,752	16,222	386,051	208,118	1,051	130,483	37,972	_	23	8,404	-	_	-	-	_	_	-	_	-	-	441,025
Outpatient rehabilitative care	HC.2.3	359,900	41,447	140,006	51,891	-	70,295	14,634	1,085	-	2,101	827	-	827	-	-	_	-	-	-	-	542,180
Home care																						,
Curative and rehabilitative care	HC.1.4; 2.4	23,126	7,418	512,605	16,276	-	17,231	248,728	-	230,370	-	-	-	-	-	-	-	-	-	-	76,517	619,666
Long-term nursing care	HC.3.3	84,806	101,741	1,176,334	57,723	_	17,231	14,874	_	1,003,734	82,772	-	_	-	_	_	_	_	-	-	-	1,362,881
Ancillary services to health care	HC.4	33,016	-	947,452	_	-	-	-	545,805	169,600	232,047	-	_	-	-	-	-	-	-	-	49,826	1,030,294
Medical goods dispensed to outpatients	HC.5	-	-	-	-	-	-	-	-	-	-	2,208,906	1,613,188	595,718	-	-	-	-	-	-	-	2,208,906
Pharmaceutical and other medical non-durables	HC.5.1	-	-	-	-	_	-	-	-	-	-	1,876,617	1,613,188	263,429	-	-	-	-	-	-	-	1,876,617
Therapeutic appliances and other medical durables	HC.5.2	-	-	-	-	_	-	-	-	-	-	332,289	-	332,289	-	-	-	-	-	-	-	332,289

Health care by function	Function and industry codes		Nursing and Tresidential care Facilities	E Providers of ambulatory health care	H Offices of 3:0 physicians	HP.3.2	H Offices of other S health practitioners	HOutpatient care	H Medical and Galagnostic is laboratories	H Providers of home G health care S services	All other providers of ambulatory bealth care	Retail sale and Tother providers of Pedical goods	HDispensing 4.1 Chemists	H H All other sales of medical goods	Provision and H administration of G public health programmes	General health T administration and insurance	Government  administration of health	A Social security 7.9 funds	H Other (private) 99 insurance	A All other health 69 administration	H Vall other industries	Totals
Total expenditure on personal health care		7,568,847	1,893,857	5,895,522	1,281,559	652,084	631,465	997,409	546,890	1,403,727	382,388	2,209,733	1,613,188			-	-	-	-	-	126,343	17,694,302
Prevention and public health services	HC.6	22,128	-	452,611	70,110	0	110,547	257,968	-	-	13,987	-	-	-	719,816	46,145	46,145	-	-	-	147,202	1,387,903
Health administration and health insurance	HC.7	-	-	-	-	_	-	-	-	-	-	-	-	-	-	774,877	494,318	230,623	49,936	-	13,315	788,192
Total current expenditure on health care		7,590,975	1,893,857	6,348,133	1,351,669	652,084	742,012	1,255,377	546,890	1,403,727	396,375	2,209,733	1,613,188	596,545	719,816	821,022	540,463	230,623	49,936	-	286,861	19,870,397

# Appendix 6: Current expenditure on health and health-related services by function of care and funder (SHA Standard Table 5)

# 6.1 2007/08

Function	ICHA-HC code  Function and funder code	Total public	Ministry of Health HF.1.1.1	Other central government HF.1.1.2	Regional and local government HF.1.1.3	Social security funds HF.1.2	Total private HF.2	Private insurance HF.2.1 + HF.2.2	Private household out-of-pocket payments HF.2.3	Non-profit institutions (other than social insurance) HF.2.4	Totals
Health care services and goods by function											
Services of curative and rehabilitative care	HC.1, HC.2	8,178,668	7,068,033	64,347	-	1,046,288	1,901,082	685,278	1,194,803	21,001	10,079,750
Services of long-term nursing care	HC.3	2,362,663	2,343,987	18,676	-	_	188,468	31,457	104,901	52,110	2,551,131
Ancillary services to health care	HC.4	752,490	527,706	3,443	-	221,341	103,958	56,702	26,597	20,659	856,448
Medical goods dispensed to outpatients	HC.5	1,256,138	1,120,024	18,245	-	117,869	654,526	45,420	604,407	4,699	1,910,664
Pharmaceuticals and other medical non-durables	HC.5.1	1,060,092	1,052,616	2,268	-	5,208	603,121	36,121	565,888	1,112	1,663,213
Therapeutic appliances and other medical durables	HC.5.2	196,046	67,408	15,977	-	112,661	51,405	9,299	38,519	3,587	247,451
Personal medical services and goods	HC.1-HC.5	12,549,959	11,059,750	104,711	-	1,385,498	2,848,034	818,857	1,930,708	98,469	15,397,993
Prevention and public health services	HC.6	1,027,091	621,862	267,759	92,672	44,798	48,706	-	-	48,706	1,075,797
Health administration and health insurance	HC.7	653,213	442,134	6,578	_	204,501	50,292	44,205	-	6,087	703,505
Total current expenditure on health		14,230,263	12,123,746	379,048	92,672	1,634,797	2,947,032	863,062	1,930,708	153,262	17,177,295
Gross capital formation	HC.R.1	-	-	-	-	-	-	-	_	-	-
Total expenditure on health		14,230,263	12,123,746	379,048	92,672	1,634,797	2,947,032	863,062	1,930,708	153,262	17,177,295

Function	ICHA-HC code  Function and funder code	Total public	Ministry of Health HF.1.1.1	Other central government HF.1.1.2	Regional and local government HF.1.1.3	Social security funds HF.1.2	Total private HF.2	Private insurance HF.2.1 + HF.2.2	Private household out-of-pocket payments HF.2.3	Non-profit institutions (other than social insurance) HF.2.4	Totals
Memorandum items: further health-related functions											
Education and training of health personnel	HC.R.2	386,868	154,277	232,591	-	-	283,823	-	83,471	352	670,691
Research and development in health	HC.R.3	206,485	1	206,484	-	-	31,859	_	-	31,859	238,344
Food, hygiene and drinking water control	HC.R.4	364,004	-	100,602	263,402	-	-	-	-	-	364,004
Environmental health	HC.R.5	1,409,589	-	18,717	1,390,872	-	-	-	-	-	1,409,589
Administration and provision of social services in kind to assist living with disease and impairment	HC.R.6	131,405	_	22,735	-	108,670	12,832	-	-	12,832	144,237
Administration and provision of health-related cash benefits	HC.R.7	-	-	-	-	-	-	-	-	-	_
Total health-related expenditure		2,498,351	154,278	581,129	1,654,274	108,670	328,514	-	283,471	45,043	2,826,865
Total health and health-related expenditure		16,728,614	12,278,024	960,177	1,746,946	1,743,467	3,275,546	863,062	2,214,179	198,305	20,004,160

# 6.2 2008/09

Function	ICHA-HC code  Function and funder code	Total public	Ministry of Health HF.1.1.1	Other central government HF.1.1.2	Regional and local government HF.1.1.3	Social security funds HF.1.2	Total private HF.2	Private insurance HF.2.1 + HF.2.2	Private household out-of-pocket payments HF.2.3	Non-profit institutions (other than social insurance) HF.2.4	Totals
Health care services and goods by function											
Services of curative and rehabilitative care	HC.1, HC.2	8,906,528	7,681,852	68,899	924	1,154,853	2,007,826	738,204	1,234,172	35,450	10,914,354
Services of long-term nursing care	HC.3	2,467,179	2,447,817	19,362	_	_	210,224	33,887	105,895	70,442	2,677,403
Ancillary services to health care	HC.4	827,866	582,293	4,314	_	241,259	169,398	61,081	34,917	73,400	997,264
Medical goods dispensed to outpatients	HC.5	1,387,394	1,242,299	19,411	-	125,684	669,035	48,928	615,075	5,032	2,056,429
Pharmaceuticals and other medical non-durables	HC.5.1	1,173,471	1,166,274	2,133	_	5,064	614,276	38,911	575,365	-	1,787,747
Therapeutic appliances and other medical durables	HC.5.2	213,923	76,025	17,278	_	120,620	54,759	10,017	39,710	5,032	268,682
Personal medical services and goods	HC.1-HC.5	13,588,967	11,954,261	111,986	924	1,521,796	3,056,483	882,100	1,990,059	184,324	16,645,450
Prevention and public health services	HC.6	1,233,251	833,428	276,233	55,000	68,590	60,849	-	-	60,849	1,294,100
Health administration and health insurance	HC.7	727,863	487,763	10,269	_	229,831	62,076	47,620	_	14,456	789,939
Total current expenditure on health		15,550,081	13,275,452	398,488	55,924	1,820,217	3,179,408	929,720	1,990,059	259,629	18,729,489
Gross capital formation	HC.R.1	-	-	-	_	-	-	-	-	_	
Total expenditure on health		15,550,081	13,275,452	398,488	55,924	1,820,217	3,179,408	929,720	1,990,059	259,629	18,729,489
Memorandum items: further health-related functions											_
Education and training of health personnel	HC.R.2	446,913	170,573	276,340	_	_	277,354	-	276,341	1,013	724,267
Research and development in health	HC.R.3	224,317	5,279	219,038	_	_	30,661	-	-	30,661	254,978
Food, hygiene and drinking water control	HC.R.4	368,015	-	107,278	260,737	_	-	-	_	-	368,015
Environmental health	HC.R.5	1,363,483	-	19,919	1,343,564	_	-	-	-	-	1,363,483
Administration and provision of social services in kind to assist living with disease and impairment	HC.R.6	151,886	-	19,654	-	132,232	73,051	-	-	73,051	224,937
Administration and provision of health-related cash benefits	HC.R.7	_	_	-	_	_	_	-	_	-	_
Total health-related expenditure		2,554,614	175,852	642,229	1,604,301	132,232	381,066	-	276,341	104,725	2,935,680
Total health and health-related expenditure		18,104,695	13,451,304	1,040,717	1,660,225	1,952,449	3,560,474	929,720	2,266,400	364,354	21,665,169

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Function	ICHA-HC code  Function and funder code	Total public	Ministry of Health HF.1.1.1	Other central government HF.1.1.2	Regional and local government HF.1.1.3	Social security funds HF.1.2	Total private HF.2	Private insurance HF.2.1 + HF.2.2	Private household out-of-pocket payments HF.2.3	Non-profit institutions (other than social insurance) HF.2.4	Totals
Health care services and goods by function											,
Services of curative and rehabilitative care	HC.1, HC.2	9,460,137	8,342,089	73,529	-	1,044,519	2,102,414	774,108	1,292,300	36,006	11,562,551
Services of long-term nursing care	HC.3	2,670,273	2,649,229	21,044	_	_	222,279	35,535	109,476	77,268	2,892,552
Ancillary services to health care	HC.4	844,166	617,655	4,433	_	222,078	186,130	64,052	43,900	78,178	1,030,296
Medical goods dispensed to outpatients	HC.5	1,511,904	1,376,390	18,910	-	116,604	697,002	51,308	640,800	4,894	2,208,906
Pharmaceuticals and other medical non-durables	HC.5.1	1,236,884	1,229,983	2,224	-	4,677	639,733	40,803	598,930	-	1,876,617
Therapeutic appliances and other medical durables	HC.5.2	275,021	146,407	16,686	-	111,928	57,268	10,504	41,870	4,894	332,289
Personal medical services and goods	HC.1-HC.5	14,486,480	12,985,363	117,916	_	1,383,201	3,207,825	925,003	2,086,476	196,346	17,694,305
Prevention and public health services	HC.6	1,324,921	934,905	266,764	67,238	56,014	62,982	_	-	62,982	1,387,903
Health administration and health insurance	HC.7	724,941	483,651	10,667	-	230,623	63,250	49,935	-	13,315	788,191
Total current expenditure on health		16,536,342	14,403,919	395,347	67,238	1,669,838	3,334,057	974,938	2,086,476	272,643	19,870,399
Gross capital formation	HC.R.1	-	-	-	-	-	_	-	-	-	_
Total expenditure on health		16,536,342	14,403,919	395,347	67,238	1,669,838	3,334,057	974,938	2,086,476	272,643	19,870,399
Memorandum items: further health-related functions											_
Education and training of health personnel	HC.R.2	456,365	166,202	290,163	_	_	291,202	_	290,162	1,040	747,567
Research and development in health	HC.R.3	225,321	124	225,197	_	-	30,154	-	-	30,154	255,475
Food, hygiene and drinking water control	HC.R.4	368,171	-	100,333	267,838	-	-	-	-	-	368,171
Environmental health	HC.R.5	1,444,295	-	20,819	1,423,476	-	-	-	-	-	1,444,295
Administration and provision of social services in kind to assist living with disease and impairment	HC.R.6	119,148	-	27,739	-	91,409	61,905	-	-	61,905	181,053
Administration and provision of health-related cash benefits	HC.R.7	-	-	-	_		-	_	_	-	_
Total health-related expenditure		2,613,300	166,326	664,251	1,691,314	91,409	383,261	_	290,162	93,099	2,996,561
Total health and health-related expenditure		19,149,642	14,570,245	1,059,598	1,758,552	1,761,247	3,717,318	974,938	2,376,638	365,742	22,866,960

# **Appendix 7: Contributors**

The following organisations contributed information used in the compilation of *Health Expenditure Trends in New Zealand 1999–2010*.

# Annual reports of other central government agencies

Organisation	Supplemental information from survey
Accident Compensation Corporation	Yes
Auckland University of Technology	No
Department of Corrections	Yes
Department of Labour	N/A
Massey University	No
Ministry of Agriculture and Forestry	No
Ministry of Education	No
Ministry of Health	N/A
Ministry of Pacific Island Affairs	No
Ministry of Research, Science and Technology	No
Ministry of Social Development	No
New Zealand Defence Force	Yes
New Zealand Lottery Grants Board	Yes
The University of Auckland	No
University of Otago	No

# **Health insurance industry**

The Health Funds Association of New Zealand Inc (HFANZ) Statistics July 2010 are aggregated to produce estimates of total expenditure by the health insurance industry. The following health insurers are member organisations of the HFANZ.

HFANZ members in 2009/10						
Accuro Health Insurance	Manchester Unity Friendly Society					
American International Assurance (AIA New Zealand)	Police Health Plan Ltd					
EBS Health Care	Southern Cross Healthcare					
Health Service Welfare Society	Sovereign Assurance Company Ltd					
IAG New Zealand Limited	Tower Limited					
ING Life (NZ) Limited	Union Medical Benefits Society Ltd					
IOOF Friendly Society						

# Annual reports for regional and local government authorities

Organisation	Supplemental information from survey
Ashburton District Council	No
Auckland City Council	Estimated due to amalgamation to Super City
Auckland Regional Council	Estimated due to amalgamation to Super City
Buller District Council	No
Central Hawke's Bay District Council	No
Central Otago District Council	No
Chatham Islands Council	No
Christchurch City Council	Yes – street cleaning
Clutha District Council	No
Dunedin City Council	Yes – health inspectors, street cleaning, public conveniences and pool treatment
Environment Bay of Plenty	No
Environment Canterbury	No
Environment Waikato Regional Council	No
Far North District Council	No
Franklin District Council	No
Gisborne District Council	No
Gore District Council	No
Greater Wellington Regional Council	No
Grey District Council	No

Organisation	Supplemental information from survey
Hamilton City Council	Yes – street cleaning and pool treatment
Hastings District Council	No
Hauraki District Council	No
Hawke's Bay Regional Council	No
Horizons Regional Council	No
Hurunui District Council	No
Hutt City Council	Yes – street cleaning and public conveniences
Kaikoura District Council	No
Kaipara District Council	No
Kapiti Coast District Council	No
Kawerau District Council	No
Mackenzie District Council	No
Manawatu District Council	No
Manukau City Council	Estimated due to amalgamation to Super City
Marlborough District Council	No
Masterton District Council	No
Matamata-Piako District Council	No
Napier City Council	Yes – street cleaning and pool treatment
Nelson City Council	Yes – street cleaning
New Plymouth District Council	Yes – street cleaning and pool treatment
North Shore City Council	Estimated due to amalgamation to Super City
Northland Regional Council	No
Otago Regional Council	No
Palmerston North City Council	Yes – street cleaning and pool treatment
Papakura District Council	Estimated due to amalgamation to Super City
Porirua City Council	Yes – street cleaning, public conveniences and sewage
Rangitikei District Council	No
Rodney District Council	Estimated due to amalgamation to Super City
Rotorua District Council	Yes – street cleaning
Ruapehu District Council	No
South Waikato District Council	No
South Wairarapa District Council	No
Southland District Council	No
Stratford District Council	No
Taranaki Regional Council	No
Tararua District Council	No
Tasman District Council	Yes – public conveniences

Organisation	Supplemental information from survey
Taupo District Council	Yes – street cleaning
Tauranga City Council	No
Thames–Coromandel District Council	No
Timaru District Council	Yes – street cleaning
Upper Hutt District Council	No
Waikato District Council	No
Waimakariri District Council	Yes – street cleaning and public conveniences
Waimate District Council	No
Waipa District Council	No
Wairoa District Council	No
Waitakere City Council	Estimated due to amalgamation to Super City
Waitaki District Council	No
Waitomo District Council	No
Water Care Services Limited	No
Wellington City Council	No
Western Bay of Plenty District Council	No
Westland District Council	No
Whakatane District Council	No
Whanganui District Council	No
Whangarei District Council	Yes – environmental health and safety, health inspectors

# Annual reports for not-for-profit organisations

Key organisations	Annual reports
Alcohol & Drug Services	2010 multiple branches
Alzheimers New Zealand	2008 multiple branches
Alzheimers Society	2010 multiple branches
Ambulance – Wellington Free	2010 report
Ambulance – St Johns	St John's Ambulance 2010 report
Ambulance and other patient transport	St John's Ambulance 2010 report
Amputee Society	2010 multiple branches
Arthritis New Zealand	2010 report
Asthma & Respiratory Foundation of New Zealand	2010 multiple branches
Barnardos New Zealand	2010 report
The Brain Injury Association of New Zealand	2010 multiple branches
Brain Research (Australasian) Inc	2010 report
Cancer Society of New Zealand	2010 multiple branches
CanTeen	2010 report
CCS Disability Action	2010 report
Cerebral Palsy Society of New Zealand	2010 report
Child Cancer Foundation	2010 report
Deaf Association of New Zealand	2010 multiple branches
Deaf-blind New Zealand Incorporated	2010 report
Diabetes New Zealand	2010 multiple branches
Disabled Persons Association (DPA New Zealand)	2010 multiple branches
Downtown Community Ministry	2010 report
Epilepsy Association of New Zealand Inc	2010 report
Epilepsy Foundation of New Zealand	2010 report
Family Planning	2010 report
Hearing Association New Zealand	2010 multiple branches
Heart Children New Zealand	2010 report
Heart Foundation	2010 report
Hospice – Bay of Islands	2010 report
Hospice – Bay of Plenty	2010 report
Hospice – New Zealand Inc	2010 report
Hospice – North Haven	2010 report
Hospice – South Canterbury	2010 report
Hospice – Taranaki	2010 report
Hospice – Waipuna	2010 report

Key organisations	Annual reports
The Laura Fergusson Trust for Disabled Persons	2010 report
Lion Foundation	Grants awarded 2010
Mary Potter Hospice	2010 report
Medic Alert Foundation New Zealand Inc	2010 report
Multiple Sclerosis Society of New Zealand	2010 multiple branches
Muscular Dystrophy Association of New Zealand	2010 multiple branches
New Zealand Breastfeeding Authority	2010 report
New Zealand Family Planning Association	2010 report
Ozanam House	2010 report
Parkinsonism Society of New Zealand	2010 multiple branches
Presbyterian Support New Zealand	2010 multiple branches
Royal New Zealand Foundation of the Blind	2010 report
Royal New Zealand Plunket Society	2010 report
Sisters of Mercy Ministries New Zealand	2010 report
Spinal Cord Society New Zealand	2010 multiple branches
Stroke Foundation of New Zealand	2010 multiple branches

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