

Introduction

This document is a summary of the Health Needs Assessment of the Canterbury region undertaken by the Canterbury District Health Board in 2004.

It provides an analysis of the region's population, its general health status, and an overview of some of the critical health issues.

The summary provides information on hospital admissions and waiting lists, and covers the Health Board's key health areas of primary health, mental health, child health, Māori health, the health of older people, rural health, people with disabilities, Pacific people and new migrants and refugees.

In addition, there is statistical information about the Health Board's core health strategies covering diabetes, cardiovascular disease, cancer, and respiratory disease.

The summary finishes with a commentary on the health workforce in our region.

The Health Needs Assessment will be a valuable tool for the Health Board and for all community public health providers for strategic planning in the short and medium term.

Canterbury DHB's Population

In 2001, the census population was 427,089. The population grew 11% between 1991 and 2001, and is forecast to increase a further 17% by 2021, bringing the population to nearly 500,000 by that time.

	2001	2006	2011	2016	2021	Percent change 2001-2021
Kaikoura District	3,483	3,600	3,600	3,600	3,600	3%
Hurunui District	9,885	10,500	10,900	11,200	11,400	15%
Waimakariri District	36,903	43,100	46,100	48,900	51,600	40%
Banks Peninsula District	7,833	8,400	8,500	8,600	8,600	10%
Selwyn District	27,312	31,400	34,300	37,300	40,300	48%
Ashburton District	25,446	26,100	26,000	25,800	25,500	0%
Christchurch City	316,227	339,900	346,900	352,900	358,800	13%
Total	427,089	462,800	476,200	488,200	499,800	17%

Source: Statistics New Zealand. Medium fertility, mortality and migration assumptions.

13% of the population is older than 65 years, slightly higher than the national average of 12.1%. By 2021, the over 65s will make up 20% of Canterbury's population. In contrast, the number of under 15-year-olds will decrease, from about 88,000 now to 76,100 in 2021.

Māori make up 6.7% of Canterbury DHB's usually resident population, Pacific people 2.0%, and Asian people 4.4%. Most people identifying as Māori, Pacific, or Asian live in Christchurch city.

Canterbury has relatively few areas of deprivation compared to other District Health Boards in NZ. 19% of Canterbury's population reside in areas which have the most 'deprived' NZDep01 scores (NZ Deprivation Index 2001 deciles 8 – 10).

Māori and Pacific children are far more likely to live in highly deprived areas than are children of other ethnicities.

The percentage of people living in deprived circumstances is higher in Christchurch than in rural areas.

General Health Status

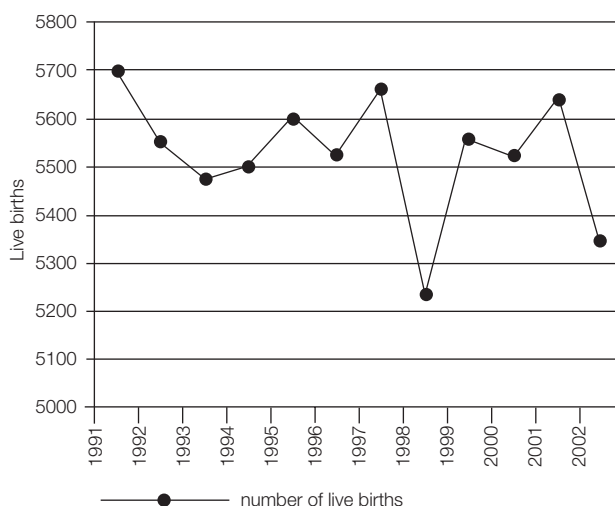
Life expectancy

In the most recent national calculations, life expectancy in the Canterbury Regional Council area (Canterbury and South Canterbury DHBs) was the highest in New Zealand: 77.8 years, which is 0.66 years above the national average. Canterbury males have a shorter life expectancy than females.

Births

Canterbury has a lower birth rate than most other DHBs. The number of births in the Canterbury DHB region has stayed around the 5,500 per year mark since 1991, despite the population of the region increasing by 44,937 since 1991.

Figure 1: Number of Live Births in Canterbury DHB 1991 – 2002



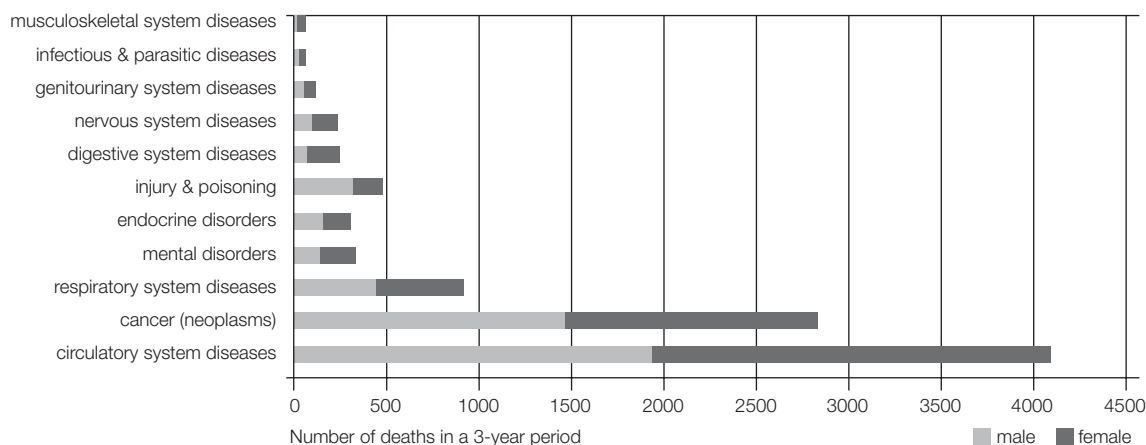
Canterbury has a higher than average rate of births by caesarean section. In 2002, the national average caesarean section rate was 22.7% of all births. Canterbury DHB's average was 28%.

Deaths

About 3,200 people die in Canterbury each year (average per year from 1997 to 2000). This number will gradually increase as our population size increases and ages.

Cantabrians die from a variety of conditions, the main

Figure 2: Main causes of death, Canterbury DHB, 1998 – 2000



ones being diseases of the circulatory system (ischaemic heart disease, stroke, heart attack), cancers, respiratory system diseases, mental disorders and endocrine disorders.

Most people die when they are over age 65. In the 0 – 14 age group, most deaths (27 deaths per annum) occur in the first year of life.

Overall, the main causes of death are diseases of the circulatory system and cancer.

The 2002/03 NZ Health Survey reveals that most people believe they have very good health, while at the same time more than half of all adults are overweight, half do not get 30 minutes of exercise a day, and 20% of people over age 45 have been diagnosed with heart disease. Canterbury figures will be available in November 2004.

Tobacco smoking

Tobacco smoking is a major preventable cause of death among children, middle-aged adults and the elderly. In New Zealand, there are about 5,000 deaths per annum attributable to smoking.

Although tobacco smoking is declining, the rate of decline has slowed, with only slight decreases during the 1990s.

In Canterbury, smoking is killing nearly three adults a day and costing the region's hospitals \$23 million a year. Smokers are more likely to use in-patient and emergency hospital services than non-smokers. They heal less quickly and are more likely to be admitted to intensive care after surgery. Nearly 9,000 people over the age of 35 are admitted to hospital in Canterbury each year with smoking-related illnesses such as lung cancer and chronic obstructive respiratory diseases and nearly 1,000 die prematurely each year

Canterbury's smoking rates are summarised in the table below. Canterbury's rates are slightly lower than that of NZ as a whole, where the average rate is 25% for most age groups.

Canterbury District Health Board has a Tobacco Control

Canterbury	Males (aged 15+)	Females (aged 15+)
1998 – 2000	23.0%	24.0%
2001	23.1%	23.0%
2002	22.5%	21.5%

Strategic and Action Plan. The main goal of the Plan is to "Reduce the number of people smoking in Canterbury to 15% or less by 2010".

Infectious Disease

Infectious diseases could account for about 6.6% of the total deaths in New Zealand, and about 12% of hospital admissions. Each week, about 55 cases of infectious diseases are notified in Canterbury.

Water and food-borne organisms such as *Campylobacter*, *Salmonella*, and *Giardia* cause illnesses which account for many Canterbury hospitalisations and GP consultations. These diseases are of particular concern in young rural children.

Canterbury currently has a higher notified rate of whooping cough than any other district.

Canterbury's rates of meningococcal diseases are low compared with the rest of New Zealand, and we have few cases of tuberculosis.

Oral Health

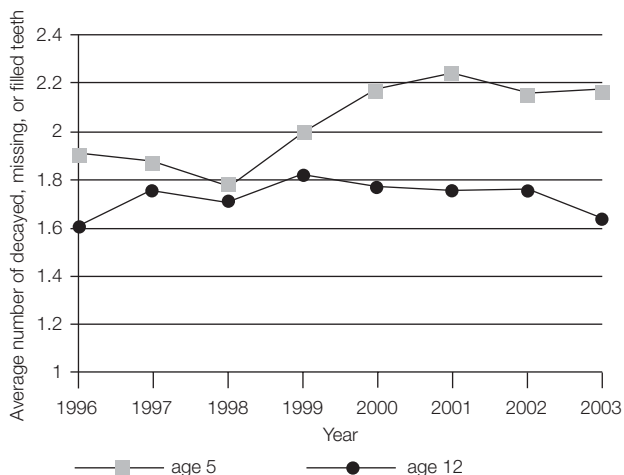
The rate of tooth decay in five-year-old children has increased since 1996.

Canterbury children do not have access to fluoridated drinking water, and the average number of decayed teeth in Canterbury children is higher than in Wellington children, where there is fluoridated drinking water.

Children in poorer neighbourhoods have more tooth decay than children in better-off areas of Canterbury. Māori and

Pacific children are more likely to have fillings than children of other ethnicities.

Figure 3: Dental caries in 5-year-olds and 12-year olds: Canterbury 1996 – 2003



Injuries

Injuries and poisoning are the causes of about 5% of deaths in Canterbury. Young men, between the ages of 15 and 29, experience the highest rate of car crashes, other motor-vehicle related injuries, and road-user fatalities.

Hurunui and Kaikoura have high rates of road-user casualties: about 80 per 100,000, which is the highest rate in Canterbury and among the highest in New Zealand.

Alcohol contributes to a significant number of car crashes, as well as other injuries, every year.

Injury rates in children, older people and the rural workplace are also of concern, and there are a number of injury-prevention initiatives in the region.

Hospital admissions and waiting lists

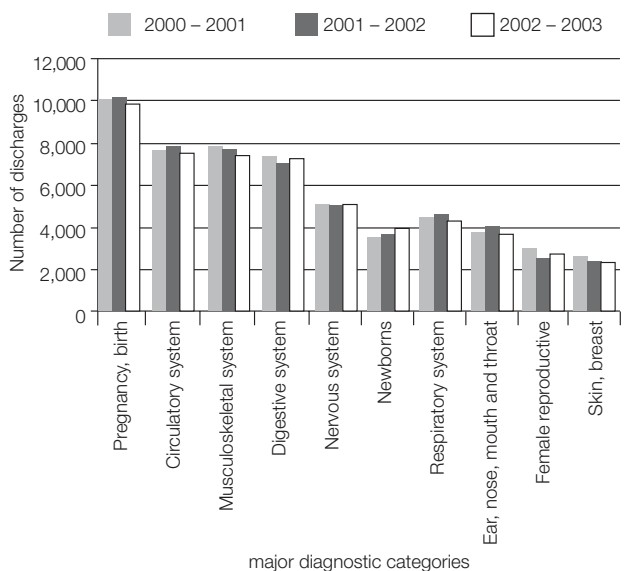
There are about 67,000 discharges each year from Canterbury DHB hospitals. Some of these discharges may be repeats for the same individual and not all people hospitalised in CDHB facilities are residents of Canterbury DHB region.

Overall, more females are discharged from hospital than males. Over the three years from 2000 to 2003, females accounted for 58% of CDHB hospitalisations. This is largely due to women of reproductive age having hospital stays for maternity care. Male children are hospitalised more than female and, after age 45, males again have slightly higher hospitalisation rates than females.

Elective services and acute services

Elective services are services for patients who have conditions that do not require immediate hospital treatment, such as hip replacement or cataract operations.

Figure 4: Top ten causes of hospitalisation, Canterbury DHB hospitals, 2000 – 2003 by major diagnostic category



Acute (or emergency) services are for patients who are very ill and require immediate treatment.

A new national system to reduce waiting times for elective (non-emergency) surgery is designed to provide people with a plan of care that includes a probable diagnosis, a list of planned actions and names of people to contact if there are problems.

There are guidelines set down for District Health Boards:

- There must be no more than six months wait between a person getting referred for a specialist assessment and the person actually seeing the specialist who makes the decision about further treatment.
- There must be no more than six months waiting time between the person being offered publicly-funded treatment and the person getting that surgery or other treatment.
- The treatment must be offered before the person reaches a state of unreasonable distress, ill-health, or incapacity.
- There should be national equity of access to electives, so that patients have similar access to elective services, regardless of where they live.

All District Health boards have steadily increased the amount of elective surgery provided over the past years. In some areas of surgery, Canterbury DHB is providing fewer procedures than the national average (cataract surgery, knee and hip replacements). In other areas, Canterbury DHB provides more than the national average (some orthopaedic surgery, angioplasties, some general surgery).

Overall, in the elective surgery specialty areas, Canterbury DHB provides all the surgical operations it is contracted for through its funding agreements with the Ministry of Health.

Primary Health

Canterbury has an adequate number of primary care providers but some people have difficulty accessing primary care, for a variety of reasons. Timely and consistent primary care can help prevent disease development, complications and hospitalisations. In Canterbury, people who are socio-economically deprived (as measured by NZDep01) are hospitalised at twice the rate of less-deprived people for conditions that are potentially preventable by good primary care.

Christchurch currently has more general practitioners (105 per 100,000 people) than other NZ cities, but these figures fluctuate from year to year. In general, there are fewer GPs per 100,000 people in rural Canterbury than in Christchurch.

Canterbury has high rates of participation in national screening programmes.

Canterbury has more pharmacy prescriptions dispensed per person than the national average for all age groups except the over 65s. On the other hand, for all age groups, we have fewer lab tests per person than the national average.

Mental Health

The self-assessed mental health of people in Christchurch is the same as that of other major NZ cities, with 70% of Christchurch residents reporting feeling 'calm and peaceful all of the time, most of the time, or a good bit of the time'.

Canterbury DHB's mental health services have had an increasing number of client contacts over the past three years. However, like all other District Health Boards, we are still not reaching the national mental health Blueprint target of 3% of the adult population.

Most users of mental health services are aged 20 – 64 years. During the first six months of 2003, Canterbury DHB mental health staff had appointments with about 7,000 individuals. Over the course of a year, this translates to about 45,000 contacts annually.

In 2002 – 2003, there were about 1,900 admissions to Canterbury DHB mental health facilities for mental health disorders. There were a further 513 admissions for alcohol and drug disorders.

Suicide rates in Canterbury are not higher than the national average but continue to be a cause of concern, especially for males.

Children and Young People

The proportion of children in Canterbury is declining, due to a static birth rate. In 2001, the 0 – 14 age group made up 18% of Canterbury's population. This will decrease to 15% in 2021.

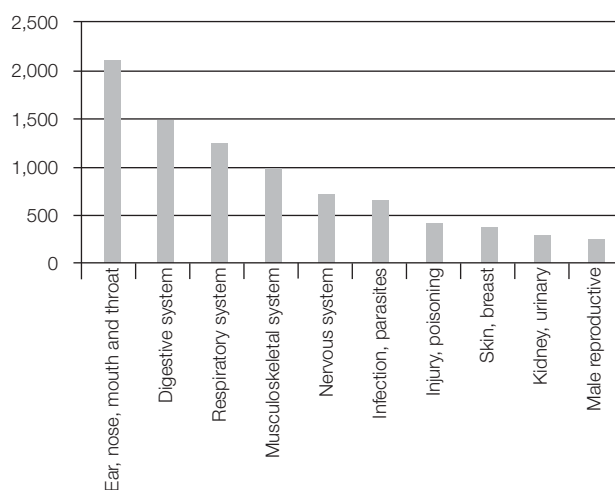
18% of Canterbury's under-15 age group live in deciles 8,9 or 10. High levels of deprivation predict poor health outcomes. More Pacific and Māori children live in deprived socio-economic circumstances than do children of other

ethnic groups. Out of 10 children in each ethnic group, more than 4 Pacific children live in deciles 8 – 10, 3 Māori children, 2 Asian children and 1.5 European children.

In many areas, Canterbury's children show better health statistics than national averages, but our hospitalisation rates for childhood asthma are high, and our notified rate of pertussis (whooping cough) is higher than any other district.

The graph below shows the main reasons for hospital admissions in one year for Canterbury's 0 – 14-year-old children.

Figure 5: Publicly funded Canterbury District Health Board hospital discharges 0 – 14 years, 2002 – 2003



High school students in Christchurch have higher smoking rates than rural Canterbury students, as well as higher than the national average. Many young people engage in high health-risk behaviour in terms of sex, alcohol and other drugs, and motor vehicles.

Māori Health

Improvements in Māori health status are critical, given that Māori, on average, have the poorest health status of any group in New Zealand. Nationally, and regionally, a range of health strategies acknowledge the importance of prioritising Māori health gain and development in order to reduce and eventually eliminate health inequalities that negatively affect Māori.

44% of all Māori in the South Island live in Canterbury. Māori make up 6.7% of the Canterbury DHB population. Māori people living in Canterbury have increased in number from 28,597 in 1996 to 28,728 in 2001. The Māori population has a youthful age structure, with 37% under the age of 15. The median age of Māori in Canterbury is 22 years old.

In the 2001 census, Ngai Tahu was the largest identified iwi in Canterbury, followed by Nga Puhi and Ngati Porou.

About 30% of Māori in Canterbury have levels of deprivation of NZDep01 8,9 or 10. This compares to 15% for pakeha, 17% for Asian and 43% for Pacific.

In Canterbury, improving the quality of ethnicity data collection is an urgent and ongoing issue for all health providers. Only when ethnicity data is collected accurately will we be able to measure whether progress is occurring in improving the health of Māori and other ethnic groups.

To increase Māori health status and reduce health disparities, it is important to:

- Improve childhood immunisation rates, oral health, and hearing. Māori children have higher rates of hospitalisation for vaccine-preventable diseases, and higher rates of tooth decay and glue ear than do children of other ethnicities.
- Reduce the injury rate in children and young people. Nationally, Māori are over-represented for injuries from car crashes, assault and pedestrian-car incidents.
- Reduce the rate and effects of diabetes. Māori people are more than twice as likely to develop diabetes as European people.
- Reduce smoking rates and the prevalence of asthma among Māori.
- Improve mental health for Māori people.

A number of strategies are in place to address these health concerns, and Canterbury DHB continues to work closely with the Māori community and Māori health providers to make progress.

Older People

Most people aged 65 or over are fit and healthy. A minority are frail and vulnerable and require high levels of care and disability support. This is usually during the last years of their lives, or as a result of chronic illness or disability that may have been present for many years.

While older people may be healthier for longer in the future, the rapid growth in the number and proportion of older people, particularly between 2010 and 2040, will increase pressure on health funding because costs of health and disability support services increase significantly with age.

In 2001, the over-65s made up 13% of the total Canterbury DHB population. This is projected to rise to 20% by 2021. Women can expect to live longer than men, and while they will have a longer period of independence in old age, they are also more likely to have more years with a disability requiring assistance. Māori and Pacific people have a lower life expectancy than people of other ethnic groups.

The median income for Canterbury people over 65 is between \$10,000 and \$15,000, and most over 65s (81%) have a community services card.

Injuries: About 1,250 people over 65 years are hospitalised annually as a result of injury due to accidental falls. Most of these hospitalisations are in the over 85 age group.

Health problems: There are a number of health problems that people are more prone to as they age. Some of these are disease-related, such as diabetes, cancer, cardiovascular disease, respiratory diseases and dementia. There is also a high prevalence of depression, visual loss and arthritic problems.

Age-related syndromes such as dementia are expected to increase in Canterbury (as in the rest of the world) as the population ages, and people live longer.

People with Disabilities

Using information from the 1998 New Zealand Disability Surveys, it is estimated there are about 160,000 people with disabilities in Canterbury DHB. About 58,000 of these people have a disability requiring assistance.

Canterbury DHB has an Action Plan for Disability, which outlines actions to eliminate barriers to health services for people with disabilities, and to promote a more inclusive society.

The support workforce for people with disabilities has historically had low rates of pay, high staff turnover and few training opportunities. There are moves underway nationally to address these issues.

Pacific People

The main Pacific ethnic groups in the South Island are Samoan (over 50%), Tongan, Cook Island Māori and Niuean. Most (62%) South Island Pacific people live in the Canterbury region.

In the Canterbury DHB district, the Pacific population is estimated to increase from about 9,000 in 2001 to 15,000 by 2021. About 60% of Pacific people are Samoan, with Cook Island Māori and Tongan being the next most common groups.

Pacific people in Canterbury are a young population. About 65% are aged under 30 years. There are proportionately at least twice as many Pacific children as non-Pacific children under 10 years of age. One-fifth of all Pacific people are aged 10 to 19 years.

There are proportionately more Pacific people living in the more deprived areas of the South Island (NZDep01 deciles 7 – 10) and fewer in the less deprived areas (NZDep01 deciles 1 – 4), than non-Pacific people.

Pacific people are more likely than non-Pacific people to be admitted to hospital for diseases of the respiratory system, diseases of the skin and subcutaneous tissues, and conditions related to pregnancy.

The high rate of cigarette smoking among Pacific people aged 15 – 24 years is a concern (39% for males, 45% for females).

Rural Health

Rural Canterbury is considered to be those areas outside urban Christchurch and Ashburton, from Kekerengu in the north, to the Rangitata River in the south, to the Southern Alps in the west. About 16% (69,000 people) of CDHB's population lives in rural Canterbury, (excluding secondary urban areas of Christchurch such as Rangiora, Kaiapoi, and Lyttelton, as well as Ashburton).

There are different degrees of rurality: about 7,000 Cantabrians live in remote areas and have to drive for more

than an hour for primary health services. Other people live rurally but are able to commute to Christchurch or Ashburton to work within a reasonable time or distance. Rural residents who work in urban areas may get their primary health care in town and rely on rural health services only for after-hours or emergencies.

Most rural Cantabrians are relatively well-off in socio-economic terms, although there are pockets of poverty.

Rural people have similar health needs to their urban counterparts. However, it may be more difficult for rural people to reach health services because of distance, cost, geography, communication, or availability of services.

Some specific rural health concerns include:

- The high incidence of gastrointestinal illness (enteric disease) in under-5-year-old children.
- Rural Canterbury teenagers are inclined to binge drink and travel with drunk drivers at a higher rate than the national average. More than 10% of rural female high school students report that they smoke tobacco daily.
- The rate of workplace injuries is high in Kaikoura, Hurunui, and Ashburton.

New Migrants and Refugees

The number of overseas migrants settling in Canterbury is rising steadily each year, from about 6,000 in 1998, to 9,500 in 2002.

New migrants may have particular health problems, and refugees may experience more complicated health problems as a result of civil war, life in refugee camps and poverty. For many new migrants, English is not their first language and talking about health will be complicated by communication difficulties.

In 2001, 4.4% of the Canterbury DHB's usually resident population identified as being of Asian ethnicity (18,270 people). Most Asian people in Canterbury live in Christchurch and are between the ages of 15 and 44. Health concerns include: need for interpreters trained in health, cultural difficulties in accepting western medicine and problems with understanding prescription instructions.

Mental health and sexual health tend to be the main health-related concerns of the overseas students at Canterbury's tertiary institutions.

Refugees and asylum seekers are assisted by a number of health and social agencies, but may often require special mental health services, disease screening services, and help with housing, jobs and language skills, all of which are essential to settling in and leading a healthy life in New Zealand.

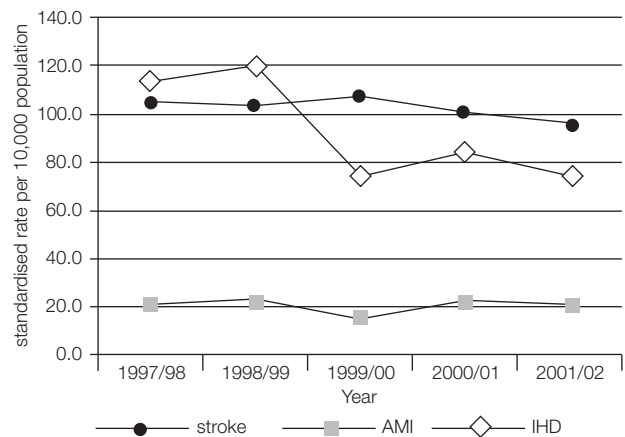
Cardiovascular Disease

Diseases of the circulatory system are the main cause of death for Canterbury. Although death rates for cardiovascular disease (CVD) have declined steadily over the past decades, the incidence of CVD will increase as our population ages.

Higher rates of obesity and diabetes will also contribute to poorer heart health.

Each year, about 2,600 (55% male) people in Canterbury are admitted to hospital with circulatory system disease. Below is a summary of public hospital discharge rates for three common conditions: stroke, heart attack (acute myocardial infarction, or AMI) and ischaemic heart disease.

Figure 6: Discharge rates for stroke, acute myocardial infarction and ischaemic heart disease, Canterbury DHB, 1997/98 to 2001/02



About 1,367 people die from cardiovascular diseases in Canterbury in an average year. This number has stayed roughly the same since 1996.

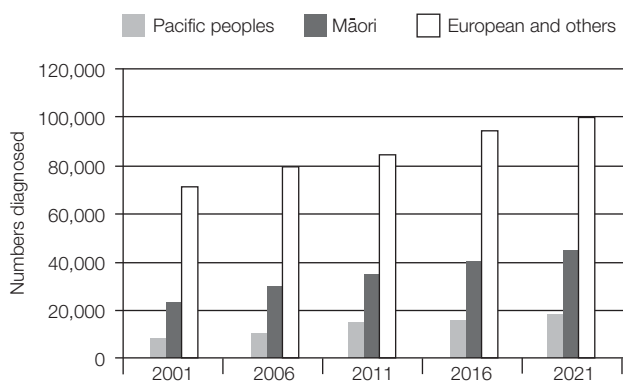
- 45% of female deaths is due to CVD, and 41% of male deaths.
- About 338 people die each year from stroke.
- About 740 people die each year from ischaemic heart disease.
- About 75 people die in hospital after having a heart attack and a further 170 people die each year within one year of having a heart attack.

Diabetes

Diabetes is estimated to cause about 1,200 deaths per year in New Zealand, and diabetic complications (such as heart disease, blindness and kidney failure) are major contributors to the burden of disability experienced by people from middle age, especially in Māori and Pacific communities.

Both type 1 (insulin-dependent, often begins in childhood, about 10% of cases) and type 2 diabetes (non-insulin dependent, often due to obesity, poor nutrition, smoking) are increasing in incidence across New Zealand. The increase in type 2 diabetes is of greatest concern. The estimated increase

Figure 7: Diagnosed Type 2 Diabetes in New Zealand by Ethnic Group – projections to 2021



in numbers of people with type 2 diabetes is shown in the graph above.

In Canterbury, the number of people having free annual diabetes checks is increasing each year, and more people are having their eyes screened. The proportion of people with poor control of their diabetes has stayed at about 25% for the past three years.

Indicator	Calendar years		
	2001	2002	2003
% of the expected number of people with diabetes in the Canterbury region who have been diagnosed with diabetes and had an annual review during the year.	48%	69%	72%
% of people having annual diabetes reviews who have had their eyes screened in the last two years (ie after every alternate annual check)	34%	41%	45%
% of people having annual diabetes reviews who had poor diabetes control (HBA1c>8%)	25%	27%	26%

Source: Canterbury Local Diabetes Team Annual Report 2003.

Cancer

Cancer rates will continue to rise slowly over the coming years, as our population ages. The risk of dying from cancer has not increased, however, due to improved treatment and earlier diagnosis. Some cancers, such as those associated with tobacco smoking, have declined.

Cancer accounts for 29% of all deaths in New Zealand and Canterbury, and is the second leading cause of death after diseases of the circulatory system.

In recent years in Canterbury (1998 – 2000), 2,137 people per year have developed cancer. The numbers are slightly higher for men (1,141 cancer cases notified per year) than for women (996 cases per year).

The most common cancer for men is prostate cancer, and for women, breast cancer.

For men, Canterbury's rates of colorectal, lung, kidney and bladder cancers, and leukaemias and lymphomas are significantly higher than the national rates.

For women, the rate of kidney and bladder cancer is significantly below the national rate.

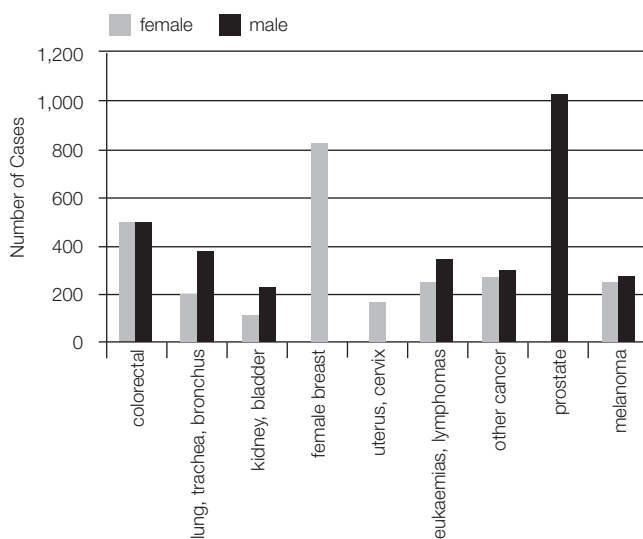
Overall (male and female combined), Canterbury's rate of cancer per 100,000 population is the same as the national rate.

Childhood cancer: in Canterbury, in a year, about 16 children between the age of 0 and 14 develop cancer (total of 47 between the years 1998 and 2000).

The graph shows the total number of cases of the most common cancers registered in Canterbury over a three-year period.

Waiting times for radiotherapy continue to be higher in Canterbury DHB than in other DHBs with cancer treatment centres.

Figure 8: Number of cancer registrations by site, Canterbury male and female, 1998-2000



Respiratory Disease

Respiratory disease is the third leading cause of death in both Canterbury and New Zealand, and Canterbury's rates are much the same as those for New Zealand as a whole.

Respiratory diseases include:

- Asthma
- Smoking related disorders – chronic obstructive pulmonary disease (COPD) and lung cancer
- Bronchiectasis
- Acute respiratory infections
- Tuberculosis

Smoking either causes or exacerbates all respiratory diseases – overall there is a need for an emphasis on smoking prevention and smoking cessation.

The hospitalisation graphs below show that children in their first four years, especially their first year, and people 45 and over are the main sufferers of respiratory disease. Males are hospitalised at a higher rate than females for respiratory problems. Asthma and acute respiratory infections affect the young, and smoking related diseases affect older people.

Figure 9: Publicly funded hospital discharges in Canterbury for respiratory disease by age, 2000 – 2003, female

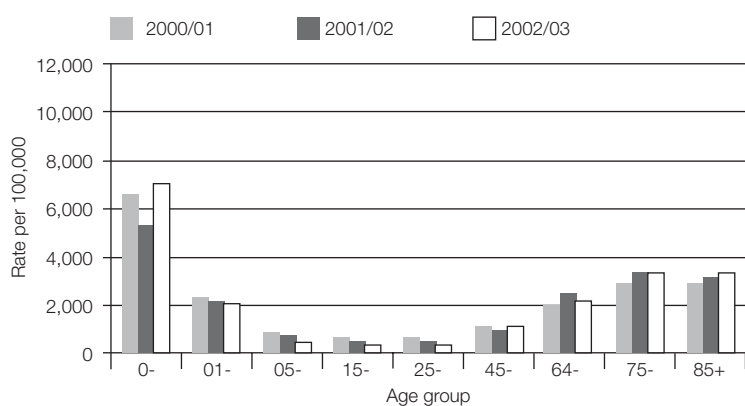
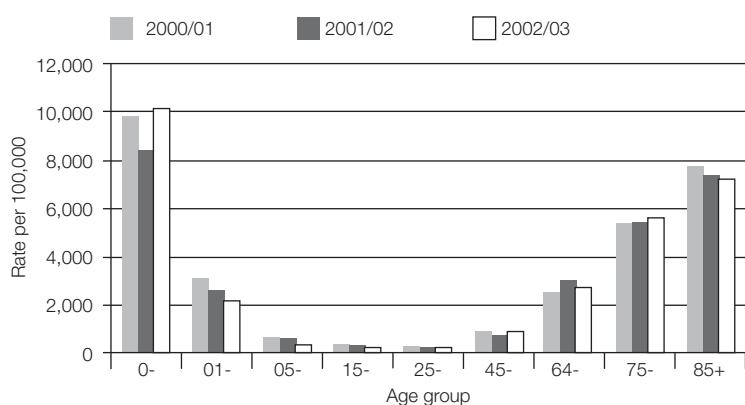


Figure 10: Publicly funded hospital discharges in Canterbury for respiratory disease by age, 2000 – 2003, male



Workforce

Canterbury DHB is the largest employer of health workers in Canterbury, with 8,194 actual staff members, or 5,680 Full Time Equivalents.

Canterbury has more nurses, general practitioners, medical specialists, physiotherapists and lab technologists per 100,000 people than national averages.

We have shortages of pathologists, radiation therapists, cardiology technicians, rural midwives and anaesthetic technicians.

The complete version (200+ pages) of this Health Needs Assessment for Canterbury DHB is available on CDHB's website: www.cdhb.govt.nz

Canterbury

District Health Board

Te Poari Hauora o Waitaha