Waitemata Health Needs Assessment 2009

Health and health care of Waitemata residents

Health Information for Action Team

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List of abbreviations

A+D	Alcohol and Drugs
ADHB	Auckland DHB
AAU	Acute Admissions Unit
ACC	Accident Compensation Corporation
AH	Avoidable hospitalisation
AIDS	Acquired Immunodeficiency Syndrome
AK	Auckland
AM	Avoidable mortality
AOD	Alcohol and Other Drugs
ARPHS	Auckland Regional Public Health Service
ASH	Ambulatory sensitive hospitalisations
ASR	Age-standardised rate
AUDIT	Alcohol Use Disorders Identification Test
BCG	Tuberculosis vaccine
BMI	Body mass index
C&Y	Children and Youth
CALD	Culturally and linguistically diverse
CAP	Capital Assistance programme
CAU	Census Area Unit
Census	New Zealand Census of Population and Dwellings
CI	Confidence interval
CIDI	Composite International Diagnostic Interview
CMDHB	Counties Manukau DHB
COPD	Chronic obstructive pulmonary disease
CPO	Controlled purchase operations
CVD	Cardiovascular disease
DALY	Disability Adjusted Life Years
DHB	District Health Board
DMFT	Decayed, missing or filled teeth
DSM	Diagnostic and Statistical Manual of Mental Disorders
DWA	Days waiting after being assured treatment
ECC	Emergency Care Centre
ECEC	Early Childhood Education Centre
ED	Emergency Department
ENT	Ear, nose and throat
ESR	Institute of Environmental Science and Research
FSA	First specialist appointment
FTE	Full time equivalent
FU	Follow up specialist appointment

GP	General Practitioner
H5N1	Avian influenza
HbA1c	Measure of the adequacy of glycaemic control
HDIU	Health & Disability Intelligence Unit, Ministry of Health
HDIU	Health & Disability Intelligence Unit, Ministry of Health
HIA	Health impact assessment
HIV	Human Immunodeficiency Virus
ICD10-CM	International Classification of Diseases, 10th Revision, Clinical Modification
IDF	Inter district flow
IHD	Ischaemic heart disease
LBW	Low birth weight
LMC	Lead Maternity Carer
LOS	Length of stay
MaPO	Maori Purchasing Organisation
MCNZ	Medical Council of New Zealand
MHINC	Mental Health Information National Collection
mmHg	Millimetres of mercury
MoH	Ministry of Health
MRRC	Mangere Refugee Resettlement Centre
NatMedCa	The National Primary Medical Care Survey
NCEA	National Certificate of Educational Achievement
NCR	National Cancer Registry
NDSA	Northern DHB Support agency
NFD	Not further defined
NGO	Non-government organisations
NMDS	National Minimum Data Set
NNPAC	National Non-Admitted Patient Appointment Collection
NDHB	Northland DHB
NICU	Newborn Intensive Care Unit
NSU	Non-specific urethritis
NZ	New Zealand
NZDep2006	New Zealand Deprivation Index 2006
NZFSA	New Zealand Food Safety Authority
NZHIS	The New Zealand Health Information Service
NZHS	New Zealand Health Survey
OECD	Organisation for Economic Co-operation and Development
PH	Preventable hospitalisation
PHO	Primary Health Organisation
PIN	Parent-Infant Nursery
RAS	Refugees as Survivors
READ2	Primary care disease coding system
SARS	Severe acute respiratory distress

SCBU	Special Care Baby Unit
SF-36	Short Form 36
SGA	Small for gestational age
SIDS	Sudden infant death syndrome
SIDS	Sudden Infant Death Syndrome
STI	Sexually transmitted disease
TA	Territorial authority
TB	Tuberculosis
TAP	Technical Assistance Programme
TM	Trade mark
UV	Ultraviolet
WATIS	Waitemata Translation and Interpreting Service
WDHB	Waitemata DHB
WHO	World Health Organisation

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Executive Summary

Introduction

DHBs are responsible for funding and providing health services for the population living in their district. Health needs assessment (HNA) forms an initial step in the planning undertaken to fulfil this responsibility. DHBs are required to regularly assess the health status of their resident population, any factors that may adversely affect the health status of the population and their needs for services.

This document takes an epidemiological and comparative approach to health needs assessment. It provides an overview rather than detailed information in any area. Previous health needs assessments undertaken in 2001 and 2005 have produced a single document. In 2008 additional HNAs focused on the needs of our Maori, Pacific, and Asian communities and this overall HNA should be used in conjunction with those three documents.

Data and information sources

This document uses information from a wide range of sources. Data sources include the 2006 Census, mortality, hospitalisation, and outpatient data, and a number of surveys. In addition, where documents have recently been produced that describe Waitemata's health needs we have drawn heavily from these documents rather than repeat analyses. We also have used a great deal of analyses provided by the Health and Disability Intelligence Unit of the Ministry of Health.

Demography

In 2006 there were 481,611 people living in the Waitemata district, accounting for approximately 12.0% of the national population. Both the age and gender composition of Waitemata residents was similar to the New Zealand population.

8.9% of our population is Maori, 7.3% Pacific and 14.2% are Asian. The majority of our Maori population (53%) and the large majority of our Pacific population (78%) live in Waitakere. In contrast 55% of Asians live in North Shore City. Our Pacific population is predominantly Samoan (49%), Tongan (15%), and Cook Island Maori (14%). Our Asian population is diverse but is predominantly Chinese (40%), Indian (22%), and Korean (18%).

Waitemata has a relatively wealthy population compared to New Zealand as a whole. Only 8% of our population live in NZ Dep2006 decile 9 and 10 area (the poorest areas) compared to 20% for New Zealand as a whole. In contrast 26% of our population live in areas of the wealthiest two deciles compared to 20% for New Zealand as a whole. However, this varies between Territorial Authorities with Waitakere City having much higher proportions in more deprived areas than North Shore or Rodney.

Waitemata's population is predominantly urban with only 6% of our population living in rural areas.

22% of our population are children and 14% young people. 11% are 65 years or older. However our Maori, Pacific and Asian populations are considerably younger with 54% of Maori, 51% of Pacific and 42% of Asians been under the age of 25. These populations are also notable for the small proportion of older people they contain (4% or less of their total populations).

There has been a gradual but steady increase in the number of births in Waitemata to just over 7,700 a year. The Maori and Pacific fertility rates are almost twice those of Asian and Others.

By 2026 Waitemata's population is predicted to be nearly a third larger than it is now. It will also be a considerably older population with the number of people 65 years and older expected to double. The Maori and Pacific population will also grow faster than the population as a whole.

Determinants of Health

Health is largely determined by our environment and behaviours rather than by health services. This section examines these factors.

Social factors

Social capital measures attempt to capture the coherence of our communities. Most people feel that there is a sense of community where they live and that people can usually be trusted although people in Waitakere are less likely to be positive than people in Rodney.

Social support is also known to have a positive impact on health. 40% of people feel isolated at least some of the time. The large majority of people have access to telephones and cars so these are unlikely to be barriers to social support. However many people are relatively new to the place in which they live. Over 20% of children, and over 40% of Maori children, live in single parent families. Many older people, and older women in particular, live alone.

Most people are happy with their lifestyle including their quality of life and work/life balance.

Violence and crime

Crime and violence have important impacts on people's lives. About one third of people do not feel safe walking alone at night and one quarter of people do not think unsupervised children are safe in their area. People in Waitakere are more likely to report these safety issues. Whilst reporting of most crime has been stable over the last six years violence offences have increased since 2005. In particular Police attendances at family violence have increase in line with national trends.

New Zealand and Auckland studies show that over a quarter of women will experience some degree of violence from a partner during their lives although the proportion that has experienced it in the last year is much smaller. A smaller but still significant proportion of men also experience partner violence. Maori are more likely to experience partner violence.

Sexual assault is also a common experience for women (nearly 20%), often from a partner. The majority of these women will have experienced their initial sexual assault by age 17.

Physical violence, emotional abuse and neglect are common experiences for children and young people both at home and school or elsewhere. Children and Young Peoples services in Waitemata carried out investigations which resulted in 2,852 findings of abuse in 2007.

Older people are also victims of abuse, most commonly psychological or neglect, and usually from a family member.

Cultural factors

Culture can be an important positive or negative influence on health. Many people in Waitemata are immigrants and are therefore somewhat dislocated from their culture. This is particularly the case for Asians (84%) and Pacific people (41%) but is also common amongst Others.

For Maori although they are tangata whenua access to their culture is often still an important issue. 15% of Maori in Waitemata do not know their Iwi and over 80% cannot speak Te Reo.

Economic factors

Economic factors such as income, occupation and education are the most powerful determinants of health. Maori and Pacific young people in Waitemata are more likely to leave school with little or no formal attainment than Europeans and Asians, and are much less likely to achieve University Entrance standard.

Women are more likely to be unemployed than men. However, these differences are smaller than the differences that exist between ethnic groups with Maori being twice as likely to be unemployed as Other. Women are also much more likely to be on low incomes than men (29% vs 19%). Asians are much more likely to be on low incomes than other groups.

Household crowding is much more common amongst Maori and Asian households than Europeans. However, crowding is most common amongst Pacific households where 45% of households experience crowding.

Environmental factors

Environmental factors have an important impact on both communicable and non-communicable disease. Waitemata's transport use is dominated by cars. Over three-quarters of people travelled to work by private or company vehicle. Only a tiny percentage used active transport. Access to recreational activity areas is good for the large majority of people but green space provision is poorer in more deprived areas.

Access to fruit and vegetable retailers and takeaways is higher near urban centres and highest is more deprived areas (particularly for takeaways).

The large majority of Waitemata residents have access to reticulated water from safe drinking water supplies. Reticulated supplies are fluoridated except for Helensville and Huia.

A substantial minority of Waitemata residents perceive problems with air, noise and recreational water pollution.

Lifestyle factors

14% of Waitemata adults are daily smokers. This is considerably lower than for New Zealand as a whole (19%). However, rates are high amongst some groups, notably Maori (30%), Pacific people (19%) and younger adults. The proportion of Year 10 students who smoke has steadily declined over the last 5 years. Just under 20% of year 10 students still live in homes where smoking is allowed inside.

Poor nutrition is a major cause of poor health in New Zealand. Nutrition is complex and we only have limited information at the Waitemata level. Only 54% of adults eat the recommended daily intake of vegetables and only 61% eat the recommended daily intake of fruit. On these measures women have a healthier diet than men. Pacific and Asian people are also less likely to have the recommended intake of vegetables.

Children in Waitemata tend to have healthier eating habits than their national peers.

Only just over 50% of babies in Waitemata are fully breastfed at three months of age. Europeans and Others are more likely to be breastfed than Maori, Pacific, and Asian babies.

Fewer than half of Waitemata adults are regularly physically active and 15% had done less than 30 minutes of exercise in the last week. Asian people were the least likely to be physically active.

Poor diet and lack of physical activity lead to overweight and obesity. 51% of women and 61% of men in Waitemata are overweight or obese. One in five of our population is obese (compared to one in four of the national population). However, obesity is much more common in our Maori (31%) and Pacific (48%) populations and much less common in our Asian population (8%).

Over 80% of adults and young people in Waitemata drink alcohol. 18% of adults drink alcohol in a way that is classified as hazardous.

Marijuana is the most commonly used illegal drug in Waitemata and New Zealand with about 15% of people having used it in the last year. Maori were particularly likely to have used it (39%) whilst its use was very rare amongst Asians. Nationally other drugs most commonly used were nitrous oxide, Kava, Ecstasy, and Amphetamines but each of these was tried by less than 4% of people in the last year. Party pills were commonly used in 2006 prior to it being made illegal.

Nationally two out of three adults had gambled in the last year but less than one half of a percent of people were problem gamblers. Problem gambling was more common amongst Maori and Pacific people.

State of Health

Overall health

Except for Pacific men people in Waitemata have a higher life expectancy than their national counterparts and this is particularly so for Maori. However there are quite large differences in life expectancy between different population groups. Women have a longer life expectancy than men and Maori and Pacific people have a shorter life expectancy than Others. Life expectancy for Asians cannot be accurately calculated because of migration. Similar patterns are seen for overall mortality.

Avoidable mortality (AM) measures deaths that might have been avoided by successful public health (including changing lifestyles) or health service intervention. 37% of all deaths were considered potentially avoidable in 2003-05. Waitemata's avoidable mortality rate was 80% of New Zealand's as a whole. The very marked differences between groups indicate the opportunity for reduction of health inequalities. Men have a 50% higher avoidable mortality rate than women. Maori and Pacific avoidable mortality rates that are more than double Others.

The leading causes of avoidable mortality in Waitemata are ischaemic heart disease (IHD), lung cancer, colorectal cancer, suicide, and stroke. For women breast cancer is also important. For Maori, Pacific, and Asians diabetes is important and for Maori so is chronic obstructive pulmonary disease (COPD).

Avoidable hospitalisation (AH) is another useful measure for examining our ability to improve health and reduce inequalities. It is also important because reductions of these hospitalisations would reduce the burden on our health system. Waitemata has a similar avoidable hospitalisation rate as New Zealand as a whole. The Maori avoidable hospitalisation rate is almost 75% higher than that for Others and the Pacific rate is almost double. Asian is lower than Others.

The commonest avoidable hospitalisations are angina, respiratory infections, cellulitis, road traffic injuries, and ear, nose, and throat infections. For women kidney and urinary tract infections are common. Asthma and COPD are also important for Maori and Pacific people.

More than 60% of adults in Waitemata report that their overall health is excellent or very good although this is somewhat lower for Maori and Pacific people.

The World Health Organisation has calculated the overall burden of diseases for all countries including New Zealand. They use a measure that includes burden from early death and from lives led with disability. The most significant diseases using this measure are cancers, depression, IHD, stroke, COPD, and injuries which together account for 50% of all disease burden. Other important illnesses are diabetes, alcohol use disorders, dementia, hearing loss, asthma, osteoarthritis, and congenital anomalies.

Cardiovascular disease

High blood pressure and high cholesterol are common risk factors for cardiovascular disease with one in seven Waitemata adults being on medication for high blood pressure and one in 14 being on medication for high cholesterol. A lower proportion of Maori and Pacific people are on these medications despite higher rates of cardiovascular disease (CVD).

Many people live with cardiovascular disease with the prevalence reaching 25-40% by the age of 80. CVD mortality was 49% more common in men than women, 69% more common in Maori as Others, and more than twice as common in Pacific people as Others. Asians have a lower rate. CVD hospitalisations show a similar pattern although the ethnic differences are less dramatic.

Diabetes

Over 20,000 people in Waitemata have diabetes. Diabetes prevalence increases dramatically with age reaching 40% of the population in some ethnic groups by the time people are in their 60s. Prevalence in Maori is twice that of Others, and is even higher for Pacific people and South Asians. Whilst these differences are large the differences in the incidence of diabetes complications such as renal failure admissions and lower limb amputation admissions are even larger.

Cancer

Cancer mortality in Waitemata is significantly lower than nationally. Maori and Pacific people have cancer mortality that is almost 50% higher than Others, whilst Asian people have the lowest rates.

The most significant causes of cancer mortality are lung cancer, colorectal cancer, breast cancer and colorectal cancer. Waitemata has significantly lower rates of lung and colorectal cancer and than New Zealand as a whole. Maori and Pacific people have much higher rates of lung cancer and cervical cancer mortality than Others. Nationally they also have higher rates of breast cancer mortality. Asian mortality rates for most cancers are low.

Cancer hospitalisation and registration rates tend to mirror these trends although ethnic differences are usually less marked.

Respiratory disease

Nearly 10% of Waitemata adults are taking medication for asthma. Whilst the prevalence of asthma for Maori and Pacific people was similar to Others their hospitalisation rates was about three times that of Others. Asian people had both a low asthma prevalence and low hospitalisation. Women have a higher hospitalisation rate than men.

7% of Waitemata adults have chronic obstructive pulmonary disease (COPD). COPD is a particular burden for Maori with prevalence rates four times as high and hospitalisation rates nearly three times as high as Others.

Infectious disease

Infectious disease is now an uncommon cause of mortality. Many infectious diseases are notifiable. The most commonly notified diseases are those that cause gastroenteritis, particularly campylobacteriosis.

Musculoskeletal disease

Arthritis is very common in adults, particularly amongst Others where 13% of adults report having arthritis. Osteoporosis is also common amongst women.

Injury

ACC claims for injury are common, particularly amongst youth and young adults. Maori and Others have higher rates than Pacific and Asians have the lowest rates of claim. Nearly half of claims are for soft tissue injury, but fractures and dislocations and lacerations and puncture wounds are also common. Most injuries occur at home or during sport or recreation. Injury is also a cause of hospitalisation with Waitemata having higher rates than nationally. Maori and Pacific people have high rates of injury hospitalisation. Maori have high rates of injury mortality.

Oral health

Waitemata children have better oral health than New Zealand children as a whole. However there appears to have been some worsen in oral health status between 2004 and 2006. Maori and Pacific children have markedly poorer oral health than Others. Only limited national data is available on adult oral health. About half of adults have had one or more teeth removed due to disease.

Mental Health

12% of adults report they have a chronic mental health condition. Pacific and Asian people are less likely to report this although Pacific people are more likely to report psychological distress which is associated with mental health issues.

The NZ Mental Health Survey found that 21% of adults had a mental health disorder in the last 12 months. This was higher amongst youth and women and uncommon amongst older people. The commonest disorders were anxiety disorders (especially specific phobias), mood disorders (especially major depression) and substance abuse disorders. 0.4% of adults had attempted suicide. Waitemata's suicide rate was slightly lower than the national one.

Disability

Only regional and national data was available. 9% of children in the Auckland region had a disability. Amongst adults the rate of disability increases from 7% amongst young adults to 37% in older people (65 years and older). Nationally Maori have higher rates of disability and Asians low rates. Sensory and physical disabilities are most common types in adults and sensory and chronic health problems in children. Multiple disabilities are common. In children disabilities present at birth are the commonest cause, and remain important through all age groups. In middle ages disease and illness and accidents are important and aging processes become important in older people. Many children with disabilities (16%) have unmet needs.

Maternity and birth

There were 27 admissions for pregnancy complications for every 100 live births in Waitmata but this was a lower complication rate than for New Zealand as a whole. Pacific mothers were more likely to be admitted.

28% of all births in Waitemata were by caesarean section and a further 10% were assisted (e.g. forceps delivery). Maori and Pacific mothers were more likely to have normal deliveries.

6% of babies born have low birth weight. There has been a decline in small for gestational age babies and a smaller increase in preterm babies over the last 20 years.

Infant mortality rates in Waitemata are lower than New Zealand as a whole at about 4 per 1,000 live births. Maori infant mortality rates were higher than all other ethnic groups.

Children

Death in childhood, after the first month of life, is a fortunately rare event with an average of 30 deaths a year in Waitemata, almost half being infants. The most common cause of death in infants were sudden infant death syndrome (SIDS), congenital anomalies, suffocation and injuries. In older children the commonest causes were injury, cancers, and congenital anomalies.

There were 105 admissions to hospital each year for every 1,000 children in Waitemata. 63% of childhood hospital admissions were acute, 9% arranged, and 28% from waiting lists (for surgery etc). The commonest acute admissions were for injury, gastroenteritis, asthma, viral infections, respiratory infections, and skin infections. Admissions for infectious disease, skin infections and

respiratory infections have all increased markedly over the last 10 years. The commonest waiting list admissions were for grommets, dental procedures, and tonsils and adenoids.

There were an average of 16 cancers a year registered amongst young people in Waitemata. Leukemia and brain cancer were the most common.

The commonest chronic conditions reported amongst children are asthma (15% of children), eczema (14%), allergy (6%), and birth conditions (4%).

Young people

An average of 33 young people (15-24 year olds) died each year in Waitemata. Most of these died from injury or suicide. Suicide deaths seem to have started to decline after a long period of increase.

There were 87 admissions to hospital for every 1,000 young people in Waitemata as well as pregnancy related admissions (including delivery). The commonest acute admissions were injury, abdominal or pelvic pain, and skin infections.

There were an average of 19 cancers a year registered amongst young people in Waitemata (in addition to 51 cases of cancer of the cervix in situ per year). Melanoma and lymphoma were the most common cancers.

About 6% of Maori teenage girls, 3-4% of Pacific teenage girls, and 1.5% of Other teenage girls have a baby each year.

Older people

In 2006 there were nearly 53,000 people aged 65 years or older in Waitmata and nearly 6,000 age 85 years and older. Only a tiny proportion of these were Maori, Pacific, or Asian.

The large majority of older people do not require any assistance. Only 14% of people who are 85 years or older live in a rest home or private hospital, 23% have some funded support at home, and 63% receive no funded assistance. Many older people continue to work or do voluntary work.

The commonest causes of mortality and hospitalisation for older people are similar to the population as a whole. In Waitemata the leading causes of death amongst older people are IHD, stroke, COPD, lung cancer, and diabetes. Cancers together also account for 28% of deaths. The leading causes of hospitalisation are IHD and angina, respiratory infections, falls, COPD, skin cancers, and eye disorders.

Rodney, North Shore, Waitakere

Waitakere has significantly higher avoidable hospitalisation rates than Rodney and North Shore. Although avoidable mortality rates are slightly higher this is not statistically significant.

Migrants and refugees

32% of Waitemata residents were born overseas (compared to 23% nationally) and of these 32% have lived in New Zealand less than 5 years. This includes 81,486 people of European ethnicity,

13,863 Pacific people, and 56,865 Asian people. 83% of Asian people in Waitemata were born overseas, 39% of Pacific people, and 26% of people of European ethnicity.

English language ability is important in order to participate in New Zealand Society. In Waitemata in 2006 10,482 Asian people, 1,956 Pacific people, 810 European people, and 633 people of other ethnicities said they could not hold a conversation in English about every day things.

New Zealand is one of nine countries which accept a quota of refugees (700 per year). In addition NZ accepts around 300 family reunification refugees and in 2007/08 200 people sought asylum in New Zealand. Recently a number of refugees have settled in Massey, Henderson, Glendene, and Kelston. Recently refugees have come from Afghanistan, Iraq, Iran, Myanmar, Somalia, Eritrea, Ethiopia, Sudan, Burundi, and Congo.

Refugees often have high health needs related to conditions they come from and stress of resettlement. Common issues are infectious disease, mental health issues, woman's health issues, and chronic diseases.

Health services

Primary care

There are six Primary Health Organisations (PHOs) in Waitemata with 99 general practices. The PHOs vary in size of enrolled populations from less than 14,000 to over 150,000. 92% of Waitemata residents are enrolled in PHOs, including 14% who are enrolled in PHOs outside of Waitemata. Health West and Waiora in Waitakere, and Te Puna in North Shore have the most ethnically diverse enrolled populations and Waiora has the most deprived population.

80% of Waitemata adults have seen a general practitioner (GP) in the last year and 38% have seen a practice nurse. Asian people are less likely to have seen either. Only 8% of people report having not seen a GP when they needed to but this was higher amongst Maori and Pacific people.

Information about the nature and quality of GP consultations is national. Most consultations (88%) are with a GP the person has seen before. The average consultation lasted 15 minutes and the large majority of people felt their doctor listened to them well and discussed their healthcare with them. Half of the problems GPs were seen for were new problems or short term problems being followed up, about a third were long term problems, and only 5% preventive care. Two thirds of people received a prescription from their visit, nearly a third had some form of test, and one in six was referred to another health professional.

General practices undertake a number of recommended preventive health interventions including influenza vaccination, CVD risk screening and cervical screening. 64% of people over the age of 65 had received an influenza vaccine in the last year. 67% of adults had had a blood pressure check, 37% a cholesterol test, and 22% a diabetes test in the last year. 76% of eligible women had had a cervical smear in the last 3 years and 54% had a breast screen. Generally Maori, Pacific, and Asian people had lower coverage rates for preventive services than Others.

Care of long term conditions are an important part of primary care but little information is available on care provided except for diabetes care. Less than half the estimated number of people with

diabetes in Waitemata have a free annual review as part of the Get Checked programme. 71% of people in the Get Checked programme have had the recommended retinal screening within the last 2 years.

Other primary care providers include Family Planning and Sexual Health. The commonest sexually transmitted infections seen in Sexual Health Clinics were Chlamydia and Genital Warts. Chlamydia is a very common infection in young people, particularly women. Over 1% of women aged 15-24 had confirmed Chlamydia in a 3 month period. Family Planning provides almost 25,000 consultations a year in Waitemata.

Oral health care

Only about a half of 5 year olds and two-thirds of eight year olds are accessing free school dental care. Maori and Pacific children are less likely to receive care. Only half of adolescents are enrolled in the oral health service. Half of Other adults and a third of Maori, Pacific, and Asian adults have seen an oral health worker in the last year. 12% of adults report an unmet need for oral health care.

Secondary care

About one in 14 of our population has visited a hospital Emergency Department in the last year.

For every 100 men in Waitemata there are 34 Outpatient Clinic visits and for every 100 women there are 38 Outpatient Clinic visits. Maori have the highest rates of Outpatient attendance and Asian people the lowest. Waitemata residences have generally similar patterns of use of different outpatient services as residents in other parts of Auckland.

Waitemata public hospitals provided nearly 200,000 bed days of service in 2007/08. Bed occupancy at North Shore Hospital was very high, particularly for Medicine where it ran at over 100%. Long term projections show the need to continue to increase bed capacity.

Acute hospitalisations for both adults and children have increased over the last six years, particularly for Maori and Pacific people who have high rates of hospitalisation. Hospitalisations for Medical services are very much dominated by older people, whereas surgical hospitalisation is distributed amongst different age groups fairly evenly.

Maori and Pacific people also have higher rates of hospitalisation for elective services and Asians have low rates. There has been some increase in the rates of surgery for knee and hip joint replacement and for cataracts over the last six years but not for cholecystectomies and prostate surgery. The average wait between being given assurance of treatment and receiving surgery in Waitemata is 57 days which is less than for New Zealand as a whole. 95% of people receive their surgery within 5 months.

Mental health

About 1 person in 40 in Waitemata used mental health services in 2007. Utilisation rates were higher in men than women, and were also higher amongst young adults and people 75 years and older. Maori have higher utilisation than Other and Pacific and Asian people have very low rates.

A wide range of services are used with the most clients using Community Teams and Alcohol and Drug teams. Psycho-geriatrics, Child, Adolescent and Family, and Inpatient teams are also frequently accessed. People in Waitemata have a higher contact rate with mental health services but are less likely to be admitted to hospital (although if they are admitted they will stay longer).

Maternity care

Maternity care is provided at North Shore and Waitakere hospitals and community based maternity units at Helensville, Wellsford, and Warkworth. Some care is also provided by Auckland City Hospital including the most intensive neonatal care. Most maternity care is provided by midwives but there are important workforce issues.

Public health

Information is provided on the services provided by the Auckland Regional Public Health Service (ARPHS). ARPHS is our regional public health unit and the largest public health provider in our district as well as having statuary and regulatory responsibilities. A number of NGOs also provide national, regional, and local public health services, particularly health promotion activities, but these are not reported.

ARPHS has responsibility for communicable disease control through the disease notification system. Important diseases followed up include tuberculosis, enteric disease outbreaks, and hepatitis B. It also has some responsibilities around immunisation.

ARPHS also has many responsibilities around monitoring and protecting our environment as it impacts health. Important areas of focus are wastewater, drinking water, shellfish quality, food safety, and early childhood centres.

Non-communicable disease prevention is another important area of activity. This includes both health promotion and regulatory activity in the areas of alcohol, tobacco, and nutrition. ARPHS also does work on healthy housing programmes, and refugee and asylum seeker health, biosecurity, border response, and emergency management.

Waitemata's Population Compared With New Zealand's

Our population

Waitemata DHB has the largest population of any DHB and accounts for 12% of the total population of New Zealand.

Waitemata population has a similar age structure to New Zealand as a whole. A slightly smaller proportion of people are 65 years and older (11.0% compared with 12.3%).

Compared with New Zealand as a whole a smaller proportion of our population is Maori (8.9% compared with 14.0%) and a much larger proportion is Asian (14.2% compared with 8.8%).

Our population is much les less likely to live in deprived areas. 7.9% of people in Waitemata live in NZDep 2006 quintile 5 areas (poorest) whereas 19.8% of all New Zealanders do. In contrast 26.2% of Waitemata residents live in quintile 1 areas (wealthiest) compared to 20.5% nationally.

Waitemata's population is predicted to grow much more rapidly than all New Zealand's. Between 2006 and 2026 our population will grow by 30% compared to 18% for New Zealand.

The determinants of health

13.8% of adults in Waitemata are daily smokers. This is considerably lower than for New Zealand as a whole (19.1%). The proportion is lower in Waitemata for all ethnic groups, for example, 29.9% of Maori in Waitemata are daily smokers compared to 41.5% in New Zealand. 4.5% of Year 10 children in Waitemata are daily smokers compared to 7.3% in New Zealand.

Healthy eating and healthy action has a more mixed picture. 54.1% of adults in Waitemata eat three or more servings of vegetables on average each day; this is significantly lower than the national prevalence (62.6%). There is however, no difference in the proportion of adults eating the recommended amount of fruit or who are physically active. In contrast children in Waitemata are more likely to be eating more healthily. Children in Waitemata were less likely to drink 3 or more fizzy drinks (15.1% versus 19.6%) and eat fast foods 3 or more times in a week (4.9% versus 7.2%) than children nationally.

Adults in Waitemata are less likely to be obese than in New Zealand (19.7% versus 25.4%). This is seen amongst all ethnic groups, for example Maori (31.1% versus 40.1%) and Pacific (47.6% versus 61.3%).

The prevalence of hazardous alcohol use and marijuana use amongst adults is not significantly different in Waitemata from New Zealand.

State of Health

People in Waitemata have a higher life expectancy than people in New Zealand as a whole. This is true for all ethnic groups except Pacific men. Maori in particular live longer than all Maori (3.6 years longer for men and 5.9 years longer for women).

All ethnic groups in Waitemata also have a lower avoidable mortality rate than New Zealanders. Comparing between Waitemata and New Zealand as a whole avoidable mortality is 27% lower for Maori, 7% lower for Pacific, 10% lower for Asian and 14% lower for Others.

In contrast avoidable hospitalisations for Waitemata are very similar to the national rate.

Cardiovascular disease mortality is also lower in Waitemata than all New Zealand except for Pacific people. For Maori it is 25% lower, Asian 26% lower, Other 12% lower, but for Pacific people it is 23% higher than the national rate. In contrast cardiovascular disease hospitalisation is higher than the national rate for all groups except Asians.

Cancer mortality in Waitemata is significantly lower than the national rate overall (122 per 100,000 versus 133 per 100,000). The rates of lung cancer and colorectal cancer mortality are lower in Waitemata than for New Zealand as a whole.

People in Waitemata have a significantly lower rate of mortality from injury (15.4 per 100,000 versus 22.4 per 100,000) but a significantly higher rate of hospitalisation for injury (1588 per 100,000 versus 1319 per 100,000).

Waitemata has a lower infant mortality rate than New Zealand as a whole (4.1 per 1,000 liver births versus 5.4 per 1,000).

Health Services

Waitemata has low numbers of general practitioners, midwives, and dentists compared to the national average. Enrolment and utilisation were similar.

Waitemata has a significantly lower rate of elective surgery discharges than the national rate (25% lower). This is seen in all ethnic groups.

Waitemata's population had a 22% higher rate of contact with mental health services than New Zealand as a whole. However, inpatient bed night use was 26% lower than nationally.

Introduction

"Health is the ability to work and to love"

S. Freud

The role of the District Health Board

The New Zealand Public Health and Disability Act became law in December 2000. The Act established 21 District Health Boards (DHBs) and these DHBs are responsible for funding and providing health services for the population living in their district. The function of health needs assessment is mandated by Clause 18, Functions of DHBs (1f)

"To regularly investigate, assess and monitor the health status of its resident population, any factors that the DHB believes may adversely affect the health status of the population and the needs of that population for services."

Health needs assessment is one part of the above process. The phrase, health needs assessment, has been used to describe the development and refinement of well established approaches to understanding the needs of a local population. These approaches are constantly changing and developing and are described in more detail below.

Concepts of need

Concepts of need have been described from a variety of different perspectives and result in a range of different views as to what needs are. Bradshaw (Bradshaw 1972) proposed a taxonomy of need in which he highlighted four types of need:

Normative need - defined by experts

Felt need - those needs people say they have. Sometimes called wants.

Expressed need - needs expressed by action. Sometimes called demand.

Comparative need - comparing one group of people with another

In healthcare need has often been described as the "capacity to benefit". The rationale for this definition has been that there is no point in devoting resources to health care if there is little chance that people will benefit.

Ideally information on different aspects of need should form part of an assessment of need. In practice this is rarely the case. Need that we measure through the analysis of routine databases may be a mixture of expressed and normative need depending upon how services are provided. We often also express comparative need by comparing Waitemata statistics with New Zealand statistics or one population group against another. Information on felt need usually requires the collection of new data through survey or consultation. The priority placed on the different types of need also varies.

Another way to consider health needs is to differentiate between need, demand and supply. Need in this context is equivalent to normative need; demand is expressed need, and supply the amount of health care provided. Need, demand and supply overlap at different points for different services. The idealisation in the provision of services is that the three circles overlap completely such that all need is expressed and care is provided to meet that need. Unfortunately, this is rarely the case.

Approaches to needs assessment

Traditionally approaches to needs assessment have been divided into the following (Coster 2000):

- Epidemiological - traditional approach based on incidence, prevalence, etc.
- Comparative - contrasts the services and their utilisation in one area with those of another
- Corporate - the systematic collection of knowledge and views of key stakeholders on needs and services.

Epidemiological needs assessment usually involves the analysis and interpretation of data that is collected about populations and the health services they use. This is the approach mainly followed in this document. Ideally it would also include a description of existing services and finally information on effectiveness and cost-effectiveness but this is frequently not included.

Comparative needs assessments have proved to be powerful tools for investigating health services. If nothing else is known about the optimum service to be provided there is at least a reason for further investigation if results are very different from elsewhere or if there are significant differences between populations within our area. This document also uses this approach widely.

Corporate needs assessment allows for qualitative information on perceived needs and current services. Valuable information is often obtained from funders, provider clinicians and primary care practitioners as well as users. This approach has not been included in this document but has been included to develop the Maori, Pacific, and Asian Health Needs Assessments that have been produced in parallel to this document.

Needs assessment and Maori

The New Zealand Health Strategy gives a set of principles to guide the development of the health sector. These include acknowledging the special relationship between Maori and the Crown under the Treaty of Waitangi. In Waitemata this is particularly recognised in the relationship between the DHB and Tihi Ora Maori Purchasing Organisation (MaPO). The three principles of the Treaty of Waitangi - partnership, participation and active protection apply to health and health service provision. The Treaty of Waitangi in Article 3 provides for equal rights for Maori with non-Maori. While some Maori enjoy the same health as non-Maori many do not. The New Zealand Health Strategy specifically provides that Maori health outcomes will be addressed and health inequalities eliminated.

In undertaking health needs assessments this has a number of implications:

- Wherever possible we provide information on Maori health needs as well as the health needs of the general population

- We need to ensure that collection of data about Maori is as accurate as possible. In particular this means we need to ensure that ethnicity recording is accurate. This is an area of ongoing work and improvement for Waitemata DHB.

- We need to try to report information that describes health from a Maori world view as well as a mainstream world view. This is very challenging because nearly all of the information in this document is derived from routinely collected data sources. These data sources have limited information on a broad perspective of health (rather than disease), and even more limited information that describe some perspectives that are important to Maori. We recognize this limitation and the need to attempt to address this in ongoing work.

- We need to specifically address Maori Health needs rather than simply doing so in the context of assessing the needs of the overall population. For this reason we have undertake a Maori health needs assessment in addition to this overall document.

- We need to involve the Maori community in the development of health needs assessments. This has not been done in the development of this document but has been done in the development of the companion Maori Health Needs Assessment.

Waitemata approach

Waitemata DHB has recently considerably strengthened its capacity to provide analysis of health information for the purpose of improving health planning. This means the DHB will have a significant capacity to do continuous health needs assessments on a wide range of topics. This document and the accompanying Maori, Pacific, and Asian documents should therefore be seen as the beginning of this journey rather than something that is achieved and will not be addressed again for another three years.

DHBs are required to take a "global approach" to needs assessment in order to gain an overall picture of health and health needs among their particular populations (Coster 2000). This type of needs assessment is therefore a locality based needs assessment targeting a population rather than a condition or symptom. The advantage of undertaking such a needs assessment is that it can give an overview of health and health care utilisation in the area. It is unlikely, however, that this approach can realistically include detailed data on cost and cost-effectiveness. This would be a mammoth task to undertake for all services and programmes. A locality-based assessment of need can however, highlight areas where there is a particular issue for the population concerned. It may suggest health problems or services that need attention or further investigation. It can also be used to develop a consensus among planners, managers and clinicians regarding priorities for service development.

The purpose of needs assessment is to bring about change beneficial to the health of the population. The objective of this locality-based needs assessment is to inform both funding decisions and the strategic planning process. The goal is both to reduce inequalities and to produce better health outcomes for the population as a whole. In this assessment we have concentrated on describing the health status of Waitemata residents in relation to the health status of the New Zealand population overall and the health status and healthcare utilisation of various sub-groups within the population

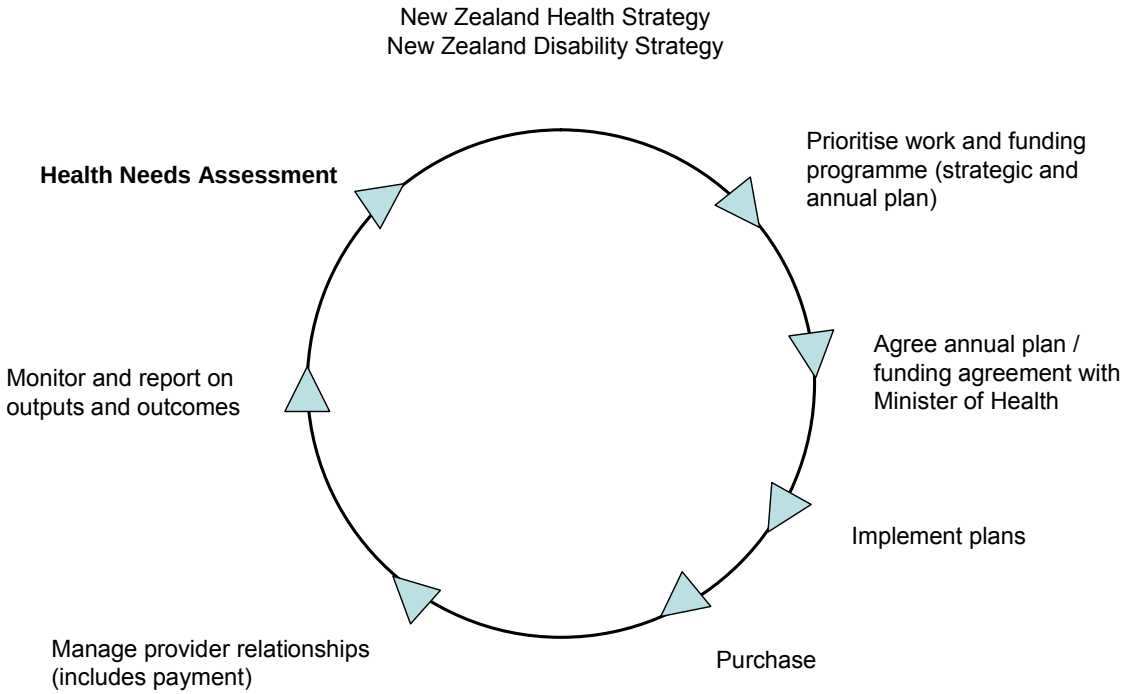
of Waitemata. The latter approach enables us to highlight inequalities within the district and between particular groups of the population.

In 2001 and 2005 single health needs assessments were produced. These include much information of importance to Maori, Pacific and Asian people, as does this document. However, this year we have decided to produce four health needs assessments in order to better address the needs of Maori and our other larger minority populations. The Maori, Pacific and Asian Health Needs Assessments start from the position of asking what are the specific health needs of these communities.

Needs assessment within the planning process

Needs assessment is futile if it does not result in improved services to patients. A key to successful needs assessment is a proper understanding of how it is related to the rest of the planning process. If the information and recommendations produced are not timely then they are not useful. The results of needs assessments therefore need to be encapsulated in strategies, contracts or business plans. In the current context the needs assessment will influence the priorities reflected in the Waitemata district strategic plan. See Figure 1. Needs assessment is an iterative process and this document is recognised as a starting point.

Figure 1 The DHB planning cycle



Structure of the document.

The report is organised in four parts.

- In the first section we describe the Waitemata people and the area in which they live. Information is given on the demographics of the population and the environment.
- The second section describes the factors that determine health. This recognises that social, economic, and cultural factors have a stronger influence on health than does the health service. In addition we examine lifestyle factors that have protective and negative effects on health.
- The third section presents information on health outcomes. This includes overall measures of health outcome such as life expectancy, mortality and morbidity, and measures of occurrence of the most common and significant diseases. It also includes health outcomes for a number of population subgroups such as children, youth, and older people, and the populations of our three territorial authorities.
- The final section examines the use of health services by our population. This provides insight into the demands on health services, whether services are accessible, and the quality of care provided.

Data and information sources

This section describes the key data sources used in this report and some of the relevant methodological issues. A number of surveys and studies that are specific to certain sections of the report are described in the relevant section.

Major data sources

New Zealand Health Information Service (NZHIS)

The New Zealand Health Information Service (NZHIS) manages a number of databases including the National Minimum Data Set (NMDS), the Mortality Data Collection, National Non-Admitted Patient Data Collection, Cancer Registration and Mental Health Information National Collection. They are essentially a combination of existing public and some private morbidity data collections. All diagnoses are classified according to the International Classification of Diseases, 10th Revision, Clinical Modification (ICD-10-AM).

Hospital morbidity data

Data on the morbidity of various diseases and conditions are primarily based on all discharges from public hospitals. This is also called the NMDS. Day cases are included in this data but attendances at outpatient clinics or emergency departments are not included. Analysis of hospitalisation data focuses on the number of episodes of care rather than the number of individual people. Hospital data include patients who die in hospital after formal admission.

A general issue with using hospitalisation rates for outcome measures is that reductions in such rates can reflect either a real decrease in incidence, improved primary health care (thus reducing the need for hospital care), or a decrease in access to (or provision of) hospital services. The relative importance of these factors is often not known.

Outpatient data

The National Non-Admitted Patient Data Collection was introduced in July 2006 and provides nationally consistent data on non-admitted patient activity. Information about Waitemata's population's use of outpatient clinics is drawn from this source.

Mortality data

The mortality statistics maintained by NZHIS are based on death certificates completed by medical practitioners, post-mortem reports, coroners' certificates, and death registration forms completed by funeral directors. Supplementary data are obtained from a variety of other sources (such as public hospitals and the National Cancer Registry). Mortality data for 3 years was used in an attempt to ensure sufficient numbers for analysis.

Cancer data

The National Cancer Registry (NCR) was established in 1948 and is now maintained by NZHIS. It is a register of people who develop all types of cancer except basal and squamous cell skin cancers. The Cancer Registry Act 1993 requires all pathology laboratories to supply the NCR with a copy of any pathology report with a diagnosis of cancer and related conditions. This data is somewhat older than other NMDS data but is the most recent available.

Mental Health Information National Collection (MHINC)

The information collected by MHINC relates to the provision of secondary mental health and alcohol and other drug services, which are funded by the government. Providers include DHBs and, to a limited degree, non-government organisations (NGOs). The collection does not include information on primary mental health services.

The 2006/07 New Zealand Health Survey

This national face-to-face survey was completed over a one year period between 2006 and 2007 (Ministry of Health 2008). It had a sample size of 12,488 adults (15 years and older) and 4921 children (0-14 years). Approximately 1200 adults were sampled in Waitemata district. The response rate was 68% for adults and 71% for children.

The survey provides information on:

- selected health risk behaviours (smoking, physical activity and alcohol use).
- the health status of New Zealanders, including their self reported physical and mental health status, and the prevalence of selected conditions including diabetes.
- the utilisation of health services.
- a number of demographic characteristics such as age, gender, ethnicity, and income.

Where estimates are provided for Waitemata populations they may be either direct survey estimates or synthetic estimates. Since the sample sizes for the overall Waitemata population was reasonably large direct estimates can be calculated using only the respondents from Waitemata District. However, for ethnic specific estimates, sample sizes were too small so estimates were derived by Health & Disability Intelligence Unit (HDIU), Ministry of Health from a statistical regression model. These estimates were only available for adults.

Te Rau Hinengaro: The New Zealand Mental Health Survey

This national face-to-face survey took place in 2003 and 2004. It had a sample size of 12,992 people aged 16 and over and a response rate of 73%. The Composite International Diagnostic Interview (CIDI 3.0) was used. It is a fully structured interview suitable for use by trained lay interviewers. For this report analysis was taken directly from the report published in 2006 and all information is at the national level (Browne, Wells et al. 2006).

The Quality of Life Survey

This national telephone survey was undertaken in 2006 with a sample size of 7,545 adults (15 years and older). Of these 494 were in Rodney, 486 in North Shore and 502 in Waitakere. The overall response rate was 22%. The information presented comes from the National Report published in 2007 (TNS 2007). This report does not provide ethnic specific data at a local level. No attempt was made to obtain and reanalyse the original data. The survey covers a wide range of questions on topics that are important to wellbeing.

The National Primary Medical Care Survey (NatMedCa)

NatMedCa was a survey undertaken in 2001/2002 to describe primary care in New Zealand (Raymont, Lay-Yee et al. 2004). It is national rather than district information and it is six years old and precedes the primary health care reforms. The survey is used as it is the best information

available to give a picture of general practice at the coal-face. Data were collected from 199 GPs on 36,211 visits with patients of all ages (detailed information provided on 25% of these).

The Youth 2000 Survey

This survey was carried out at schools in 2001 using laptops and multimedia technology by the Adolescent Health Research Group who interviewed 9,699 young people from around the country. Only national data are available (Adolescent Health Research Group 2003).

Census and demographic data

A New Zealand Census of Population and Dwellings is held every five years. Everyone in the country on census night, including visitors to the country, must fill out an individual census form. This census was carried out in March 2006.

The New Zealand Census collects limited health information but contains much social and economic information that was useful in describing the factors that determine health. In addition, the Census forms the basis for determining Waitemata's and New Zealand's denominator populations. Projections of population sizes for the years after 2006 and estimates of population sizes between the 2001 and 2006 Censuses have been made. Projections are made on the basis of assumptions about a number of factors including migration, fertility and mortality. However, projections are not always accurate.

Birth registrations

This includes all live and still births registrations from Births, Deaths, and Marriages.

Other references used

A number of other publications have been heavily drawn upon in developing this health needs assessment. Four documents in particular need to be mentioned. Tables, figures and text have been directly taken from these publications. We acknowledge these sources and their authors both here, in the acknowledgement section and in the text.

Waitemata DHB Health Needs Assessment (2008)

Health & Disability Intelligence Unit (HDIU), Ministry of Health was contracted by a number of DHBs, including Waitemata DHB, to undertake Health Needs Assessments on their behalf. The document delivered stands as a HNA on its own (Health and Disability Intelligence Unit 2008). However, Waitemata DHB has used use this document as basis for developing our four HNAs of which this overall HNA is one. As such, a considerable proportion of the analyses and interpretation in this document is based upon HDIU's work. In particular this includes some of the Census analysis, most of the NZ Health Survey work, and a good proportion of the mortality and hospitalisation analyses.

Demographic Profile of Waitemata DHB (2007)

Much of the demographic information in this HNA has been taken directly from this report by Dr. Ratana Walker and Sam Martin which was published in May 2007 (Walker and Martin 2007). The full report can be found at:

http://www.waitematadhb.govt.nz/Publications/HealthStatusDocuments/

The Health of Children and Young People in the Waitemata Region (2007)

This document was developed for Waitemata DHB by the New Zealand Child and Youth Epidemiological Service (Craig, Jackson et al. 2006). It is a very comprehensive document with considerable interpretation and background material. The majority of our child and youth sections are taken directly from this document. In addition some of the determinants section has also used this as a source. The original document can be accessed at:

http://www.waitematadhb.govt.nz/Publications/HealthStatusDocuments/

Older People of Waitemata (2007)

This report by Delwyn Armstrong, Sam Martin and Ratana Walker provides a wide range of useful information about older people in our district (Armstrong, Martin et al. 2007). Much of the older people section of this needs assessment is taken directly from it. The report can be accessed from:

http://www.waitematadhb.govt.nz/Publications/HealthStatusDocuments/

Methodological issues

Ethnicity

Ethnicity data are presented in two ways: 'total response' and 'prioritised'. In 'total response', a respondent is counted in each of the ethnic groups they selected. This means that the sum of the ethnic group population will exceed the total population because people can select more than one ethnic group.

In the 'prioritised' method, each respondent is allocated to a single ethnic group using the priority system (Maori > Pacific peoples > Asian > Other). For example a person who selects (when asked their ethnicity) both Maori and European would only be included in the Maori grouping.

The table headings show which method is used for a particular indicator. For some indicators, data were only available at higher aggregations such as Maori and non-Maori.

For further information see *Ethnicity Data Protocols for the Health and Disability Sector* (Ministry of Health 2004) and *Presenting Ethnicity: Comparing prioritised and total response ethnicity in descriptive analyses of New Zealand Health Monitor surveys* (Public Health Intelligence 2008).

NZDep2006

The NZDep2006 variable is an area based index of deprivation. It is normally used to measure the level of deprivation for each meshblock (small geographical unit containing a median of 90 people) according to a combination of census variables (income, access to a car, living space, ownership of home, employment status, qualifications, sole-parent families and access to a telephone).

For analysis of health outcomes, databases do not allow mapping of individual events to meshblock areas, but only to larger census area units (CAU). The denominator populations therefore also need to be mapped to CAUs. In the Waitemata district this leads to very small numbers of the population in quintile 5 CAUs. Rates for these areas may therefore be inaccurate due to chance variation.

Age-specific and age-standardised rates

Where appropriate, rates in this report are standardised for age to enable a valid comparison between populations where age structure differs. Rates are age-standardised using the World Health Organization standard population. Age-specific rates are presented for indicators relating to a defined age group. However, several indicators are presented with *crude rates* (that is, no adjustment has been made). Please note that crude rates cannot be compared between population groups with different age distributions e.g., Maori compared with non-Maori. The titles of the tables state which rates have been used.

Statistical analysis

In this report 95% confidence intervals are presented for some analyses. The confidence intervals give an indication of the margin of error associated with the survey estimates. When the 95% confidence intervals of two rates do not overlap, the difference in rates between the groups is said to be statistically significant with 95% confidence. If the two confidence intervals do overlap, the difference may not be statistically significant. (However to be certain that they were not significantly different would require a comparative statistical test which we do not undertaken.)

With rate ratios, if the 95% confidence interval does not include 1, the two rates are said to be significantly different from each other. For example, a rate ratio of 1.5 with 95% confidence intervals of 1.2–1.8 means that the rate is 1.5 times higher in the particular DHB than the New Zealand average with 95% confidence.

Larger populations and more common conditions usually have narrower confidence intervals and so have a greater likelihood of achieving a statistically significant difference than results with smaller numbers.

Some analyses in the report do not include statistical analysis of differences between population groups. This is because of the limited time and resources available for the preparation of this report.

Avoidable mortality and morbidity

This report uses the terms avoidable mortality and avoidable hospitalisations. These measures are useful for estimating potential for improvement in health and equity in health outcomes. Disease and injury codes (as causes of death or hospitalisation) are classified into 'avoidable' or 'unavoidable' – the concept of avoidability meaning responsiveness to health sector interventions (through prevention, early diagnosis or treatment). By this definition all deaths after the age of 75 are considered unavoidable.

Avoidable mortality and morbidity can be further defined according to where the intervention occurs. Avoidable hospitalisations are broken down into:

- Preventable hospitalisations (PH) – hospitalisation from a condition that could have been prevented altogether
- Ambulatory sensitive hospitalisation (ASH) – hospitalisation for a condition that could have been treated at an earlier stage in the primary health care setting. This measure is reported in the primary care section of this report
- Injury prevention (IP) – hospitalisations preventable through injury prevention.

Hospitalisations for conditions that are classified as avoidable hospitalisations are distributed amongst these three categories according to international literature and expert opinion. Avoidable mortality is not broken down further in this health needs assessment.

Our Population

Geography of Waitemata district

The land area of Waitemata district is 2,873 square kilometres. There are three territorial authorities (i.e. district councils or city councils): Rodney District, North Shore City and Waitakere City.

Waitakere City and North Shore City are the most densely populated and comprise the southern part of Waitemata. Rodney District has a comparatively sparse population but accounts for most of the land area. Waitemata district is bound by coast on either side which is interrupted by the large harbours of Kaipara, Manukau and Waitemata.

The land and land use vary dramatically across the district, from heavily urbanised in the south east, to the natural environment of the Waitakere ranges to the south west. Previously rural areas like Albany are rapidly become more urban.

The two main cites of the district are Waitakere, the fifth largest city in the country, and North Shore, which is the fourth largest. People frequently commute between these two cites and Auckland. There are also popular holiday destinations in this area such as Muriwai, the Hibiscus Coast and the Whangaparaoa Peninsula. These areas are becoming increasingly popular among older people as retirement havens.

Transport

The major state highways 1 (the Northern Motorway) and 16 (the North Western Motorway) transect the Waitemata district.

The public transport system is comprised of buses and, in the West, trains and significant work is being undertaken to upgrade these services. Currently ferries run from the West Park Marina and from Devonport, Northcote, and Birkenhead on the North Shore to Auckland.

Industry

There is a wide range of industry in the district from dairy farming, fruit growing, horticulture and viticulture to light industry. The largest employment sector is the service industry which includes retail and transport. The service industry is likely to increase following further population growth.

North Shore has the highest growth rate of businesses in New Zealand.

Waitakere employs over half of New Zealand's boat-building apprentices, and manufactures a quarter of all boats made for export.

Overall population

In the 2006 census count there were 481,611 people living in the Waitemata district, accounting for approximately 12.0% of the national population (Table 1). Both the age and gender composition of Waitemata residents was similar to the New Zealand population, with approximately half aged between 25 and 64 (Table 2). In contrast with the national trend, a higher proportion of Waitemata residents identified themselves as Asian or Pacific and lower proportion identified themselves as Maori or Other. The percentage of Other, Pacific and Asian ethnic groups were slightly lower when

'prioritised' ethnicity was used. The proportion of the population in Waitemata district residing in urban versus rural areas was slightly higher than that observed at the national level.

Table 1 Population distribution by age group and gender, Waitemata and NZ, 2006

Age group	Waitemata			New Zealand		
	Female	Male	Total	Female	Male	Total
0-14	51012	53541	104553	423546	444027	867576
15-24	33288	34419	67707	283653	287523	571176
25-44	75105	68004	143109	592251	542004	1134252
45-64	58323	54969	113295	488418	470922	959340
65-74	14880	13665	28545	137490	127989	265482
75+	14556	9846	24402	136971	93150	230121
Total	247167	234447	481611	2062329	1965618	4027947

Note: Counts may not sum to total due to rounding. Source: Census 2006, HDIU

Table 2 Percentage of the population by age, Waitemata and NZ, 2006

Age Group	Waitemata DHB	New Zealand
0—14	21.7	21.5
15—24	14.1	14.2
25—44	29.7	28.2
45—64	23.5	23.8
65—74	5.9	6.6
75+	5.1	5.7

Note: Percentages may not sum to 100 due to rounding. Source: Census 2006, HDIU

Population by ethnicity

Ethnicity data can be presented in two ways: 'total response' and 'prioritised'. In 'total response', a respondent is counted in each of the ethnic groups they selected. This means that the sum of the ethnic group population will exceed the total population because people can select more that one ethnic group. In the 'prioritised' method, each respondent is allocated to a single ethnic group using the priority system (Maori > Pacific peoples > Asian >European/Other). For further information see *Ethnicity Data Protocols for the Health and Disability Sector* (Ministry of Health 2004) and *Presenting Ethnicity: Comparing prioritised and total response ethnicity in descriptive analyses of New Zealand Health Monitor surveys* (Public Health Intelligence 2008).

Table 3 Population distribution by ethnicity (total response) and gender, Waitemata and NZ, 2006

Ethnic Group	Waitemata			New Zealand		
	Female	Male	Total	Female	Male	Total
Maori	21945	20931	42876	290469	274860	565329
Pacific	17997	17193	35190	134967	131010	265974
Asian	35589	32562	68151	185178	169374	354549
Other	192360	182919	375282	1636992	1558332	3195324

Source: Census 2006, HDIU

Table 4 Percentage of population by ethnicity (total response), Waitemata and NZ, 2006

Ethnic Group	Waitemata	New Zealand
Maori	8.9	14.0
Pacific	7.3	6.6
Asian	14.2	8.8
Other	77.9	79.3

Source: Census 2006, HDIU

The following tables give the same information by prioritised ethnicity.

Table 5 Population by ethnicity (prioritised) and gender, Waitemata and NZ, 2006

Ethnic Group	Waitemata			New Zealand		
	Female	Male	Total	Female	Male	Total
Maori	21798	20772	42570	289455	273678	563142
Pacific	15606	14793	30402	115035	111180	226206
Asian	34602	31650	66252	178107	162645	340767
Other	175152	167226	342396	1479525	1417758	2897355

Source: Census 2006, HDIU

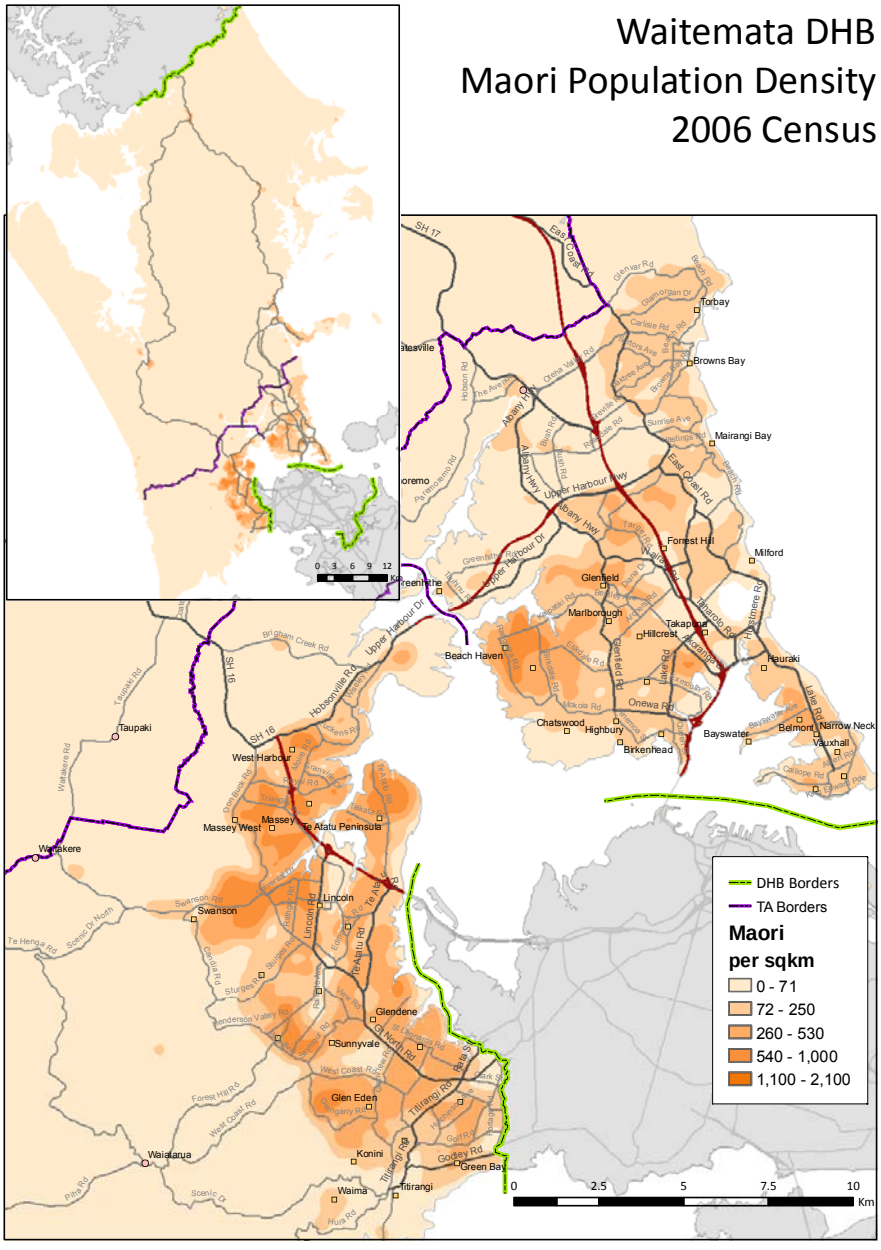
Table 6 Percentage of population by prioritised ethnicity, Waitemata and NZ, 2006

Ethnic Group	Waitemata DHB	New Zealand
Maori	8.8	14.0
Pacific	6.3	5.6
Asian	13.8	8.5
Other	71.1	71.9

Source: Census 2006, HDIU

Maori population

Figure 2 Maori population density, 2006



Source: Statistics NZ 2006 Census

Table 7 shows the number and percentages of Maori by territorial authority. Waitakere City had the highest number with 22,689 Maori. This number made up 53.3% of Maori in Waitemata. Rodney had the smallest number of Maori. In total, 7.6% of all Maori in New Zealand lived in Waitemata.

Table 7 Number of Maori population by territorial authority, 2006

Territorial Authority	Total Maori	% Maori Population
Waitakere City	22,689	53.3%
North Shore City	12,423	29.3%
Rodney District	7,422	17.4%
Total Waitemata	42,603	

Source: Census 2006, HDIU

Table 8 Iwi affiliations of Maori living in Waitemata, 2006

Iwi/rohe	Waitakere City	North Shore City	Rodney District	Total WDHB
Te Tai Tokerau/Tamaki-makaurau (Northland/Auckland) Region	10,755	4,863	3,339	18,957
Not Elsewhere Included	3,372	1,653	1,179	6,204
Te Tai Rawhiti (East Coast) Region	2,232	1,371	618	4,221
Waikato/Te Rohe Potae (Waikato/King Country) Region	2,190	1,302	585	4,077
Tauranga Moana/Mataatua (Bay of Plenty) Region	2,220	1,263	540	4,023
Te Arawa/Taupo (Rotorua/Taupo) Region	1,395	942	438	2,775
Te Matau-a-Maui/Wairarapa (Hawke's Bay/Wairarapa) Region	1,266	828	333	2,427
Iwi Not Named, but Waka or Iwi Confederation Known	1,329	684	333	2,346
Te Waipounamu/Wharekauri (South Island/Chatham Islands) Region	858	738	348	1,944
Taranaki Region	639	588	225	1,452
Hauraki (Coromandel) Region	558	351	141	1,050
Hapu Affiliated to More Than One Iwi	495	240	135	870
Manawatu/Horowhenua/Te Whanganui-a-Tara (Wellington)	324	363	120	807
Iwi Named but Region Unspecified	309	273	111	693
Whanganui/Rangitikei	234	195	60	489
Total	21,315	11,790	6,900	40,005

Source: Census 2006

Pacific population

Figure 3 Pacific population density, 2006

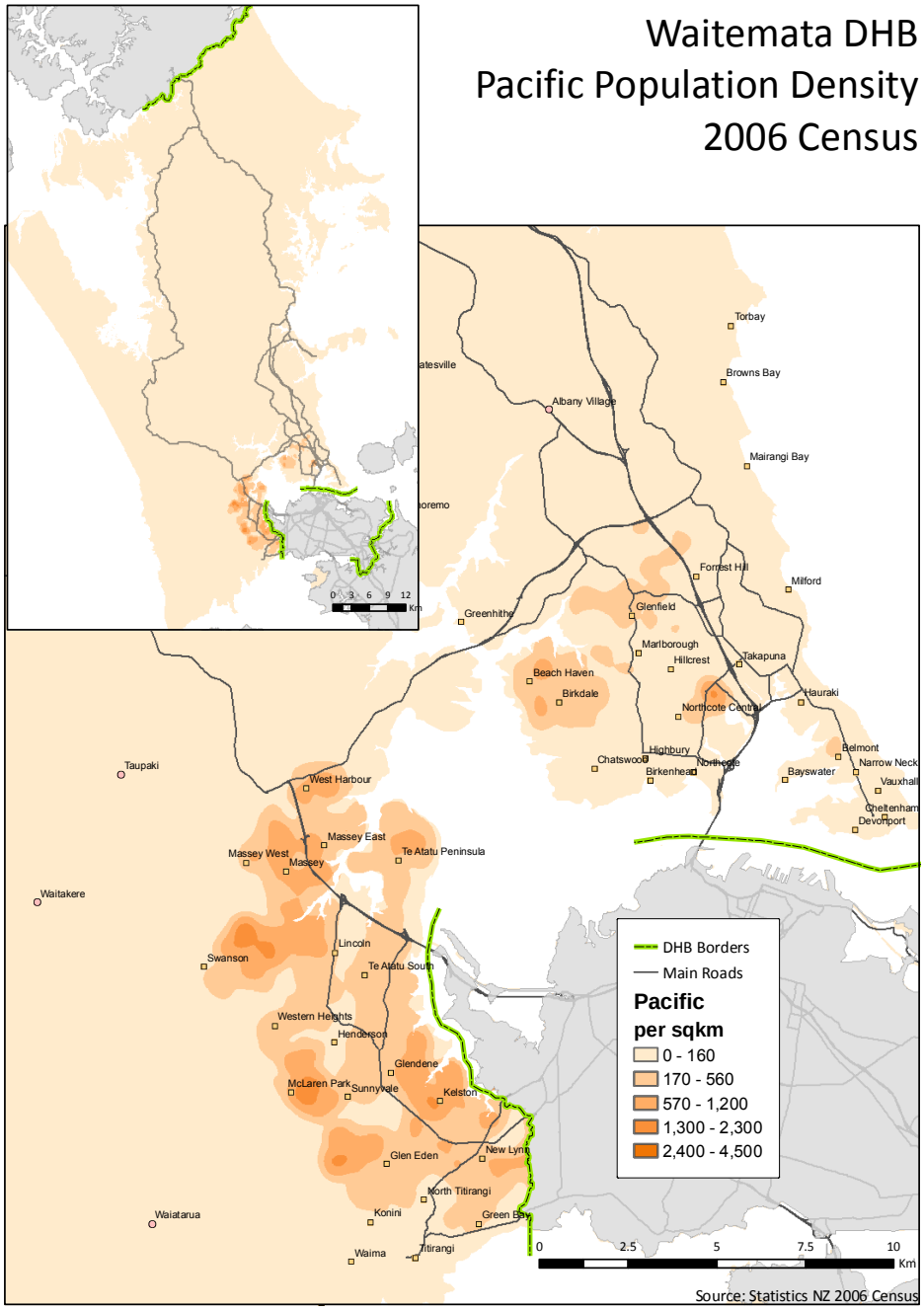


Table 9 shows the number of people identifying with different cultural groups among Pacific people in Waitemata. Note that the sum of this table does not equal the total number of people but rather the number of affiliations recorded. This is due to the fact that people can choose to affiliate themselves with more than one group. Among Pacific people, Samoan was the largest cultural group identified followed by Tongan and Cook Island Maori.

Table 9 Number of Pacific people by cultural group, Waitemata, 2006

	Number	%
Samoan	18,588	48.6%
Tongan	5,736	15.0%
Cook Island Maori	5,403	14.1%
Niuean	3,417	8.9%
Fijian	2,001	5.2%
Tokelauan	579	1.5%
Other Pacific Peoples	2,553	6.7%
Total Responses	38,277	100.0%

Source: Census 2006

Table 10 shows the number of Pacific people by territorial authority. Waitakere City had the highest number with 23,532 Pacific people. This number made up 77.5% of the total Pacific population in the district. Rodney District had the smallest number of Pacific people in Waitemata. In total, 13.4% of all Pacific people in New Zealand lived in Waitemata.

Table 10 Number of Pacific population by territorial authority, 2006

Territorial Authority	Total Pacific	% Pacific Population
Waitakere City	23,532	77.5%
North Shore City	5,562	18.3%
Rodney District	1,317	4.3%
Total Waitemata	30,378	

Source: Census 2006, HDIU

Asian population

Figure 4 Asian population density

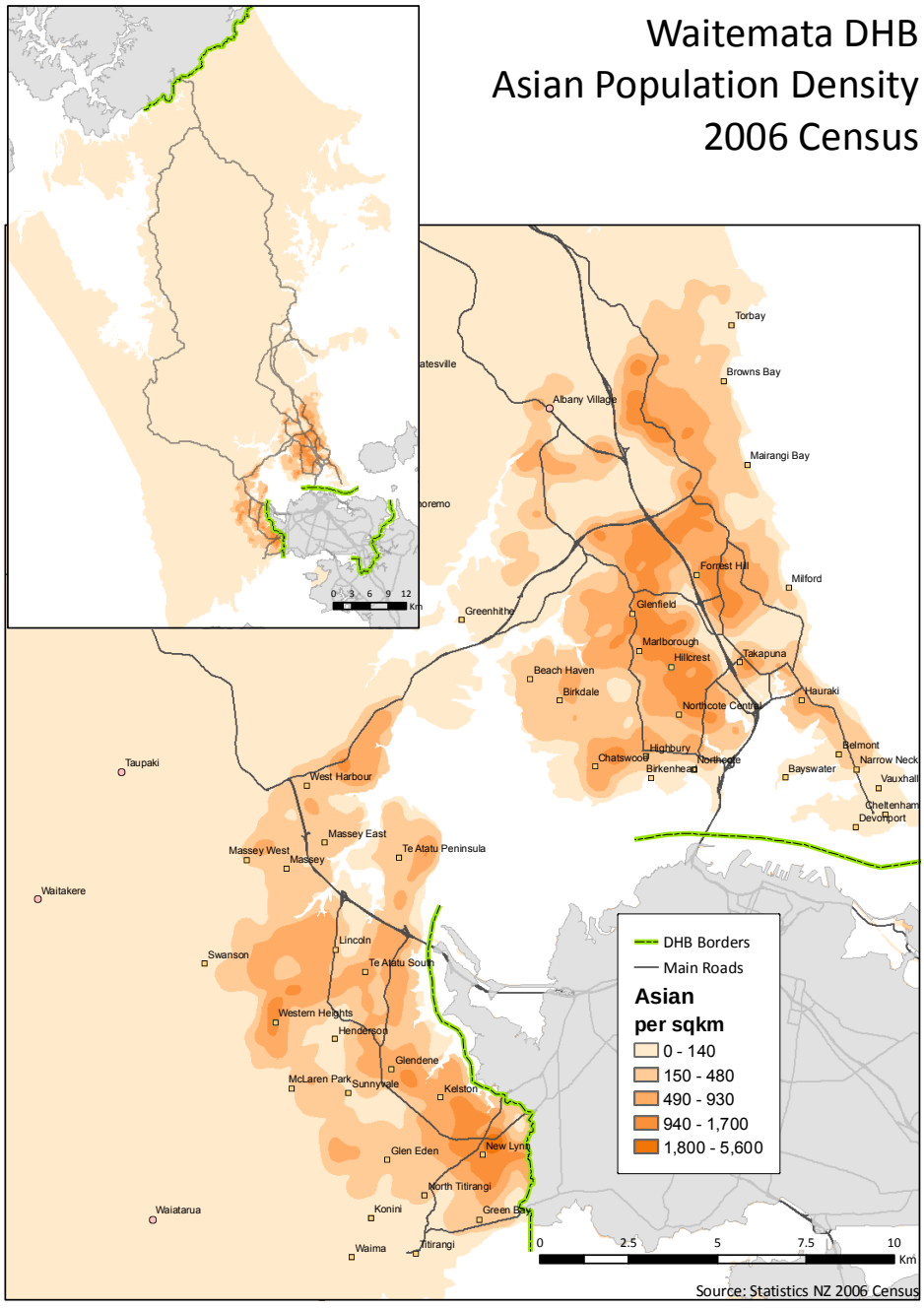


Table 11 shows the number of people identifying with different cultural groups among Asian people in Waitemata district. Note that the sum of this table is not the total number of people but is the number of affiliations recorded as people can choose to affiliate with more than one group. The largest group identified was Chinese followed by Indian and Korean.

Table 11 Number of Asian population by cultural group, Waitemata, 2006

	Number	%
Chinese	27,330	39.6%
Indian	15,015	21.8%
Korean	12,210	17.7%
Filipino	4,941	7.2%
Japanese	1,827	2.7%
Sri Lankan	870	1.3%
Cambodian	810	1.2%
Vietnamese	267	0.4%
Other Asian	5,661	8.2%
Total Responses	68,931	100.0%

Source: Census 2006

Table 12 shows the number of people who identified themselves as Asian by territorial authority. North Shore City had the largest number with 36,681 Asians. This number made up 55.4% of the total Asian population in the district. In total, 19.4% of the Asian population in New Zealand lived in Waitemata.

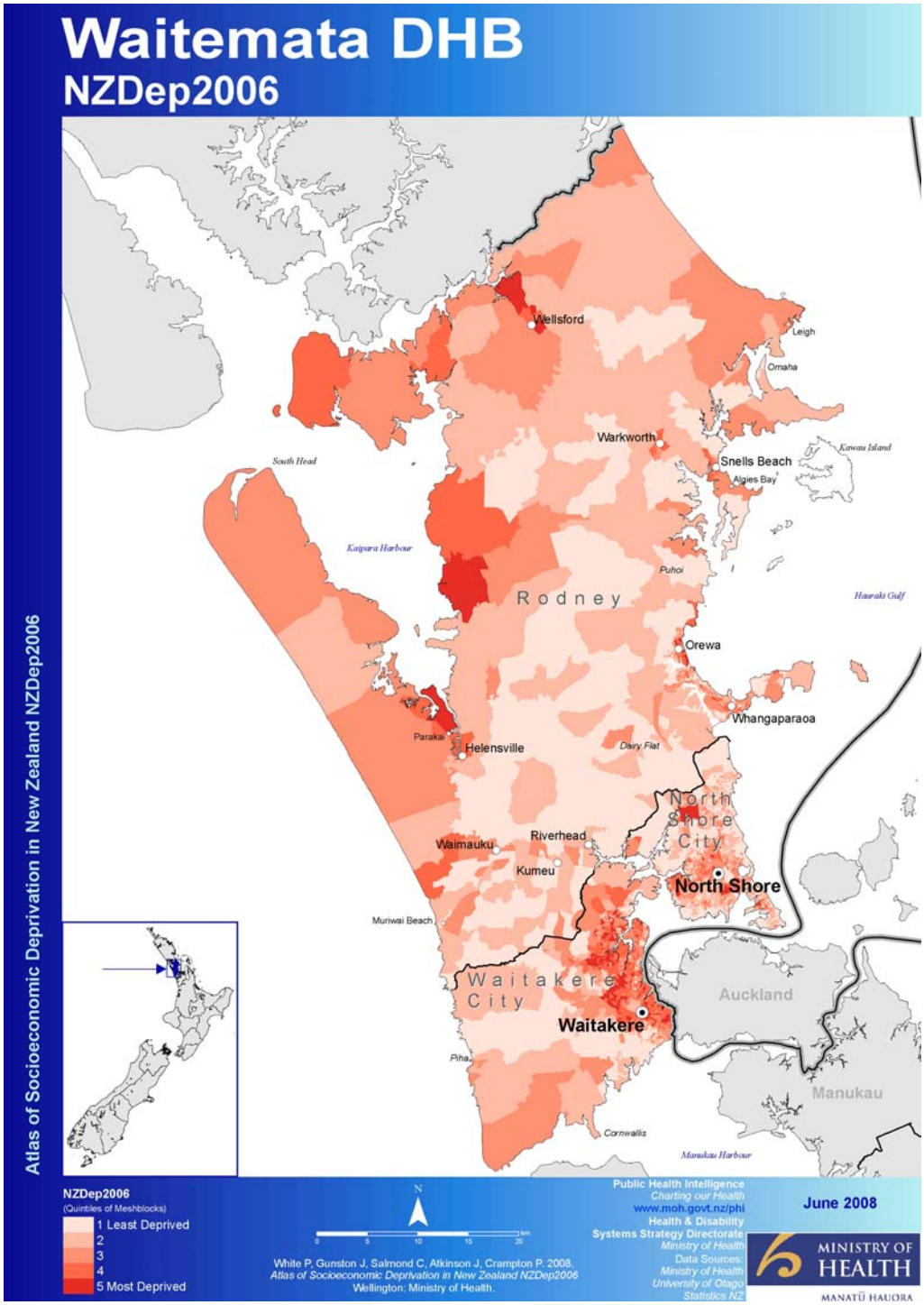
Table 12 Number of Asian population by territorial authority, 2006

Territorial Authority	Total Asian	% Asian Population
Waitakere City	27,075	40.9%
North Shore City	36,681	55.4%
Rodney District	2,499	3.8%
Total Waitemata	66,255	

Source: Census 2006, HDIU

Population by deprivation

Figure 5 Waitemata District by NZ Dep 2006 status



NZDep2006 provides a numerical rating of socioeconomic status of a neighbourhood using nine variables from the 2006 Census, these are: receiving a means-tested benefit, low household income, not owning the home you live in, single-parent family, unemployment, no school qualifications, household overcrowding, no access to a telephone and no access to a car. Seven of these variables are reported on individually in the determinants of health section of this document.

NZDep2006 scores are grouped into deciles, where a score of 1 is allocated to the 10% of areas with a low score and 10 is allocated to the 10% of areas with a high score. For the country as a whole the distribution across the 10 scores is fairly even.

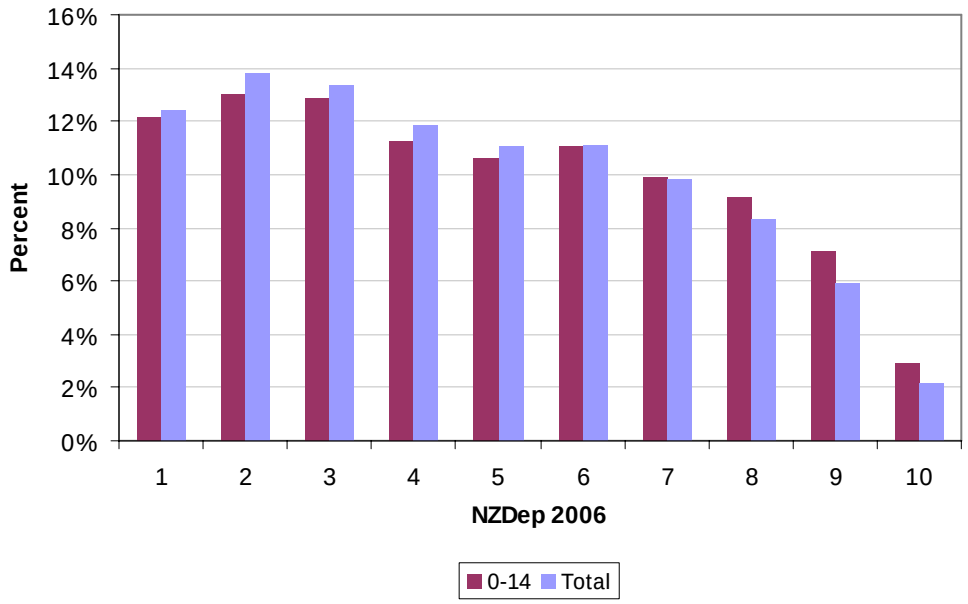
Table 13 The New Zealand Index of Deprivation 2006 (NZ Dep2006) distribution in Waitemata and New Zealand (all ages)

NZDep2006 deciles	Waitemata		New Zealand	
	Count	Percent	Count	Percent
1	59,547	12.4	415,155	10.3
2	66,567	13.8	410,361	10.2
3	64,320	13.4	409,266	10.2
4	57,063	11.8	401,736	10.0
5	53,055	11.0	397,242	9.9
6	53,529	11.1	399,828	9.9
7	47,451	9.9	397,074	9.9
8	40,188	8.3	394,425	9.8
9	28,572	5.9	401,916	10.0
10	10,503	2.2	396,219	9.8
Unspecified	909	0.2	4,923	0.1
Total	481,704	100	4,028,145	100

Source: Census 2006, HDIU

In Waitemata district there are more people living in areas with low NZDep2006 scores than areas with high scores. This means that the social determinants of health are more positive for the Waitemata district population compared with the total New Zealand population.

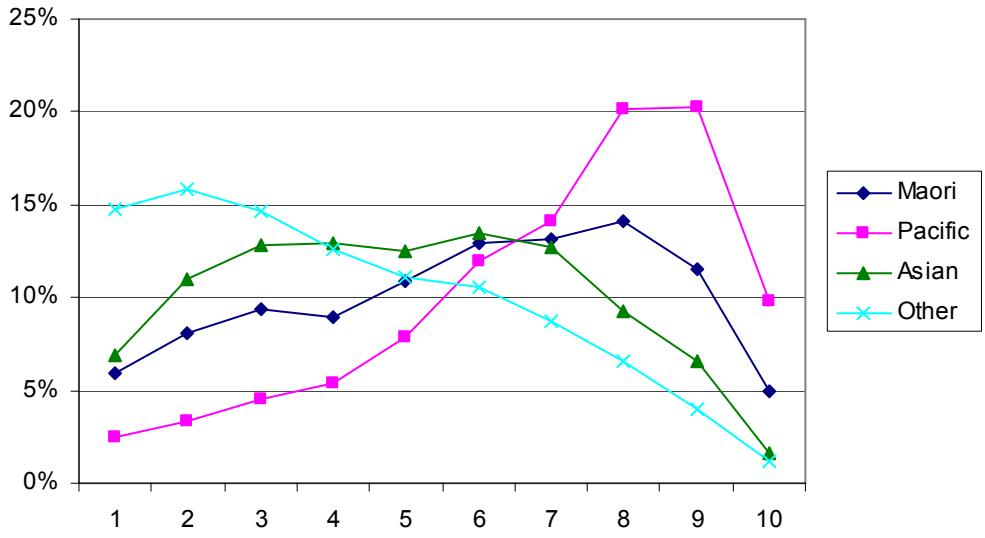
Figure 6 NZ Dep2006 distribution in Waitemata by age



Source: Statistics NZ

A slightly higher proportion of children live in deprived areas than for the total population.

Figure 7 NZ Dep2006 distribution in Waitemata by ethnicity

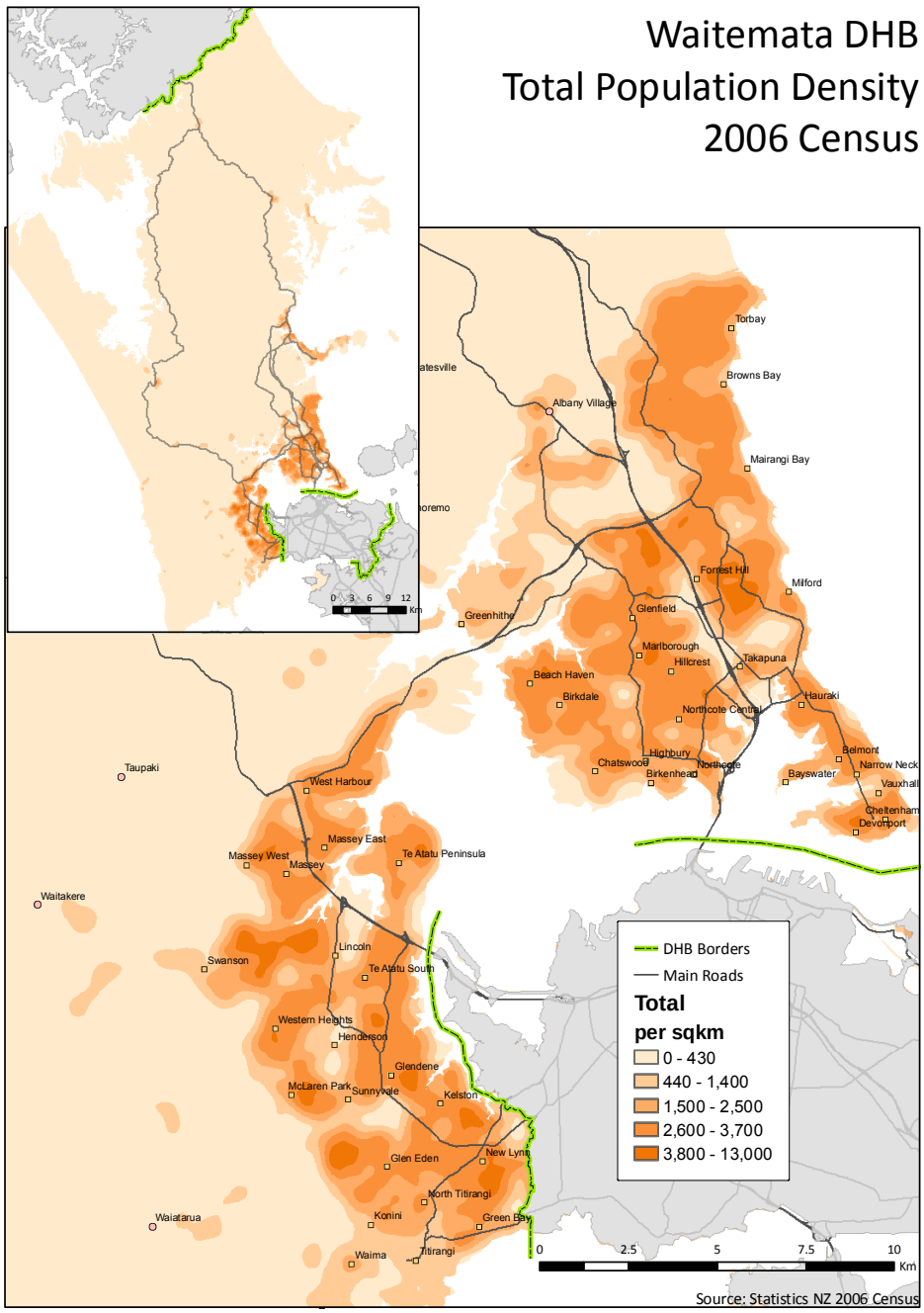


Source: Statistics NZ

Maori and Pacific people in Waitemata are more likely to live in more deprived areas whereas most Other live in areas of low deprivation. The distribution for Asian people tends to be more even. 64% of Pacific people, 44% of Maori, 30% of Asian people, and 20% of Others live in decile 7-10 areas.

Population by Geography

Figure 8 Total population density



Territorial Authority

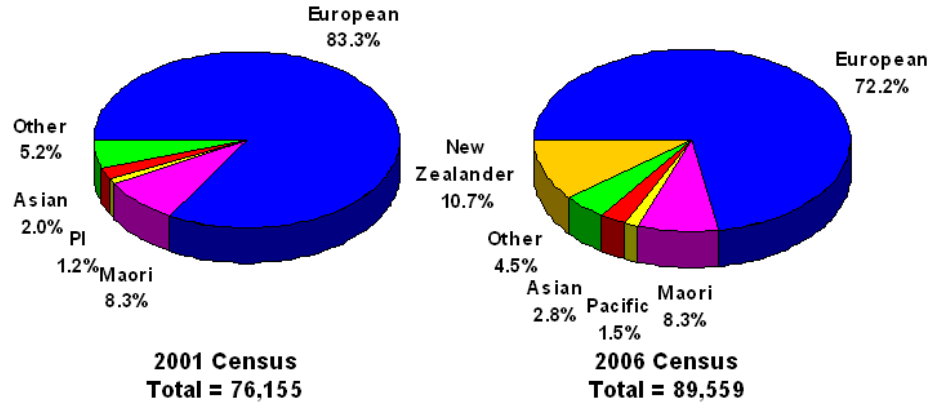
Table 14 Waitemata population by territorial authority, 2006

Territorial Authority	Waitemata	
	Population	Percent
Rodney District	89,559	18.4
North Shore City	205,608	42.7
Waitakere City	186,447	38.7

Source: Census 2006, HDIU

Over 80% of the population of Waitemata lived in North Shore and Waitakere Cities, with the other 18.6% located in Rodney District.

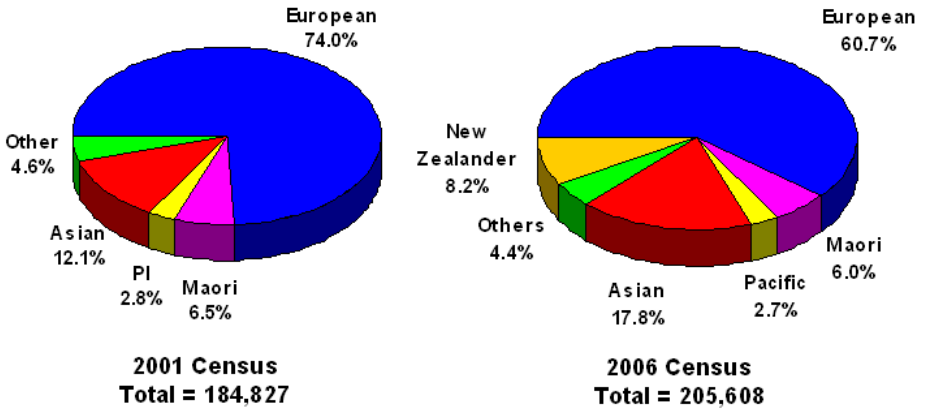
Figure 9 Ethnic make up of the Rodney District, 2006, prioritised ethnicity



Source: Census 2006, Demographic Profile of Waitemata DHB

Rodney District's population is predominantly European with only small groups of Asian and Pacific people.

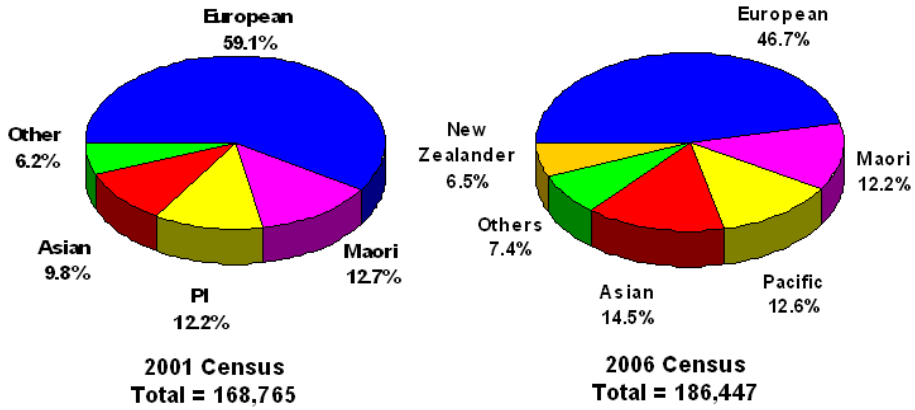
Figure 10 Ethnic make up of North Shore City, 2006, prioritised ethnicity



Source: Census 2006, Demographic Profile of Waitemata DHB

Whilst North Shore City population is predominantly European it also has a substantial Asian population.

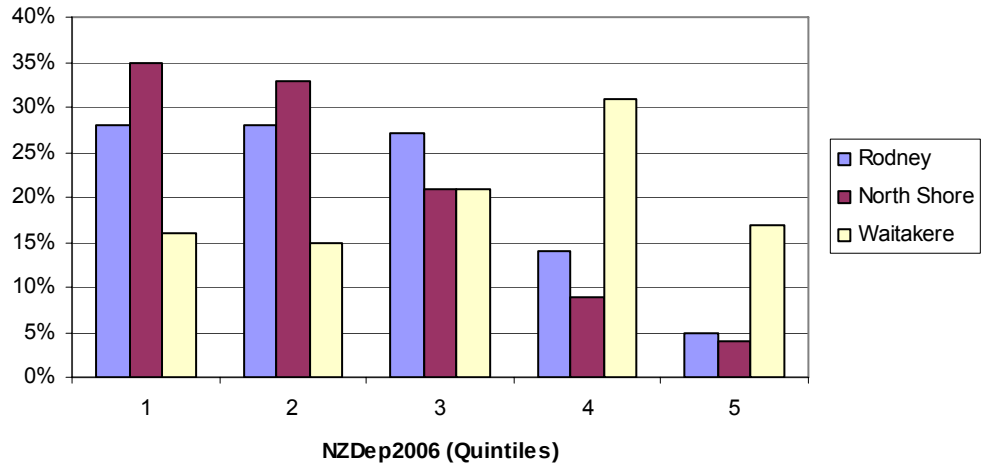
Figure 11 Ethnic make up of Waitakere City, prioritised ethnicity



Source: Census 2006, Demographic Profile of Waitemata DHB

Waitakere City has the most ethnically diverse population with substantial numbers of Maori, Pacific, and Asian people.

Figure 12 Waitemata territorial authorities by deprivation breakdown, 2006



Source: Census 2006

The large majority of people living in Rodney and North Shore live in areas of low deprivation. In contrast 48% of Waitakere's population live in NZDep2006 quintile 4 and 5 areas.

Urban rural

Table 15 Waitemata population by urban rural area, 2006

Area	Waitemata		NZ	
	Population	Percentage	Population	Percentage
Urban	451161	93.7	3463185	86
Rural	30441	6.3	563931	14

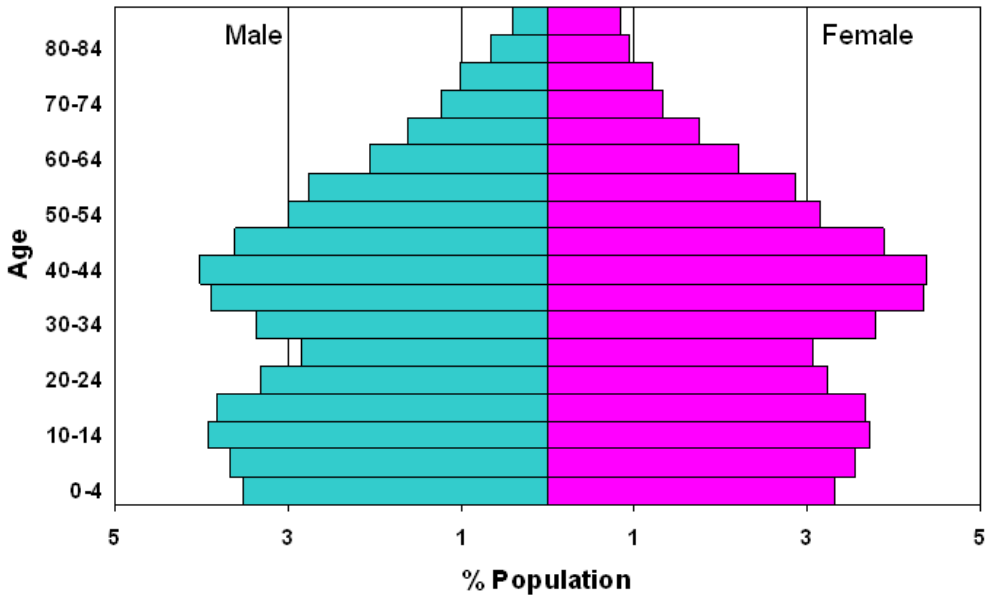
Source: Census 2006, HDIU

The large majority of the population in Waitemata reside in urban areas and this is higher than that observed at the national level.

Age structure

Figure 13 shows the age structure of the population in the Waitemata region. About 35% of the population were under the age of 25 while around 11% were 65 years and older.

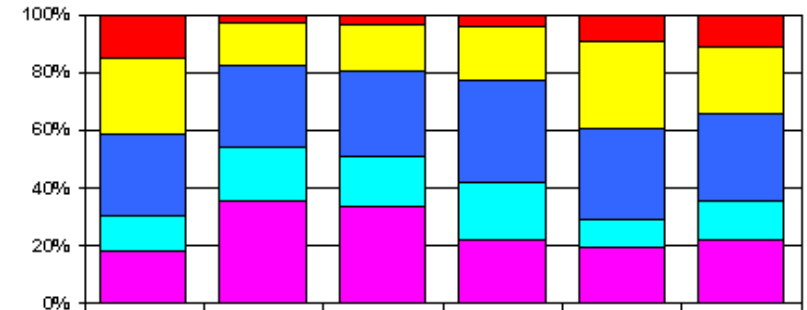
Figure 13 Age structure of the population of Waitemata, 2006



Source: Census 2006, Demographic Profile for Waitemata DHB

Figure 14 shows that Maori and Pacific people had proportionately younger populations. Close to half of the Maori and Pacific populations were aged between 0 and 24 years old and less than 5% were 65 years of age and above.

Figure 14 Age structure of the Waitemata population by ethnicity (prioritised), 2006

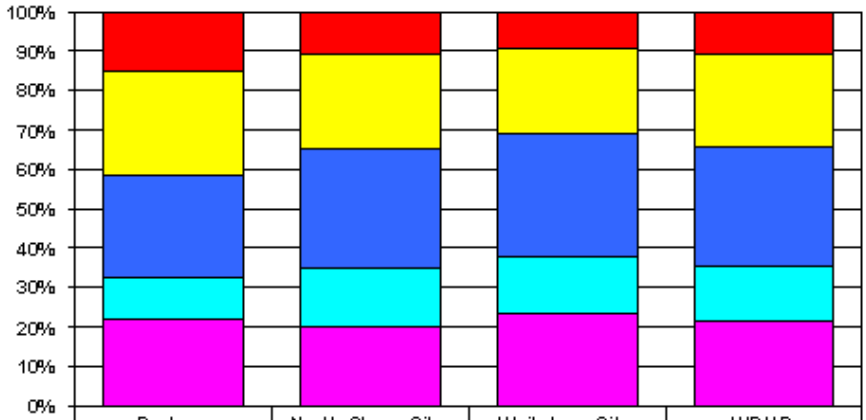


	European	Maori	PI	Asian	New Zealander	Total
65+	15.2	2.9	3.9	4.2	9	11
45-64	26.3	14.4	15.3	19	30.4	23.5
25-44	28	28.8	29.8	34.8	31.7	29.7
15-24	12.1	18.4	17.5	20.2	9.4	14.1
0-14	18.5	35.5	33.5	21.9	19.5	21.7

Source: Census 2006, Demographic Profile for Waitemata DHB

Figure 15 shows that Waitakere City had the youngest population with close to 38% of people under the age of 25. Rodney District, on the other hand, had the highest percentage of older people (65+) among the territorial authorities.

Figure 15 Age structure of the Waitemata population by territorial authority, 2006

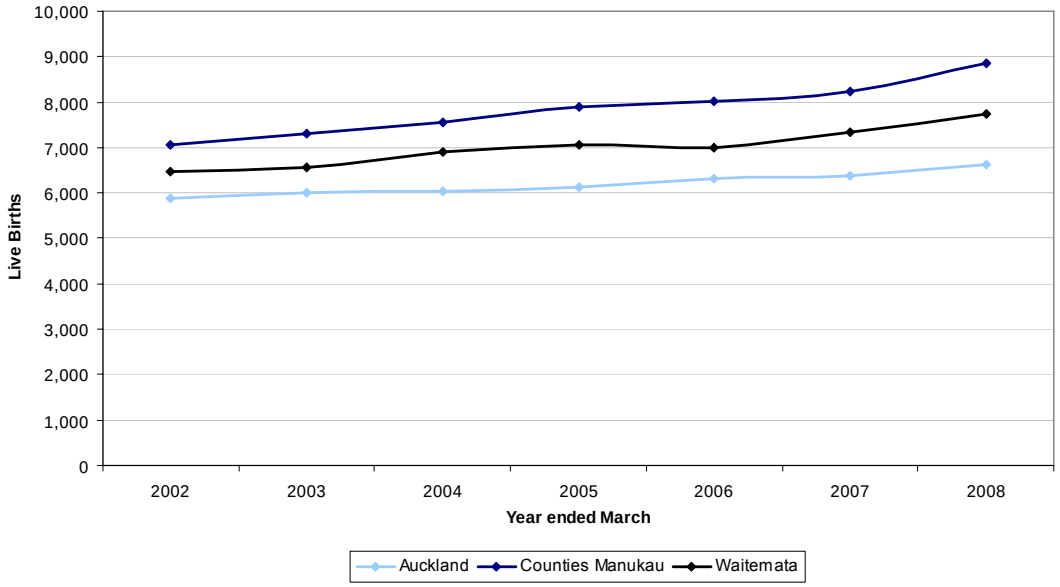


	Rodney	North Shore City	Waitakere City	WDHB
65+	14.9	10.8	9.3	11
45-64	26.3	24.1	21.5	23.5
25-44	26.3	29.8	31.2	29.7
15-24	10.6	15.4	14.3	14.1
0-14	21.9	19.8	23.7	21.7

Source: Census 2006, Demographic Profile for Waitemata DHB

Births

Figure 16 Number of live births in the Auckland region by DHB, 2002-2008



Source: Statistics NZ, Demographic Profile for Waitemata DHB

There has been a gradual increase in the number of live births to Waitemata residents and in the Auckland region over the last seven years. Over the period there was an average of 7,200 births each year to Waitemata residents, but in the year to March 2008 there were 7,729 births a 19% increase from 2002. Waitemata had 12% of the live births in New Zealand over the period.

Table 16 Live births registered in 2007, for mothers of all ages, by ethnicity (prioritised), Waitemata and NZ

		Maori	Pacific	Asian	Other	Total
Waitemata	Live births	1,155	899	1,192	4,583	7,829
	Female population (15–49 years)	11,891	8,702	24,347	84,118	129,058
	Rate (per 1000)	97.1	103.3	49	54.5	60.7
New Zealand	Live births	15,289	6,719	6,331	36,781	65,120
	Female population (15–49 years)	153,536	63,017	125,390	691,167	1,033,110
	Rate (per 1000)	99.6	106.6	50.5	53.2	63.0

Definitions: Live births: The number of live births registered during 2007, for mothers of all ages
Female population, 15–49 years: The number of people in the female population aged 15–49 years in 2007, for the specified DHB and ethnic group. Source: Births data prepared by HDIU, 2008

For mothers living in the Waitemata district, the rate of live births was similar to the national rate of births registered in 2007. Patterns across ethnic groups at the district level were similar to national patterns, with higher rates of live births for Maori and Pacific women.

Population trends

The population data in this section uses a slightly different base than that used in previous sections. It uses a 2006 base of 504,710 for Waitemata (compared with 481,611), and a 2006 base of 4,184,095 for New Zealand (compared with 4,027,947). The data used for population projections is the census usually resident population adjusted for undercount, residents temporarily overseas, an update of births, deaths and net migration from the census date to June 30 2006, and an adjustment for demographic estimates at ages 0-4 years.

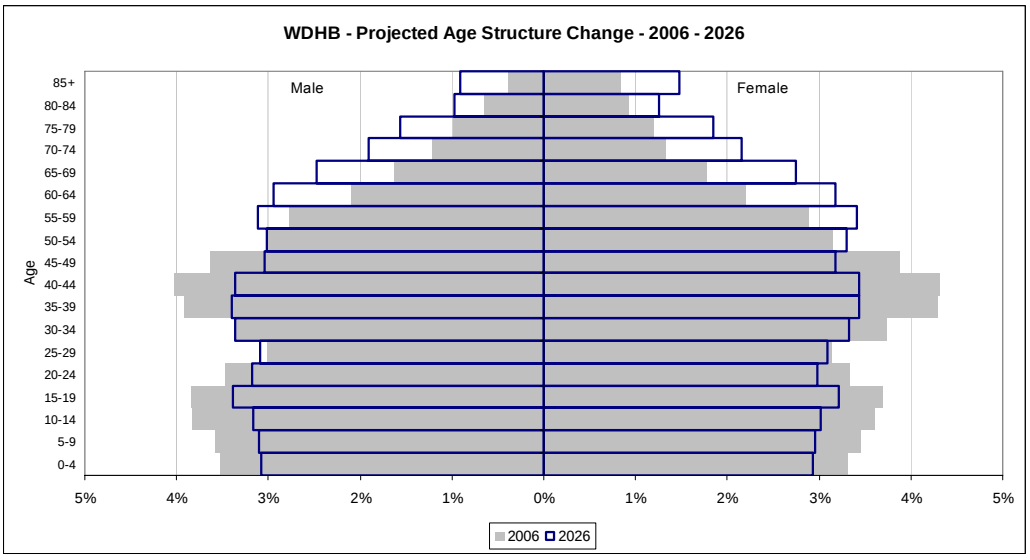
Table 17 Projected population over the next 20 years, by age group

Age		2006	2011	2016	2021	2026	% increase 2006-2026
Waitemata	0-14	107500	110680	113660	117100	120300	11.9
	15-64	342110	368490	389160	408950	424580	24.1
	65+	55100	65430	80180	95150	114060	107.0
	Total	504710	544600	583000	621200	658940	30.6
New Zealand	0-14	888170	888990	892880	900515	897980	1.1
	15-64	2784345	2929195	3003215	3060635	3094415	11.1
	65+	511580	583275	694940	810245	947455	85.2
	Total	4184095	4401460	4591035	4771395	4939850	18.1

Source: Statistics NZ Population Projections prepared for MoH. Ref No. RIS18647

The population in Waitemata is projected to increase at a faster rate than the national population between 2006-2026 in all age groups. Like the national population, the population is aging, with the highest percentage increase for 2006 - 2026 occurring in the 65+ age group which is projected to increase by 107%.

Figure 17 Projected age structure change 2006-2026, Waitemata



Source: Statistics NZ Population Projections prepared for MoH.

Table 18 Projected population over the next 20 years by ethnicity (prioritised)

Ethnicity		2006	2011	2016	2021	2026	% increase 2006-2026
Waitemata	Maori	48860	53870	58900	64130	69610	42.5
	Pacific	34320	39660	44900	50340	56020	63.2
	Other	421530	451070	479200	506730	533310	26.5
	Total	504710	544600	583000	621200	658940	30.6
New Zealand	Maori	624280	672220	717800	763780	810730	29.9
	Pacific	256865	284310	311165	338525	367100	42.9
	Other	3302950	3444930	3562070	3669090	3762020	13.9
	Total	4184095	4401460	4591035	4771395	4939850	18.1

Source: HDIU

The greatest percentage increase between 2006—2026 is projected to occur within the Pacific (63.2%) and Maori (42.5%) ethnic groups (Table 18). However, 72% of the total increase over this time period will occur in Other populations.

Table 19 Projected population over the next 20 years by territorial authority

Territorial Authority		2006	2011	2016	2021	2026	% increase 2006-2026
Waitemata	Rodney	92400	101400	110100	118800	127500	38.0
	North Shore	216900	231400	246400	261100	275100	26.8
	Waitakere	195300	211500	227000	242200	257200	31.7

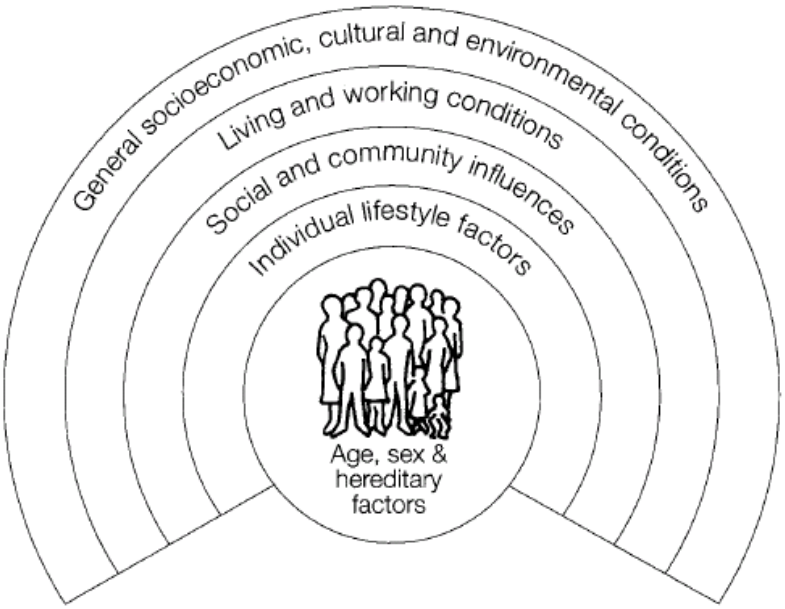
Source: HDIU

Rodney District is projected to have the highest percentage increases in its population, followed by Waitakere City. Waitakere City is projected to have the greatest increase in actual number of people, followed by North Shore City.

The Determinants of Health

In order to improve population health status and reduce health inequalities, it is important to identify and understand the main factors that protect and promote good health. These factors are known as the determinants of health. There is now good evidence that social, cultural and economic factors are the most important determinants of good health and are much more influential than health services (National Advisory Committee on Health and Disability 1998). The social and economic factors that have been shown in a variety of settings to have the greatest influence on health are income and poverty, employment and occupation, education, housing, and culture and ethnicity. Social capital is of increasing interest and is also discussed. Individual lifestyle factors also have very important impacts upon health and are discussed in detail in the last part of this section. The following figure from Dahlgren and Whitehead provides a framework for considering the determinants of health.

Figure 18 The determinants of health



Social Factors

Social Capital

Human beings are social animals. Almost everything we do is done as members of distinct social groups whether they are friends and families, workplaces, clubs and societies or the many communities we each belong to. Social capital is a resource that exists because of those relationships. It has been defined as “relationships among individuals, groups, and/or organisations that create a capacity to act for mutual benefit or a common purpose” (Spellerberg 2001). Measurement of social capital is complex and evolving and only a few aspects are reported here. There is a large literature about the important effects that social capital has on health (Berkman and Kawachi 2000).

Voluntary work

Table 20 Proportion of adults who undertake voluntary work through any organisation, group, or marae, by ethnicity (total response) and gender, Waitemata and NZ, 2006

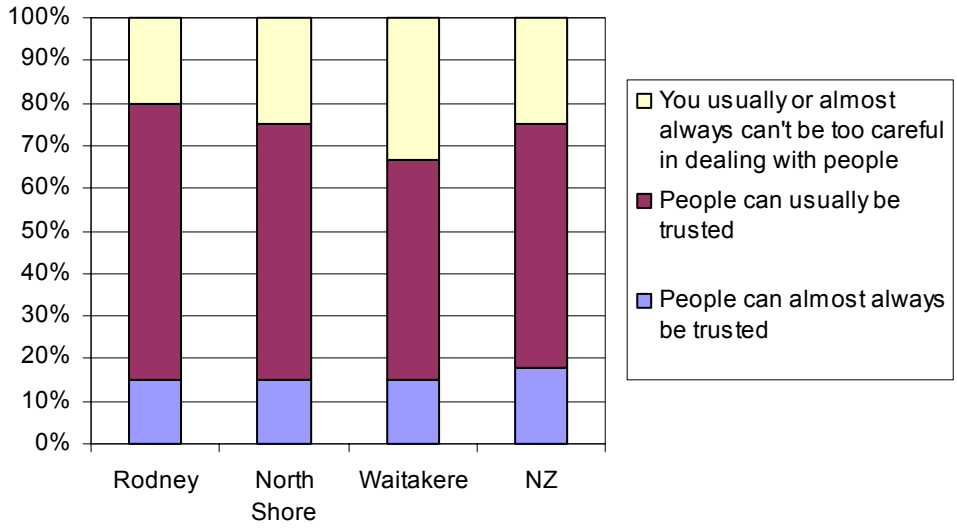
	WDHB					NZ
Gender	Maori	Pacific	Asian	Other	Total	Total
Female	16.6%	13.0%	7.8%	13.9%	13.1%	15.2%
Male	12.1%	12.1%	7.6%	10.7%	10.5%	12.4%
Total	14.5%	12.6%	7.7%	12.3%	11.9%	13.8%

Source: Census 2006

People in Waitemata are slightly less likely to undertake voluntary work than people in New Zealand as a whole. Women are more likely to undertake voluntary work than men. Maori are the most likely to undertake voluntary work and Asians are least likely. This may reflect that Asians are often recent migrants to New Zealand and are therefore less integrated in society as yet.

Feelings of Trust

Figure 19 Sense of trust of others, by territorial authority, 2006

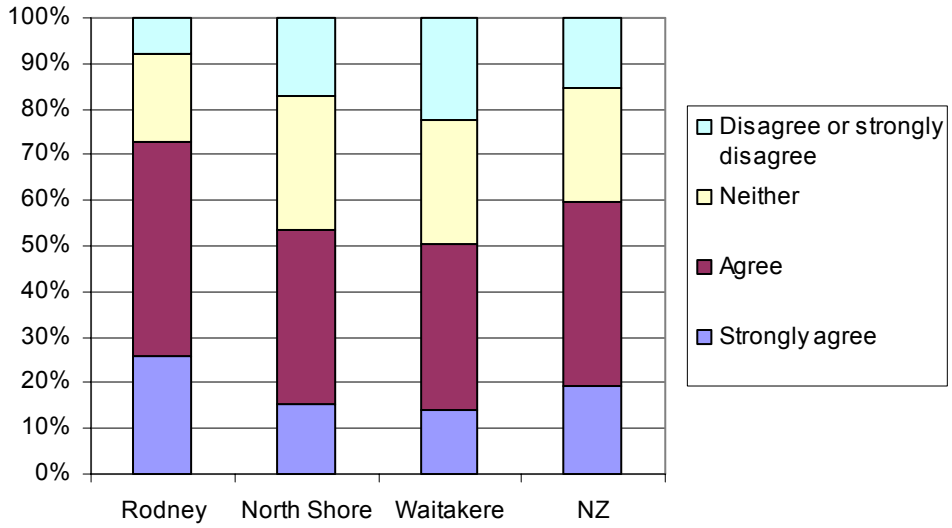


Source: Quality of Life Survey 2006

People in Waitakere City are less likely to feel that people can usually be trusted, followed by North Shore City.

Sense of Community

Figure 20 Sense of community, by territorial authority, 2006



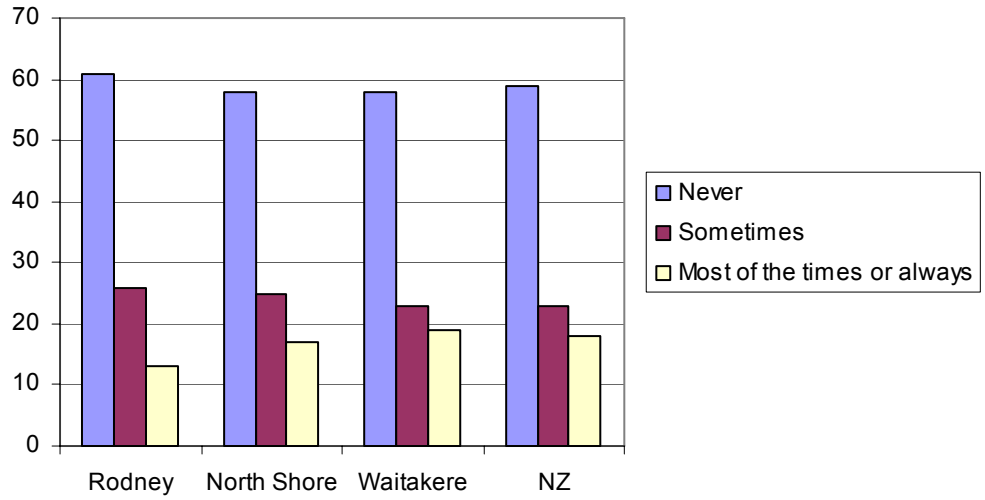
Source: Quality of Life Survey 2006

A higher percentage of people in Rodney reported feeling a sense of community.

Social Support

Feeling isolated

Figure 21 Proportion of people who report feeling isolated, Waitemata and NZ, 2006



Source: Quality of Life Survey 2006

About 40% of people report feeling isolated at least sometimes. There was little variation between areas of Waitemata or with New Zealand.

Access to telephone

Telephones provide a means of social connection to others and facilitate a range of activities of daily life. They are an important means of contact with health services. People with phones are able to access help such as Healthline and organise outpatient clinic appointments for times they can attend. In addition it is easier for health practitioners to contact people with telephones to give them reminders when such things as immunisations or screening tests are due.

Only a very small proportion of people do not have access to a phone. A significantly higher percentage of Maori and Pacific people did not have access to a telephone or cell phone than Other and Asian people in Waitemata. Overall, a significantly lower proportion of Waitemata residents than the New Zealand average lacked access to a telephone or cell phone.

Table 21 Adults over 15 years of age living in households without access to a telephone age-standardised rate (ASR) (with 95% confidence intervals), 2006

		Waitemata ASR, percent	New Zealand ASR, percent
Gender	Female	1.0 (1.0–1.1)	1.6 (1.6–1.7)
	Male	1.1 (1.1–1.2)	2.0 (2.0–2.0)
	Total	1.1 (1.0–1.1)	1.8 (1.8–1.8)
Ethnicity (total response)	Maori	3.1 (2.9–3.3)	5.3 (5.3–5.4)
	Pacific	3.1 (2.9–3.4)	4.4 (4.3–4.5)
	Asian	1.1 (1.0–1.2)	1.3 (1.2–1.3)
	Other	0.8 (0.7–0.8)	1.2 (1.2–1.2)

Source: Census 2006

Stability of residence

People who have lived at one address for a longer period of time are more likely to have good local social networks and be better able to access community services.

Table 22 Proportion of people who have lived in their present address for various lengths of time, Waitemata, by ethnicity (total response), 2006

	Less than one year	1-4 years	5 years or more
Maori	29.1%	33.6%	32.9%
Pacific	25.3%	30.5%	38.1%
Asian	32.2%	42.3%	22.8%
Other	19.3%	31.3%	42.1%
Total	22.4%	33.0%	38.3%

Source: Census 2006

Maori and Asian people are more likely to have lived in a residence for a short period and Others are most likely to have lived in a residence for over 5 years.

Access to car

Having a car generally makes it easier to access health services. When people do not have a car attending services such as outpatient clinics, or primary care for immunisations, cervical screening, etc, or antenatal care can be more difficult.

In Waitemata significantly more females than males lacked access to a motor vehicle. A significantly higher proportion of Maori and Pacific people lacked access than other ethnic groups.

Table 23 Adults over 15 years without access to a motor vehicle at home, age-standardised rate (ASR), (with 95% confidence intervals), 2006

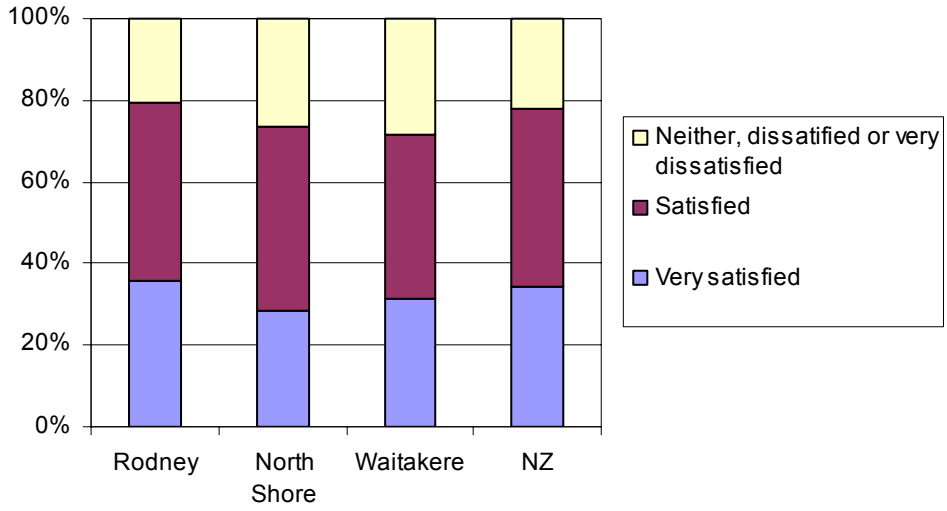
		Waitemata DHB ASR, percent	New Zealand ASR, percent
Gender	Female	3.4 (3.3–3.5)	5.5 (5.5–5.6)
	Male	2.1 (2.0–2.1)	4.1 (4.1–4.1)
	Total	2.8 (2.7–2.8)	4.9 (4.8–4.9)
Ethnicity (total response)	Maori	5.9 (5.6–6.2)	9.4 (9.3–9.5)
	Pacific	5.8 (5.4–6.1)	8.7 (8.6–8.9)
	Asian	2.8 (2.7–3.0)	5.4 (5.3–5.5)
	Other	2.4 (2.4–2.5)	4.0 (4.0–4.0)

Source: Census 2006

Lifestyle

Work/life balance

Figure 22 Satisfaction with balance between work and other aspects of life, by territorial authority, 2006

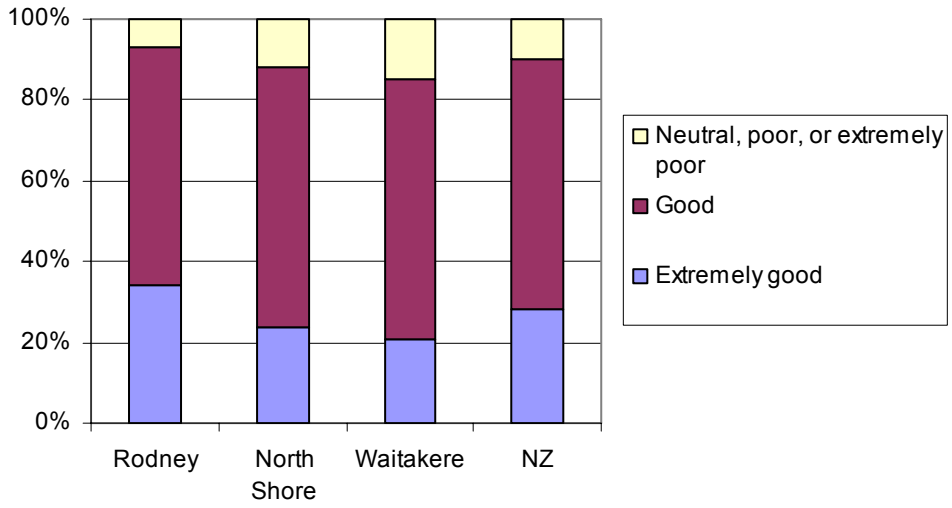


Source: Quality of Life Survey 2006

Most people are satisfied with the balance between work and other aspects of their life.

Quality of life

Figure 23 Perceptions of quality of life, by territorial authority, 2006



Source: Quality of Life Survey 2006

Most people feel they have a good or extremely good quality of life.

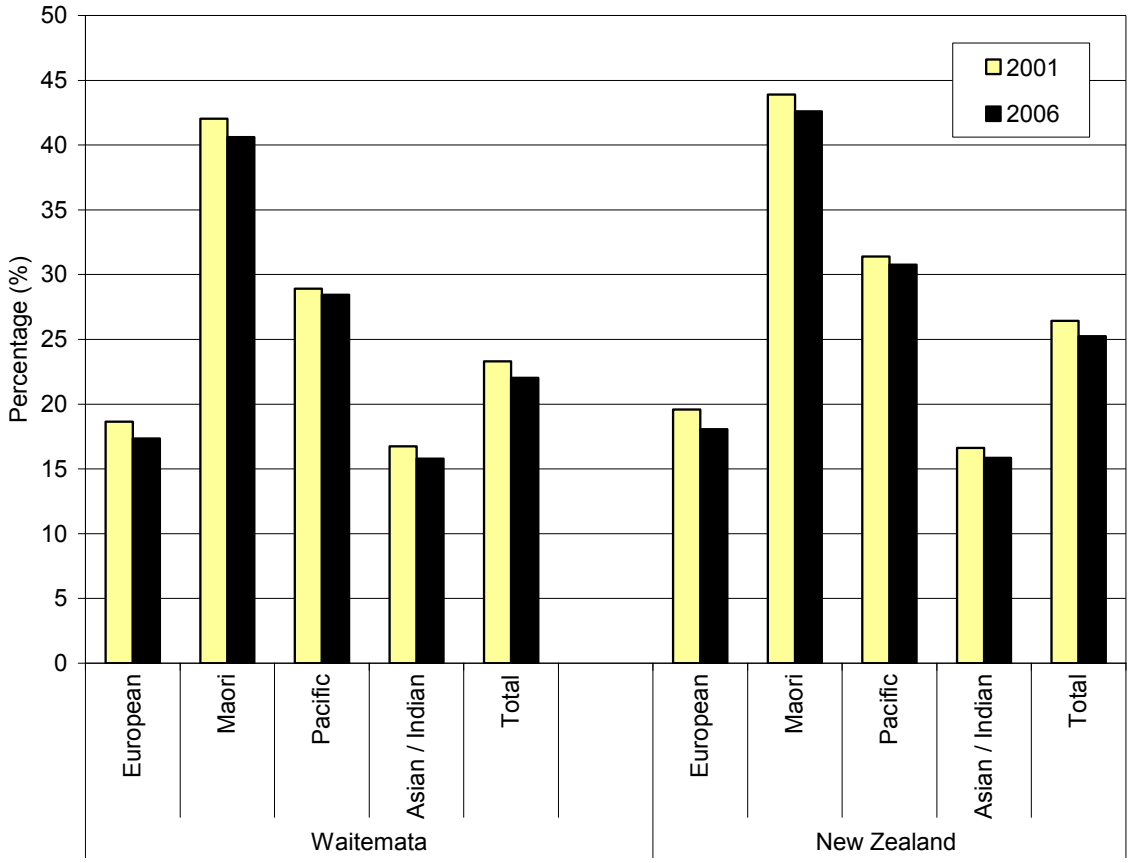
Families and Whanau

Single parent families

Family composition and the number of children growing up in sole parent families are important for a number of reasons. Firstly, three times as many sole parent families lived in significant or severe hardship, than two parent families (Craig, Jackson et al. 2006). Sole parent families were more likely to be reliant on benefits (sole-parent 62% vs. two-parent 6%).

Secondly, for a significant number of children, living in a sole-parent family has arisen out of parental separation. A large body of literature now suggests that children who experience parental separation during childhood do less well across a range of outcomes (e.g. educational attainment, mental and emotional health, social conduct, substance use, early onset sexual behaviour).

Figure 24 Proportion of children <15 years living in one parent households by ethnicity (prioritised), Waitemata and NZ, 2001 and 2006



Source: The Health of Children and Young People in the Waitemata Region; from Census data

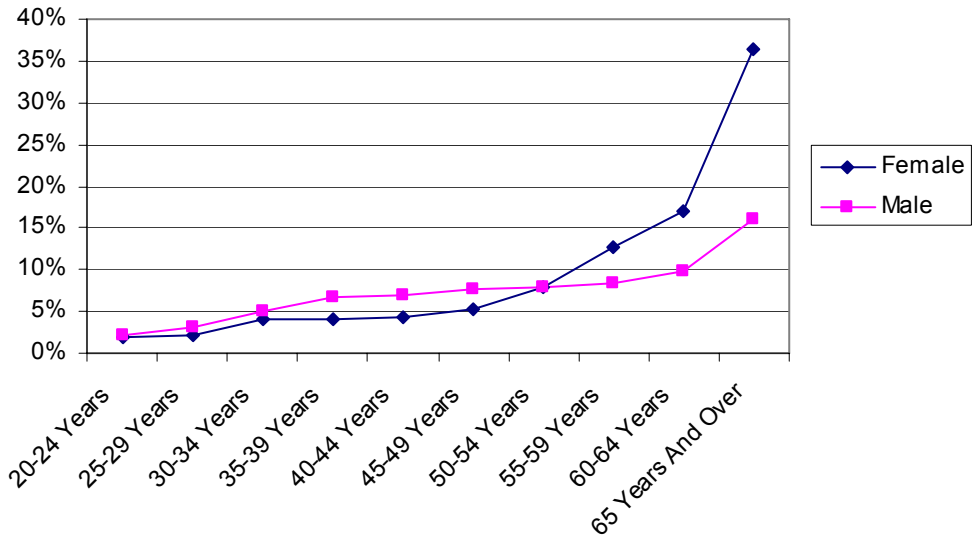
22.0% of children in Waitemata live in a single parent household. There are marked ethnic differences in the Waitemata region, with 40.6% of Maori and 28.4% of Pacific children living in sole parent households, as compared to 17.4% of European and 15.8% of Asian children.

There were also marked socioeconomic differences in the proportion of Waitemata children living in sole parent households during 2006, with rates rising progressively from 8.4% amongst those living in the most affluent (decile 1) areas, to 42.1% amongst those living in the most deprived (decile 10) areas (Craig, Jackson et al. 2006). It is likely that this is partly due to single parent families having low income and therefore tending to live in deprived areas.

Living alone

People who live alone tend to have less social support.

Figure 25 Proportion of people who live alone by age and gender, Waitemata, 2006



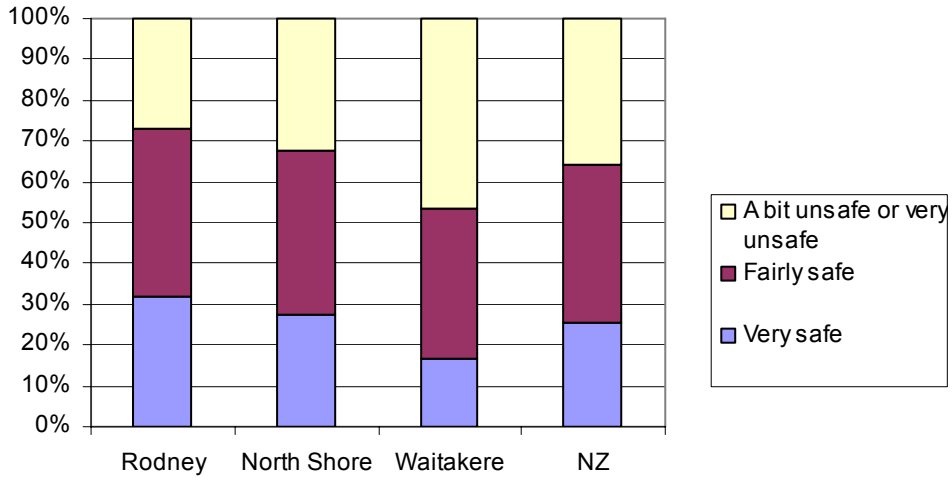
Source: Census 2006

Overall 8.5% of people in Waitemata live alone in their homes. The proportion of people who live alone increases after the age of 50, particularly for women. This presumably is mainly due to people's partners dying and the longer life expectancy of women.

Violence, Crime and Safety

Perceptions of safety

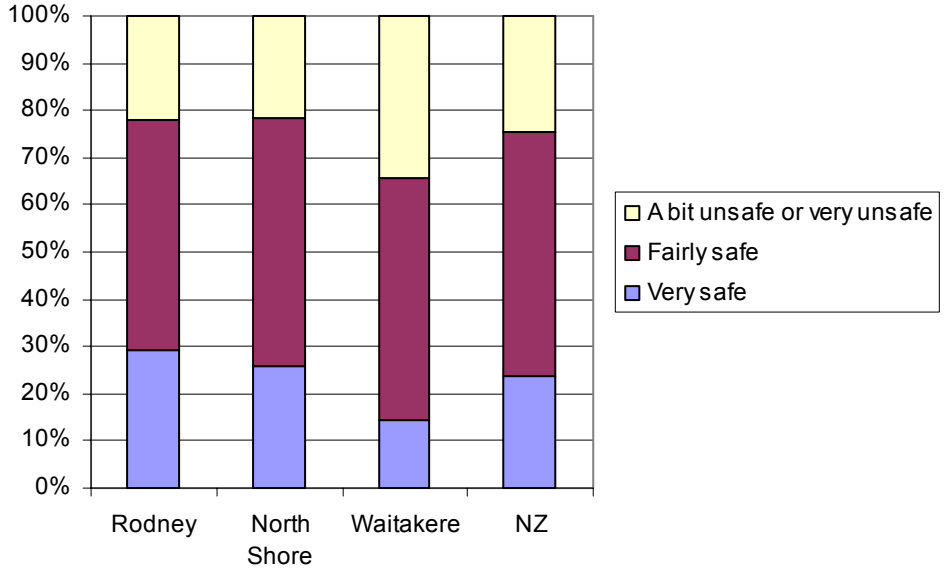
Figure 26 Sense of safety walking alone in neighbourhood after dark, by territorial authority, 2006



Source: Quality of Life Survey 2006

People in Waitakere City are less likely to feel safe walking alone after dark than people in Rodney and North Shore or in New Zealand as a whole.

Figure 27 Perceived safety of unsupervised children in local area, by territorial authority, 2006



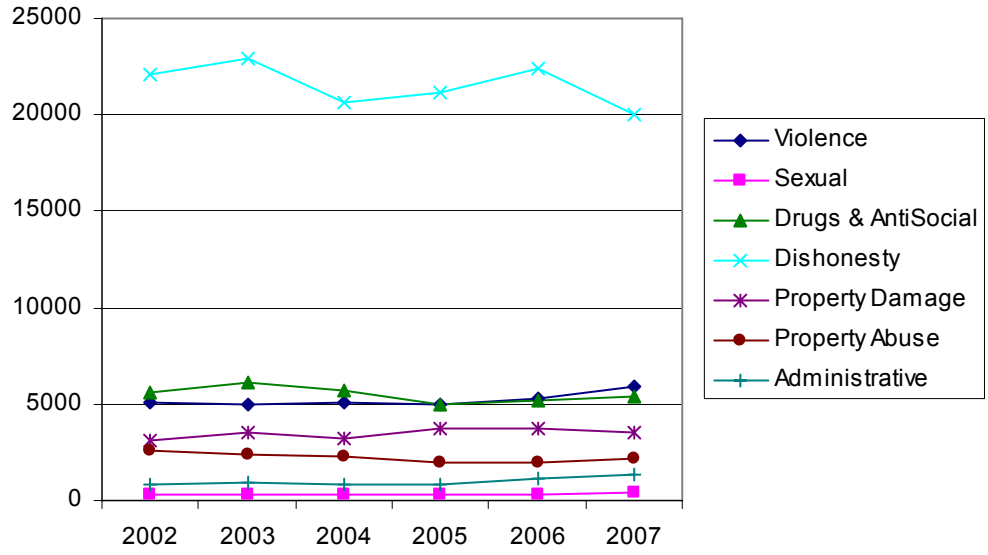
Source: Quality of Life Survey 2006

People in Waitakere are also less likely to feel that their children are safe when unsupervised.

Crime

Crime, and particularly violent crime, makes a community feel less safe. It is important to realise that the following figures are for reported crime and that many crimes remain unreported. For example, it is estimated that over 80% of sexual assaults against women and over 50% of assaults are not reported (Morris and Reilly 2003).

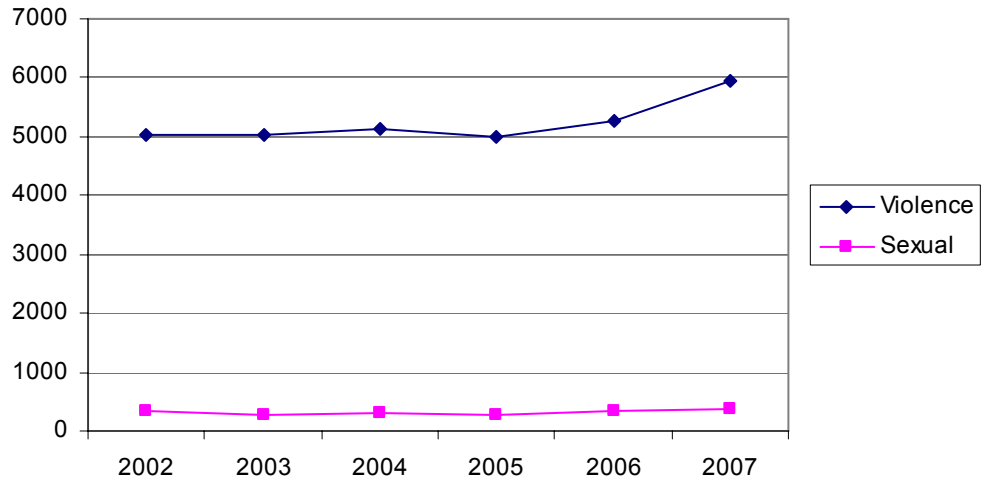
Figure 28 Total numbers of offences reported to the Police in Waitemata, 2002-2007



Source: Statistics NZ

The rate of reporting of most crimes in Waitemata district has not increased since 2002. However reporting of violence has increased 17% in that period due to an increase over the last two years.

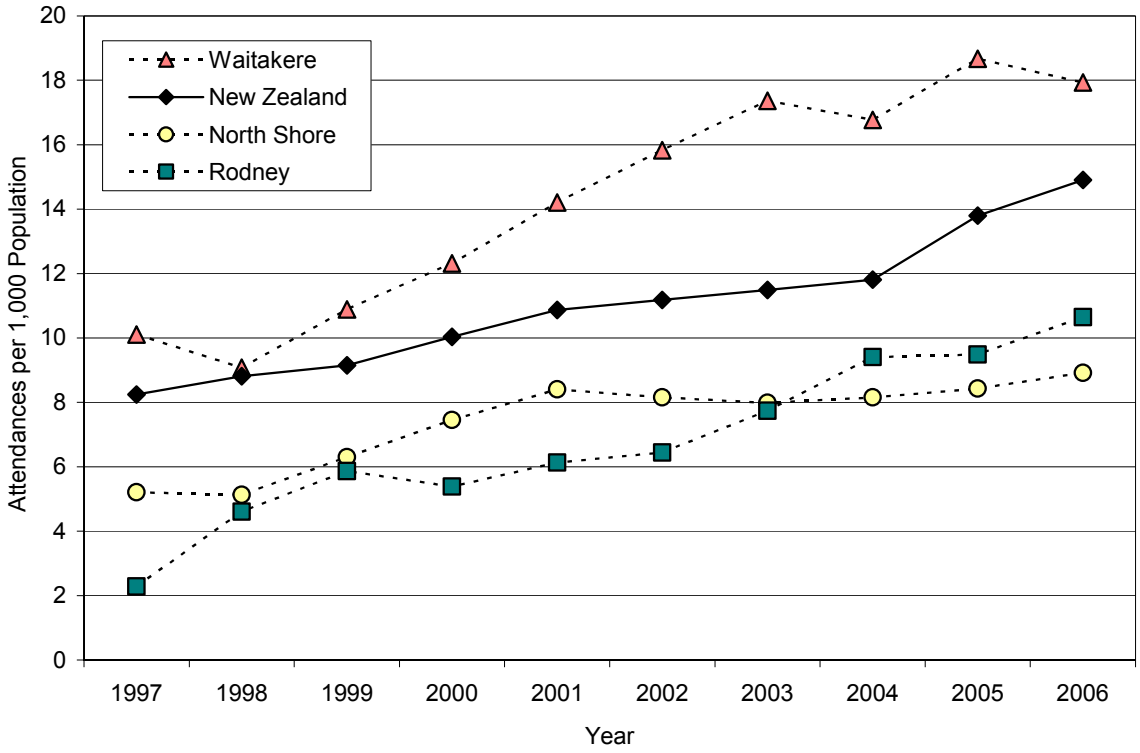
Figure 29 Total number of reported violence and sexual offences in Waitemata, 2002-2007



Source: Statistics NZ

Family violence from Police

Figure 30 Police attendances at family violence related incidents for police areas in Waitemata, 1997-2006



Source: The Health of Children and Young People in the Waitemata District

A large number of family violence incidents occur in Waitemata each year. Children are likely to be present at over half of these incidents (Craig, Jackson et al. 2006). It is difficult to use these figures to comment on trends in the prevalence of family violence during this period because of changes in the way in which the Police have recognised and recorded family violence over time. Although these rates do not take into account the differences in age structures between districts, Waitakere does seem to have higher rate of family violence reporting.

Partner violence

Table 24 Prevalence of intimate partner violence amongst those who have had partners, New Zealand and Auckland region

	Maori		Pacific		European		Other		Total	
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
Lifetime										
NZ National Survey of Crime Victims 2001 - NZ data										
Used force or violence	41.9	19.6	17.2	6.7	19.5	14.8	17.4	8.5	21.2	14.4
Threatened to use force or violence	39.1	14.0	17.1	5.4	17.5	8.1	15.2	1.9	19.5	8.0
Harmed or threatened to harm something belonging	35.5	12.4	16.9	6.5	16.9	9.9	20.8	5.8	18.8	9.8
Used a weapon	14.3	9.8	4.1	2.4	5.3	2.7	4.3	2.3	6.2	3.4
Any of the above	49.3	27.5	23.3	10.3	24.2	18.4	24.9	9.4	26.4	18.2
Fanslow 2004 - Auckland data										
Any									30.2	
Moderate									11.3	
Severe									18.9	
Last year										
NZ National Survey of Crime Victims 2001 - NZ data										
Used force or violence									2.0	1.2
Threatened to use force or violence									2.3	0.8
Harmed or threatened to harm something belonging									0.8	0.6
Used a weapon									0.5	0.4
Fanslow 2004 - Auckland data										
Any									5.3	
Moderate									2.6	
Severe									2.8	

Source: Various, see table

A history of partner violence is common with 21-30% of women and 14% of men reporting actual use of force or violence (Morris and Reilly 2003). Violence can include a range of levels of assault but it is notable that 19% of Auckland women reported severe violence at some stage of their lives. Violence in the last year is less common, although 5% of Auckland women reported violence of some degree being use against them by their partners (Fanslow and Robinson 2004; Mayhew and Reilly 2007). Violence is much more common among Maori than other ethnic groups. It is also more common among younger women than older (data not shown) (Mayhew and Reilly 2007).

Sexual assault

Many women in New Zealand experience sexual assault. Sexual assault is defined differently in different surveys but includes unwanted sexual touching and sexual intercourse. In one survey 46% of victims (including males) said the assault either 'very much' or 'quite a lot' had an effect on them (Mayhew and Reilly 2007).

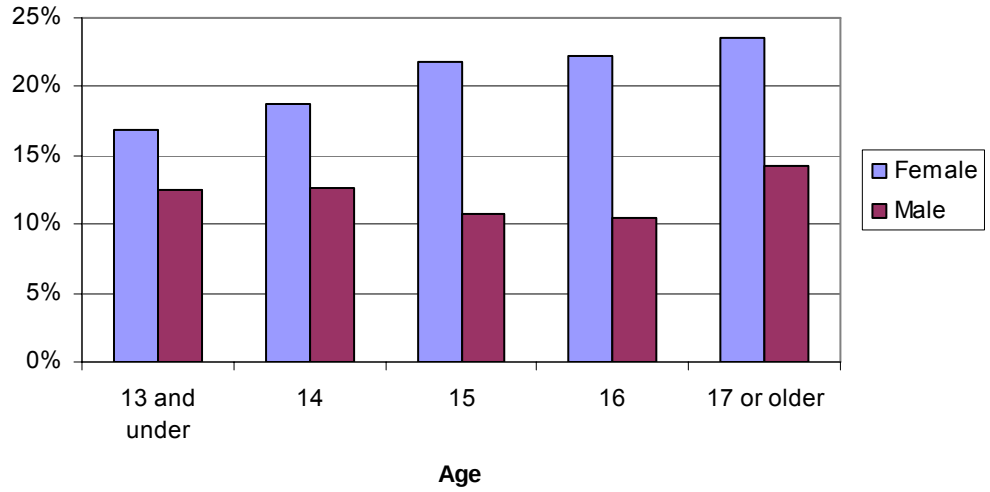
Table 25 Prevalence of sexual assault in Auckland region and NZ

Time period	Group	Percent	Source
Lifetime	Female	19.3	NZ National Survey of Crime Victims 2001 - NZ data
	Male	4.9	
	Maori	15.5	
	Pacific	4.3	
	European	12.9	
	Other	5.4	
	Female by non-partner	9.2	Fanslow 2004 - Auckland data
	Female by intimate partner	14.1	
By age 17	Female	13.5	NZ National Survey of Crime Victims 2001
	Male	3.8	
In last year	Female	4	Crime and Safety Survey 2006 - NZ data
	Male	2	

Source: Various, see table

Women are much more likely than men to be victims of sexual assault. Young people are at particular risk of sexual assault and Maori and Europeans are at greater risk than Pacific people and Others. The perpetrators of sexual assault are most likely to be partners, ex-partners or close friends (Fanslow and Robinson 2004; Mayhew and Reilly 2007).

Figure 31 Students who had ever being touched in a sexual way or made to do sexual things they did not wish to do, New Zealand, 2001



Source: Youth 2000

The Youth 2000 survey found that 26% of girls and 14% of boys had experienced unwanted sexual contact (Fleming, Watson et al. 2007). Of these, 38% of girls and 18% of boys said that the contact was pretty, really, or very bad on the last time it had occurred.

Children

Children and Young Persons Service have offices in Takapuna, Waitakere and Whenuapai. Although these offices serve Rodney as well the areas that they serve are only partly contiguous with Waitemata's. However the information is provided as illustrative and we have not attempted to calculate rates.

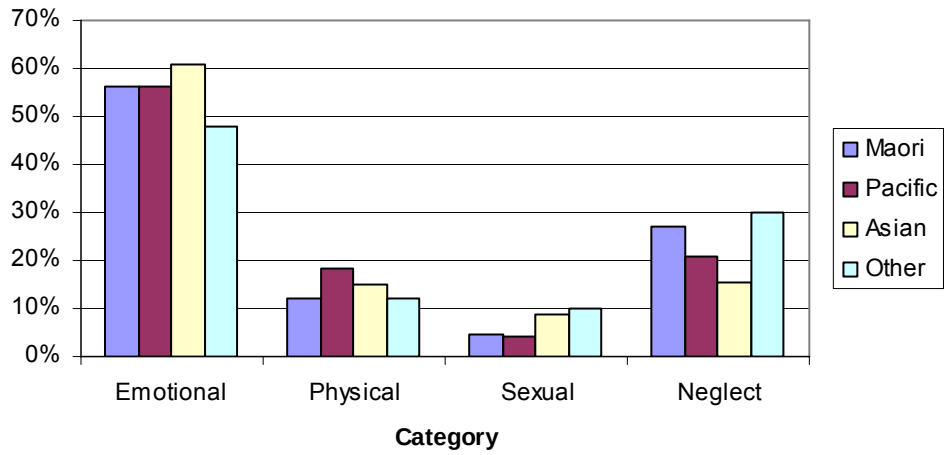
Table 26 Children and Young Person Service investigation findings for child abuse for Takapuna, Waitakere, and Whenuapai offices combined, by ethnicity, 2007

	Emotional	Physical	Sexual	Neglect
Maori	763	90	52	91
Pacific	389	94	20	52
Asian	96	8	12	10
Other	671	95	81	141
Unknown	38	5	3	4
Total	1957	292	168	298

Source: Ministry of Social Development 2008

Investigations resulted in 2852 findings of abuse in 2007 by the three offices with over 50% of these being for emotional abuse.

Figure 32 Children and Young Person Service type of child abuse for Takapuna, Waitakere, and Whenuapai offices combined, by ethnicity, 2007

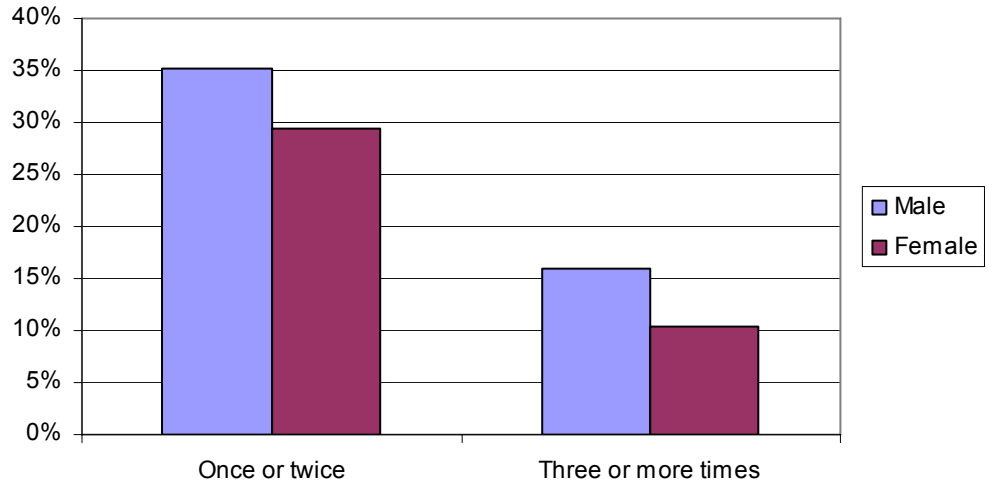


Source: Ministry of Social Development 2008

The patterns of abuse were similar for all ethnic groups.

Youth

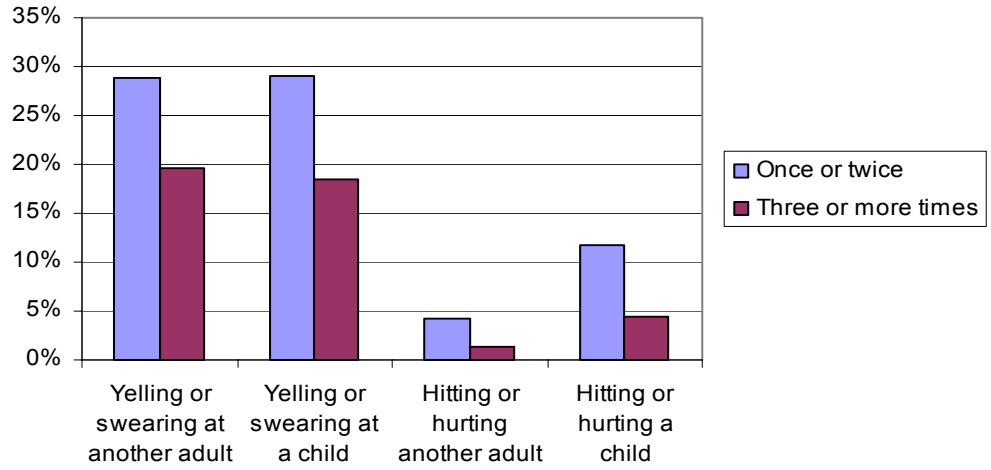
Figure 33 Proportion of young people hit or physically harmed on purpose by others in the last 12 months, NZ, 2001



Source: Youth 2000

51% of boys and 40% of girls had been intentionally physically harmed in the last 12 months (Fleming, Watson et al. 2007). When this last happened just over 20% of youths said it was pretty bad, really bad, or terrible. For girls the perpetrator was most likely to be a friend (26%), parent (22%), or family member (37%). For boys it was most likely to be a friend (47%) or stranger or other (31%) with parents only being 7% of perpetrators. Young people were also frequent witnesses to violence at home.

Figure 34 Young people who witnessed violence or yelling at home, NZ, 2001



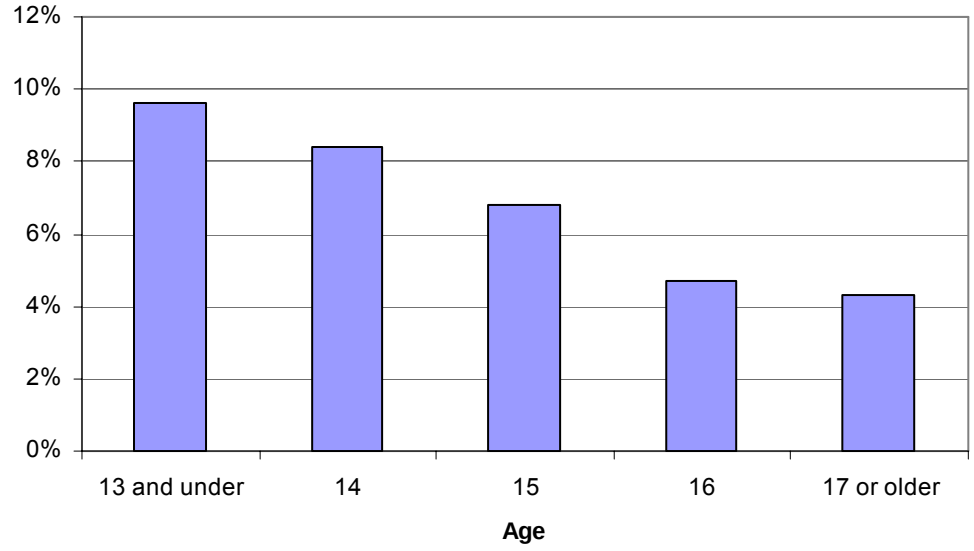
Source: Youth 2000

Violence has an important association with wellbeing. In the Youth 2000 survey people who were frequently victimised, witnessed violence at home, or hurt others had, in general: poorer mental health; poorer relationships with family, friends, and school; higher rates of using cigarettes, alcohol and marijuana; higher rates of unsafe sexual behaviour; and higher rates of stealing than others (Fleming, Watson et al. 2007).

Bullying

Bullying occurred at all schools and was experienced by children no matter how popular or well adjusted they are.

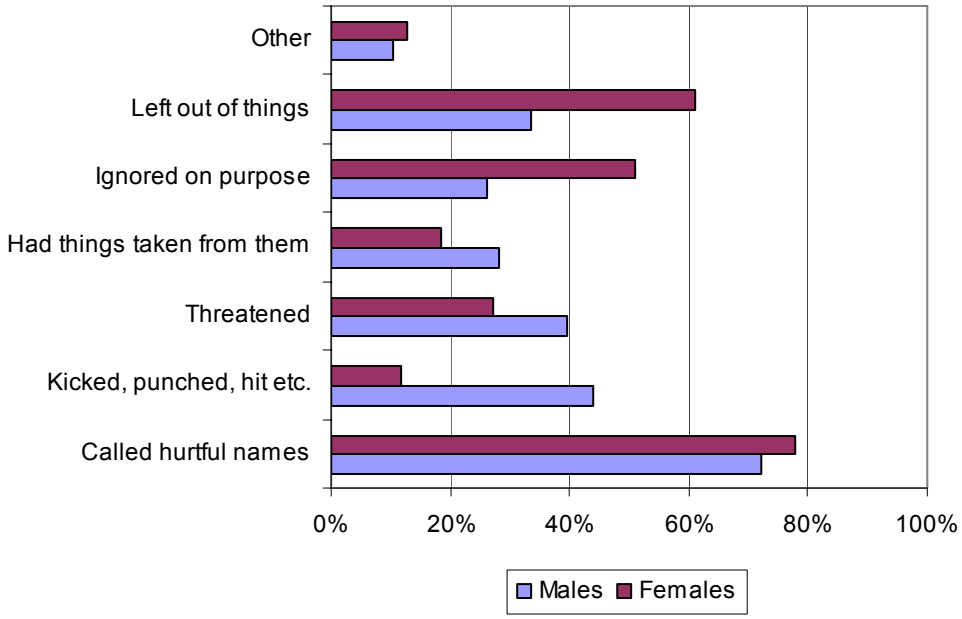
Figure 35 Students who were frequently bullied at school, NZ, 2001



Source: Youth 2000

28% of girls and 33% of boys in the Youth 2000 survey say they had being bullied at school (Fleming, Watson et al. 2007). 9.2% of boys and 5.2% of girls reported being bullied at school weekly or more often. About 3% of children had not gone to school at least once in the last month because they were afraid. Of those bullied, 31% said it was pretty bad, really bad, or terrible. Bullying was more common in younger age groups.

Figure 36 In what way were children bullied?, NZ, 2001



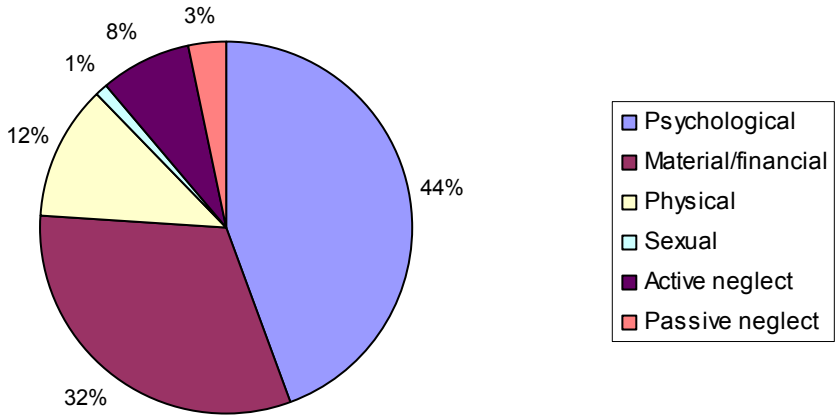
Source: Youth 2000

Students reported being bullied in a variety of ways. Boys were more likely to have being physically hurt or threatened and girls more likely to have been left out or ignored.

Elder abuse

Age Concern provides a national service for older people who have been abused and has offices in North Shore and Rodney (Age Concern New Zealand 2007). Data was not available at a local level.

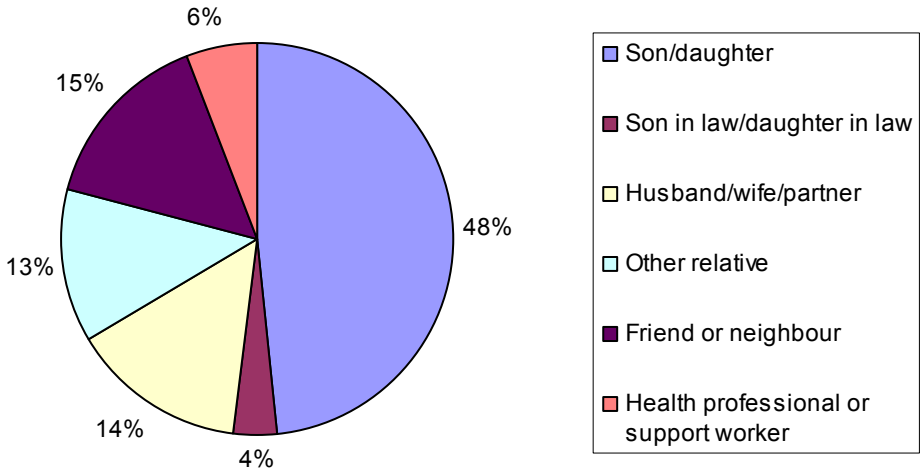
Figure 37 Types of abuse and neglect of older people found by Age Concern, New Zealand, June 2004-June 2006



Source: Age Concern

Psychological and material/financial abuse are the most common types of abuse suffered by older people. However, physical abuse and neglect were also common findings.

Figure 38 Perpetrators of abuse on older people, New Zealand, June 2004-June 2006



Source: Age Concern

Most of abuse suffered by older people is caused by relatives and children in particular. Only a small proportion is perpetrated by health professionals or support workers.

Cultural Factors

Culture in its broadest sense refers to accepted patterns and norms of behaviour within identifiable groups in society. The most obvious cultural groups are those based on ethnic identity, but other societal groups based on, for example, social class, religion, age, occupation, etc may have their own culture. For many groups, particularly ethnic groups, culture is central to their health and well-being. While some aspects of a culture may have a negative effect on health, a strong cultural identity is generally thought of as an important resource for health. It is only possible here to report a few measures of culture.

Born in New Zealand

Table 27 Percentage of born in NZ by age group and gender, 2006 census

Age group	Waitemata			New Zealand		
	Female	Male	Total	Female	Male	Total
0-14	77.6	78.0	77.8	84.7	84.9	84.8
15-24	61.9	61.0	61.4	72.8	72.6	72.7
25-44	55.8	57.7	56.7	68.9	69.5	69.2
45-64	58.0	57.0	57.5	71.4	70.9	71.1
65+	57.8	54.3	56.2	70.3	67.5	69.0
Total	61.9	62.3	62.1	73.4	73.5	73.5

Source: Census 2006 Note: Counts may not sum to total due to rounding

The percentage of Waitemata residents born in New Zealand was lower than that in New Zealand as a whole, for all age groups and both genders.

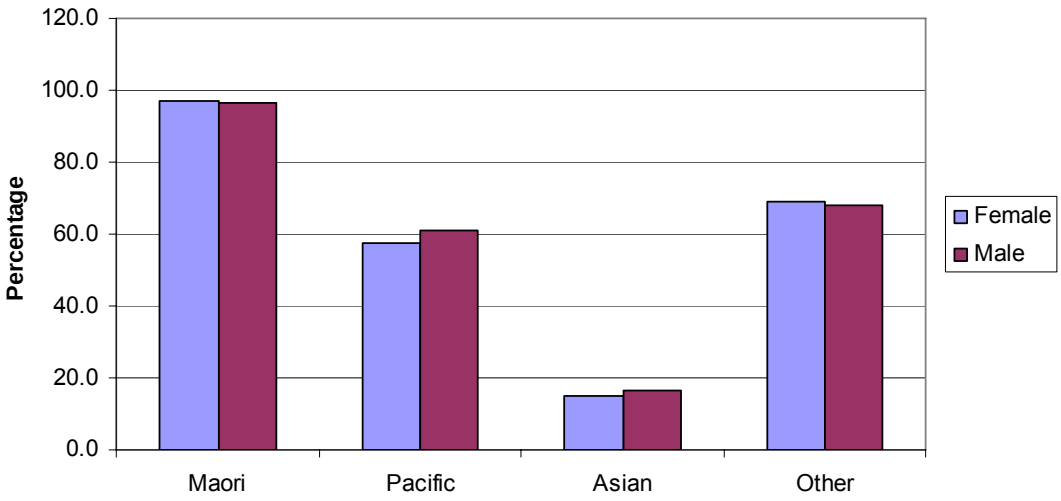
Table 28 Percentage of population born in New Zealand by ethnicity (total response) and gender, Waitemata and NZ, 2006

Ethnic Group	Waitemata			New Zealand		
	Female	Male	Total	Female	Male	Total
Maori	96.8	96.6	96.7	97.0	96.6	96.8
Pacific	57.4	60.9	59.1	58.4	59.8	59.1
Asian	15.1	16.7	15.9	18.8	21.1	19.9
Other	69.0	68.2	68.6	77.8	77.1	77.4

Source: Census 2006

By ethnicity, Maori in Waitemata had the highest percentage born in New Zealand, while only 16% of Asians living in Waitemata were born in New Zealand.

Figure 39 Percentage of Waitemata residents born in New Zealand by ethnicity (total response) and gender, 2006 census



Source: Census 2006

Access to Cultural Identity

Cultural identity is a critical part of positive Maori development. For Maori, cultural identity includes such aspects as language, access to land, marae, and Iwi and community networks. For many people who come from migrant backgrounds their traditional cultural identity is also important. This may be the case even when they were born in New Zealand. Ability to speak their cultures language is one important measure of this. A secure identity is linked to health status, educational achievement and emotional and social adjustment.

Know Iwi

Membership of Iwi, Hapu and whanua are important to identity for Maori and help to define their place in the world. However, many Maori no longer live in their Iwi area and may have lost this aspect of their cultural identity.

Table 29 Percentage of Maori who knew their Iwi, Waitemata and NZ, 2006

	Waitemata	New Zealand
Number	33,807	448,236
Percentage	84.5	85.8

Source: Census 2006

In Waitemata, 84.5% Maori knew their Iwi, which was close to the percentage of New Zealand.

Speak Te Reo

Ability to speak Te Reo is also an important part of cultural identity for Maori. Maori is one of New Zealand's official languages.

Table 30 Percentage of Maori who speak Te Reo, Waitemata and NZ, 2006 census

	Waitemata	**New Zealand**
Number	7566	131,625
Percentage	17.6	23.3

Source: Census 2006

There was a slightly low percentage of Maori speaking Te Reo in Waitemata, compared with the national proportion.

Language

Language is perhaps the most important aspect of cultural identity. In New Zealand, ability to speak English is also very important to your ability to fully participate in society and New Zealand's culture. The following table records people's ability to speak English and other languages. There is an assumption that, for Pacific and Asian people, other language is that of their own cultural group. This may not be the case. For example, a higher proportion of Maori speak other languages than speak Maori as recorded in the table above.

Table 31 Percentage of people speaking English and other languages, Waitemata and NZ, 2006

Ethnic Group (total response)	Waitemata			New Zealand		
	English only	English & other	No English	English only	English & other	No English
Maori	75.8	18.7	0.9	70.6	23.1	1.4
Pacific	43.3	44.3	5.7	41.7	45.1	6.3
Asian	21.1	58.9	15.4	23.4	58.5	13.3
Other	81.7	9.9	0.4	83.9	7.9	0.2

Source: Census 2006

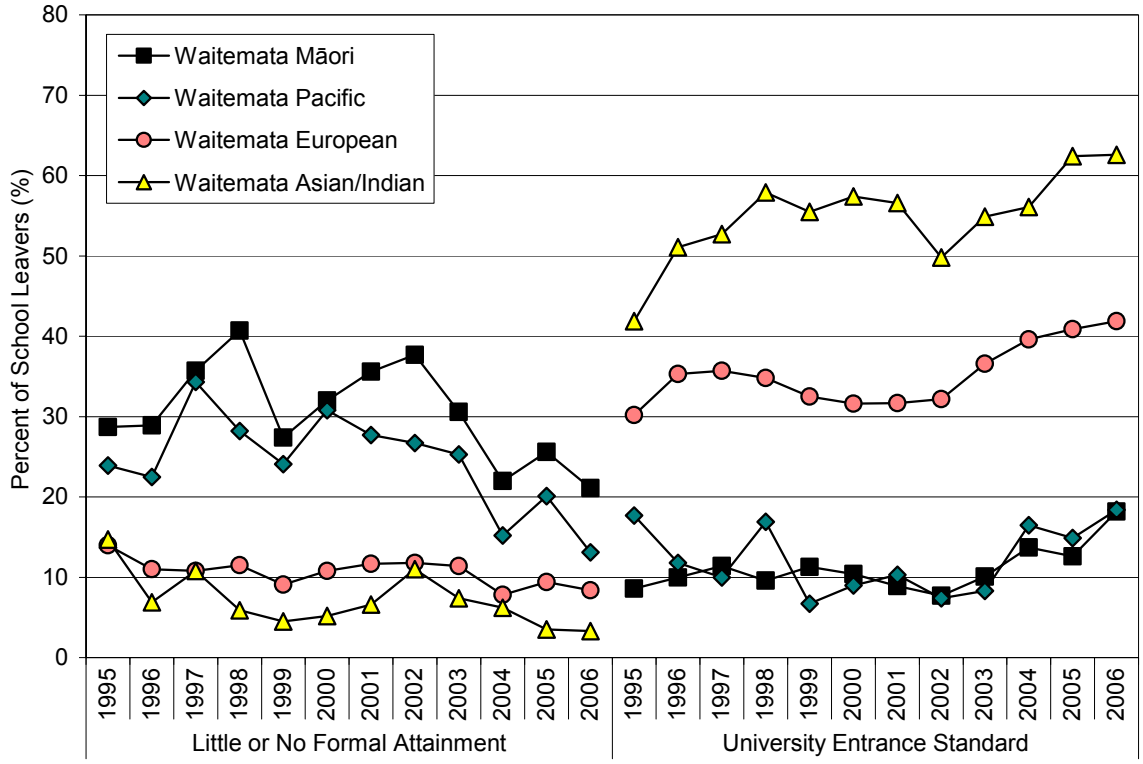
Over half Pacific people and nearly three quarters of Asian people speak another language. The difference presumably reflects the more recent migration of many Asian people. A significant minority of Asian people and a small minority of Pacific people do not speak English.

Economic Factors

Education

Education is associated with health. A person who has achieved NCEA Level 2 or higher is more likely to have better health than a person without educational qualifications.

Figure 40 Highest attainment of school leavers by ethnic group (prioritised), Waitemata, 1995-2006



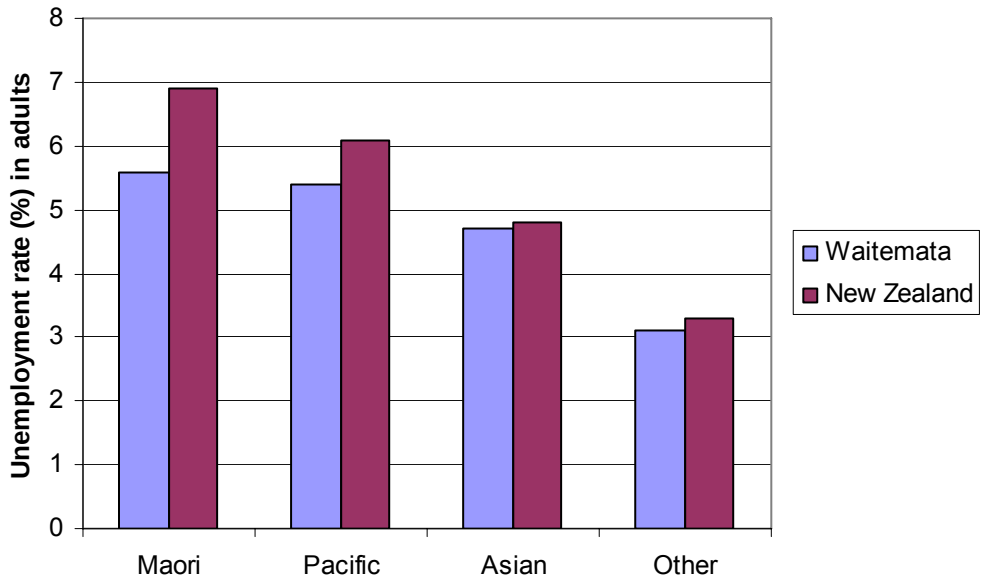
Source: Statistics NZ, The Health of Children and Young People in the Waitemata Region

There are marked ethnic differences in educational attainment at school leaving, with the proportion of young people leaving with little or no formal attainment being higher for Maori > Pacific > European > Asian / Indian young people. In contrast, rates for acquiring a University Entrance Standard were higher for Asian / Indian > European > Maori and Pacific young people. Interpretation of time series data must take into account the staged introduction of the NCEA, which began during 2002.

Employment

Unemployment can exacerbate existing health problems, or lead to new ones. Evidence shows that there is a link between unemployment and increased mortality, lower levels of general health, more anxiety and depression, higher rates of smoking and higher suicide rates. Unemployment leads to a greater use of health services.

Figure 41 Unemployment rates in adults over 15 years, age-standardised rate (ASR) by ethnicity (total response), 2006



Source: Census 2006

Females in Waitemata had a significantly higher unemployment rate than males (3.9% vs 3.4%), and Maori and Pacific people experienced significantly higher rates than other ethnic groups. Overall, the unemployment rate in Waitemata was significantly lower than in New Zealand.

Income

Lower income

Income is associated with health. People with lower incomes are more likely to have worse health status than those with higher incomes.

Figure 42 Lower income in adults over 15, age-standardised rate (ASR) with 95% confidence intervals, 2006

		Waitemata ASR, percent	New Zealand ASR, percent
Gender	Female	28.9 (28.6-29.2)	28.5 (28.3-28.6)
	Male	19.1 (18.8-19.3)	18.7 (18.6-18.8)
	Total	24.1 (24.0-24.3)	23.7 (23.6-23.8)
Ethnicity (Total response)	Maori	21.1 (20.6-21.7)	24.0 (23.8-24.2)
	Pacific	27.1 (26.4-27.9)	29.7 (29.4-30.0)
	Asian	44.6 (43.9-45.2)	42.2 (41.9-42.4)
	Other	20.3 (20.1-20.5)	21.1 (21.0-21.2)

Source: Census 2006, HDIU

A significantly higher proportion of females than males were in the lower income bracket in Waitemata. A higher percentage of Asian peoples reported lower incomes, followed by Pacific, then Maori and then Other ethnic groups. While a significantly higher proportion of Waitemata residents

than the New Zealand average experienced lower incomes, rates for Maori and Pacific people were significantly lower and rates for Asian peoples were significantly higher than their New Zealand counterparts.

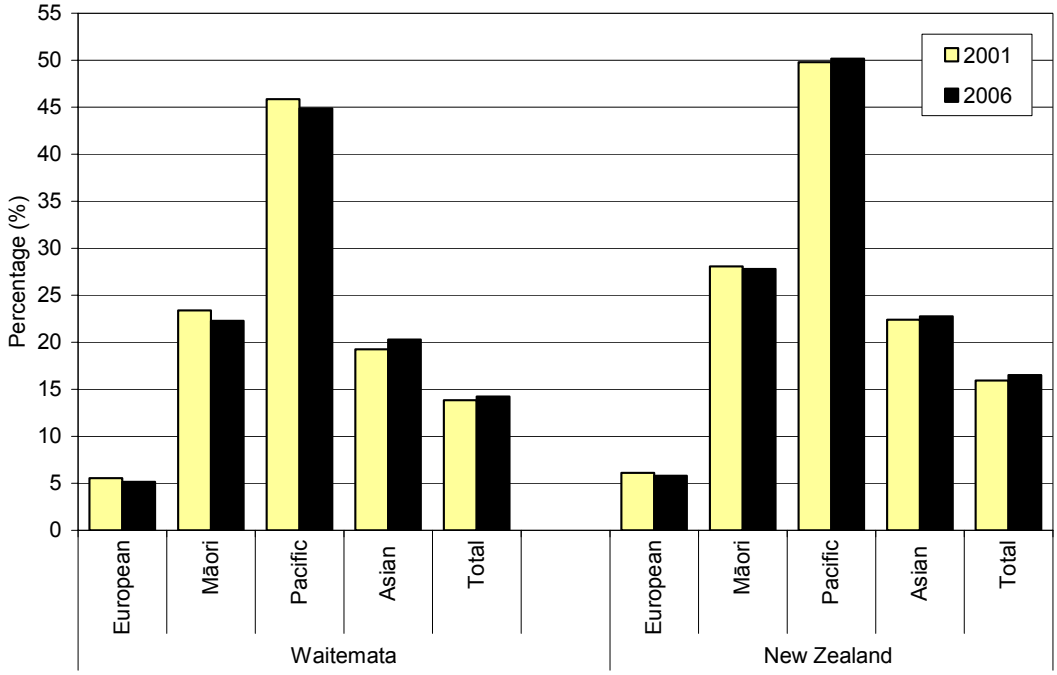
Housing

The location, physical quality, level of overcrowding, and cost of housing all impact directly on health. High housing costs leave less money for other budget items essential to good health.

Household crowding

In New Zealand, crowding is strongly correlated with childhood meningococcal disease. While there is less local information for other infectious diseases, overseas research has also demonstrated correlations between crowding and rheumatic fever, tuberculosis, bronchiolitis, croup, childhood pneumonia, and hepatitis B. In addition, it has been suggested that crowding impacts negatively on mental health (Craig, Jackson et al. 2006).

Figure 43 Proportion of children and young people 0-24 years living in a crowded household by ethnicity (prioritised), Waitemata and NZ, 2001 and 2006

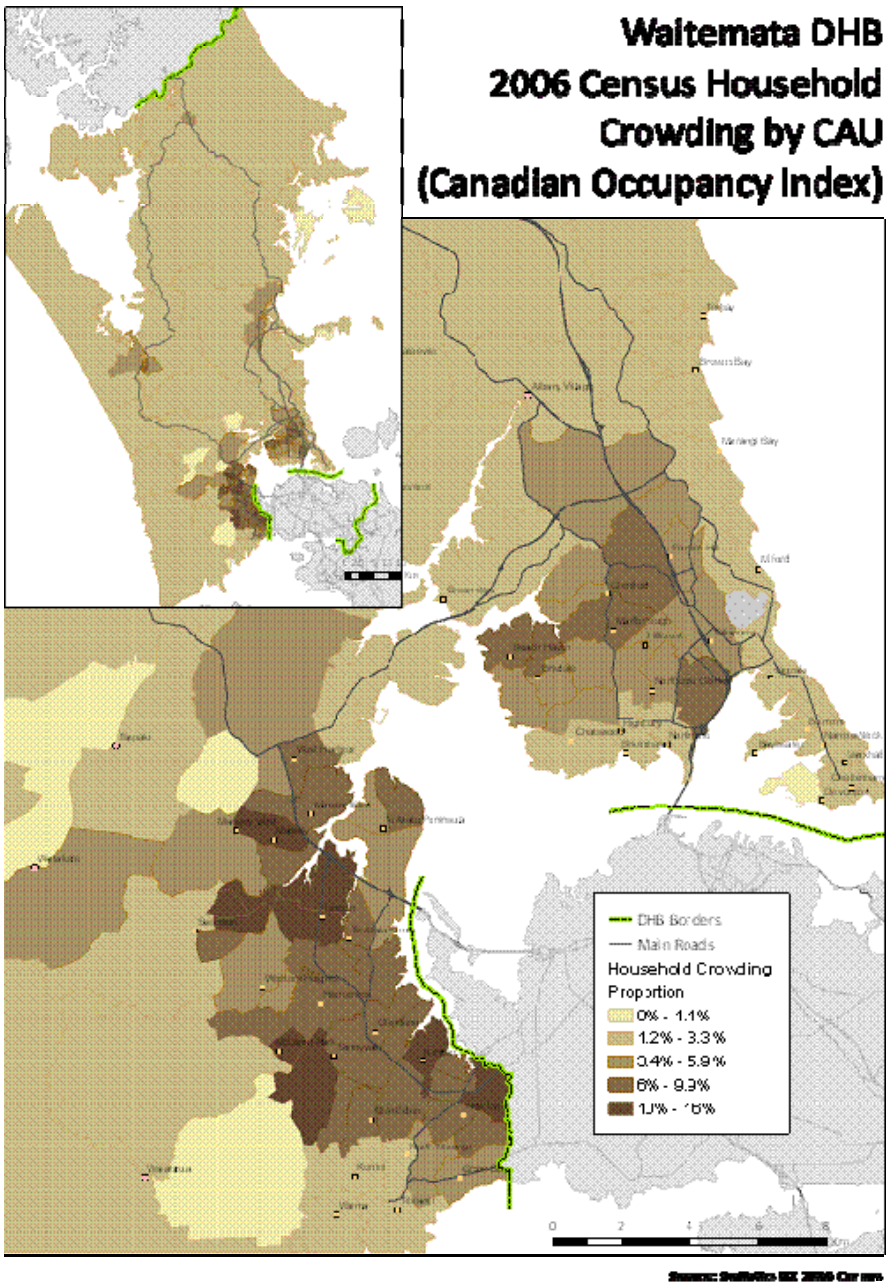


Source: Statistics NZ, The Health of Children and Young People in the Waitemata Region

In the Waitemata region during 2006, 14% of children and young people (0-24 yrs) lived in crowded households, as compared to 17% nationally. There were marked ethnic differences in household crowding in the Waitemata, with 45% of Pacific and 22% of Maori children and young people living in crowded households, as compared to 20% of Asian / Indian and 5% of European children and young people. While similar ethnic differences were seen nationally, crowding rates for Waitemata Maori and Pacific children and young people were generally lower than their respective New Zealand ethnic specific averages.

There were also marked socioeconomic differences in the proportion of Waitemata children and young people living in crowded households during 2006, with rates rising progressively from 3% amongst those living in the most affluent (decile 1) areas, to 45% amongst those living in the most deprived (decile 10) areas.

Figure 44 Household housing by CAU, Waitemata, 2006

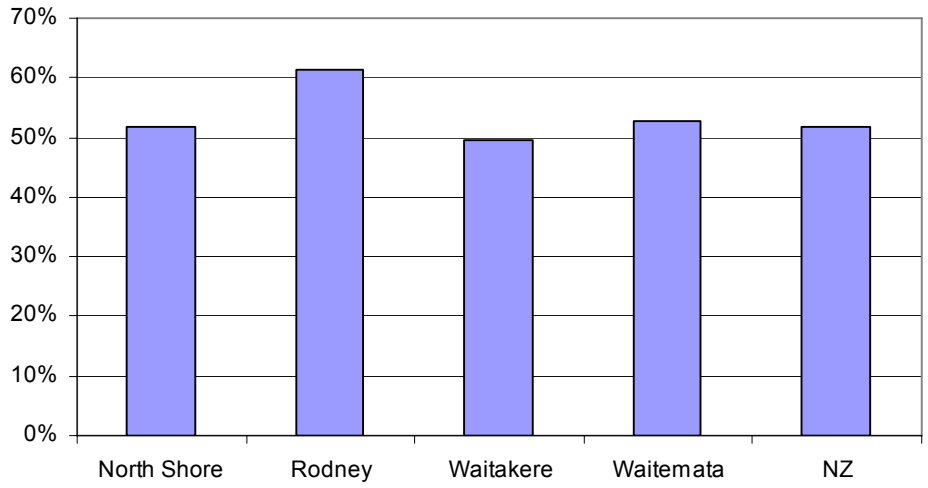


Source: Census 2006, ARPHS

Home ownership

People who rent have poorer health than owner –occupiers (National Advisory Committee on Health and Disability 1998).

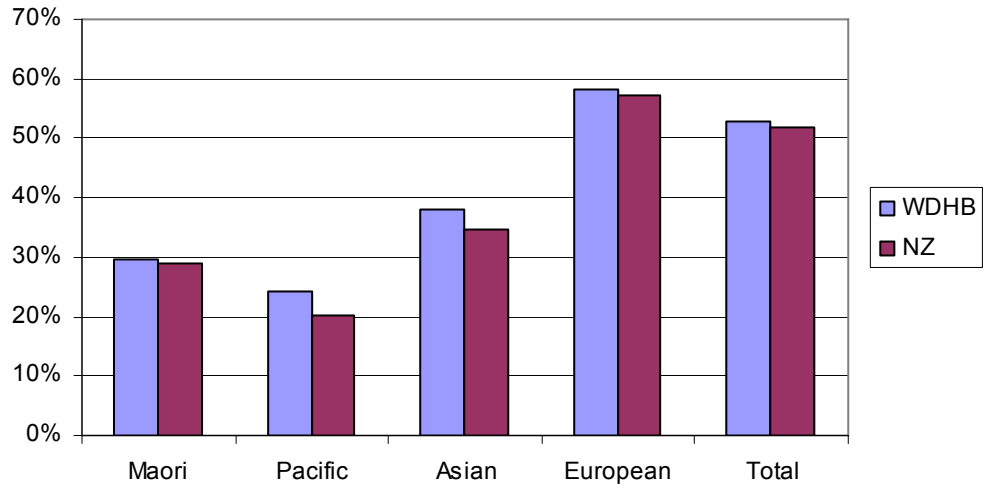
Figure 45 Home ownership (total or partial) by territorial authority, 2006



Source: Census 2006

Rodney residents were more likely to own the home in which they lived (totally or partially; 61%), than North Shore (51%), Waitakere (50%) or NZ (52%) residents.

Figure 46 Home ownership (total or partial) by ethnicity (total response), Waitemata, 2006

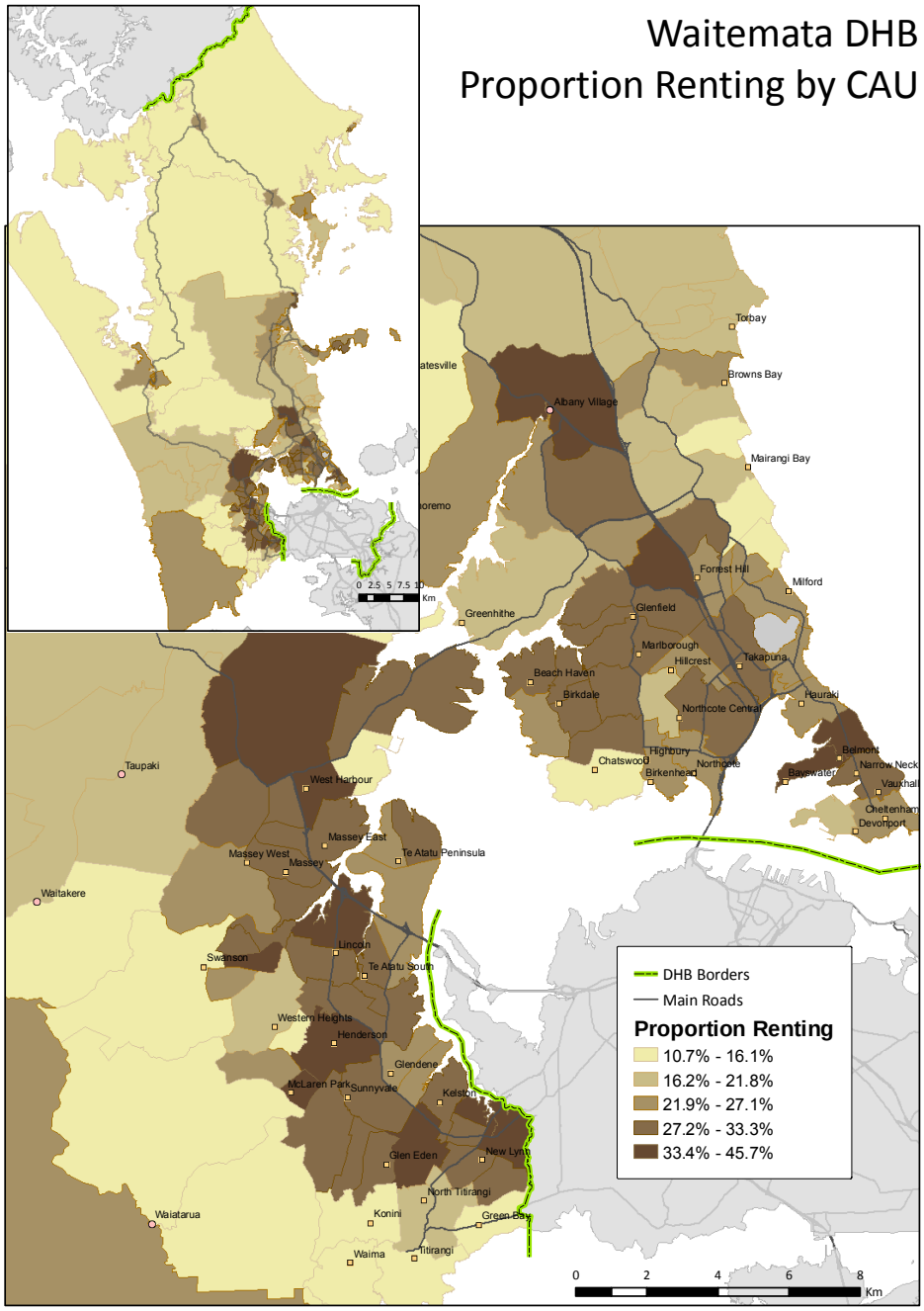


Source: Census 2006

European people are much more likely to won their own home than other ethnic groups.

Renting

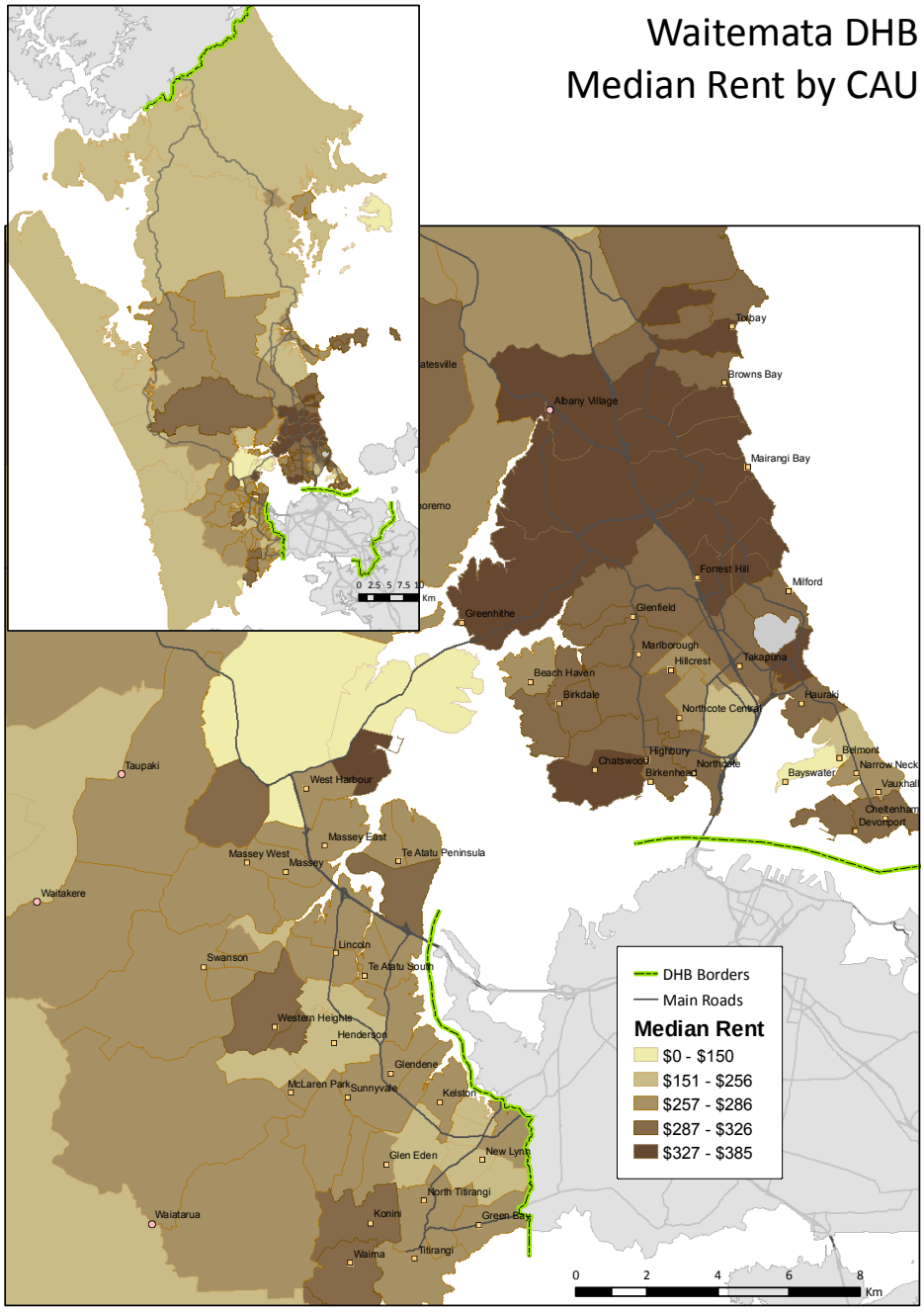
Figure 47 Proportion of population renting accommodation in Waitemata, 2006



Source: Statistics NZ 2006 Census

People living in the urban areas of Waitakere and North Shore were more likely to be renting their accommodation than those living in rural areas of Waitakere or in Rodney.

Figure 48 Median rent paid by those renting accommodation in Waitemata, 2006



Source: Statistics NZ 2006 Census

Median rent paid was much higher in North Shore than in Waitakere.

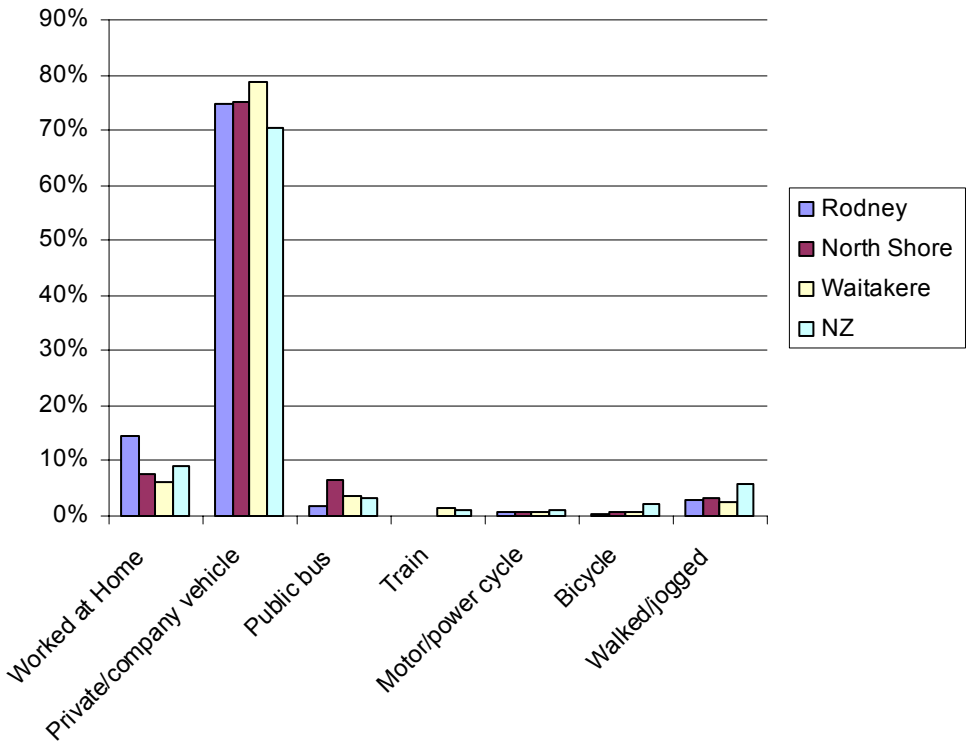
Environmental Factors

Environmental factors have long been known to have an important impact on health. Initially such factors as safe water and sanitation were recognised as being important for reducing communicable disease. As communicable diseases have assumed less importance due to environmental improvements there has been more focus on the role of the environment in determining non-communicable disease. Opportunities for transport and recreational activity and the types of food that are easily available to us may be important to the behaviours we adopt.

Transport

Travel to work

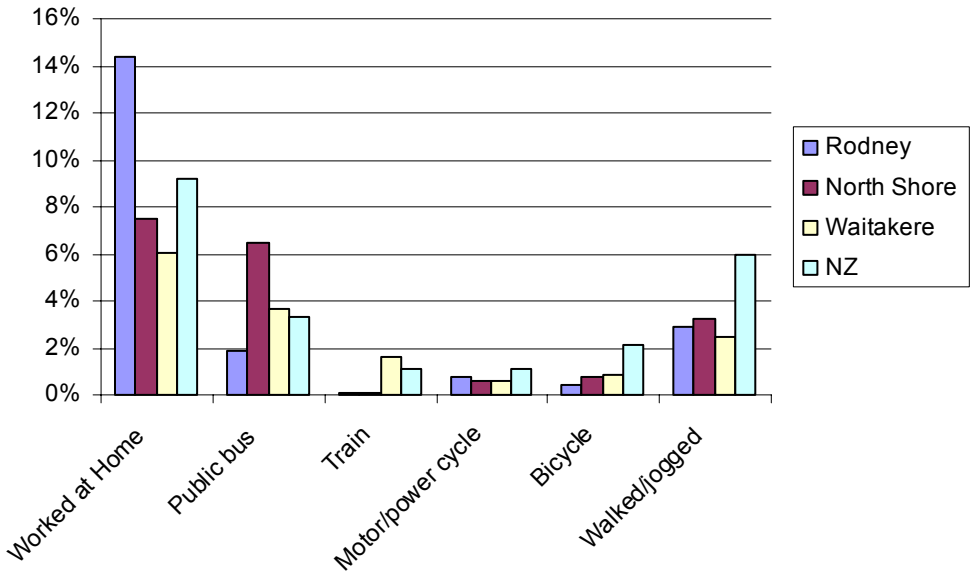
Figure 49 Travel to work by method and territorial authority, 2006



Source: Census 2006

Among those that worked on the day of Census 2006, the large majority drove or were the passenger in a private car, truck or van or company bus (Rodney 75%, North Shore 75%, Waitakere 79%, NZ 70%).

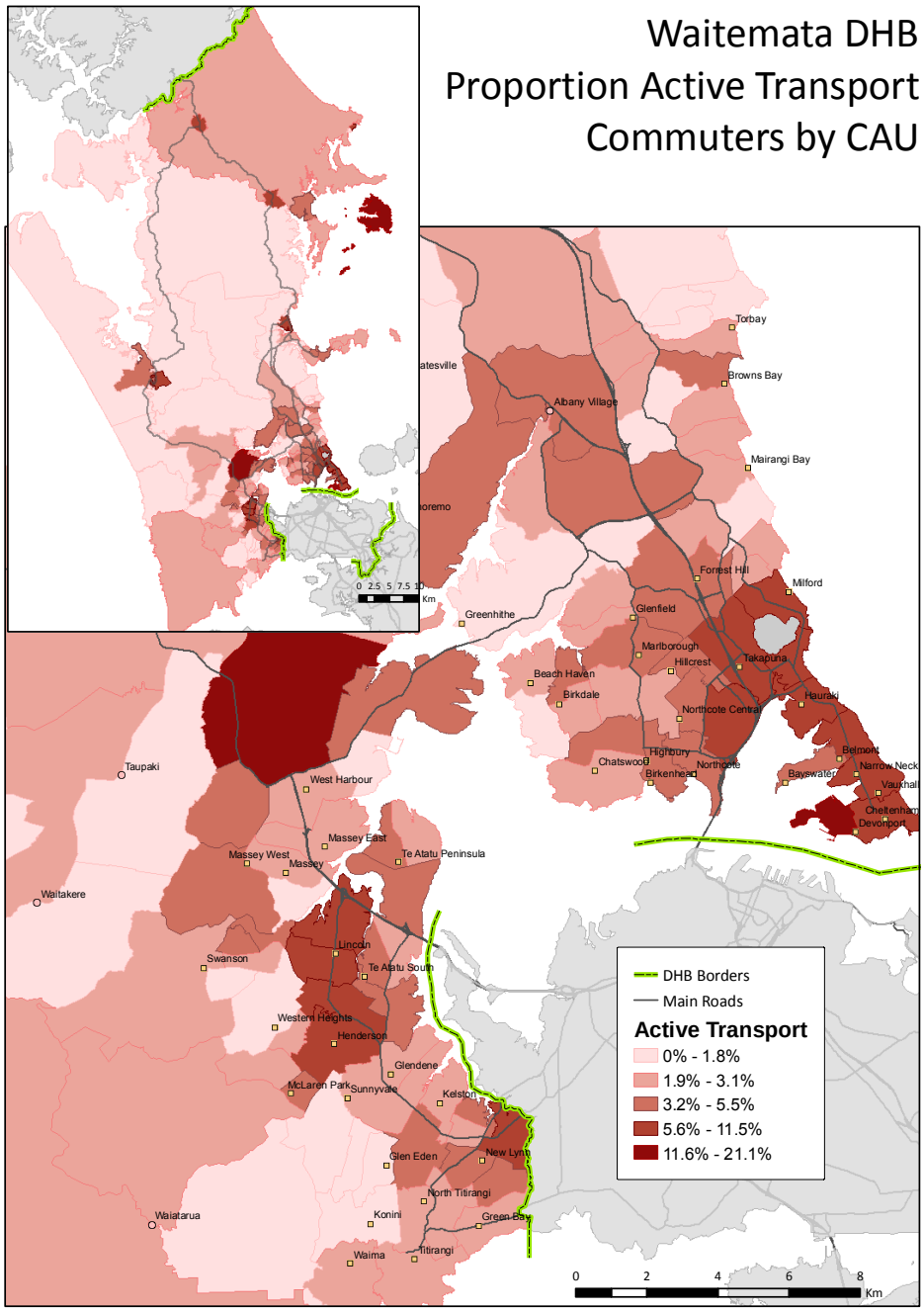
Figure 50 Travel to work by method (excluding private/company vehicle) and territorial authority, 2006



Source: Census 2006

Rodney residents were more likely to work at home (14%) than North Shore (7%), Waitakere (6%) or NZ (9%) residents. Among those that did not work at home, the next most popular forms of transport (after private/company vehicle) were public bus (Rodney 2%, North Shore 6%, Waitakere 4%, NZ 3%) and walking/jogging (Rodney and North Shore 3%, Waitakere 2%, NZ 6%).

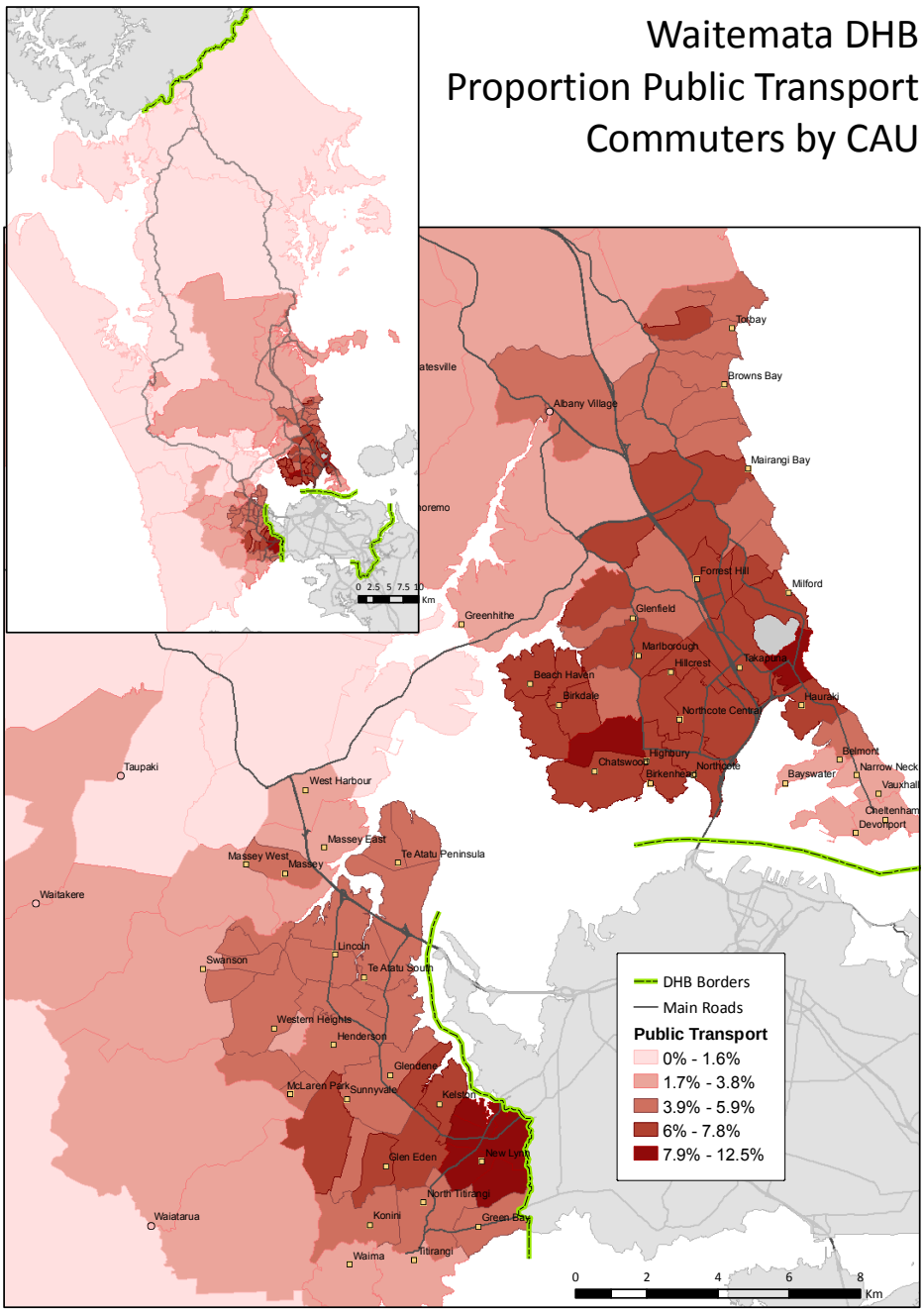
Figure 51 Active transport commuters in Waitemata, 2006



Source: Statistics NZ 2006 Census

Among people that travelled to work, active transport (bicycle, walking or jogging) was more common in the urban centres of North Shore, Waitakere and Rodney than other parts of Waitemata.

Figure 52 Public transport commuters in Waitemata, 2006



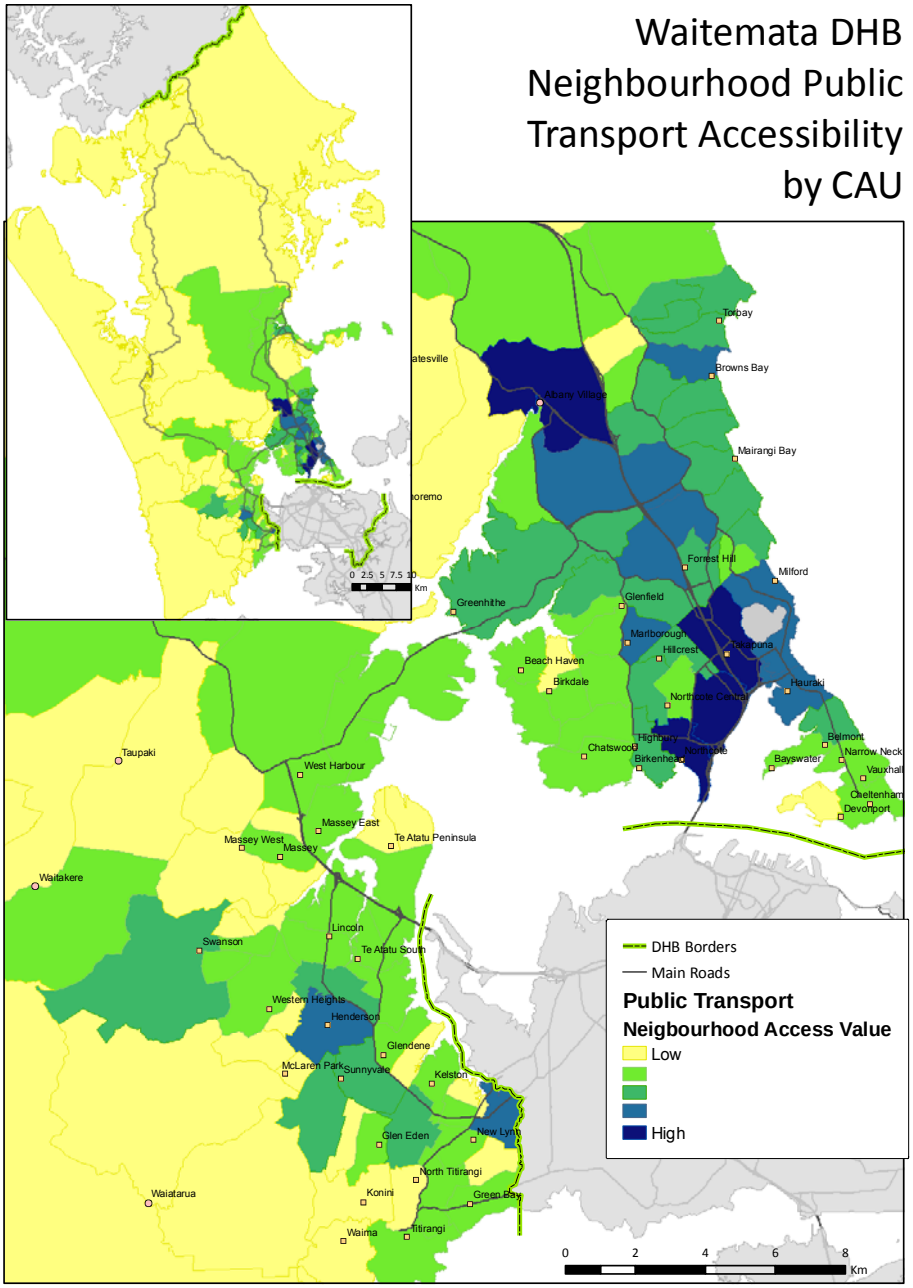
Source: Statistics NZ 2006 Census

Among people that travelled to work, people in the urban centres of Waitakere and North Shore were more likely to use public transport (public bus or train) than people living in other parts of Waitemata.

Public transport accessibility

Neighbourhood public transport accessibility is a combined measure of frequency and density of public transport (train and bus) routes within a neighbourhood. Higher values are a result of more frequent services, better neighbourhood coverage, or both.

Figure 53 Public transport accessibility Waitemata



Source: ARTA

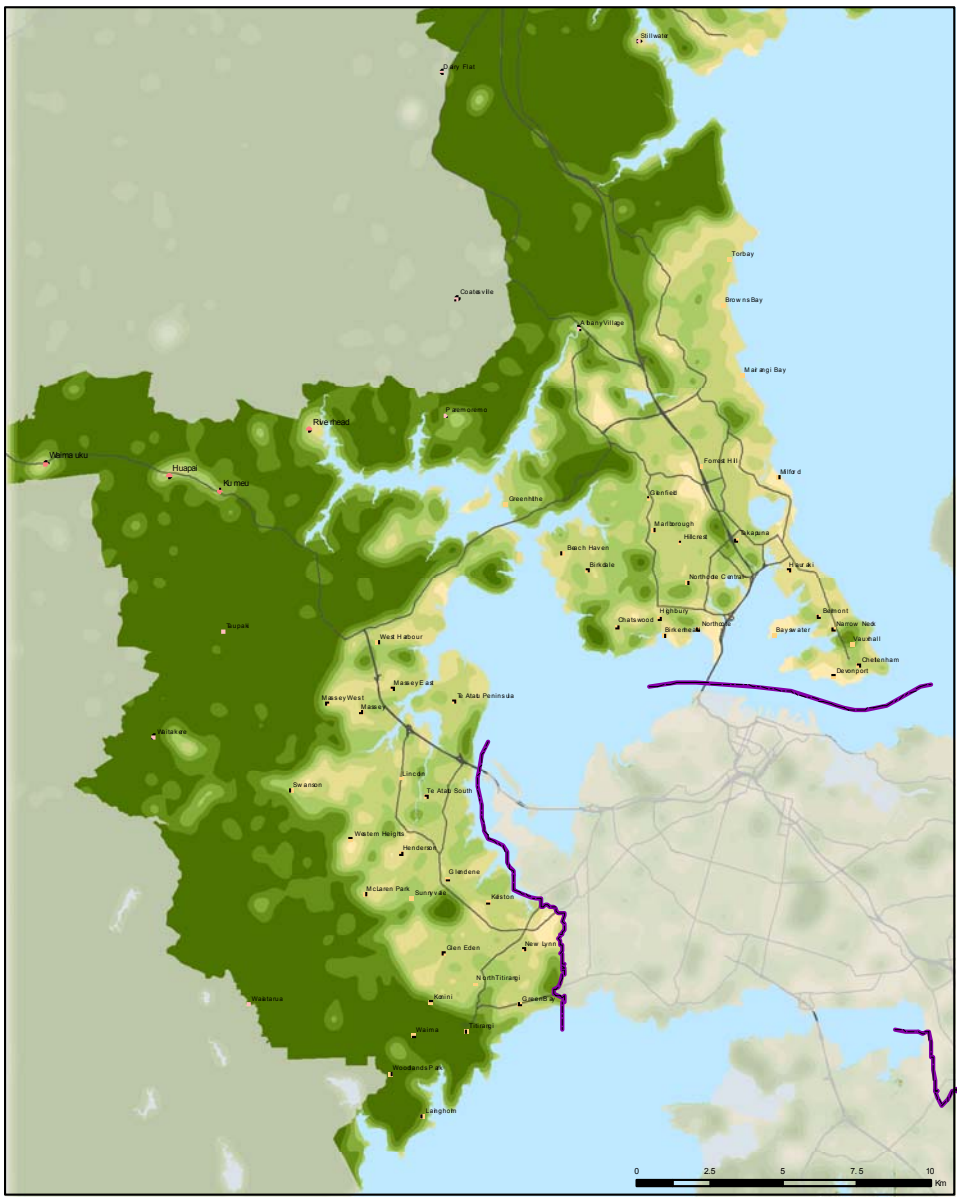
Neighbourhood public transport accessibility was greatest in the North Shore, followed by Waitakere and then by Rodney. Greater neighbourhood public transport accessibility is associated with greater public transport use for commuting.

Open Space

Neighbourhood Green Index

The Neighbourhood Green Index measures the proportion of land area vegetated. This includes public and private space to indicate something approximating community 'leafiness'. A suburb with no parks may still score highly if the neighbourhood is typified by large gardens and tree lined streets.

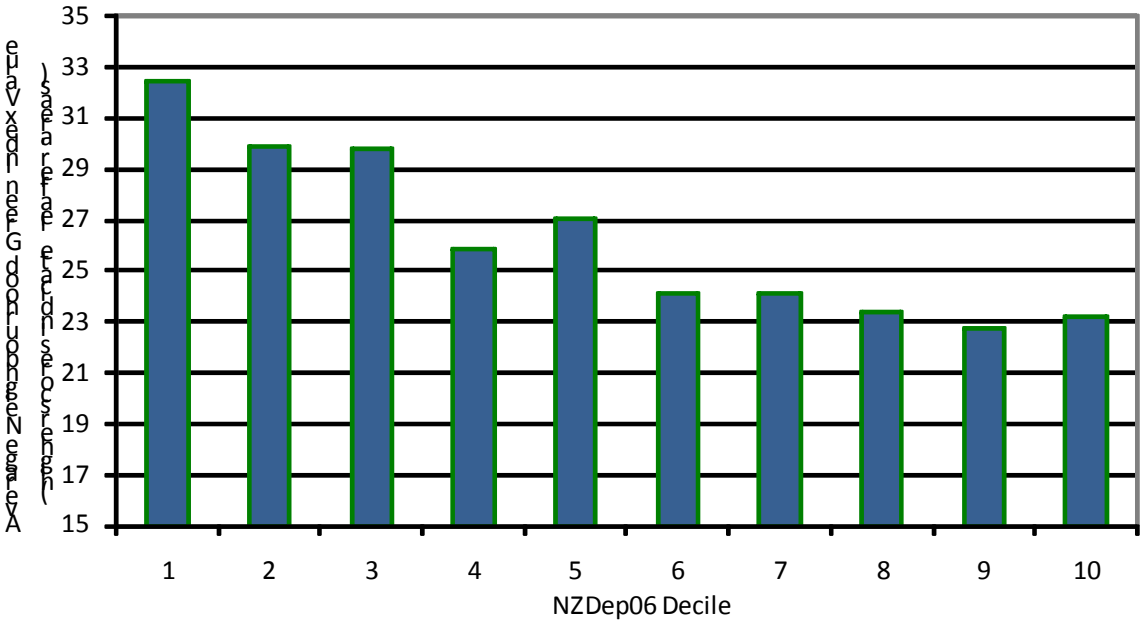
Figure 54 Neighbourhood Green Index in metro Waitemata, 2008



Source: Auckland Regional Public Health Service 2008

While the urban centres of Waitakere and North Shore City have the lowest Neighbourhood Green Index measures across metro Waitemata, they contain pockets of areas with high Neighbourhood Green Index measures.

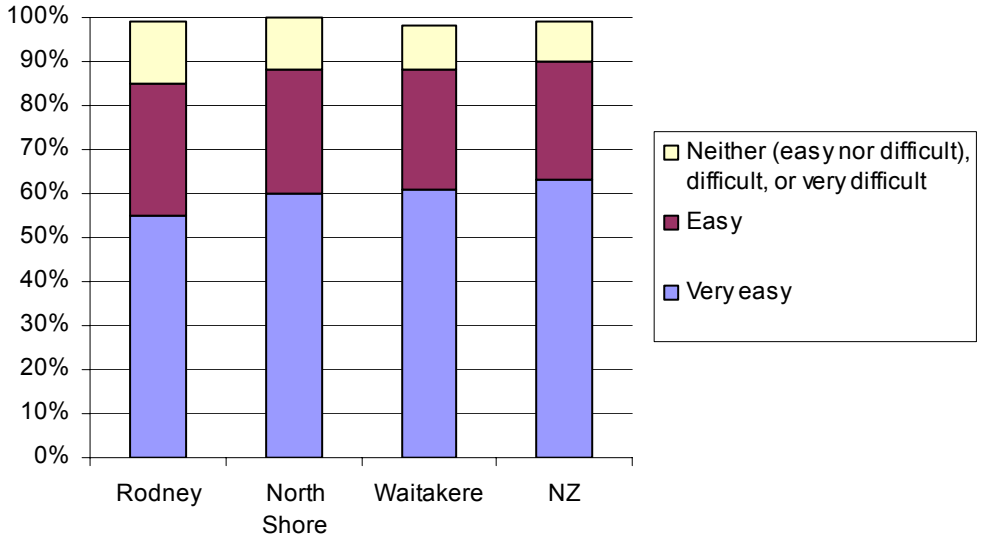
Figure 55 Neighbourhood Green Index in metro Waitemata by NZDep06, 2008



Source: Auckland Regional Public Health Service 2008

Community "leafiness" (as measured by Neighbourhood Green Index) was lower among areas with greater levels of deprivation (measured by NZDep06). Access to green space was also asked about in the Quality of Life Survey

Figure 56 Ease of access to local park or other green open space, by territorial authority, 2006



Source: Quality of Life Survey 2006

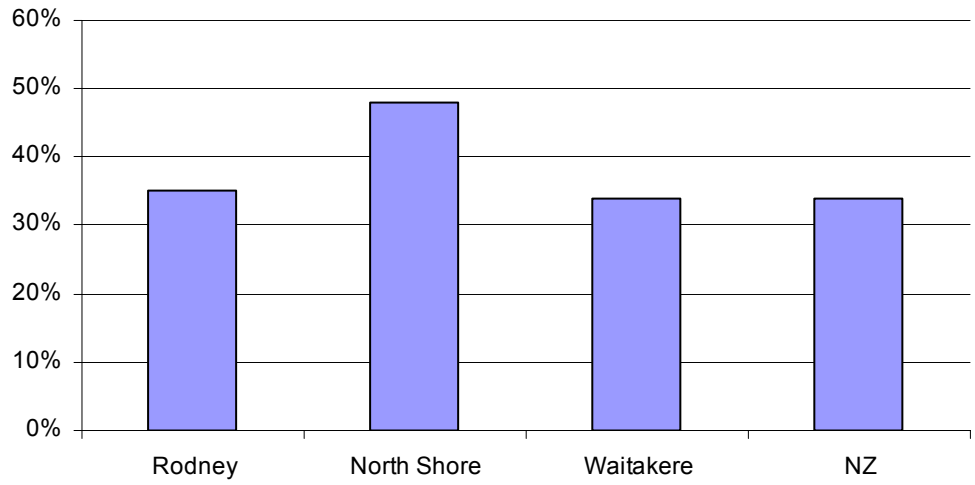
Very easy or easy access to a local park or other green space was comparable across Rodney (85%), North Shore (88%), Waitakere (88%) and NZ (90%).

Water Quality

Recreational water

Clean recreational water encourages people to participate in water sports and other physical activity.

Figure 57 Water pollution perceived as a problem by residents, by territorial authority, 2006



Source: Quality of Life Survey 2006

A greater proportion of North Shore residents perceived water pollution as a problem in their city (48%) than Rodney (35%), Waitakere (34%) or NZ residents (35%).

Drinking water

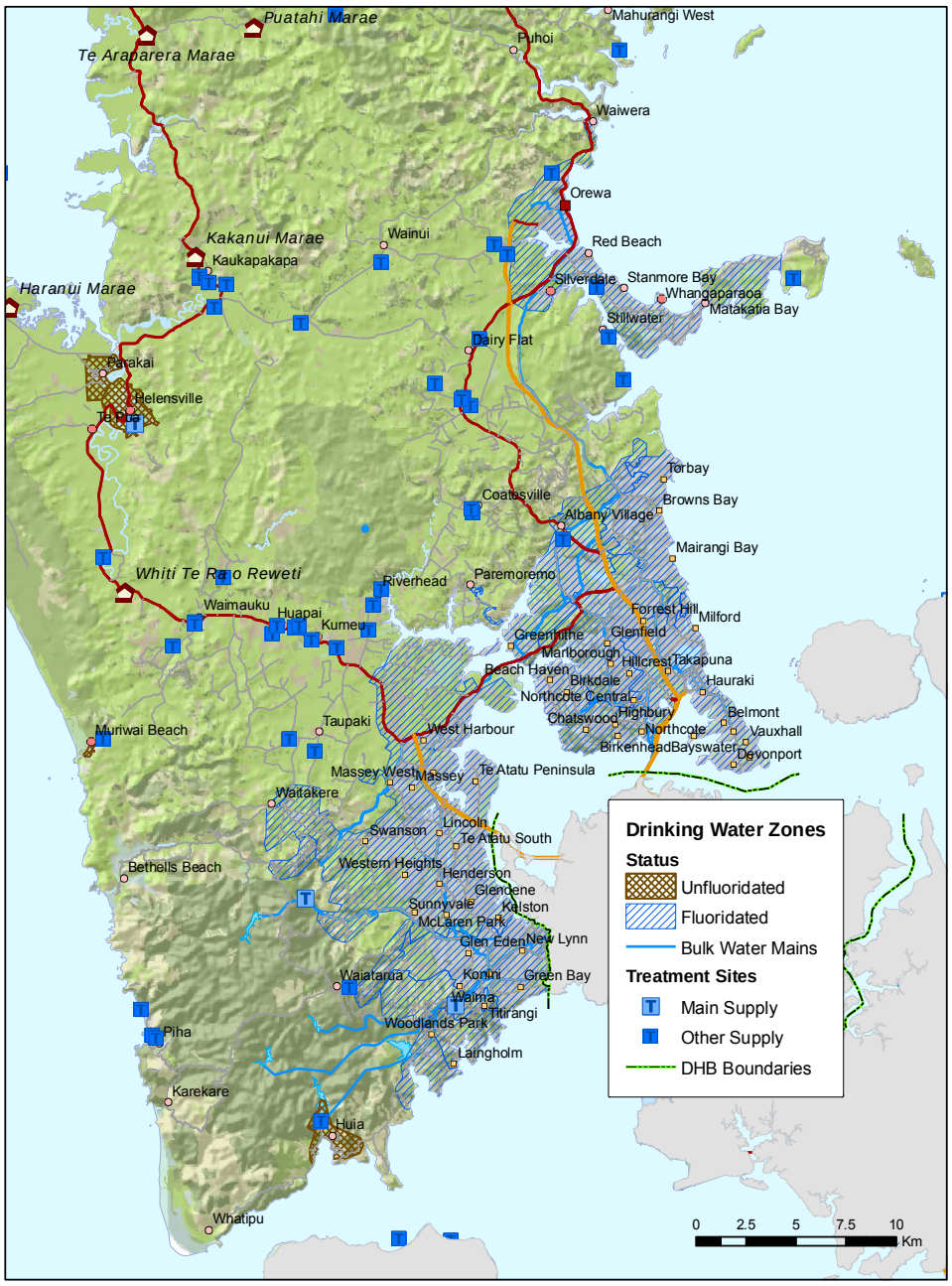
Access to safe drinking water is an important measure of public health. Nationally processes are in place to grade community drinking water supplies. The grading is a measure of confidence that the drinking water supply system will not be contaminated. The Ministry of Health publishes the results of grading each year.

- North Shore City – all zones are Aa (the highest rating)
- Waitakere City – all zones are Aa
- Rodney District – the grades for different zones vary from 'a' to 'c'

Drinking water fluoridation

Fluoridated drinking water supplies help reduce dental disease.

Figure 58 Location of fluoridated and non-fluoridated water zones and drinking water treatment sites in Waitemata, 2008



Source: Auckland Regional Public Health Service 2008

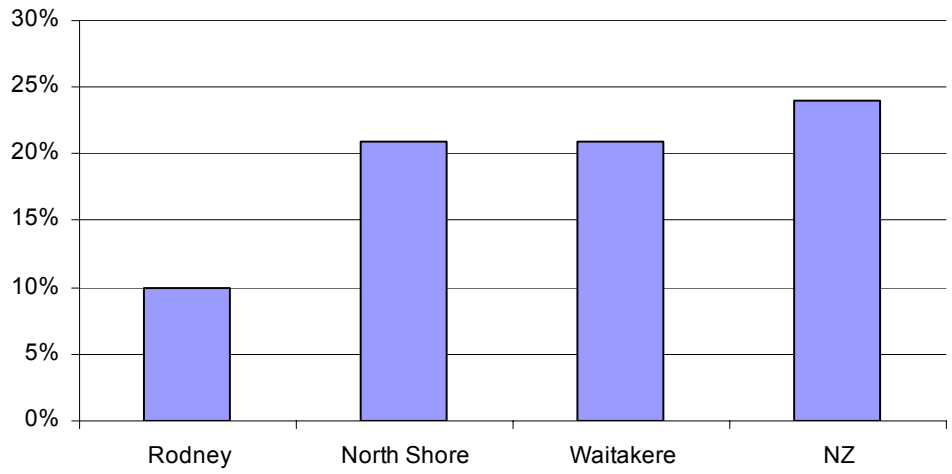
Across the Auckland region an estimated 95% of the population receiving reticulated water have a fluoridated water supply and overall 86% of the population have access to fluoridated water (ARPHS SOPHAR report 2006). The drinking water supplies in Helensville and Huia are not fluoridated.

Nonreticulated areas (i.e. tank or bore sources) are not fluoridated and cover much of Rodney and rural parts of Waitakere.

Air Quality

Air Pollution Perception

Figure 59 Air pollution perceived as a problem by residents, by territorial authority, 2006



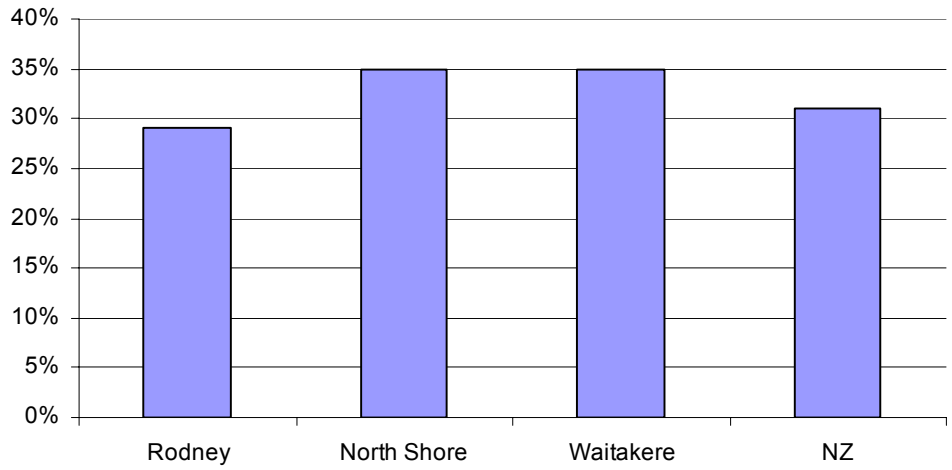
Source: Quality of Life Survey 2006

Air pollution was less commonly perceived as a problem by Rodney residents (10%) than by North Shore (21%), Waitakere (21%) or NZ residents (24%).

Poor quality air in the Auckland region is primarily the result of motor vehicles. It is estimated that motor vehicles produce over 80% of the nitrogen oxide and carbon monoxide emissions and approximately 60% of the fine particles in the region. Industry contributes 2% of carbon monoxide and 12% of particulate matter. Other sources of pollution include home heating and open burning. Carbon monoxide and nitrogen oxide levels are highest at roadside monitoring sites.

Noise pollution

Figure 60 Noise pollution perceived as a problem by residents, by territorial authority, 2006



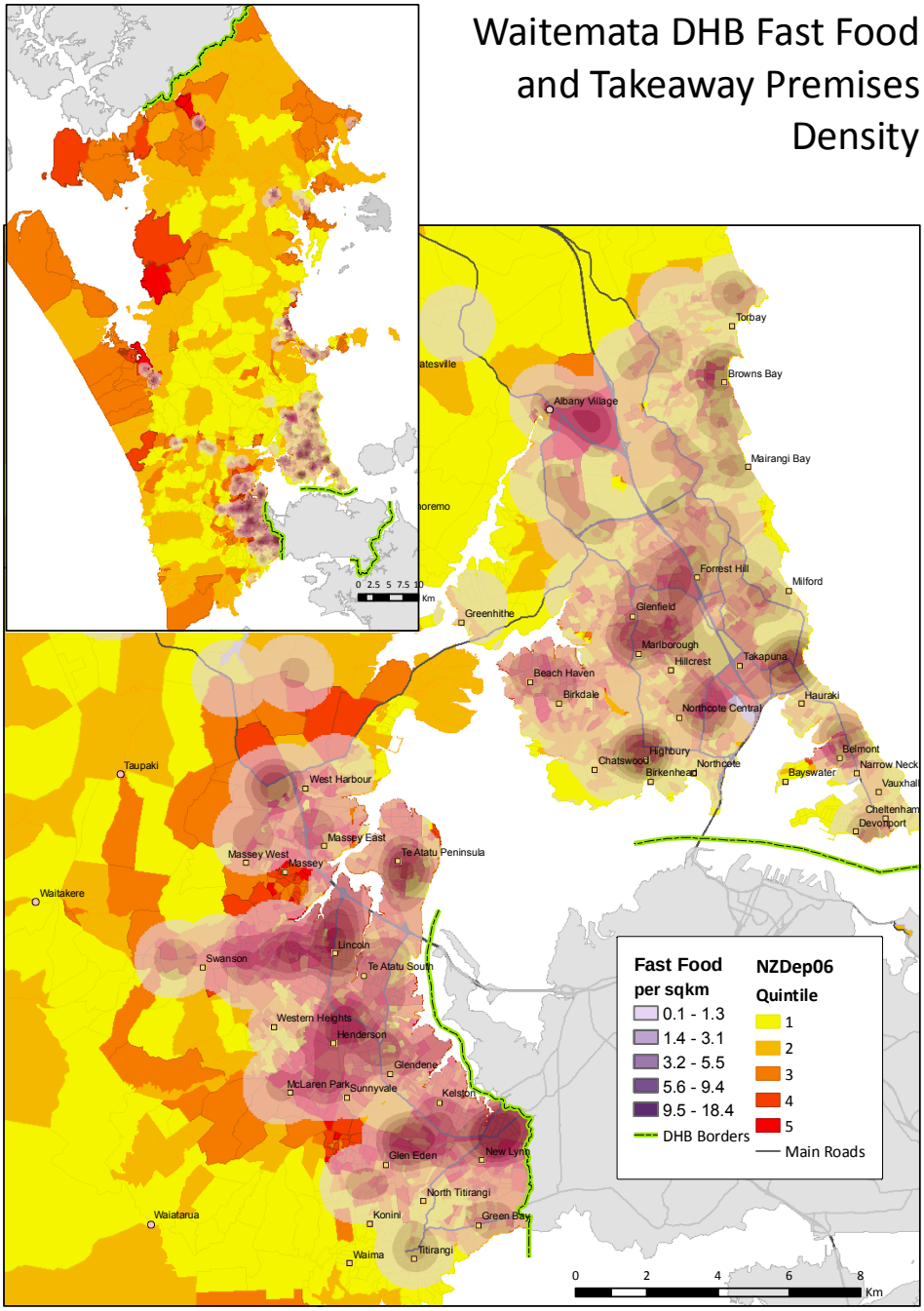
Source: Quality of Life Survey 2006

Noise pollution was perceived as a problem by a comparable proportion of residents across Rodney (29%), North Shore (35%), Waitakere (35%) and NZ (31%).

Access to Healthy Food

Takeaways density

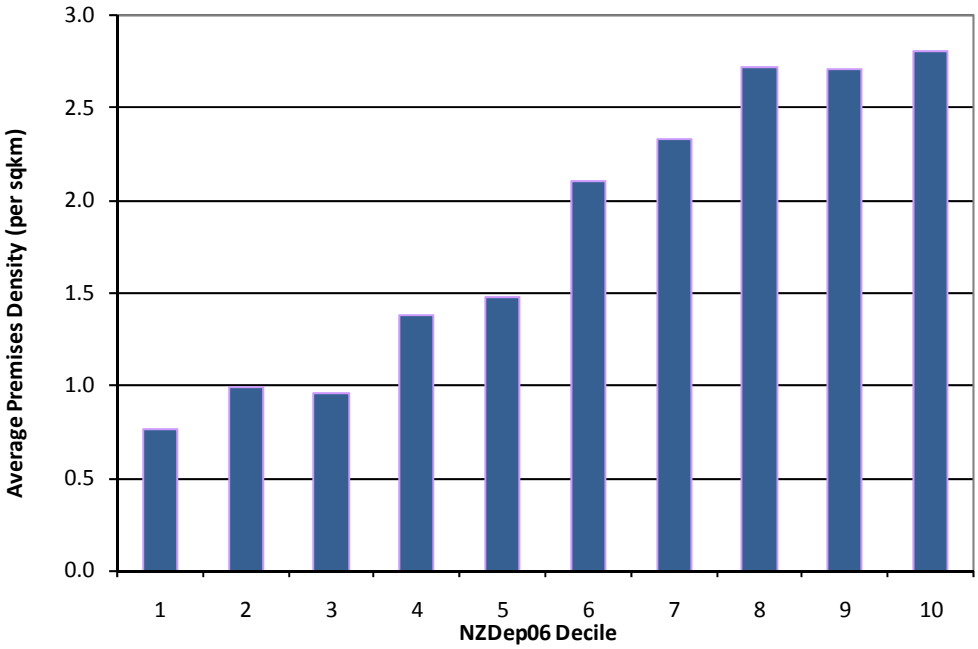
Figure 61 Location of fast food/takeaway retailers in Waitemata, 2008



Source: Auckland Regional Public Health Service 2008

Fast food/takeaway retailers are largely concentrated in the urban centres of Waitakere, North Shore and Rodney. Fast food/takeaway retailers are most highly concentrated in Waitakere.

Figure 62 Fast food/takeaway retailer density in Waitemata by NZDep06, 2008

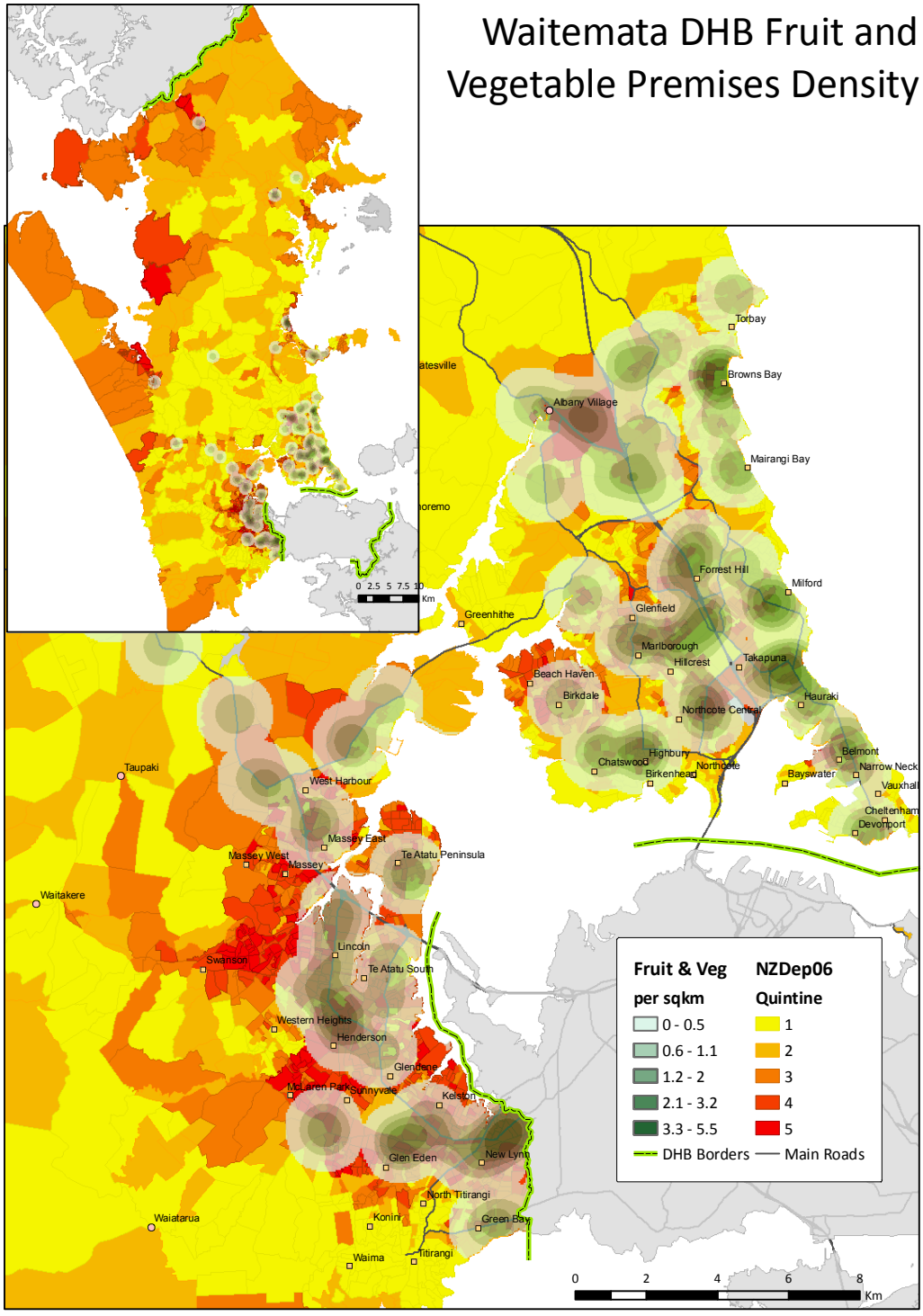


Source: Auckland Regional Public Health Service 2008

The density of fast food/takeaway retailers is greater among people living in areas with higher levels of deprivation (measured by NZDep06).

Fruit and Vegetable Retailer Density

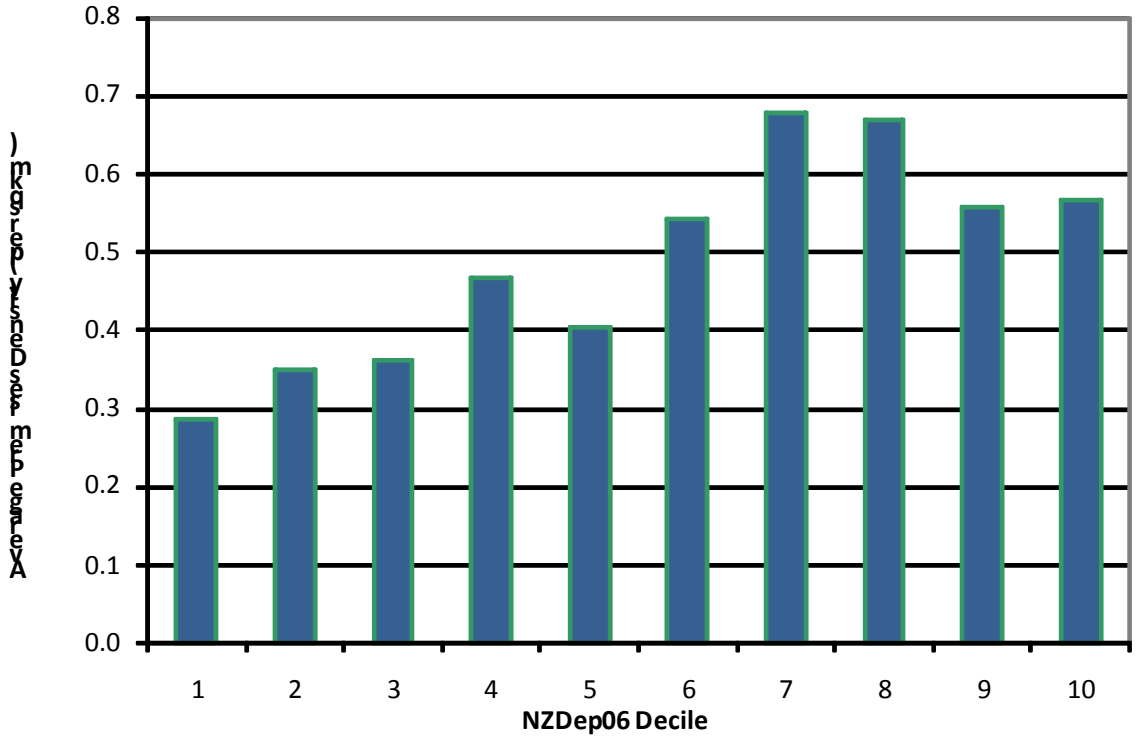
Figure 63 Locations of fresh fruit and vegetable retailers (including supermarkets) in Waitemata, 2008



Source: Auckland Regional Public Health Service 2008

Fresh fruit and vegetable retailers (including supermarkets) are largely concentrated in the urban centres of Waitakere, North Shore and Rodney.

Figure 64 Fruit and vegetable retailer density in Waitemata by NZDep06, 2008



Source: Auckland Regional Public Health Service 2008

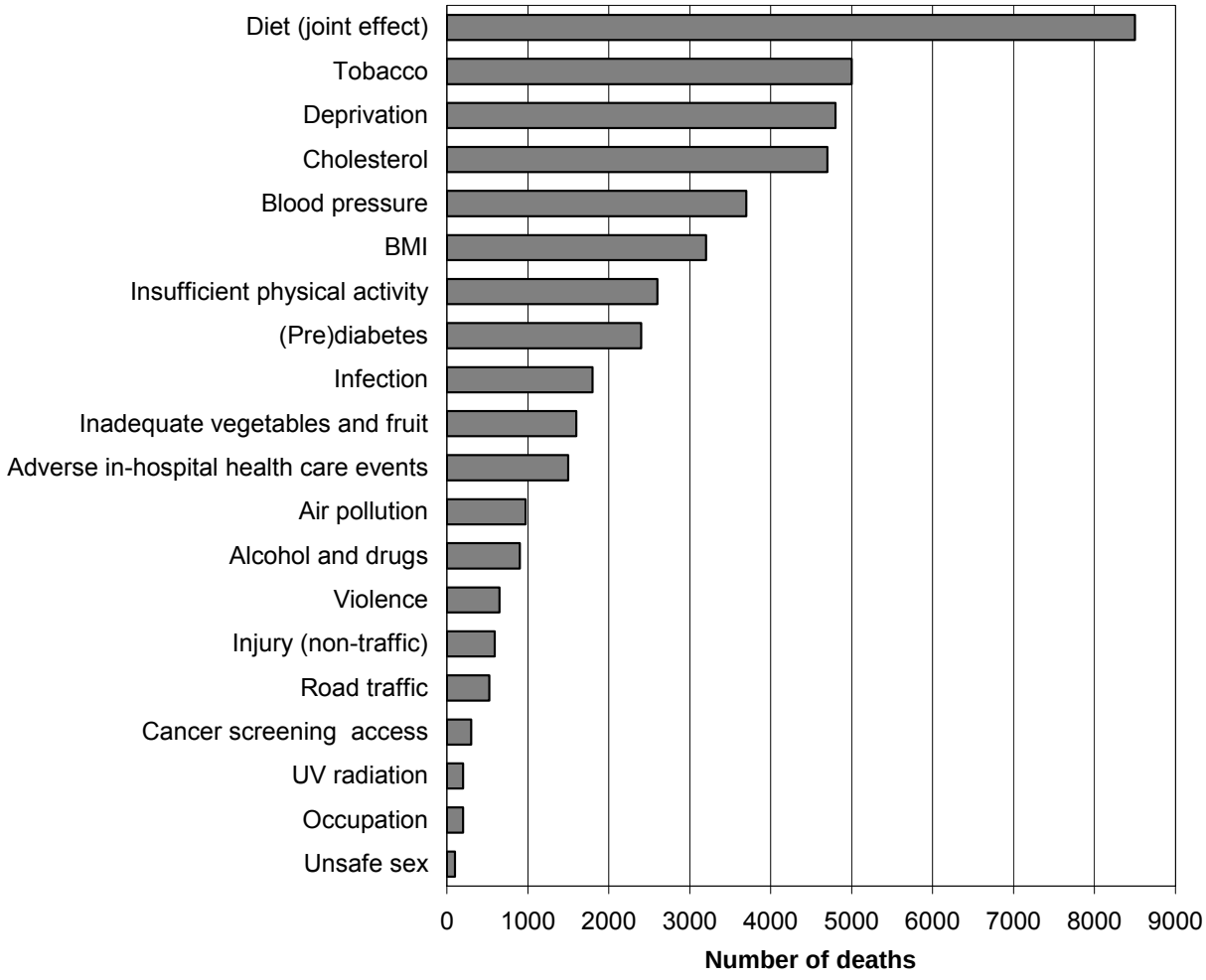
The density of fruit and vegetable retailers is largely greater among people living in areas with greater levels of deprivation (measured by NZDep06), although the association is not as strong or consistent as the relationship between density of fast food/takeaway retailers and deprivation.

Behavioural Factors

Burden of disease for risk factors

In 2004 the Ministry of Health published the first comprehensive listing of causes of death by risk factor for New Zealand (Public Health Intelligence 2004). Whilst the data is national rather than for Waitemata and based upon old mortality data it does provide the best analysis of how important individual lifestyle factors are to premature mortality.

Figure 65 Top 20 causes of death, by risk factor, New Zealand, 1997



Source: Looking Upstream

Approximately 30% of deaths were attributed to the joint effect of dietary factors, including 6% to inadequate vegetable and fruit consumption. Tobacco consumption was responsible for 18 percent of all deaths (combining active and passive smoking) and insufficient physical activity for almost 10%. Less important behavioural risk factors included alcohol consumption (3% of all deaths), illicit drug use (0.5%) and unsafe sex (0.5%).

Among biological risk factors, higher than optimal total blood cholesterol accounted for 17% of deaths, a large contribution probably reflecting New Zealanders' high consumption of saturated fats

(ie, meat and dairy products). This burden surpasses that of higher than optimal systolic blood pressure (13% of deaths) and body mass index (11.5%), although the latter may well have risen. In this report high cholesterol and blood pressure information is included in the cardiovascular disease section.

Tobacco

Smoking prevalence

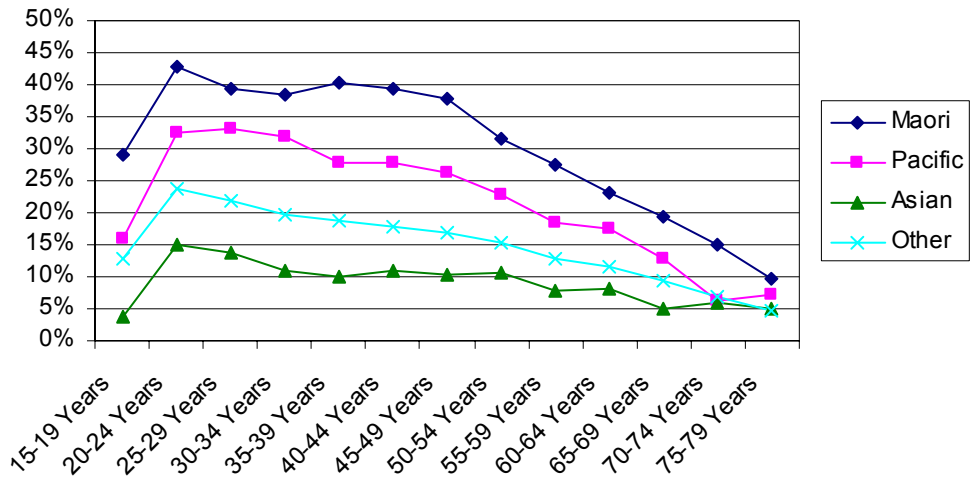
Table 32 Age-standardised prevalence rates of current daily smokers (with 95% confidence intervals), 15+ yrs, by gender and ethnicity (total response), 2006/07

		Maori	Pacific	Asian	Other	Total
Waitemata	Female	31.9 (27.6 - 36.4)	14.9 (10.2 - 20.6)	3.1 (0.7 - 8.3)	12.4 (9.4 - 15.9)	12.9 (10.0 - 16.4)
	Male	27.6 (22.9 - 32.7)	23.0 (17.4 - 29.5)	11.4 (7.4 - 16.6)	13.5 (10.5 - 17.1)	14.7 (11.7 - 18.1)
	Total	29.9 (26.3 - 33.7)	18.7 (14.6 - 23.4)	7.0 (4.0 - 11.2)	12.9 (10.0 - 16.3)	13.8 (10.9 - 16.6)
New Zealand	Female	44.2 (40.8 - 47.6)	20.6 (16.6 - 25.1)	4.2 (2.6 - 6.5)	17.1 (15.5 - 18.9)	17.9 (16.4 - 19.5)
	Male	38.3 (34.3 - 42.4)	31.9 (26.7 - 37.4)	15.8 (12.4 - 19.7)	18.8 (17.1 - 20.6)	20.4 (18.8 - 22.0)
	Total	41.5 (39.0 - 44.0)	26.0 (22.7 - 29.5)	9.6 (7.7 - 11.9)	17.9 (16.5 - 19.4)	19.1 (18.1 - 20.1)

Source: New Zealand Health Survey 2006/07

The prevalence of current daily smokers in Waitemata is significantly lower than the national prevalence. Smoking rates among Maori (both genders) are over double the rates for the total population in Waitemata. The prevalence for Asian females is significantly lower than the total females in Waitemata.

Figure 66 Proportion of adults who smoke by age and ethnicity (total response), Waitemata, 2006

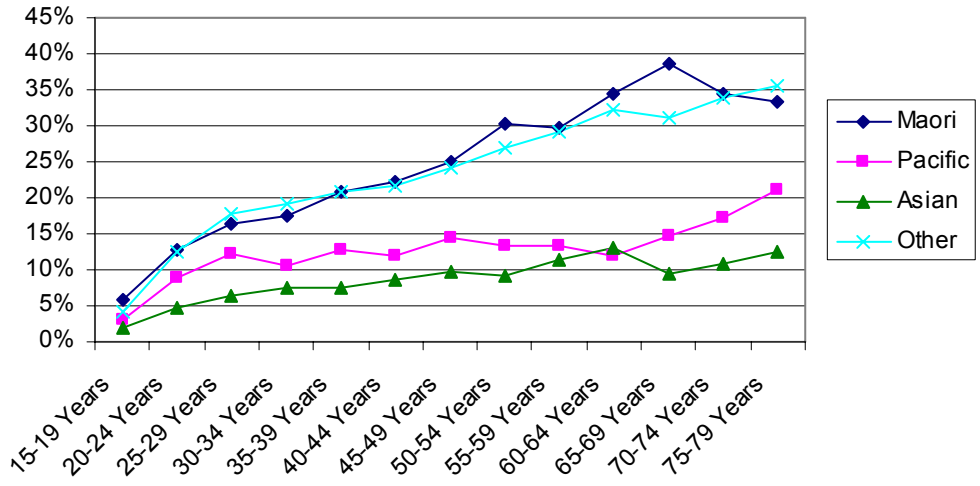


Source: Census 2006

Information from the 2006 Census demonstrates the marked differences in smoking prevalence between different ethnic groups. It also shows that whilst significant numbers of teenagers smoke, smoking increases to a peak in youth and then declines with increasing age. For Maori this decline in smoking prevalence does not occur substantially until people reach their 50s.

Past smoking

Figure 67 Proportion of adults who are past smokers by age and ethnicity, Waitemata, 2006

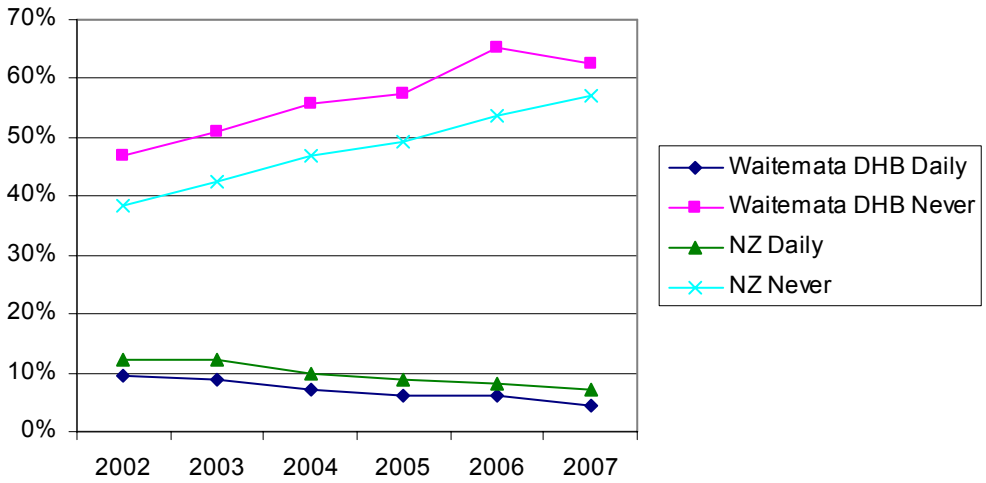


Source: Census 2006

Many people in our district are also past smokers and the proportion increases with age. The high proportion of Maori who are past smokers reflects the initial high rate of smoking.

Smoking amongst year 10 students

Table 33 Proportion of year 10 students who smoke daily or have never smoked, 2002-2007

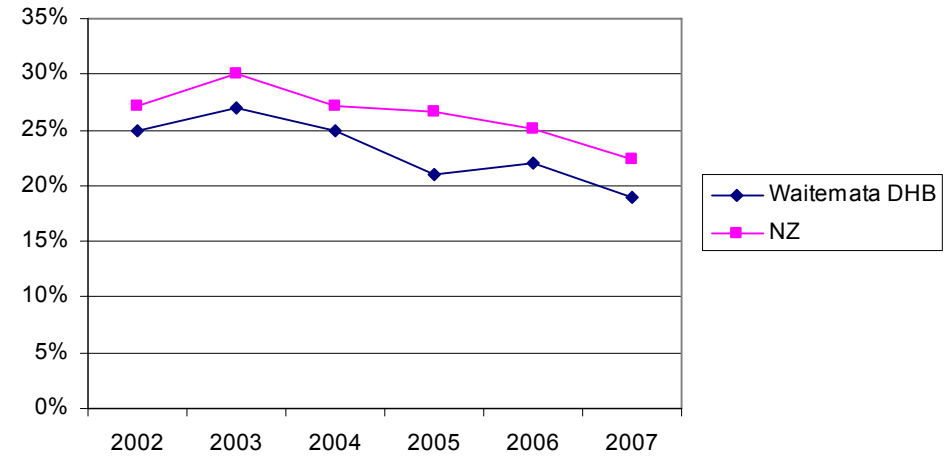


Source: ASH Year 10 Survey 2007

Each year a survey of the smoking habits of year 10 school students (14-15 year olds) is undertaken (Paynter 2008). It shows a consistent rise in the proportion of students who never smoke and a fall in the proportion who smoke daily both for Waitemata and NZ. Waitemata students are less likely to smoke than NZ students as a whole. In 2007, 4.5% of Waitemata year 10 students smoke daily and 10.3% smoke regularly. In contrast 63.9% have never smoked.

Second hand smoke exposure

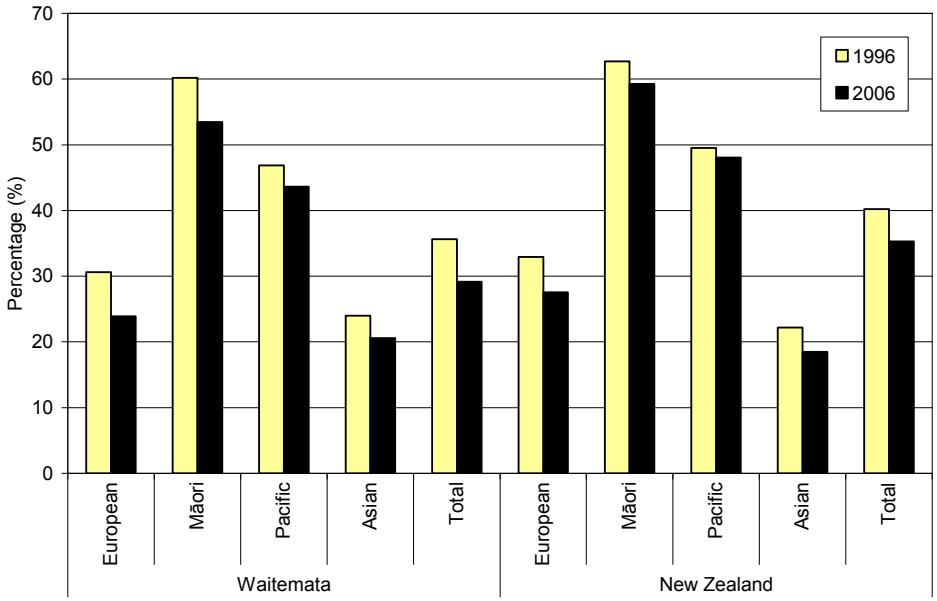
Figure 68 Proportion of year 10 student who live in a home with smoking inside, 2002-2007



Source: ASH Year 10 Survey 2007

In the Year 10 Survey 19% of students in Waitemata lived in a home with smoking inside. There has been a decline in smoke exposure in the home over the last 5 years.

Figure 69 Proportion of children 0-14 years living in a household with a smoker by ethnicity (prioritised), Waitemata and New Zealand at the 1996 and 2006 Censuses



Source: Statistics NZ, The Health of Children and Young People in the Waitemata Region

The census provides information on whether children live in a home with a smoker (but not whether smoking occurs in the home). 29% of children aged 0-14 years lived in a home with a smoker in Waitemata compared to 35% nationally. This varied considerably between ethnicities with 54% of Maori being in a home with a smoker. There were also marked socioeconomic differences in the proportion of Waitemata children living in a household with a smoker, with rates rising progressively from 16% amongst those living in the most affluent (decile 1) areas, to 49% amongst those living in the most deprived (decile 10) areas.

Nutrition

Fruit and vegetable intake

Table 34 Proportion of adults who eat three or more servings of vegetables per day by gender and ethnicity (total response), Waitemata and NZ, age adjusted, 2006-07

		Maori	Pacific	Asian	Other	Total
Waitemata	Female	54.9 (49.1 - 60.7)	39.6 (32.3 - 47.2)	44.0 (37.2 - 51.1)	62.5 (57.2 - 67.5)	59.1 (53.9 - 64.2)
	Male	46.0 (39.9 - 52.2)	36.1 (28.4 - 44.4)	34.7 (27.6 - 42.4)	51.3 (46.1 - 56.4)	48.7 (43.6 - 53.8)
	Total	50.8 (45.4 - 56.1)	37.9 (31.4 - 44.8)	39.7 (33.4 - 46.3)	57.1 (52.0 - 62.0)	54.1 (49.4 - 58.9)
New Zealand	Female	63.5 (60.1 - 66.9)	45.8 (40.1 - 51.6)	50.9 (45.8 - 56.0)	72.3 (70.0 - 74.4)	68.4 (66.2 - 70.6)
	Male	53.2 (49.3 - 57.2)	41.8 (35.5 - 48.3)	40.2 (34.6 - 46.0)	59.3 (57.1 - 61.5)	56.3 (54.2 - 58.4)
	Total	58.8 (56.1 - 61.4)	43.9 (39.2 - 48.7)	45.9 (41.6 - 50.3)	66.0 (64.2 - 67.8)	62.6 (61.3 - 63.9)

Source: New Zealand Health Survey 2006/07, HDIU

Fewer than 55% of people in Waitemata eat three or more servings of vegetables on average each day; this is significantly lower than the national prevalence. Males have a significantly lower rate than females. The rates for Pacific females and Asian people (both genders) are significantly lower than the rate for the total population in Waitemata.

Table 35 Proportion of adults who eat two or more servings of fruit per day by gender and ethnicity (total response), Waitemata and NZ, age adjusted, 2006-07

		Maori	Pacific	Asian	Other	Total
Waitemata	Female	63.5 (59.0 - 67.9)	67.0 (60.9 - 72.8)	63.1 (57.4 - 68.5)	70.8 (66.8 - 74.6)	69.5 (65.6 - 73.2)
	Male	47.2 (42.0 - 52.5)	51.2 (43.8 - 58.5)	50.5 (45.0 - 56.0)	51.4 (47.4 - 55.3)	51.0 (47.2 - 54.8)
	Total	56.0 (51.8 - 60.1)	59.5 (54.3 - 64.6)	57.2 (52.5 - 61.8)	61.4 (57.7 - 65.1)	60.6 (57.3 - 63.9)
New Zealand	Female	62.1 (58.8 - 65.3)	65.5 (60.3 - 70.4)	61.6 (56.9 - 66.1)	69.1 (66.7 - 71.5)	67.9 (65.6 - 70.0)
	Male	46.1 (42.0 - 50.4)	50.0 (43.3 - 56.7)	49.3 (44.8 - 53.8)	50.2 (47.7 - 52.6)	49.8 (47.5 - 52.1)
	Total	54.7 (51.8 - 57.5)	58.1 (53.9 - 62.2)	55.9 (52.4 - 59.3)	60.0 (58.0 - 62.0)	59.2 (57.8 - 60.6)

Source: New Zealand Health Survey 2006/07, HDIU

In Waitemata more than 60% of people eat on average 2 or more servings of fruit each day, this rate is similar to the national rate, adjusted for age. The rate is significantly higher among females than males, adjusted for age.

Eating behaviours of children

Table 36 Percentage of children aged 2-14 years reporting various eating behaviours, Waitemata and NZ, 2006/07

	Waitemata	NZ
Had 3 or more fizzy drinks in the last 7 days	15.1 (11.3-18.8)	19.6 (18.1-21.2)
Ate fast food 3 or more times, in the past 7 days	4.9 (2.9-7.8)	7.2 (6.2-8.2)
Ate breakfast at home every day in the past 7 days	89.5 (86.4-92.6)	87.8 (86.6-89)
Usually watch 2 or more hours of TV a day	59.6 (52.7-66.5)	64.1 (62.1-66.2)

Source: New Zealand Health Survey 2006/07, HDIU

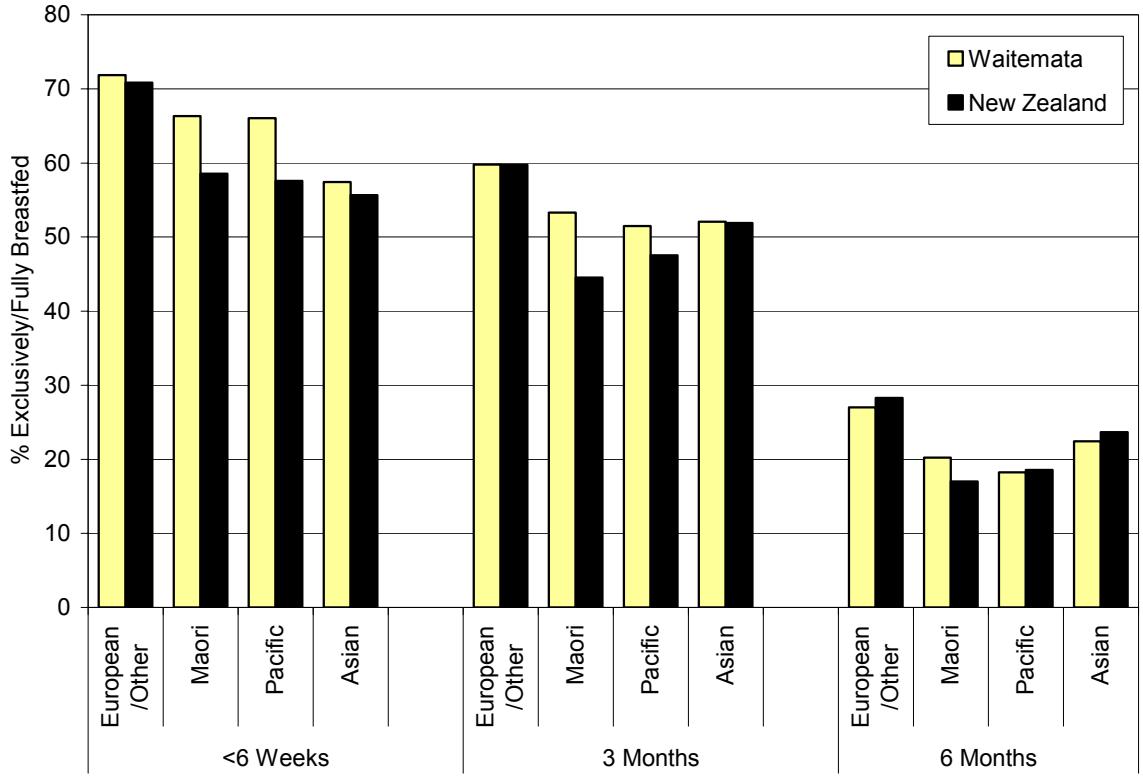
Children in Waitemata were less likely to drink 3 or more fizzy drinks and eat fast foods 3 or more times in a week than children nationally.

Breast feeding

Breastfeeding is a part of laying the foundations for a healthy life from infancy and childhood. Exclusive breastfeeding means that an infant has only consumed breast milk from the breast or expressed breast milk and prescribed medicines from birth, but no water, formula or other liquid or solid food. Full breastfeeding is when an infant has consumed breast milk and only a minimal

amount of water and prescribed medicines within the last 48 hours, but no other liquids or solids during that time period. Exclusive breastfeeding is recommended until babies are around 6 months of age.

Figure 70 Percentage of Plunket babies who were exclusively or fully breastfed by age and ethnicity (prioritised), Waitemata and New Zealand in the Year Ending June 2006



Source: Plunket, The Health of Children and Young People in the Waitemata Region

Plunket data shows that around 50% of babies are exclusively or fully breastfed at 3 months but this halves by six months. Europeans/Others are the most likely to be breastfed.

Physical Activity

Physical activity is protective against health conditions such heart disease, type 2 diabetes, and certain cancers. It also helps to minimise overweight and obesity. The Ministry of Health recommends that adults do at least 30 minutes of moderate intensity physical activity on most, if not all, days of the week.

Regularly physically active

Table 37 Age-standardised prevalence rates (percent, with 95% confidence intervals) of doing regular physical activity, 15+ years, by ethnicity (total response) and gender, 2006/07

		Maori	Pacific	Asian	Other	Total
Waitemata	Female	46.8 (41.1 - 52.5)	39.8 (32.0 - 47.9)	32.1 (26.1 - 38.6)	45.6 (40.4 - 50.7)	44.0 (38.9 - 49.1)
	Male	55.5 (49.7 - 61.2)	48.4 (40.8 - 56.1)	42.6 (35.8 - 49.7)	50.8 (45.7 - 56.0)	50.2 (45.2 - 55.3)
	Total	50.8 (45.5 - 56.1)	43.9 (37.4 - 50.6)	37.0 (31.3 - 43.1)	48.1 (43.1 - 53.1)	47.0 (42.3 - 51.6)
New Zealand	Female	51.1 (47.7 - 54.6)	43.5 (37.1 - 50.1)	35.1 (31.0 - 39.5)	49.8 (47.4 - 52.3)	48.1 (45.8 - 50.4)
	Male	60.7 (57.1 - 64.2)	53.0 (46.9 - 59.0)	46.6 (41.4 - 51.8)	55.6 (53.1 - 58.0)	54.9 (52.7 - 57.1)
	Total	55.6 (52.9 - 58.2)	48.0 (43.2 - 52.8)	40.5 (36.8 - 44.2)	52.6 (50.5 - 54.7)	51.4 (49.9 - 52.8)

Source: New Zealand Health Survey 2006/07, HDIU

Fewer than half of the people in Waitemata participate in regular physical activity, and there is no significant difference between Waitemata and all New Zealand. The prevalence among Asian females is significantly lower than the prevalence for all females in Waitemata.

Sedentary adults

Table 38 Age-standardised prevalence rates (percent, with 95% confidence intervals) of being sedentary, 15+ years, by ethnicity (total response) and gender, 2006/07

		Maori	Pacific	Asian	Other	Total
Waitemata	Female	15.9 (12.4-20.1)	22.1 (17.2-27.6)	27.6 (22.5-33.2)	15.0 (11.8-18.8)	16.3 (13.3-19.8)
	Male	13.1 (8.9-18.3)	17.3 (12.3-23.4)	19.5 (14.7-25.1)	11.9 (8.9-15.5)	12.7 (9.9-16)
	Total	14.6 (11.2-18.5)	19.8 (15.8-24.2)	23.7 (19.9-27.9)	13.4 (10.4-16.9)	14.6 (11.8-17.4)
New Zealand	Female	15.3 (12.8-18.2)	21.2 (17.1-25.9)	26.6 (22.2-31.4)	14.4 (12.4-16.7)	15.7 (14-17.5)
	Male	12.6 (9.2-16.7)	16.7 (12.3-21.9)	18.8 (14.6-23.5)	11.4 (9.8-13.3)	12.2 (10.9-13.7)
	Total	14.0 (11.7-16.6)	19.0 (16-22.4)	22.8 (19.9-25.9)	12.9 (11.3-14.8)	14 (13.2-14.9)

Source: New Zealand Health Survey 2006/07

16% of women and 13% of women in Waitemata are sedentary (they have done less 30 minutes of physical activity in the last week). Asian people are more likely than Others to be sedentary.

Obesity and Overweight

Obesity is associated with a wide range of health conditions including cardiovascular disease, various types of cancer, type 2 diabetes, kidney disease, osteoarthritis, gout, gallstones, complications of pregnancy, and mental health issues. Body mass index (BMI) is a measure of weight adjusted for height, and is calculated by dividing the weight in kilograms by height in meters squared (kg/m^2). World Health Organisation cut offs for overweight (25.00-29.99) and obesity (≥30.00) are used.

51% of women and 61% of men in Waitemata are either overweight or obese.

Overweight

Table 39 Age-standardised prevalence rates (percent, with 95% confidence intervals) of being overweight, 15+ years, by ethnicity (total response), 2006/07

		Maori	Pacific	Asian	Other	Total
Waitemata	Female	29.2 (24.7 - 34.1)	22.9 (17.1 - 29.7)	23.9 (19.1 - 29.3)	32.3 (28.5 - 36.4)	30.8 (27.1 - 34.8)
	Male	33.6 (28.7 - 38.8)	27.0 (21.1 - 33.7)	38.1 (31.9 - 44.5)	43.8 (39.8 - 47.9)	42.0 (38.1 - 46.0)
	Total	31.3 (27.3 - 35.6)	25.0 (20.2 - 30.2)	30.7 (26.1 - 35.6)	38.1 (34.4 - 41.9)	36.4 (32.9 - 39.9)
New Zealand	Female	28.1 (25.1 - 31.4)	22.1 (17.2 - 27.6)	23.0 (19.5 - 26.9)	31.1 (29.3 - 33.0)	29.7 (28.0 - 31.4)
	Male	32.4 (28.8 - 36.1)	26.0 (21.0 - 31.5)	36.6 (31.5 - 42.0)	42.2 (40.1 - 44.2)	40.4 (38.6 - 42.3)
	Total	30.2 (27.9 - 32.5)	24.0 (20.6 - 27.8)	29.6 (26.4 - 32.9)	36.6 (35.2 - 38.1)	35.0 (34.0 - 36.0)

Source: New Zealand Health Survey 2006/07, HDIU

The proportion of people overweight in Waitemata is similar to the proportion nationally.

Obesity

Table 40 Age-standardised prevalence rates (percent, with 95% confidence intervals) of obesity, 15+ years, by ethnicity (total response) and gender, 2006/07 NZHS

		Maori	Pacific	Asian	Other	Total
Waitemata	Female	31.4 (26.9 - 36.2)	47.9 (41.6 - 54.2)	9.3 (5.5 - 14.4)	18.4 (14.7 - 22.6)	20.1 (16.6 - 24.1)
	Male	30.8 (26.0 - 36.0)	47.3 (41.1 - 53.5)	7.1 (3.3 - 13.0)	17.8 (14.2 - 22.0)	19.4 (15.8 - 23.4)
	Total	31.1 (27.2 - 35.3)	47.6 (42.4 - 52.8)	8.2 (4.7 - 13.1)	18.1 (14.6 - 22.0)	19.7 (16.4 - 23.1)
New Zealand	Female	40.5 (37.3 - 43.7)	61.7 (56.2 - 66.9)	12.0 (9.4 - 14.9)	23.7 (21.7 - 25.8)	25.9 (24.2 - 27.7)
	Male	39.7 (36.1 - 43.4)	60.9 (55.6 - 66.0)	9.1 (6.3 - 12.6)	22.9 (21.0 - 25.0)	24.9 (23.2 - 26.8)
	Total	40.1 (37.9 - 42.4)	61.3 (57.2 - 65.2)	10.6 (8.4 - 13.1)	23.3 (21.8 - 24.9)	25.4 (24.5 - 26.4)

Source: New Zealand Health Survey 2006/07

The prevalence of obesity in Waitemata is significantly lower than the national prevalence. The proportions of Maori and Pacific people who are obese are significantly higher than the total proportion of obese people in Waitemata. The proportion of Asian people who are obese is significantly lower than the total proportion of obese people in Waitemata.

Alcohol Use

Alcohol use in last year

88% of men and 81% in New Zealand report having a drink containing alcohol in the last year. This was less common in adults under the age of 18 although 74% had still drunk. It was also less common after the age of 64.

Hazardous drinking

The Alcohol Use Disorders Identification Test (AUDIT) developed by World Health Organisation (WHO) is an internationally recognised definition of hazardous drinking. A score of 8 or more indicates a drinking pattern that carries a high risk of future damage to physical or mental health.

Table 41 Prevalence of hazardous drinking amongst adults (AUDIT score ≥ 8), age adjusted, 15= years, by ethnicity (total response) and gender, 2006-07,

		Maori	Pacific	Asian	Other	Total
Waitemata	Female	18.6 (11.1 - 28.2)	14.3 (5.3 - 29.1)	2.7 (0.5 - 7.7)	9.2 (5.5 - 12.8)	8.3 (5.7 - 11.0)
	Male	40.1 (19.1 - 64.1)	31.2 (15.7 - 50.4)	4.3 (1.3 - 9.9)	31.4 (24.9 - 38.0)	27.7 (22.2 - 33.3)
	Total	28.6 (19.3 - 37.9)	22.0 (13.1 - 33.3)	3.3 (1.4 - 6.7)	20.4 (16.4 - 24.5)	17.7 (14.4 - 20.9)
New Zealand	Female	22.2 (20.1 - 24.3)	12.0 (8.7 - 15.3)	1.8 (0.8 - 3.5)	12.7 (11.2 - 14.1)	12.2 (11.1 - 13.3)
	Male	40.9 (37.7 - 44.2)	32.1 (26.6 - 37.7)	9.0 (5.9 - 12.2)	29.2 (27.0 - 31.3)	27.6 (25.9 - 29.4)
	Total	30.9 (29.0 - 32.8)	21.6 (18.5 - 24.7)	5.2 (3.6 - 6.7)	20.6 (19.3 - 21.9)	19.6 (18.6 - 20.6)

Source: New Zealand Health Survey 2006/07, HDIU

The prevalence of hazardous drinking in Waitemata was similar to the national prevalence. The prevalence of hazardous drinking amongst males is two to three times what it is amongst women. The prevalence of hazardous drinking among Asian males was significantly lower than among all males in Waitemata.

Alcohol abuse and dependence

The New Zealand Mental Health Survey also estimated the prevalence alcohol abuse and dependence using DSM-IV diagnostic criteria.

Table 42 Twelve month prevalence of alcohol disorders by age and gender, New Zealand, 2004

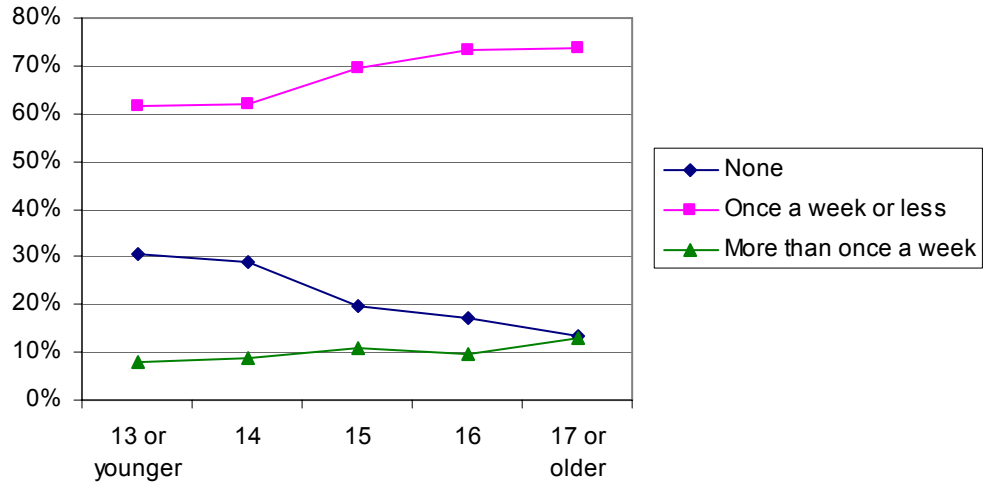
Disorder groups	Total % (95% CI)	Age groups years % (95% CI)				Gender % (95% CI)	
		16-24	25-44	45-64	65 and over	Male	Female
Alcohol abuse	2.6 (2.3-3.0)	7.1 (5.7-8.9)	3.2 (2.6-3.9)	0.8 (0.6-1.2)	<0.1 (0.0-0.2)	3.7 (3.1-4.4)	1.6 (1.3-2.1)
Alcohol dependence	1.3 (1.1-1.5)	3.0 (2.2-4.1)	1.7 (1.3-2.2)	0.4 (0.2-0.7)	<0.1 (0.0-0.1)	1.7 (1.4-2.2)	0.9 (0.6-1.1)

Source: Te Rau Hinengaro: The New Zealand Mental Health Survey

The prevalence of alcohol disorders declines dramatically with age with very few people 65 years and older having and alcohol use disorder. Men are twice as likely as women to have an alcohol use disorder.

Drinking amongst youth

Figure 71 Prevalence of drinking amongst NZ youth, by age, 2001



Source: Youth 2000

The majority of young people, even 13 year olds, drink alcohol although this may be infrequently. Only a small number drink more than once a week.

Drug Use

Regular marijuana use

Table 43 Prevalence of marijuana use in last 12 months in adults by ethnicity (total response), age adjusted, 2002/03

		Maori	Pacific	Asian	Other	Total
Waitemata	Female	35.6 (14.5 - 61.8)	12.2 (2.2 - 33.7)	1.0 (0.0 - 5.6)	14.8 (10.4 - 19.2)	12.7 (8.8 - 16.6)
	Male	42.7 (21.4 - 66.3)	14.0 (4.8 - 29.6)	N/A	20.6 (14.6 - 26.7)	18.0 (12.9 - 23.2)
	Total	39.3 (23.0 - 55.7)	13.1 (5.3 - 25.4)	0.5 (0.0 - 2.7)	17.6 (14.0 - 21.3)	15.3 (12.1 - 18.5)
New Zealand	Female	22.5 (18.8 - 26.2)	10.2 (6.3 - 14.0)	1.3 (0.4 - 3.2)	12.9 (11.3 - 14.6)	12.5 (11.1 - 13.9)
	Male	32.9 (28.5 - 37.3)	13.7 (8.3 - 19.0)	4.3 (2.2 - 7.7)	21.2 (19.2 - 23.1)	20.4 (18.6 - 22.2)
	Total	27.3 (24.3 - 30.4)	11.8 (8.8 - 14.9)	2.7 (1.5 - 4.5)	16.9 (15.6 - 18.2)	16.3 (15.1 - 17.4)

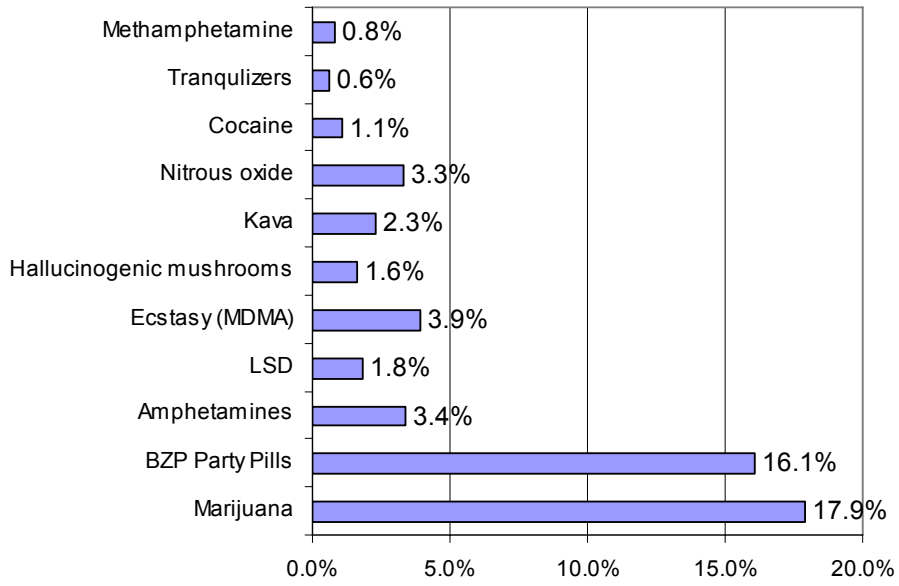
Source: New Zealand Health Survey 2002/03

The prevalence of marijuana use in the past 12 months (in 2002/03) in Waitemata was similar to the national prevalence. The prevalence of marijuana use among Maori was significantly higher than

among the whole population in Waitemata, while the prevalence was significantly lower among Asian people than the whole population.

Other drug use

Figure 72 Proportion of 15-45 year olds who have used various drugs in the last year, NZ, 2006



Source: Wilkins, 2008

Illegal drug use is relatively common amongst younger New Zealanders (Wilkins and Sweetsur 2008). Marijuana and BZP party pills in particular are commonly used. However this survey was undertaken before BZP was made illegal. In general drug use has not increased over the last 20 years although some drugs have become more common (Ecstasy, Cocaine) whilst others are used less commonly (Marijuana, LSD). Methamphetamine use was rare in 1998 but has not increased in prevalence since 2001.

Drug abuse and dependence

The New Zealand Mental Health Survey also estimated the prevalence drug abuse and dependence using DSM-IV diagnostic criteria.

Table 44 Twelve month prevalence of drug abuse and dependence by age and gender, New Zealand, 2004

Disorder groups	Total % (95% CI)	Age groups years % (95% CI)				Gender % (95% CI)	
		16-24	25-44	45-64	65 and over	Male	Female
Drug abuse	1.2 (0.9-1.4)	3.8 (2.8-5.1)	1.2 (0.9-1.6)	0.2 (0.1-0.5)	<0.1 (0.0-0.1)	1.6 (1.2-2.0)	0.8 (0.6-1.1)
Drug dependence	0.7 (0.5-0.9)	2.1 (1.3-3.2)	0.9 (0.6-1.2)	0.1 (0.0-0.3)	<0.1 (1.0-0.1)	1.3 (0.7-1.5)	0.4 (0.2-0.5)
Marijuana abuse	0.9 (0.7-1.1)	3.2 (2.3-4.4)	0.9 (0.7-1.3)	0.2 (0.1-0.4)	<0.1 (1.0-0.1)	1.3 (0.9-1.7)	0.6 (0.4-0.9)
Marijuana dependence	0.5 (0.3-0.6)	1.6 (0.9-2.6)	1.5 (0.9-2.4)	0.6 (0.3-0.9)	<0.1 (1.0-0.2)	0.8 (0.5-1.1)	0.2 (0.1-0.3)

Source: Te Rau Hinengaro: The New Zealand Mental Health Survey

The prevalence of drug disorders declines dramatically with age with very few people 65 years and older having and drug use disorder. Men are twice as likely as women to have a drug use disorder. The majority of people with drug abuse and dependence disorders have marijuana abuse or dependence (but may also have issues with other drugs).

Gambling

Two out of every three NZ adults had gambled in some form in the last 12 months (Ministry of Health 2008). The prevalence of gambling was fairly stable across all age groups except for people under the age of 18 and over the age of 74 where the prevalence was lower.

Most adults who had gambled were at no risk of their gambling becoming a problem. One in 19 (5.4%) were at low risk and one in 50 at moderate risk (2.0%). A further 0.6% of gamblers met the criteria for problem gambling (0.4% of the total adult population).

Problem gambling prevalence varied by ethnicity. 2.4% of Maori were problem gamblers, 3.0% of Pacific, 0.2% of Asians, and 0.3% of Others. Problem gambling was also more common in deprived areas.

The State of Health

Overall Health

Life Expectancy

Table 45 Life expectancy at birth (years) by gender and ethnicity (prioritised), Waitemata and NZ, 2002-2005

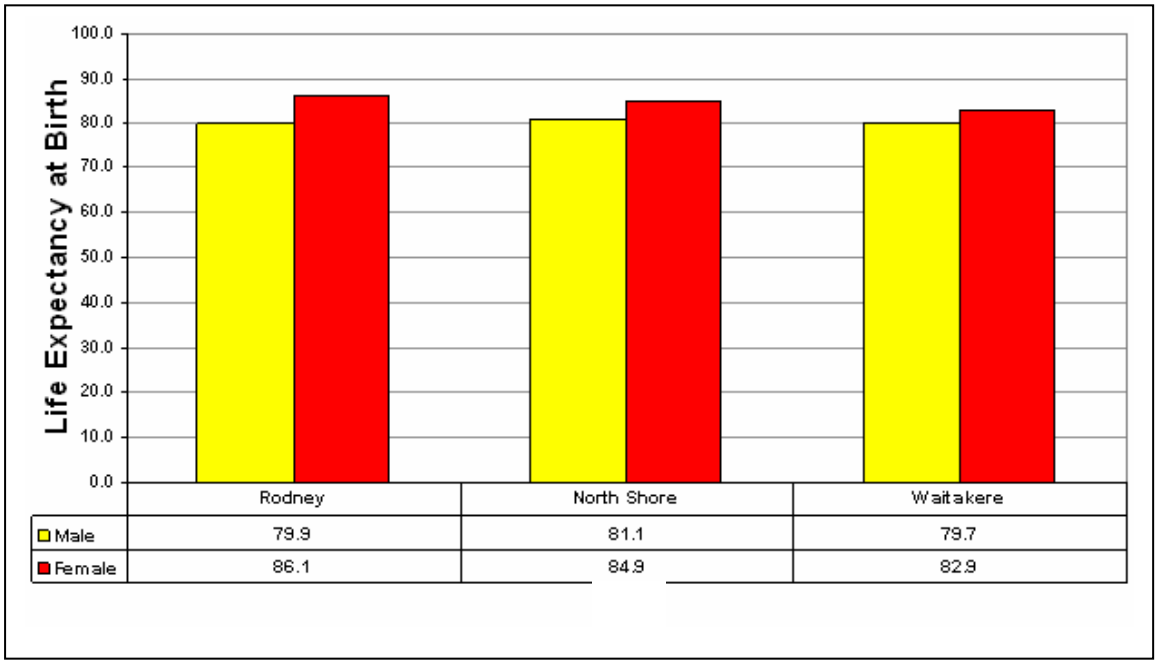
Ethnicity	Waitemata		NZ	
	Female	Male	Female	Male
Maori	80.7	73.5	74.8	69.9
Pacific	77.0	71.0	76.9	72.1
Asian	92.5	89.8	87.8	84.5
Other	84.1	80.3	82.9	76.8

Source: HDIU

In Waitemata, Asians have the highest life expectancy at birth, followed by Other. However, caution is required when interpreting this, as many Asians are recent migrants and needed to be healthy to migrate to New Zealand. Life expectancy for Asians is therefore over-estimated.

People living in Waitemata had a higher life expectancy at birth for all ethnicities and genders except for Pacific males, compared with the national average between 2002 and 2005.

Figure 73 Life expectancy at birth (years) in Waitemata, by gender and territorial authority, 2006

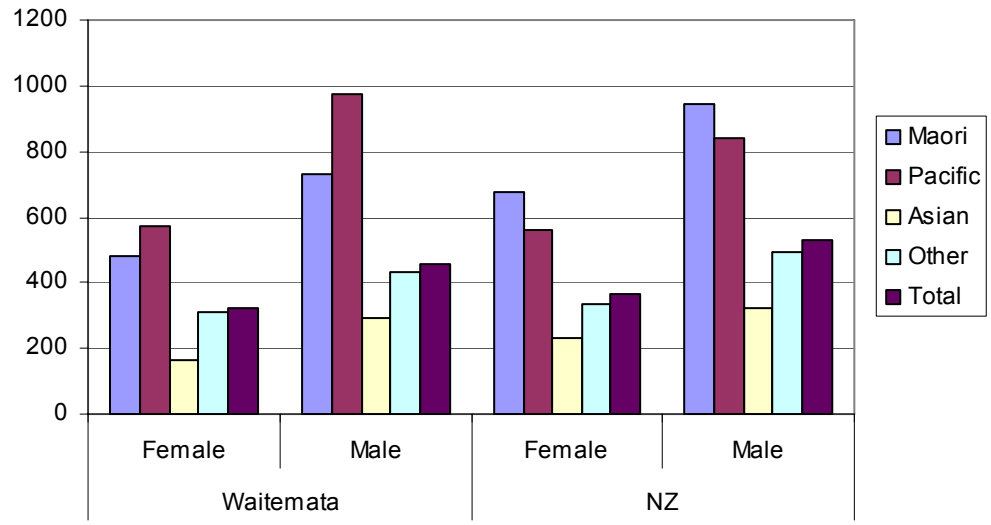


At territorial authority level in Waitemata, North Shore males had a higher life expectancy at birth than males living in Rodney District or Waitakere City. For females, life expectancy was highest in Rodney, followed by North Shore and Waitakere.

Mortality

Overall mortality

Figure 74 Overall mortality by gender and ethnicity (prioritised), Waitemata and NZ, 2003-05, prioritised ethnicity, age-standardised rates per 100,000



Source: Mortality

Females had a lower mortality rate than that of the males, in Waitemata as well as New Zealand. In Waitemata, Pacific people had the highest mortality rate, followed by Maori and other, while Asian had the lowest rate, which might be a result of the healthy migrant effect. All ethnic groups in Waitemata had lower mortality rates than New Zealand as a whole with the exception of Pacific people. Waitemata's Pacific population have a higher mortality rate than New Zealand Pacific people as a whole.

Avoidable mortality

One method of estimating the potential to improve health is by classifying disease into avoidable and unavoidable. Avoidable mortality includes deaths occurring under age 75 years that could potentially have been avoided through population-based interventions, or through preventive and curative interventions at an individual level

Table 46 Avoidable mortality, 0-74 years, age-standardised rates per 100,000 (and 95% confidence intervals), by gender and ethnicity (prioritised), 2003-05

		Maori	Pacific	Asian	Other	Total
WDHB	Female	246.5 (201.4 - 298.7)	220.1 (172.9 - 276.4)	68.0 (50.2 - 90.2)	104.8 (97.2 - 112.9)	113.8 (106.6 - 121.4)
	Male	376.4 (315.4 - 445.8)	376.8 (308.5 - 455.7)	135.8 (109.3 - 166.7)	153.8 (144.2 - 164.0)	170.2 (161.0 - 179.8)
	Total	304.5 (267.0 - 345.7)	289.7 (248.9 - 335.3)	100.5 (84.5 - 118.6)	128.7 (122.5 - 135.1)	141.0 (135.2 - 147.1)
New Zealand	Female	348.0 (333.4 - 363.0)	231.6 (213.4 - 251.0)	87.8 (78.7 - 97.6)	116.2 (113.5 - 119.0)	138.9 (136.2 - 141.7)
	Male	491.9 (474.0 - 510.2)	399.5 (373.9 - 426.3)	138.0 (126.1 - 150.7)	185.9 (182.3 - 189.5)	217.7 (214.2 - 221.3)
	Total	416.3 (404.9 - 428.0)	310.0 (294.6 - 326.1)	111.7 (104.2 - 119.5)	150.3 (148.1 - 152.6)	177.3 (175.1 - 179.5)

Source: Mortality, HDIU

Avoidable mortality accounted for 37% of deaths. Overall, the avoidable mortality rate for Waitemata was significantly lower than the national rate. Males avoidable mortality rate was almost 50% higher than females in Waitemata. Maori and Pacific people had significantly higher rates (more than double) than Other people who had a significantly higher rate than Asian people.

Leading causes of avoidable mortality

Table 47 Leading causes of avoidable mortality, males and females, 0-74 years, 2003-05

	New Zealand		Waitemata	
	Causes	Rank	Causes	Rank
Female	Breast cancer	1	Breast cancer	1
	Ischaemic heart disease	2	Ischaemic heart disease	2
	Lung cancer	3	Colorectal cancer	3
	Colorectal cancer	4	Lung cancer	4
	Stroke	5	Stroke	5
Male	Ischaemic heart disease	1	Ischaemic heart disease	1
	Lung cancer	2	Lung cancer	2
	Suicide and self inflicted injuries	3	Suicide and self inflicted injuries	3
	Road traffic injuries & other transport injuries	4	Colorectal cancer	4
	Colorectal cancer	5	Stroke	5
Total	Ischaemic heart disease	1	Ischaemic heart disease	1
	Lung cancer	2	Lung cancer	2
	Suicide and self inflicted injuries	3	Colorectal cancer	3
	Colorectal cancer	4	Suicide and self inflicted injuries	4
	Road traffic injuries & other transport injuries	5	Stroke	5

Source: Mortality, HDIU

Ischaemic heart disease, lung cancer, colorectal cancer and suicide and self-inflicted injuries are the leading causes of avoidable mortality in Waitemata. Breast cancer was the leading cause of avoidable mortality for women.

Table 48 Leading causes of avoidable mortality, by ethnic group (prioritised), 0-74 years, 2003-05

	New Zealand		Waitemata	
	Causes	Rank	Causes	Rank
Maori	Ischaemic heart disease	1	Ischaemic heart disease	1
	Lung cancer	2	Lung cancer	2
	Diabetes	3	Diabetes	3
	COPD	4	COPD	4
	Road traffic injuries & other transport injuries	5	Stroke	5
Pacific	Ischaemic heart disease	1	Ischaemic heart disease	1
	Diabetes	2	Diabetes	2
	Stroke	3	Stroke	3
	Lung cancer	4	Lung cancer	4
	COPD	5	Breast cancer	5
Asian	Ischaemic heart disease	1	Ischaemic heart disease	1
	Diabetes	2	Diabetes	2
	Stroke	3	Road traffic injuries & other transport injuries	3
	Lung cancer	4	Stroke	4
	Road traffic injuries & other transport injuries	5	Lung cancer	5
Other	Ischaemic heart disease	1	Ischaemic heart disease	1
	Lung cancer	2	Lung cancer	2
	Colorectal cancer	3	Colorectal cancer	3
	Suicide and self inflicted injuries	4	Suicide and self inflicted injuries	4
	Road traffic injuries & other transport injuries	5	Breast cancer	5

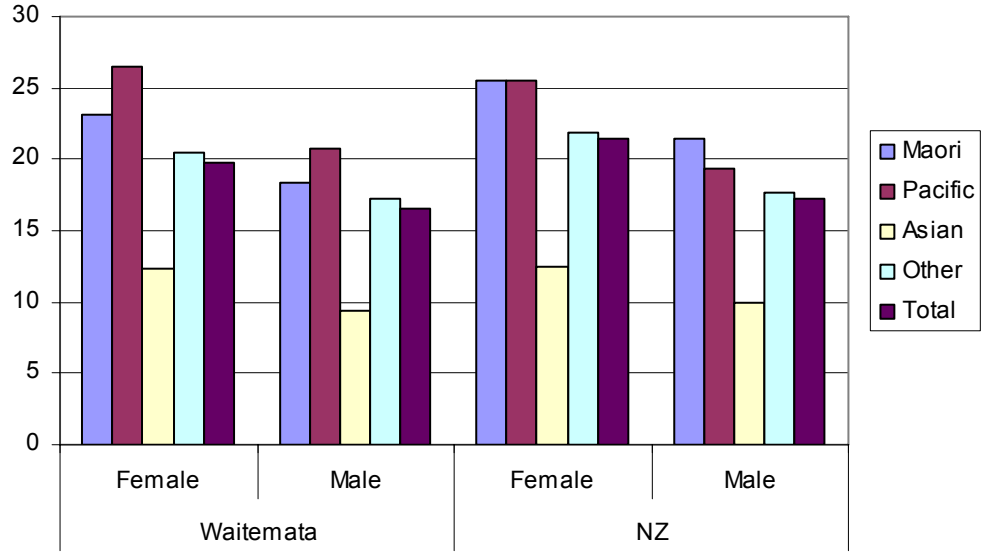
Note: COPD = Chronic obstructive pulmonary disease. Source: Mortality, HDIU

The leading causes of avoidable mortality were similar across ethnic groups in Waitemata. Ischaemic heart disease and lung cancer were leading causes for all ethnic groups, while diabetes and stroke were leading causes for Maori, Pacific and Asian people. Colorectal cancer is important for Others.

Hospitalisation

Overall hospitalisation

Figure 75 Overall hospitalisations, age-standardised rates by gender and ethnicity (prioritised), Waitemata and NZ, 2005-07



Source: NMDS

The overall hospitalisation rate in Waitemata was lower than the national rate, regardless of gender. Females had higher rates than males, in Waitemata and New Zealand. In Waitemata, Pacific people had the highest rate of overall hospitalisation, followed by Maori and Other, while it was the lowest in the Asian group. This was also the pattern for New Zealand as a whole.

Avoidable hospitalisation

Avoidable hospitalisations are hospitalisations of people aged less than 75 years, that fall into three sub-categories:

- preventable hospitalisations – hospitalisations resulting from diseases preventable through population-based health promotion strategies
- ambulatory-sensitive hospitalisations – hospitalisations resulting from diseases sensitive to prophylactic or therapeutic interventions deliverable in a primary health care setting
- injury-preventable hospitalisations – hospitalisations avoidable through injury prevention

Table 49 Avoidable hospitalisations, 0-74 years, age-standardised rates per 100,000 (and 95% confidence intervals), by gender and ethnicity (prioritised), Waitemata and NZ, 2005-07

		Maori	Pacific	Asian	Other	Total
Waitemata	Female	5656.7 (5464.1–5854.4)	5995.4 (5769.7–6227.6)	1934.1 (1844.9–2026.5)	2974.3 (2927.5–3021.8)	3210.1 (3168.8–3251.8)
	Male	5587.5 (5391.2–5789.0)	6748.9 (6502.4–7002.3)	2223.5 (2123.0–2327.5)	3500.9 (3450.1–3552.2)	3684.5 (3639.7–3729.7)
	Total	5627.7 (5489.8–5768.2)	6358.4 (6191.2–6528.8)	2073.7 (2006.6–2142.6)	3232.9 (3198.4–3267.7)	3442.0 (3411.6–3472.6)
New Zealand	Female	5398.0 (5347.3–5449.0)	5487.4 (5408.1–5567.6)	1973.1 (1932.9–2014.0)	2886.6 (2869.2–2902.6)	3261.8 (3242.2–3276.3)
	Male	5446.4 (5394.7–5498.5)	6077.6 (5992.4–6163.7)	2343.0 (2297.2–2389.4)	3412.8 (3392.3–3430.2)	3719.6 (3697.3–3735.2)
	Total	5427.9 (5391.7–5464.3)	5770.2 (5712.1–5828.8)	2152.8 (2122.4–2183.5)	3147.1 (3128.2–3159.0)	3488.3 (3467.4–3498.9)

Source: NMDS, HDIU

The avoidable hospitalisation rate for Waitemata did not differ significantly from the national rate. There were, however, significantly different hospitalisation rates by ethnicity. Pacific people had the highest rate, followed by Maori, then Other people, with Asian people having the lowest rate. Pacific rates are almost double the rates of Others. Males had a significantly higher rate of avoidable hospitalisations than females.

Leading causes of hospitalisation

Table 50 Leading causes of avoidable hospitalisations by gender, 0-74 years, Waitemata and NZ, 2005-07

Gender	New Zealand		Waitemata	
	Causes	Rank	Causes	Rank
Female	Respiratory infections	1	Angina	1
	Angina	2	Respiratory infections	2
	Cellulitis	3	Cellulitis	3
	Asthma	4	Kidney/urinary infection	4
	Dental conditions	5	Asthma	5
Male	Respiratory infections	1	Angina	1
	Angina	2	Respiratory infections	2
	Cellulitis	3	Cellulitis	3
	Road traffic injury	4	Ischaemic heart disease	4
	ENT infections	5	Road traffic injury	5
Total	Respiratory infections	1	Angina	1
	Angina	2	Respiratory infections	2
	Cellulitis	3	Cellulitis	3
	ENT infections	4	Road traffic injury	4
	Dental conditions	5	ENT infections	5

Note: ENT Infections = Ear, nose and throat infections. Source: NMDS, HDIU

Waitemata had similar leading causes of avoidable hospitalisations to those nationally; respiratory infections, angina, cellulitis and ear, nose and throat infections were among the top five. Road traffic injury was also in the top five causes for Waitemata DHB. Kidney or urinary infection and asthma were leading causes of avoidable hospitalisations for women in Waitemata.

Table 51 Leading causes of avoidable hospitalisations, by ethnic group (prioritised), 0-74 years, 2005-07

Ethnic group	New Zealand		Waitemata	
	Causes	Rank	Causes	Rank
Maori	Respiratory infections	1	Angina	1
	Angina	2	Respiratory infections	2
	Cellulitis	3	Cellulitis	3
	COPD	4	Asthma	4
	Asthma	5	COPD	5
Pacific	Respiratory infections	1	Respiratory infections	1
	Angina	2	Angina	2
	Cellulitis	3	Cellulitis	3
	Asthma	4	Asthma	4
	COPD	5	COPD	5
Asian	Angina	1	Angina	1
	Respiratory infections	2	Respiratory infections	2
	Dental conditions	3	Dental conditions	3
	Gastroenteritis	4	Ischaemic heart disease	4
	Asthma	5	Asthma	5
Other	Angina	1	Angina	1
	Respiratory infections	2	Respiratory infections	2
	Cellulitis	3	Cellulitis	3
	Road traffic injury	4	Road traffic injury	4
	ENT infections	5	ENT infections	5

Note: COPD = Chronic obstructive pulmonary disease; ENT Infections = Ear, nose and throat infections
Source: NMDS, HDIU

Leading causes of avoidable hospitalisations were similar across all ethnic groups. Maori and Pacific people had the same top five leading causes, while Asian and Other people had three of those leading causes. Dental conditions and ischaemic heart disease were leading causes for Asian people, while for Other people road traffic injury and ear, nose and throat infections were in the top five.

Self Reported Health

Self-reported health was measured in the New Zealand Health Survey using the SF-36 (see the Glossary for a brief description).

Table 52 Age-standardised prevalence (percent, and 95% confidence intervals) of self-reported excellent or very good health amongst adults by gender and ethnicity (total response), Waitemata and NZ, 2006/07

		Maori	Pacific	Asian	Other	Total
Waitemata	Female	52.6 (47.8 - 57.5)	52.1 (46.0 - 58.2)	58.5 (52.9 - 64.0)	66.4 (62.1 - 70.5)	64.0 (59.9 - 68.0)
	Male	53.6 (47.8 - 59.3)	54.2 (48.0 - 60.3)	56.9 (50.2 - 63.5)	62.1 (57.7 - 66.4)	60.7 (56.5 - 64.9)
	Total	53.1 (48.4 - 57.7)	53.1 (47.7 - 58.4)	57.8 (52.6 - 62.8)	64.3 (60.1 - 68.3)	62.4 (58.8 - 66.1)
New Zealand	Female	51.6 (48.3 - 55.0)	51.1 (46.1 - 56.0)	57.4 (53.1 - 61.6)	65.1 (62.7 - 67.3)	62.8 (60.6 - 64.8)
	Male	52.5 (48.0 - 57.1)	53.1 (48.1 - 58.1)	55.8 (50.1 - 61.4)	60.9 (58.3 - 63.4)	59.6 (57.2 - 61.9)
	Total	52.0 (49.0 - 55.0)	52.1 (48.0 - 56.1)	56.6 (52.9 - 60.3)	63.0 (60.9 - 65.1)	61.2 (59.8 - 62.6)

Source: NZ Health Survey, HDIU

More than 60 percent of adults in Waitemata reported that their general health status was excellent or very good. The prevalence rates for Maori and Pacific females were significantly lower than the total female rates, adjusted for age.

Important Conditions

Burden of disease

Disability Adjusted Life Years (DALYs) is a measure that combines both morbidity and early mortality. It is therefore provides an overall measure of how particular conditions impact a population. More information can be found in the Glossary of Terms. DALY analysis is not available at a Waitemata level but has been calculated for New Zealand as a whole by WHO.

Table 53 The most important causes of Disability Adjusted Life Years (DALYs) lost for New Zealand 2002

	All Causes			100.0%
I.	*Communicable, maternal, perinatal and nutritional conditions*			4.9%
	A.	Infectious and parasitic diseases		1.6%
	B.	Respiratory infections		0.6%
			Lower respiratory infections	0.5%
	C.	Maternal conditions		0.4%
	D.	Perinatal conditions		1.7%
			Low birth weight	0.6%
			Birth asphyxia and birth trauma	0.7%
	E.	Nutritional deficiencies		0.6%
			Iron-deficiency anaemia	0.5%
II.	*Noncommunicable diseases*			85.5%
	A.	Malignant neoplasms		14.8%
			Stomach cancer	0.6%
			Colon and rectum cancers	2.2%
			Pancreas cancer	0.5%
			Trachea, bronchus, lung cancers	2.3%
			Melanoma and other skin cancers	0.7%
			Breast cancer	1.9%
			Prostate cancer	0.8%
			Lymphomas, multiple myeloma	0.9%
			Leukaemia	0.6%
	C.	Diabetes mellitus		2.3%
	D.	Endocrine disorders		2.3%
	E.	Neuropsychiatric conditions		25.3%
			Unipolar depressive disorders	8.1%
			Bipolar disorder	1.3%
			Schizophrenia	1.4%
			Epilepsy	0.6%
			Alcohol use disorders	3.7%
			Alzheimer and other dementias	3.5%

			Parkinson disease	0.8%
	E.	Neuropsychiatric conditions (continued)		
			Drug use disorders	0.7%
			Panic disorder	0.7%
			Insomnia (primary)	0.7%
			Migraine	1.0%
	F.	Sense organ diseases		3.3%
			Vision disorders, age-related	0.5%
			Hearing loss, adult onset	2.7%
	G.	Cardiovascular diseases		14.6%
			Ischaemic heart disease	7.6%
			Cerebrovascular disease	4.2%
			Inflammatory heart diseases	0.5%
	H.	Respiratory diseases		12.1%
			Chronic obstructive pulmonary disease	8.5%
			Asthma	2.9%
	I.	Digestive diseases		2.2%
	J.	Genitourinary diseases		1.3%
	L.	Musculoskeletal diseases		4.0%
			Rheumatoid arthritis	0.7%
			Osteoarthritis	2.3%
	M.	Congenital anomalies		2.2%
	N.	Oral conditions		0.7%
			Dental caries	0.5%
III.	*Injuries*			9.7%
	A.	Unintentional injuries		6.7%
			Road traffic accidents	2.9%
			Falls	1.1%
	B.	Intentional injuries		3.0%
			Self-inflicted injuries	2.7%

Source: WHO Department of Measurement and Health Information 2004

According to this measure the diseases which cause the greatest burdens on New Zealand's population are cancers, depression, ischaemic heart disease and stroke, chronic obstructive pulmonary disease (COPD), and unintentional injuries. Together these account for 50% of all DALYs lost. Diabetes, alcohol use disorders, dementia, hearing loss, asthma, osteoarthritis, congenital anomalies, and self-inflicted injuries also cause large burdens of disease.

Cardiovascular Disease

High blood pressure

Hypertension or high blood pressure is one of the most important and frequently treated risk factors for other cardiovascular diseases such as ischaemic heart disease and stroke, as well as causing heart disease directly. Hypertension is caused by a number of lifestyle factors such as inactivity, obesity, and salt and alcohol intake as well as sometimes being caused by other medical conditions. Hypertension is also more common with increasing age. The figures given are for people with medicated high blood pressure rather than for the true prevalence of high blood pressure in the community. Not all people with hypertension have their condition recognised or treated.

Table 54 Age-standardised prevalence rates (percent, with 95% confidence intervals) of medicated high blood pressure in adults, by gender and ethnicity (total response), Waitemata and NZ, 2006/07

Waitemata		Maori	Pacific	Asian	Other	Total
	Female	9.0 (6.6 - 11.8)	9.3 (6.5 - 12.8)	6.2 (3.7 - 9.7)	13.1 (10.9 - 15.5)	12.3 (10.1 - 14.6)
	Male	9.0 (6.5 - 12.2)	9.2 (6.1 - 13.3)	9.7 (6.8 - 13.2)	11.7 (9.5 - 14.3)	11.5 (9.4 - 14.0)
	Total	9.0 (6.8 - 11.6)	9.3 (6.6 - 12.5)	7.8 (5.5 - 10.8)	12.4 (10.4 - 14.8)	11.9 (9.9 - 13.9)
New Zealand	Female	8.2 (6.7 - 9.9)	8.5 (6.3 - 11.1)	5.7 (3.8 - 8.1)	12.0 (10.8 - 13.1)	11.2 (10.2 - 12.2)
	Male	8.3 (6.4 - 10.4)	8.4 (5.8 - 11.7)	8.8 (6.6 - 11.5)	10.7 (9.5 - 12.0)	10.5 (9.5 - 11.6)
	Total	8.2 (7.0 - 9.6)	8.4 (6.5 - 10.7)	7.2 (5.7 - 8.9)	11.4 (10.5 - 12.3)	10.9 (10.3 - 11.4)

Source: NZ Health Survey, HDIU

One in seven of our adult population is being medicated for high blood pressure. The prevalence in Waitemata is similar to the national prevalence. In Waitemata there was no significant difference in the rate of medicated high blood pressure for males among ethnicities; however Asian females had a significantly lower rate than Other. Nationally Maori and Asians have a lower prevalence of medicated high blood pressure. It is not clear whether differences are due to differences in detection and treatment or differences in underlying prevalence of hypertension.

High cholesterol

High cholesterol is an important risk factor for cardiovascular disease, particularly ischaemic heart disease. Modifiable determinants of high cholesterol include diet, particularly fat intake, body weight and physical activity levels. As high cholesterol has no symptoms, in many people with high cholesterol the condition will not be detected or medicated.

Table 55 Age-standardised prevalence rates (percent, with 95% confidence intervals) of medicated high cholesterol in adults, by gender and ethnicity (total response), Waitemata and NZ, 2006/07

		Maori	Pacific	Asian	Other	Total
Waitemata	Female	3.8 (2.1 - 6.4)	6.2 (3.3-10.4)	3.1 (1.3 - 6.1)	6.2 (4.6 - 8.2)	5.9 (4.3 - 7.9)
	Male	5.3 (3.3 - 8.1)	4.9 (2.6 - 8.5)	7.9 (5.0-11.8)	8.2 (6.4 - 10.3)	7.9 (6.2 - 9.9)
	Total	4.5 (2.8 - 6.8)	5.6 (3.3 - 8.7)	5.4 (3.4 - 8.0)	7.2 (5.5 - 9.1)	6.9 (5.3 - 8.4)
New Zealand	Female	3.7 (2.5 - 5.3)	6.1 (3.5 - 9.7)	3.1 (1.7 - 5.1)	6.1 (5.2 - 7.2)	5.8 (5.0 - 6.7)
	Male	5.3 (3.7 - 7.2)	4.9 (2.8 - 7.7)	7.8 (5.2-11.2)	8.1 (7.0 - 9.3)	7.8 (6.8 - 8.9)
	Total	4.4 (3.4 - 5.7)	5.5 (3.7 - 7.9)	5.3 (3.8 - 7.1)	7.1 (6.2 - 8.0)	6.7 (6.2 - 7.3)

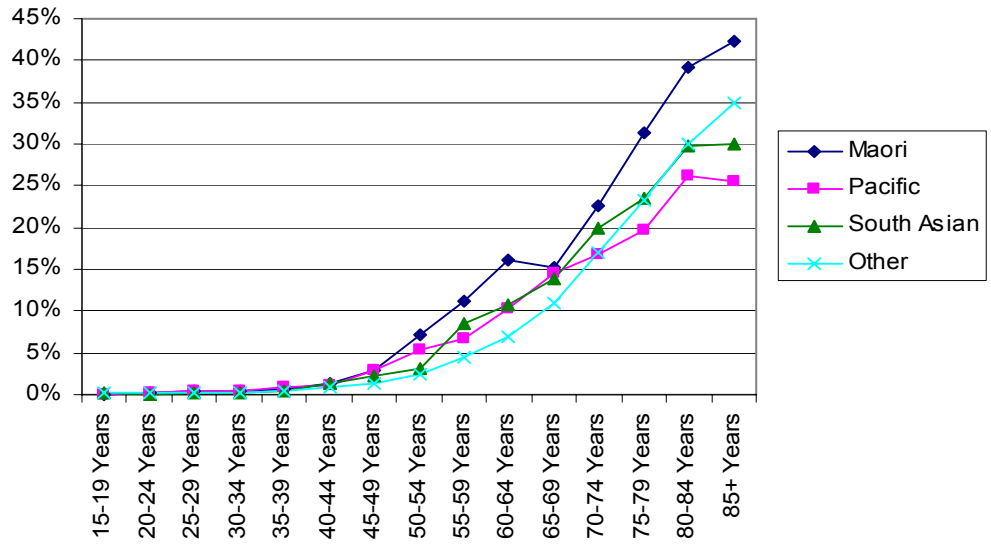
Source: NZ Health Survey, HDIU

The rate of people taking medication for high cholesterol in Waitemata is not significantly different from the national prevalence. Nationally Maori had a lower prevalence of medicated high cholesterol than Other. Whether this is due to a difference in detection and treatment or in prevalence of high cholesterol is unknown however it is in contrast to their high rates of cardiovascular disease (CVD).

Prevalence of CVD

Recently HDIU and the University of Auckland have estimated prevalence of cardiovascular disease directly from hospital records and pharmaceutical dispensing. Cardiovascular disease includes coronary heart disease, ischaemic stroke, peripheral vascular disease, and congestive heart failure. It is felt that this methodology gives the most accurate estimates we have to date of diagnosed cardiovascular disease.

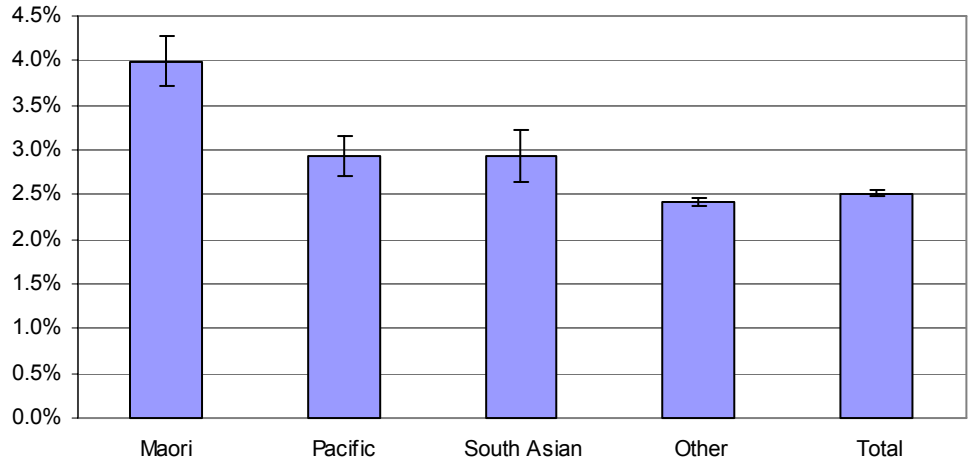
Figure 76 Age specific prevalence of cardiovascular disease by ethnicity (prioritised), Waitemata, 2007,



Source: HDIU and University of Auckland

The prevalence of cardiovascular disease reaches 25-40% by age 80 years. The prevalence of cardiovascular disease was highest in Maori in all age groups and is higher in South Asians and Pacific than in Others in people between the ages of 45 and 74.

Figure 77 Age-standardised prevalence of cardiovascular disease (with 95% confidence intervals) by ethnicity (prioritised), Waitemata, 2007,



Source: HDIU and University of Auckland

Maori have the highest prevalence of cardiovascular disease, followed by Pacific and South Asian.

Heart disease - self reported

Prevalence of ischaemic heart disease (IHD) and stroke have also been estimated from the New Zealand Health Survey. IHD is the narrowing or blocking of the arteries that supply blood and oxygen to the heart. It can cause heart attacks and angina.

Table 56 Age standardised prevalence (percent, and 95% confidence intervals) of self-reported ischaemic heart disease in adults by gender and ethnicity (total response), Waitemata and NZ, 2006/07

		Maori	Pacific	Asian	Other	Total
Waitemata	Female	3.7 (2.2 - 6.0)	2.9 (1.2 - 6.0)	0.9 (0.1 - 4.0)	3.2 (1.9 - 5.1)	3.1 (1.9 - 4.9)
	Male	3.1 (1.6 - 5.3)	1.2 (0.1 - 5.2)	2.5 (0.7 - 6.2)	4.9 (3.5 - 6.7)	4.5 (3.1 - 6.2)
	Total	3.4 (2.1 - 5.4)	2.1 (0.8 - 4.6)	1.7 (0.4 - 4.4)	4.0 (2.7 - 5.7)	3.8 (2.5 - 5.1)
New Zealand	Female	3.9 (2.7 - 5.4)	3.1 (1.6 - 5.4)	1.0 (0.3 - 2.2)	3.4 (2.6 - 4.3)	3.3 (2.6 - 4.0)
	Male	3.2 (2.2 - 4.7)	1.3 (0.2 - 3.9)	2.7 (1.0 - 5.6)	5.1 (4.3 - 6.1)	4.7 (3.9 - 5.6)
	Total	3.6 (2.7 - 4.7)	2.2 (1.2 - 3.7)	1.7 (0.8 - 3.4)	4.2 (3.6 - 4.9)	4.0 (3.6 - 4.3)

Source: NZ Health Survey, HDIU

In Waitemata, 4.5% of males and 3.1% of females reported that they had ischaemic heart disease (IHD). There were no significant differences found among ethnicities or between genders, in Waitemata. However, in New Zealand, Pacific males and Asian females had lower self-reported rates than their counterparts of Other.

Stroke self report

Stroke or cerebrovacular disease refers to a sudden interruption of blood supply to the brain, which can cause permanent damage.

Table 57 Age standardised prevalence (percent, and 95% confidence intervals) of self-reported stroke in adults by gender and ethnicity (total response), Waitemata and NZ, 2006/07

		Maori	Pacific	Asian	Other	Total
Waitemata	Female	0.7 (0.1 - 2.1)	0.9 (0.1 - 4.1)	0.3 (0.0 - 2.6)	0.8 (0.3 - 1.7)	0.7 (0.3 - 1.6)
	Male	0.7 (0.1 - 2.9)	0.8 (0.0 - 5.8)	0.4 (0.0 - 2.9)	0.8 (0.2 - 1.8)	0.8 (0.3 - 1.7)
	Total	0.7 (0.2 - 2.0)	0.9 (0.1 - 3.4)	0.4 (0.0 - 2.1)	0.8 (0.3 - 1.6)	0.7 (0.3 - 1.4)
New Zealand	Female	1.3 (0.7 - 2.2)	1.8 (0.6 - 3.9)	0.7 (0.2 - 1.8)	1.5 (1.1 - 2.0)	1.4 (1.0 - 1.8)
	Male	1.4 (0.6 - 2.8)	1.4 (0.2 - 4.6)	0.8 (0.2 - 2.2)	1.4 (1.0 - 2.0)	1.4 (1.0 - 2.0)
	Total	1.4 (0.8 - 2.2)	1.6 (0.6 - 3.4)	0.7 (0.3 - 1.6)	1.5 (1.1 - 1.8)	1.4 (1.2 - 1.6)

Source: NZ Health Survey, HDIU

In Waitemata, less than 1% of adults reported that they had experienced a stroke, adjusted for age. No significant difference was found between ethnicities or between genders, in Waitemata or New Zealand.

Cardiovascular disease mortality

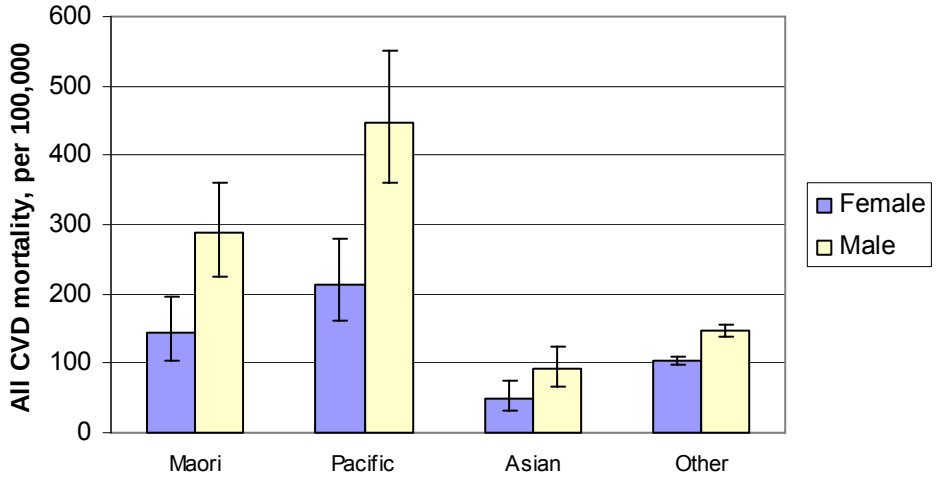
Table 58 All cardiovascular disease mortality, all ages, age-standardised rates per 100,000 (and 95% confidence intervals) by ethnicity (prioritised), 2003

		Maori	Pacific	Asian	Other	Total
Waitemata	Female	144.1 (103.0 - 196.3)	214.2 (160.9 - 279.5)	49.7 (31.2 - 75.3)	103.3 (98.1 - 108.8)	106.2 (101.0 - 111.5)
	Male	287.3 (226.3 - 359.6)	447.6 (359.9 - 550.2)	91.8 (66.7 - 123.2)	147.0 (138.9-155.6)	158.7 (150.5 - 167.1)
	Total	208.9 (172.6 - 250.6)	311.0 (262.3 - 366.2)	69.4 (53.7 - 88.3)	123.8 (119.1-128.6)	130.6 (126.0 - 135.4)
New Zealand	Female	226.9 (213.6 - 240.8)	192.9 (174.6 - 212.6)	82.8 (72.4 - 94.3)	114.5 (112.7-116.3)	123.5 (121.6 - 125.3)
	Male	336.7 (319.6 - 354.5)	325.4 (299.2 - 353.3)	102.8 (90.7 - 116.1)	170.1 (167.2-173.0)	184.8 (181.8 - 187.7)
	Total	277.6 (266.9 - 288.6)	253.7 (238.1 - 270.2)	93.3 (85.2 - 101.9)	140.5 (138.9-142.2)	152.2 (150.6 - 153.9)

Source: Mortality, HDIU

The cardiovascular disease mortality rate in Waitemata was significantly lower than the national rate. Males experienced a rate of mortality from cardiovascular disease almost 50% higher than their females. Pacific people had the highest rate, followed by Maori, then Other people, with Asian people having the lowest rate. All the ethnic group differences were significant.

Figure 78 All cardiovascular disease mortality, all ages, age-standardised rates per 100,000 (and 95% confidence intervals) in Waitemata, by ethnicity (prioritised), 2003



Source: Mortality, HDIU

Ischaemic heart disease mortality

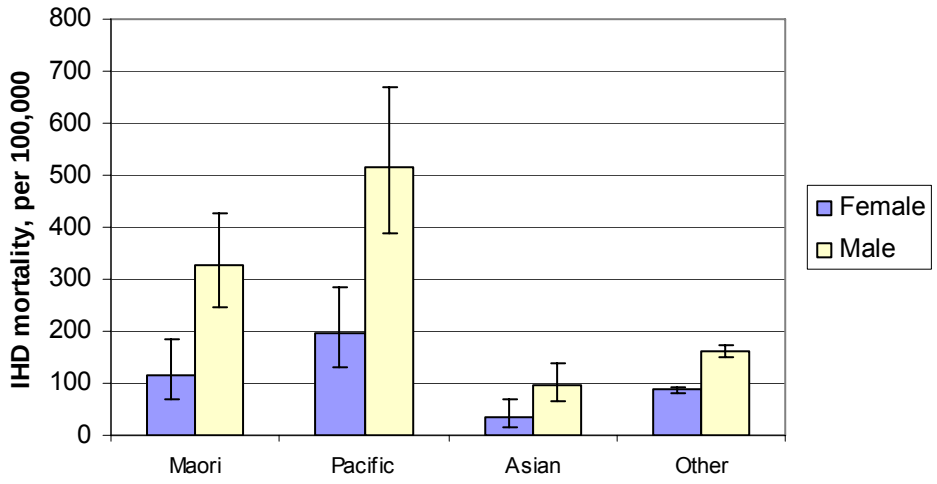
Table 59 Ischaemic heart disease mortality, 25+ years, age-standardised rates per 100,000 (and 95% confidence intervals) by ethnicity (prioritised), 2003-05

		Maori	Pacific	Asian	Other	Total
Waitemata	Female	117.0 (69.4 - 185.0)	197.2 (131.1 - 285.0)	36.0 (16.5 - 68.4)	87.4 (81.1 - 94.0)	89.9 (83.7 - 96.5)
	Male	326.3 (244.4 - 426.8)	514.8 (388.8 - 668.5)	96.6 (64.2 - 139.6)	160.6 (149.4-172.5)	174.3 (163.1-186.2)
	Total	213.8 (167.0 - 269.7)	324.5 (258.9 - 401.8)	63.3 (44.6 - 87.2)	120.3 (114.2-126.6)	128.0 (121.9 -134.3)
New Zealand	Female	191.8 (175.6 - 209.1)	153.1 (131.8 - 176.9)	56.0 (44.7 - 69.3)	101.0 (98.8 - 103.3)	107.5 (105.2 -109.8)
	Male	368.2 (344.8 - 392.8)	325.1 (290.8 - 362.4)	115.2 (98.7 - 133.8)	186.1 (182.1-190.2)	201.5 (197.5 -205.6)
	Total	272.5 (258.6 - 287.0)	229.3 (209.8 - 250.1)	83.6 (73.7 - 94.4)	139.7 (137.6-141.9)	150.4 (148.3 -152.6)

Source: Mortality, HDIU

The rate of ischaemic heart disease mortality in Waitemata was significantly lower than the national rate. The rate for males was significantly higher than that for females. Maori and Pacific people had significantly higher rates than Other people, who had a significantly higher rate than Asian people.

Figure 79 Ischaemic heart disease mortality, 25+ years, age-standardised rates per 100,000 (and 95% confidence intervals) in Waitemata, by ethnicity (prioritised), 2003-05



Source: Mortality, HDIU

Stroke mortality

Table 60 Stroke mortality, 25+ years, age-standardised rates per 100,000 (and 95% confidence intervals) by ethnicity (prioritised), 2003-05

		Maori	Pacific	Asian	Other	Total
Waitemata	Female	95.9 (53.7 - 158.2)	97.0 (53.0 - 162.8)	41.3 (19.8 - 76.0)	56.1 (51.1 - 61.4)	58.1 (53.2 - 63.4)
	Male	63.1 (23.2 - 137.3)	132.3 (74.0 - 218.2)	28.3 (11.4 - 58.4)	49.8 (43.6 - 56.5)	51.5 (45.5 - 58.1)
	Total	79.9 (49.5 - 122.2)	112.6 (75.4 - 161.8)	36.2 (21.1 - 57.9)	54.3 (50.4 - 58.5)	56.2 (52.3 - 60.3)
New Zealand	Female	91.5 (80.5 - 103.6)	111.0 (92.7 - 131.8)	61.4 (49.9 - 74.6)	58.7 (57.0 - 60.4)	62.6 (60.9 - 64.3)
	Male	74.9 (63.8 - 87.4)	113.7 (93.0 - 137.7)	39.2 (29.3 - 51.4)	56.9 (54.7 - 59.1)	59.5 (57.4 - 61.7)
	Total	84.8 (76.8 - 93.4)	115.5 (101.2 - 131.2)	52.8 (44.8 - 61.9)	58.8 (57.4 - 60.1)	62.1 (60.8 - 63.5)

Source: Mortality, HDIU

The mortality rate for stroke in Waitemata was significantly lower than the national rate.

All cardiovascular disease hospitalisation

Table 61 All cardiovascular disease hospitalisations, all ages, age-standardised rates per 100,000 (and 95% confidence intervals) by ethnicity (prioritised), 2005–2007

		Maori	Pacific	Asian	Other	Total
Waitemata	Female	1611.0 (1485.0–1744.9)	1773.9 (1634.3–1922.2)	533.7 (481.9–589.6)	857.8 (839.3–876.6)	899.2 (881.4–917.2)
	Male	2122.0 (1972.4–2279.9)	2097.8 (1935.9–2269.6)	918.8 (848.6–993.3)	1498.4 (1470.7–1526.4)	1510.8 (1485.1–1536.8)
	Total	1840.5 (1743.6–1941.4)	1927.6 (1820.8–2039.1)	711.6 (668.6–756.6)	1160.2 (1143.9–1176.6)	1185.8 (1170.6–1201.3)
New Zealand	Female	1523.6 (1492.5–1555.1)	1320.3 (1276.9–1364.7)	567.3 (543.9–591.5)	766.6 (760.8–772.4)	837.0 (831.2–842.8)
	Male	1976.4 (1939.6–2013.8)	1988.8 (1931.5–2047.4)	938.1 (907.0–970.1)	1301.4 (1292.8–1310.0)	1372.4 (1364.2–1380.6)
	Total	1741.6 (1717.6–1765.8)	1622.9 (1587.7–1658.7)	740.6 (721.3–760.2)	1020.7 (1014.5–1025.8)	1090.4 (1083.8–1095.3)

Source: NMDS, HDIU

The hospitalisation rate for cardiovascular disease in Waitemata was significantly higher than the national rate. The rate was significantly higher for males than for females. Maori and Pacific people had significantly higher rates than Other people, who had a significantly higher rate than Asian people.

Ischaemic heart disease hospitalisation

Table 62 Ischaemic heart disease hospitalisation, 25+ years, age-standardised rates per 100,000 (and 95% confidence intervals) by ethnicity (prioritised), 2005–2007

		Maori	Pacific	Asian	Other	Total
Waitemata	Female	1078.5 (939.2–1232.8)	1006.3 (866.2–1162.7)	314.3 (261.2–375.0)	505.7 (487.3–524.7)	533.5 (515.6–551.8)
	Male	1391.2 (1232.1–1565.0)	1477.3 (1303.2–1668.2)	835.1 (746.7–931.0)	1183.5 (1151.3–1216.3)	1187.1 (1157.3–1217.6)
	Total	1223.5 (1117.8–1336.6)	1230.6 (1118.8–1350.6)	555.2 (505.0–609.1)	827.9 (809.8–846.3)	841.8 (824.8–859.1)
New Zealand	Female	839.8 (808.8–871.6)	614.3 (574.2–656.4)	363.0 (337.8–389.7)	452.1 (446.3–457.9)	485.0 (479.3–490.7)
	Male	1162.0 (1124.5–1200.4)	1240.1 (1180.8–1301.5)	799.1 (761.4–838.1)	983.9 (974.2–993.8)	1010.1 (1000.9–1019.4)
	Total	995.3 (971.1–1020.0)	909.4 (874.2–945.6)	565.6 (543.4–588.4)	706.2 (700.7–711.8)	734.7 (729.4–740.0)

Source: NMDS, HDIU

The rate of hospitalisations due to ischaemic heart disease in Waitemata was significantly higher than the national rate. The male rate was double the female rate. Maori and Pacific people had significantly higher rates than Other people, who had a significantly higher rate than Asian people.

Table 63 Stroke hospitalisation, 25+ years, age-standardised rates per 100,000 (and 95% confidence intervals) by ethnicity (prioritised), 2005-07

		Maori	Pacific	Asian	Other	Total
Waitemata	Female	250.1 (187.9–326.3)	404.6 (318.3–507.2)	149.6 (113.0–194.3)	138.2 (128.9–147.9)	152.9 (143.6–162.6)
	Male	302.4 (226.5–395.5)	622.1 (496.2–770.2)	178.7 (139.3–225.8)	204.8 (191.7–218.4)	219.4 (206.8–232.6)
	Total	274.3 (224.8–331.4)	492.3 (418.8–575.1)	162.6 (135.5–193.6)	169.7 (161.9–177.9)	184.1 (176.4–192.1)
New Zealand	Female	288.4 (270.5–307.3)	310.4 (282.0–340.8)	135.2 (119.8–152.1)	135.0 (132.0–138.1)	151.8 (148.8–155.0)
	Male	263.4 (244.9–282.9)	392.3 (356.6–430.4)	187.9 (169.0–208.4)	186.8 (182.7–191.0)	199.2 (195.2–203.3)
	Total	278.5 (265.5–292.0)	345.5 (323.1–369.1)	160.8 (148.5–173.7)	159.6 (157.0–162.1)	174.2 (171.7–176.8)

Source: NMDS, HDIU

The hospitalisation rate for stroke in Waitemata did not differ significantly from the national rate. Males had a significantly higher rate than females. Pacific people had the highest rate, followed by Maori, with Asian people and Other people having the lowest rate.

Diabetes

Diabetes is a metabolic condition which results in raised blood glucose. The presence of diabetes can lead to cardiovascular disease, blindness, kidney disease, and foot problems including amputations. There are two main types of diabetes. Type 1 usually develops in childhood, is due to destruction of insulin producing cells in the pancreas, and daily insulin injections are necessary to sustain life. Type 2 diabetes usually develops in adulthood, is caused by the body's tissues becoming resistant to the action of insulin, and can be treated with diet alone, tablets or insulin. Obesity and physical inactivity make the development of Type 2 diabetes much more likely. Many cases of Type 2 diabetes remain undetected, probably up to a third of total cases in some ethnic groups. In this section we do not report these two types of diabetes separately. Type 2 diabetes accounts for 90-95% of all diabetes.

Prevalence

The prevalence of diabetes is not known with precision. Here we report on two estimates. The first is based upon the self-reported prevalence found in the New Zealand Health Survey. The second is

calculated by counting all people who have had contact with hospital with a diagnosis of diabetes, had multiple blood tests to monitor diabetes, or anyone who has been prescribed diabetes medications.

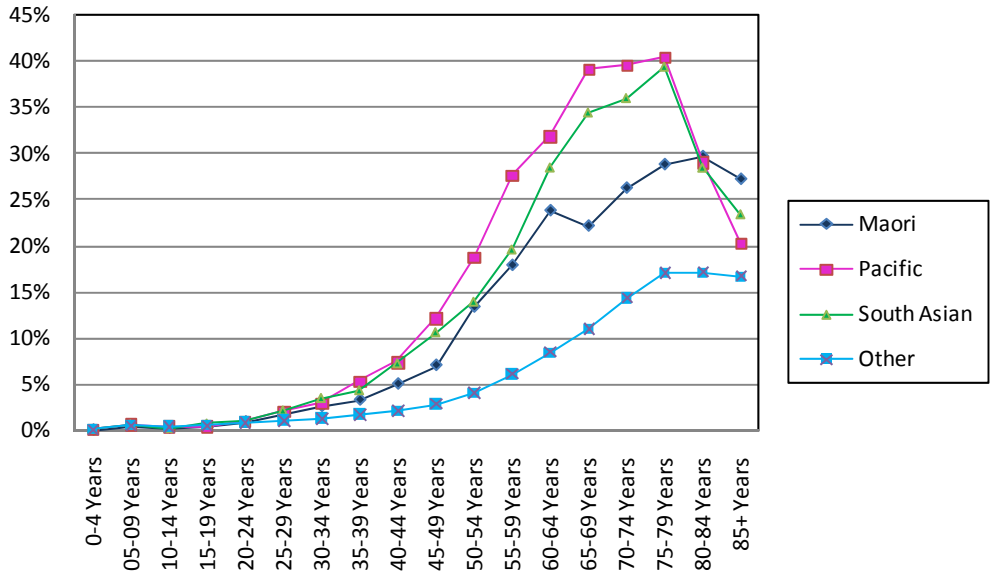
Table 64 Age-standardised prevalence (percent, and 95% confidence intervals) of self-reported diabetes, adults 15+ years y ethnicity (total response), 2006/07

		Maori	Pacific	Asian	Other	Total
Waitemata	Female	3.2 (1.9 - 5.1)	6.0 (3.6 - 9.3)	2.9 (1.5 - 5.2)	2.6 (1.5 - 4.1)	3.0 (1.9 - 4.3)
	Male	4.5 (2.9 - 6.6)	7.2 (4.1 - 11.6)	5.8 (3.8 - 8.6)	3.1 (2.0 - 4.5)	3.7 (2.6 - 5.1)
	Total	3.8 (2.6 - 5.5)	6.6 (4.6 - 9.0)	4.3 (2.9 - 6.1)	2.8 (1.8 - 4.2)	3.3 (2.3 - 4.3)
New Zealand	Female	4.1 (3.0 - 5.4)	7.5 (5.2 - 10.4)	3.7 (2.4 - 5.4)	3.3 (2.6 - 4.1)	3.7 (3.1 - 4.4)
	Male	5.7 (4.3 - 7.4)	9.1 (6.0 - 13.1)	7.4 (5.4 - 9.7)	3.9 (3.1 - 4.7)	4.7 (4.0 - 5.4)
	Total	4.8 (3.9 - 5.9)	8.3 (6.5 - 10.4)	5.4 (4.3 - 6.8)	3.6 (3.0 - 4.2)	4.2 (3.8 - 4.5)

Source: NZ Health Survey, HDIU

The self-reported diabetes prevalence is about 3.3 percent of adults in Waitemata, adjusted for age. Pacific people had a significantly higher rate than the total Waitemata population.

Figure 80 Age-specific prevalence of diabetes by ethnicity (prioritised), Waitemata, 2007

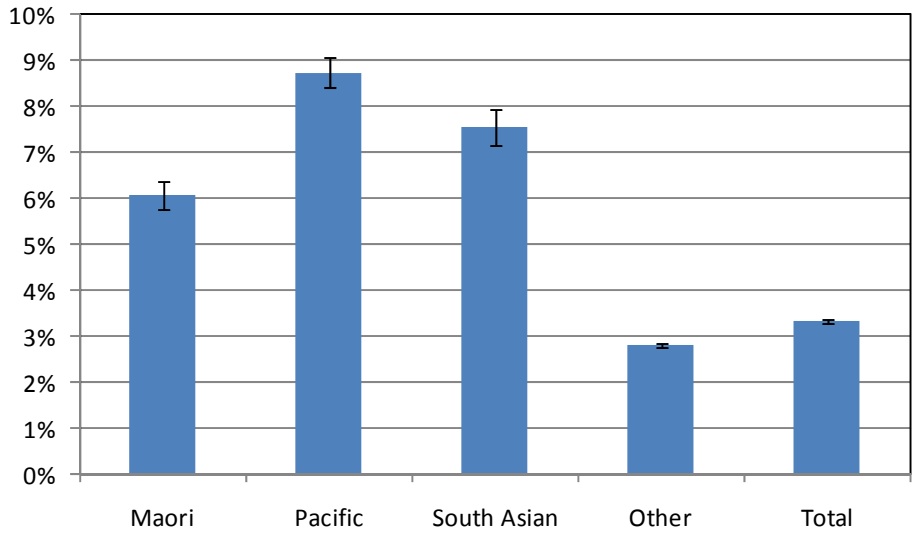


Source: HDIU and University of Auckland

There are estimated to be just over 20,000 people with diagnosed diabetes in Waitemata (1,370 Maori, 2,067 Pacific people, 1,266 South Asians, and 15,337 Others). As much as 40% of some age

groups of Pacific and South Asians have diabetes. Maori, Pacific, and South Asians frequently develop diabetes at much younger age than Others.

Figure 81 Age-standardised prevalence of diabetes by ethnicity (prioritised), Waitemata, 2007



Source: HDIU and University of Auckland

The prevalence of diagnosed diabetes in Maori, Pacific, and South Asians is over double, and in the case of Pacific, nearly treble, what it is in Others. Whilst the Other and Total prevalence of diabetes is similar in the two estimates the estimate for Maori and Pacific are higher in this estimate than in the National Health Survey.

Hospitalisations for diabetes

Table 65 Diabetes hospitalisations, by gender and ethnicity (prioritised), age-standardised rates per 100,000 (and 95% confidence intervals) by ethnicity, 2005-07

		Maori	Pacific	Asian	Other	Total
Waitemata	Female	400.4 (333.3–477.0)	760.8 (658.2–874.7)	293.4 (246.8–346.3)	135.6 (126.4–145.3)	176.3 (166.7–186.3)
	Male	603.4 (506.6–713.3)	756.2 (642.8–883.7)	226.2 (184.2–274.8)	166.1 (155.4–177.5)	201.8 (190.9–213.2)
	Total	498.2 (439.7–562.3)	762.2 (685.0–845.8)	258.6 (226.9–293.3)	149.4 (142.4–156.7)	187.5 (180.3–194.9)
New Zealand	Female	479.4 (459.6–499.9)	781.9 (742.8–822.5)	222.7 (205.2–241.3)	139.8 (136.6–143.1)	184.6 (181.3–188.1)
	Male	599.9 (576.1–624.5)	761.3 (719.9–804.4)	249.4 (229.9–270.1)	175.3 (171.5–179.2)	221.6 (217.7–225.6)
	Total	534.9 (519.5–550.6)	771.0 (742.5–800.2)	233.1 (220.1–246.7)	156.2 (153.8–158.8)	201.7 (199.1–204.3)

Source: NMDS, HDIU

The diabetes hospitalisation rate in Waitemata was significantly lower than the national rate. Males had a significantly higher rate than females. Pacific people had five times the rate of hospitalisation for diabetes, and Maori three times, of Others. These differences are higher than the differences in prevalence suggesting that Maori and Pacific people with diabetes have poorer outcomes than Others with diabetes.

Renal complications of diabetes hospitalisation

Table 66 Diabetes complications - renal failure hospitalisations, 15+ years, age-standardised rate per 100,000 (and 95% confidence intervals) by ethnicity (prioritised), 2005-07

		Maori	Pacific	Asian	Other	Total
Waitemata	Female	69.1 (44.3–102.8)	85.2 (53.4–129.0)	25.3 (13.8–42.4)	8.2 (6.2–10.7)	16.2 (13.4–19.4)
	Male	89.3 (55.3–136.5)	150.3 (100.7–215.9)	19.0 (8.7–36.1)	10.1 (7.7–13.0)	18.1 (15.0–21.7)
	Total	77.8 (56.7–104.1)	114.1 (84.9–150.0)	22.2 (14.1–33.3)	9.1 (7.5–10.9)	17.1 (14.9–19.4)
New Zealand	Female	72.4 (64.8–80.7)	91.8 (78.9–106.2)	15.0 (10.9–20.3)	8.2 (7.5–9.0)	16.4 (15.4–17.4)
	Male	129.8 (118.8–141.4)	103.1 (88.6–119.3)	18.7 (13.9–24.5)	11.3 (10.4–12.3)	23.5 (22.2–24.7)
	Total	99.0 (92.5–105.9)	97.0 (87.2–107.5)	16.9 (13.6–20.7)	9.6 (9.0–10.2)	19.7 (18.9–20.5)

Source: NMDS, HDIU

The rate of hospitalisation of people with renal failure due to diabetes for Waitemata was not significantly different from the national rate. The rates for Maori and Pacific people were seven and twelve times higher respectively than the Other rate.

Lower limb amputation hospitalisation in people with diabetes

Table 67 Diabetes complications – leg/foot/toe amputation hospitalisation, 15+ years, age-standardised rates per 100,000 (and 95% confidence intervals) by ethnicity, 2005-07, prioritised

		Maori	Pacific	Asian	Other	Total
Waitemata	Female	*	17.4 (5.7–40.7)	*	3.1 (1.9–4.6)	3.9 (2.7–5.5)
	Male	45.3 (21.7–83.4)	*	*	9.5 (7.2–12.2)	10.7 (8.4–13.5)
	Total	30.6 (16.7–51.4)	16.4 (7.1–32.3)	*	5.9 (4.7–7.4)	6.9 (5.7–8.4)
New Zealand	Female	26.5 (21.9–31.8)	21.2 (15.3–28.5)	4.3 (2.3–7.4)	4.8 (4.3–5.4)	7.1 (6.5–7.8)
	Male	58.6 (51.0–67.0)	39.0 (29.9–50.0)	5.4 (2.9–9.3)	13.4 (12.4–14.4)	16.8 (15.7–17.9)
	Total	40.7 (36.4–45.3)	28.7 (23.5–34.7)	4.7 (3.1–6.9)	8.8 (8.3–9.4)	11.6 (11.0–12.2)

* Rates not presented for groups with small numbers. Source: NMDS, HDIU

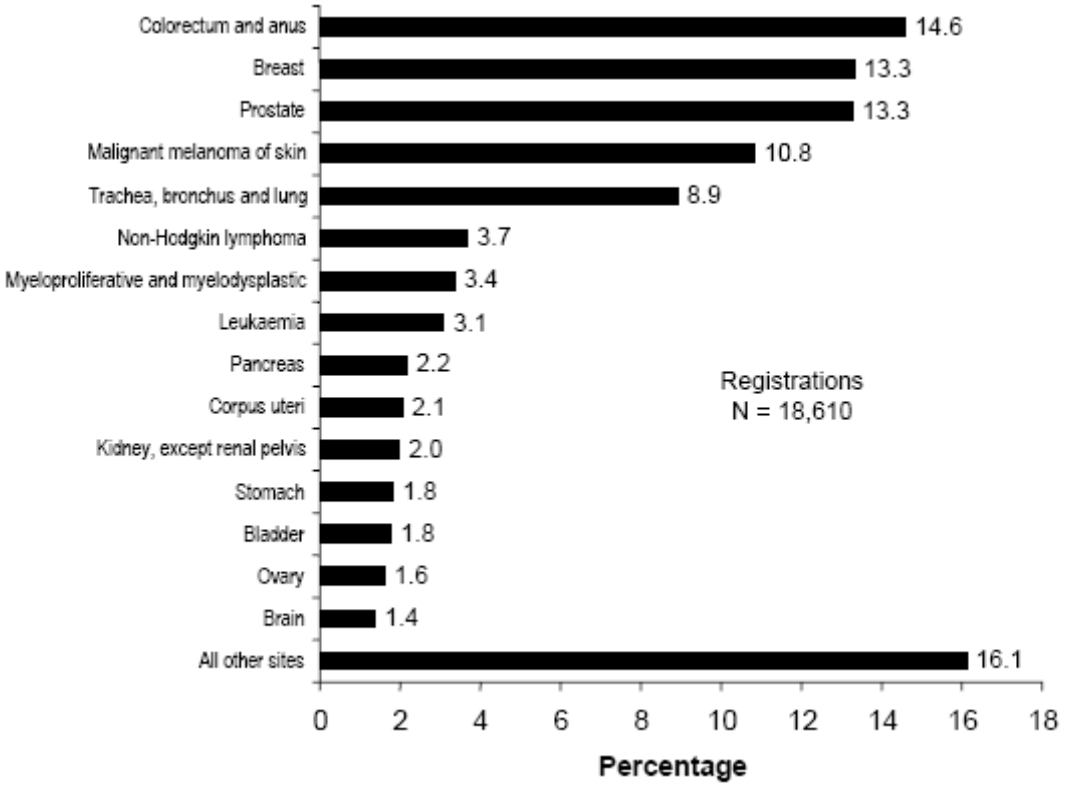
The rate of hospitalisations due to leg / foot / toe amputation for people with diabetes in Waitemata was significantly lower than the national rate. Males had a significantly higher rate than females. Maori and Pacific people again had high rates of these complications.

Cancer

Cancer is a major cause of mortality and morbidity in Waitemata. It caused 29% of deaths in New Zealand in 2005

Cancer registration

Figure 82 Percentage registrations by cancer site, NZ, 2005



Source: Ministry of Health, 2008

The commonest cancers registered in Waitemata are lung, breast, prostate, colorectal and melanoma. Together they accounted for 60% of all cancer registrations in New Zealand in 2005. Information is also provided on cervical cancer because it is largely preventable by screening.

Lung cancer

Table 68 Lung cancer registration, 25+ year, age-standardised rates per 100,000 (and 95% confidence intervals) by ethnicity (prioritised), 2003-05

		Maori	Pacific	Asian	Other	Total
Waitemata	Female	79.6 (43.5 - 133.6)	48.6 (23.3 - 89.4)	16.0 (5.9 - 34.9)	35.3 (30.3 - 41.0)	36.1 (31.3 - 41.4)
	Male	124.0 (77.7 - 187.8)	138.8 (83.6 - 216.8)	52.2 (27.8 - 89.3)	52.9 (46.4 - 60.1)	58.6 (52.0 - 65.7)
	Total	99.8 (69.9 - 138.2)	85.7 (57.4 - 123.1)	32.0 (19.3 - 50.0)	42.7 (38.7 - 47.0)	45.8 (41.9 - 50.0)
New Zealand	Female	139.6 (126.8 - 153.3)	53.1 (41.6 - 66.8)	27.2 (20.3 - 35.6)	37.4 (35.7 - 39.3)	44.4 (42.6 - 46.3)
	Male	134.4 (121.0 - 149.0)	126.4 (105.7 - 149.8)	49.9 (39.1 - 62.8)	60.8 (58.4 - 63.2)	67.0 (64.7 - 69.4)
	Total	137.1 (127.8 - 146.9)	84.7 (73.5 - 97.2)	36.8 (30.6 - 43.8)	47.8 (46.3 - 49.2)	54.4 (52.9 - 55.9)

Source: Cancer Registry, HDIU

The lung cancer registration rate in Waitemata was significantly lower than the national rate. Males had a significantly higher rate than females. Maori and Pacific people had significantly higher rates than Asian and Other people.

Breast cancer

Table 69 Female breast cancer registration, 25+ years, age-standardised rate per 100,000 (and 95% confidence intervals) by ethnicity (prioritised), 2003-05

	Maori	Pacific	Asian	Other	Total
Waitemata	165.7 (117.8 - 226.5)	113.6 (72.8 - 169.0)	119.7 (92.8 - 152.0)	157.1 (145.5-169.4)	153.2 (142.8 - 164.2)
New Zealand	170.4 (157.5 - 184.1)	149.0 (130.3 - 169.6)	96.3 (84.9 - 108.8)	153.7 (149.8-157.7)	152.3 (148.8 - 155.9)

Source: Cancer Registry, HDIU

The breast cancer registration rates in Waitemata did not differ significantly from the national rates. At the national level, Asian had a lower rate of breast cancer registration than other ethnicities.

Prostate cancer

Table 70 Prostate cancer registration, 25+ years, age-standardised rates per 100,000 (and 95% confidence intervals) by ethnicity (prioritised), 2003-05

	Maori	Pacific	Asian	Other	Total
Waitemata	126.3 (76.0 - 197.2)	203.8 (130.6 - 303.2)	56.0 (33.7 - 87.5)	185.7 (172.9-199.2)	175.8 (164.2 - 188.1)
New Zealand	141.8 (127.1 - 157.8)	164.6 (140.0 - 192.1)	61.6 (50.3 - 74.7)	184.5 (180.3-188.8)	175.3 (171.5 - 179.2)

Source: Cancer Registry, HDIU

The prostate cancer registration rate for Waitemata did not differ significantly from the national rate. Asian had the lowest rate of prostate cancer registration, in Waitemata and New Zealand.

Colorectal cancer

Table 71 Colorectal cancer registrations, 25+ years, age-standardised rates per 100,000 (and 95% confidence intervals) by ethnicity (prioritised), 2003-05

		Maori	Pacific	Asian	Other	Total
Waitemata	Female	46.6 (21.3 - 88.5)	46.9 (22.5 - 86.3)	28.6 (14.8 - 50.0)	70.8 (63.8 - 78.5)	66.9 (60.5 - 73.8)
	Male	39.0 (14.3 - 84.8)	66.6 (26.8 - 137.2)	58.8 (35.9 - 90.8)	85.6 (77.1 - 94.7)	82.3 (74.5 - 90.8)
	Total	41.8 (23.4 - 68.9)	52.5 (30.6 - 84.1)	42.7 (29.2 - 60.3)	77.1 (71.6 - 82.9)	73.5 (68.5 - 78.8)
New Zealand	Female	40.1 (33.5 - 47.6)	39.0 (29.4 - 50.8)	38.1 (30.0 - 47.6)	79.3 (76.8 - 81.9)	74.4 (72.1 - 76.7)
	Male	52.4 (44.3 - 61.6)	36.3 (26.0 - 49.5)	46.3 (36.8 - 57.5)	94.6 (91.6 - 97.6)	89.3 (86.5 - 92.1)
	Total	46.2 (41.0 - 52.0)	37.4 (30.3 - 45.7)	42.0 (35.7 - 49.1)	86.4 (84.5 - 88.4)	81.3 (79.5 - 83.1)

Source: Cancer Registry, HDIU

Overall, the rate of colorectal cancer registrations in Waitemata was significantly lower than that observed nationally. Males had a significantly higher rate than females. Other people had a significantly higher rate than Maori and Asian people.

Melanoma

Table 72 Melanoma registrations, 25+ years, age-standardised rates per 100,000 (and 95% confidence intervals) by ethnicity (prioritised), 2003-05

		Maori	**Pacific**	**Asian**	**Other**	**Total**
Waitemata	Female	*	*	*	77.9 (69.8 - 86.8)	63.4 (56.8 - 70.5)
	Male	*	*	*	100.1 (90.5 - 110.3)	85.3 (77.2 - 93.9)
	Total	*	*	*	88.1 (81.9 - 94.7)	73.4 (68.3 - 78.9)
New Zealand	Female	8.3 (5.5 - 12.0)	6.8 (3.3 - 12.5)	*	70.8 (68.1 - 73.5)	57.6 (55.4 - 59.8)
	Male	7.1 (4.5 - 10.6)	*	2.6 (0.8 - 6.0)	81.1 (78.2 - 84.1)	69.0 (66.5 - 71.5)
	Total	7.9 (5.9 - 10.3)	5.3 (2.9 - 9.0)	1.5 (0.6 - 3.2)	75.3 (73.3 - 77.3)	62.7 (61.1 - 64.3)

* Rates not presented for groups with small numbers. Source: Cancer Registry, HDIU

The rate of malignant melanoma registrations in Waitemata was significantly higher than the national rate. Males had a significantly higher rate than females. Other people had significantly

higher rate of melanoma registrations than Maori, Pacific people and Asian in New Zealand (almost 10 times of the rate of Maori, 14 times of Pacific people and 50 times of Asian).

Table 73 Cervical cancer registrations, 25+ years, age-standardised rates per 100,000 (and 95% confidence intervals) by ethnicity (prioritised), 2003-05

		Maori	Pacific	Asian	Other	Total
Waitemata	Female	*	*	14.6 (6.7–27.8)	10.2 (7.2–14.0)	11.1 (8.4–14.5)
New Zealand	Female	19.2 (15.2–24.0)	21.6 (15.0–30.2)	20.3 (15.2–26.6)	9.7 (8.7–10.9)	11.3 (10.3–12.4)

* Rates not presented for groups with small numbers. Source: Cancer Registry, HDIU

Compared to the other cancers discussed, cervical cancer is relatively uncommon. The cervical cancer registration rate for Waitemata did not differ significantly from the national rate. At the national level, Pacific people had the highest rate of cervical cancer registration, immediately followed by Asian and Maori (doubled the rate of Other).

Hospitalisation

All cancer

Table 74 All cancer hospitalisations, all ages, age-standardised rates per 100,000 (and 95% confidence intervals) by ethnicity(prioritised), 2005-07

		Maori	Pacific	Asian	Other	Total
Waitemata	Female	604.7 (534.2–681.9)	537.5 (466.4–616.3)	276.8 (243.0–313.9)	501.9 (486.5–517.5)	490.2 (476.4–504.2)
	Male	649.5 (570.4–736.5)	508.3 (432.4–593.8)	264.2 (227.8–304.8)	610.6 (592.9–628.7)	588.7 (572.6–605.1)
	Total	626.8 (573.5–683.6)	524.1 (471.6–580.8)	272.1 (247.0–299.1)	548.9 (537.3–560.7)	532.9 (522.4–543.5)
New Zealand	Female	714.9 (694.6–735.5)	638.6 (609.7–668.5)	300.9 (285.1–317.2)	584.5 (578.9–590.1)	582.7 (577.6–587.8)
	Male	680.4 (658.9–702.4)	554.4 (525.2–584.9)	291.8 (274.6–309.9)	737.7 (731.2–744.2)	711.4 (705.5–717.4)
	Total	696.4 (681.7–711.3)	595.3 (574.8–616.3)	295.8 (284.2–307.8)	651.8 (647.5–656.0)	638.3 (634.5–642.2)

Source: NMDS, HDIU

The cancer hospitalisation rate in Waitemata was significantly lower than the national rate. Males had a significantly higher cancer hospitalisation rate than females. Asian people had a significantly lower rate than all other ethnic groups.

Lung cancer

Table 75 Lung cancer hospitalisation, 25+ years, age-standardised rates per 100,000 (and 95% confidence intervals) by ethnicity (prioritised), 2005-07

		Maori	Pacific	Asian	Other	Total
Waitemata	Female	173.1 (119.9–241.9)	*	34.4 (18.8–57.8)	37.8 (32.6–43.7)	42.3 (37.1–48.0)
	Male	79.8 (47.3–126.1)	93.5 (51.1–156.9)	39.7 (21.2–67.9)	53.2 (46.6–60.4)	55.8 (49.5–62.7)
	Total	132.0 (98.6–173.1)	50.4 (29.9–79.7)	36.8 (24.3–53.6)	44.6 (40.5–49.1)	48.2 (44.2–52.6)
New Zealand	Female	151.9 (139.0–165.7)	45.5 (35.3–57.6)	25.1 (19.0–32.5)	40.7 (38.8–42.7)	48.4 (46.5–50.4)
	Male	149.1 (135.4–163.8)	113.6 (95.0–134.9)	40.2 (31.6–50.3)	55.6 (53.3–57.9)	63.4 (61.1–65.7)
	Total	151.1 (141.7–161.1)	75.7 (65.6–87.0)	32.0 (26.8–37.9)	47.3 (45.9–48.8)	55.1 (53.6–56.6)

* Rates not presented for groups with small numbers. Source: NMDS, HDIU

The overall rate for lung cancer hospitalisations in Waitemata was significantly lower than the national rate. Males had a significantly higher rate than females. Maori had a significantly higher rate than all other ethnic groups.

Female breast cancer

Table 76 Female breast cancer hospitalisation, 25+ years, age-standardised rates per 100,000 (and 95% confidence intervals) by ethnicity (prioritised), 2005-2007

	Maori	Pacific	Asian	Other	Total
Waitemata	230.1 (176.0–295.5)	171.4 (122.5–233.4)	69.9 (49.9–95.2)	111.6 (101.9–121.9)	115.9 (107.0–125.3)
New Zealand	231.5 (216.6–247.1)	175.4 (155.8–196.8)	73.4 (63.9–84.0)	132.6 (129.0–136.2)	139.5 (136.1–142.9)

Source: NMDS, HDIU

The breast cancer hospitalisation rate in Waitemata was significantly lower than the national rate. Maori and Pacific people had significantly higher rates than Other people, who had a significantly higher rate than Asian people.

Prostate cancer

Table 77 Prostate cancer hospitalisation, 25+ years, age-standardised rates per 100,000 (and 95% confidence intervals) by ethnicity (prioritised), 2005-07

	Maori	Pacific	Asian	Other	Total
Waitemata	108.9 (60.9–179.6)	110.8 (62.0–182.8)	20.7 (8.9–40.8)	63.7 (56.5–71.5)	63.4 (56.7–70.7)
New Zealand	111.5 (98.8–125.4)	75.1 (59.5–93.6)	26.5 (19.5–35.1)	84.4 (81.7–87.3)	83.7 (81.2–86.4)

Source: NMDS, HDIU

The prostate cancer hospitalisation rate for Waitemata was significantly lower than the national rate. Maori and Pacific people had significantly higher rates than Other people who had a significantly higher rate than Asian people.

Cervical cancer

Table 78 Cervical cancer hospitalisation, 25+ years, age-standardised rates per 100,000 (and 95% confidence intervals) by ethnicity (prioritised), 2005-07

	Maori	Pacific	Asian	Other	Total
Waitemata	38.1 (18.3–70.1)	24.8 (10.0–51.0)	22.1 (12.9–35.4)	15.9 (12.2–20.4)	18.6 (15.1–22.8)
New Zealand	42.6 (36.4–49.5)	33.5 (25.3–43.3)	18.7 (14.1–24.4)	14.5 (13.2–15.8)	17.6 (16.4–18.9)

Source: NMDS, HDIU

The cervical cancer hospitalisation rate in Waitemata did not differ significantly from the national rate. Maori had a higher rate of cervical cancer hospitalisation, followed by Pacific people and Asian, compared with Other, in Waitemata as well as New Zealand.

Colorectal cancer

Table 79 Colorectal cancer hospitalisation, 25+ years, age-standardised rates per 100,000 (and 95% confidence intervals) by ethnicity (prioritised), 2005-07

		Maori	Pacific	Asian	Other	Total
Waitemata	Female	37.7 (15.2–77.7)	77.1 (39.8–134.7)	17.4 (7.5–34.4)	63.0 (56.6–70.0)	59.4 (53.5–65.7)
	Male	90.3 (46.7–157.8)	71.4 (28.7–147.2)	22.6 (11.7–39.5)	82.8 (74.6–91.7)	78.6 (71.1–86.6)
	Total	58.2 (35.1–91.0)	72.5 (43.7–113.3)	19.8 (12.1–30.6)	72.1 (66.9–77.5)	68.1 (63.4–73.1)
New Zealand	Female	58.5 (50.5–67.4)	54.5 (43.2–68.0)	34.7 (27.3–43.4)	82.6 (80.1–85.2)	78.3 (76.0–80.7)
	Male	95.5 (84.3–107.8)	56.0 (43.4–71.1)	39.7 (31.4–49.4)	103.6 (100.5–106.8)	99.9 (97.0–102.8)
	Total	76.0 (69.1–83.3)	55.0 (46.5–64.7)	37.1 (31.5–43.5)	92.4 (90.4–94.4)	88.4 (86.6–90.2)

Source: NMDS, HDIU

The rate of colorectal cancer hospitalisations in Waitemata was significantly lower than the national rate. Males had a significantly higher rate than females. Asian people had a significantly lower rate than all other ethnic groups.

Melanoma

Table 80 Melanoma hospitalisations, 25+ years, age-standardised rates per 100,000 (and 95% confidence intervals) by ethnicity (prioritised), 2005-07

		Maori	Pacific	Asian	Other	Total
Waitemata	Female	*	*	*	24.0 (19.9–28.7)	20.0 (16.6–23.9)
	Male	*	*	*	33.4 (28.2–39.3)	29.4 (24.9–34.6)
	Total	*	*	*	28.3 (25.0–31.9)	24.3 (21.5–27.4)
New Zealand	Female	7.0 (4.5–10.3)	6.6 (3.0–12.6)	*	38.4 (36.5–40.3)	31.9 (30.4–33.5)
	Male	5.6 (3.3–8.8)	6.3 (2.3–13.7)	5.0 (2.1–9.8)	47.1 (45.0–49.4)	40.6 (38.7–42.5)
	Total	6.6 (4.8–8.8)	6.5 (3.6–10.7)	2.9 (1.4–5.2)	42.2 (40.8–43.7)	35.8 (34.6–37.0)

* Rates not presented for groups with small numbers. Source: NMDS, HDIU

The malignant melanoma hospitalisation rate in Waitemata was significantly lower than that observed nationally. Males had a significantly higher rate than females.

Similar to melanoma registrations, Other people had a very significantly higher rate of melanoma hospitalisations, than other ethnic groups, in New Zealand.

Mortality

All cancer

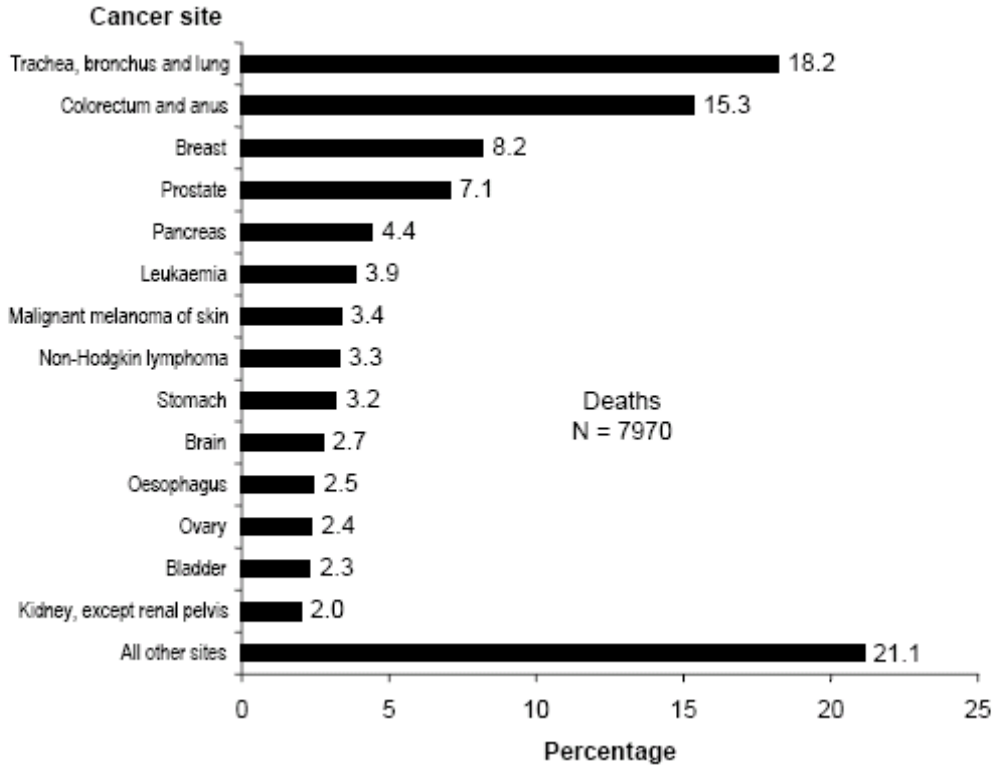
Table 81 All cancer mortality, all ages, age-standardised rates per 100,000 (and 95% confidence intervals), by ethnicity (prioritised), 2003-05

		Maori	Pacific	Asian	Other	Total
Waitemata	Female	180.2 (139.4 - 229.3)	141.1 (102.2 - 190.1)	56.1 (38.6 - 78.8)	108.6 (102.1-115.4)	109.1 (103.0 - 115.5)
	Male	181.3 (135.4 - 237.7)	232.7 (173.2 - 305.9)	92.8 (67.4 - 124.5)	138.3 (130.2-146.8)	140.5 (132.7 - 148.6)
	Total	178.0 (147.3 - 213.1)	177.8 (143.7 - 217.6)	73.5 (58.0 - 91.9)	120.7 (115.6-125.9)	122.1 (117.2 - 127.0)
New Zealand	Female	201.0 (189.4 - 213.0)	143.7 (128.8 - 159.8)	61.6 (53.6 - 70.4)	109.9 (107.7-112.1)	115.7 (113.6 - 117.9)
	Male	244.5 (230.2 - 259.3)	198.0 (178.2 - 219.4)	85.2 (74.6 - 97.0)	149.7 (146.9-152.6)	155.4 (152.7 - 158.2)
	Total	218.6 (209.6 - 227.8)	166.3 (154.3 - 179.1)	71.8 (65.3 - 78.8)	126.8 (125.0-128.5)	132.5 (130.8 - 134.2)

Source: Mortality, HDIU

The cancer mortality rate in Waitemata was significantly lower than the national rate. Males had a significantly higher rate than females. Maori and Pacific people had significantly higher rates than Other people, who had a significantly higher rate than Asian people.

Figure 83 Percentage distribution of cancer deaths by site, NZ, 2005



Source: Ministry of Health, 2008

Lung cancer

Table 82 Lung cancer mortality, 25+ years, age-standardised rates per 100,000 (and 95% confidence intervals) by ethnicity (prioritised), 2003-05

		Maori	Pacific	Asian	Other	Total
Waitemata	Female	81.8 (45.8 - 134.9)	25.0 (8.1 - 58.3)	*	24.5 (20.5 - 29.2)	25.5 (21.6 - 29.9)
	Male	126.1 (75.9 - 196.9)	96.2 (49.7 - 168.0)	34.3 (15.7 - 65.1)	42.8 (36.9 - 49.2)	46.8 (41.0 - 53.2)
	Total	99.5 (68.9 - 139.0)	54.0 (31.4 - 86.4)	20.1 (10.0 - 35.9)	32.4 (29.0 - 36.2)	34.8 (31.4 - 38.5)
New Zealand	Female	122.8 (110.8 - 135.7)	41.8 (31.5 - 54.4)	15.2 (10.1 - 22.0)	28.9 (27.4 - 30.5)	35.1 (33.6 - 36.8)
	Male	133.5 (119.8 - 148.3)	101.6 (82.5 - 123.8)	42.0 (32.0 - 54.2)	51.5 (49.4 - 53.8)	57.3 (55.2 - 59.6)
	Total	126.6 (117.5 - 136.1)	66.9 (56.7 - 78.3)	26.8 (21.5 - 33.1)	38.9 (37.7 - 40.3)	44.9 (43.6 - 46.3)

Source: Mortality, HDIU

The overall rate for lung cancer mortality in Waitemata was significantly lower than the national rate; the rate for males was significantly higher than that for females. Maori had three times the rate of Other people.

Female breast cancer

Table 83 Female breast cancer mortality, 25+ years, age-standardised rates per 100,000 (and 95% confidence intervals) by ethnicity (prioritised), 2003-05

	Maori	Pacific	Asian	Other	Total
Waitemata	44.1 (22.8 - 77.0)	60.5 (30.2 - 108.3)	22.3 (9.6 - 43.9)	34.9 (29.9 - 40.5)	35.3 (30.6 - 40.5)
New Zealand	56.5 (49.0 - 64.9)	46.7 (36.2 - 59.3)	25.7 (19.4 - 33.4)	36.4 (34.7 - 38.3)	37.9 (36.2 - 39.6)

Source: Mortality, HDIU

The breast cancer mortality rate in Waitemata did not differ significantly from the national rate.

Prostate cancer

Table 84 Prostate cancer mortality, 25+ years, age-standardised rates per 100,000 (and 95% confidence intervals) by ethnicity (prioritised), 2003-05

	Maori	Pacific	Asian	Other	Total
Waitemata	*	70.2 (28.2 - 144.7)	*	33.0 (28.0 - 38.5)	32.8 (28.1 - 38.1)
New Zealand	50.4 (40.7 - 61.7)	39.3 (26.3 - 56.5)	13.2 (7.2 - 22.1)	34.3 (32.6 - 36.0)	34.4 (32.8 - 36.1)

* Rates not presented for groups with small numbers. Source: Mortality, HDIU

The prostate cancer mortality rate for Waitemata did not differ significantly from the national rate. At the national level Asian people had the lowest rate of prostate cancer mortality, followed by Other, Pacific people and Maori.

Cervical cancer

Table 85 Cervical cancer mortality, 25+ years, age-standardised rates per 100,000 (and 95% confidence intervals) by ethnicity (prioritised), 2003-05

	Maori	**Pacific**	**Asian**	**Other**	**Total**
Waitemata	*	26.5 (8.6 - 62.0)	*	5.1 (3.2 - 7.7)	5.2 (3.5 - 7.5)
New Zealand	9.5 (6.7 - 13.2)	9.4 (5.1 - 15.7)	3.6 (1.5 - 7.5)	3.0 (2.5 - 3.5)	3.7 (3.2 - 4.3)

* Rates not presented for groups with small numbers. Source: Mortality, HDIU

The cervical cancer mortality rate in Waitemata did not differ significantly from the national rate. Nationally Maori and Pacific women had three times the rate of Other women.

Colorectal cancer

Table 86 Colorectal cancer mortality, 25+ years, age-standardised rates per 100,000 (and 95% confidence intervals) by ethnicity (prioritised), 2003-05

		Maori	Pacific	Asian	Other	Total
Waitemata	Female	33.1 (12.1 - 72.0)	*	12.6 (4.1 - 29.4)	27.8 (23.6 - 32.6)	26.5 (22.6 - 30.9)
	Male	*	*	*	31.5 (26.5 - 37.2)	30.0 (25.4 - 35.3)
	Total	28.4 (13.6 - 52.2)	14.3 (4.6 - 33.3)	8.9 (3.3 - 19.4)	29.4 (26.1 - 32.9)	28.0 (25.0 - 31.3)
New Zealand	Female	21.4 (16.7 - 26.9)	23.3 (16.0 - 32.9)	11.8 (7.4 - 17.9)	30.6 (29.1 - 32.1)	29.5 (28.2 - 30.9)
	Male	33.6 (27.0 - 41.4)	20.2 (12.8 - 30.4)	14.2 (9.0 - 21.3)	38.5 (36.6 - 40.4)	37.4 (35.6 - 39.2)
	Total	26.7 (22.8 - 31.2)	22.0 (16.6 - 28.6)	13.3 (9.7 - 17.8)	34.2 (33.0 - 35.4)	33.1 (32.0 - 34.2)

* Rates not presented for groups with small numbers. Source: Mortality, HDIU

The rate of colorectal cancer mortality rate in Waitemata was significantly lower than the national rate. At the national level, Other had the highest rate of colorectal cancer mortality, followed by Maori and Pacific people, while Asian had the lowest rate.

Melanoma

Table 87 Melanoma mortality, 25+ years, age-standardised rates per 100,000 (and 95% confidence intervals) by ethnicity (prioritised), 2003-05

		Maori	Pacific	Asian	Other	Total
Waitemata	Female	*	*	*	5.4 (3.6 - 7.7)	4.8 (3.3 - 6.8)
	Male	*	*	*	11.2 (8.3 - 14.9)	9.9 (7.3 - 13.1)
	Total	*	*	*	8.0 (6.4 - 10.0)	7.1 (5.6 - 8.8)
New Zealand	Female	1.5 (0.5 - 3.5)	*	*	6.6 (5.9 - 7.4)	5.8 (5.1 - 6.4)
	Male	3.9 (1.9 - 7.2)	*	*	12.1 (11.0 - 13.3)	10.7 (9.8 - 11.7)
	Total	2.5 (1.4 - 4.2)	*	*	9.2 (8.5 - 9.8)	8.0 (7.5 - 8.6)

* Rates not presented for groups with small numbers. Source: Mortality, HDIU

The malignant melanoma mortality rate in Waitemata did not differ significantly from the national rate. Males had a significantly higher rate than females.

Respiratory Disease

Asthma prevalence

Asthma is an inflammatory disorder of airways that causes reversible restriction of air flow into and out of the lungs. It is characterised by periodic attacks of wheezing, breathlessness and coughing. Most asthma is short lived and mild but it can be severe and life threatening.

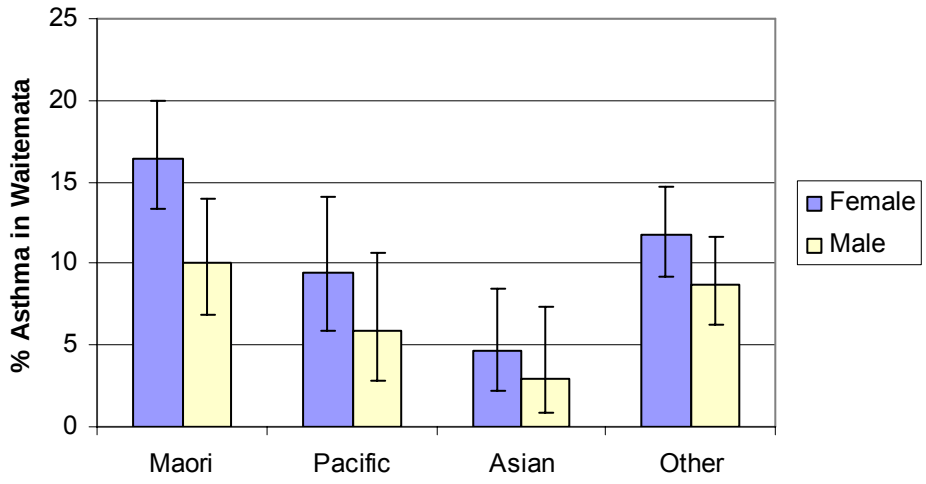
Table 88 Age-standardised prevalence (percent, and 95% confidence intervals) of medicated asthma, adults 15+ years by ethnicity (total response), 2006/07

		Maori	Pacific	Asian	Other	Total
Waitemata	Female	16.4 (13.3 - 20.0)	9.4 (5.9 - 14.1)	4.6 (2.2 - 8.4)	11.8 (9.2 - 14.7)	11.3 (8.8 - 14.1)
	Male	10.1 (6.9 - 14.0)	5.9 (2.8 - 10.7)	3.0 (0.8 - 7.4)	8.7 (6.3 - 11.7)	8.1 (5.7 - 11.0)
	Total	13.5 (10.7 - 16.6)	7.7 (4.9 - 11.5)	3.8 (1.7 - 7.4)	10.3 (8.0 - 13.1)	9.7 (7.4 - 12.0)
New Zealand	Female	19.3 (16.8 - 21.9)	11.0 (8.0 - 14.7)	5.4 (3.7 - 7.5)	13.8 (12.3 - 15.3)	13.2 (11.9 - 14.6)
	Male	11.8 (9.3 - 14.7)	6.9 (4.2 - 10.5)	3.5 (1.9 - 5.8)	10.2 (8.9 - 11.7)	9.5 (8.3 - 10.8)
	Total	15.8 (14.0 - 17.7)	9.0 (6.9 - 11.6)	4.5 (3.2 - 6.2)	12.1 (10.9 - 13.3)	11.4 (10.6 - 12.2)

Source: NZ Health Survey, HDIU

About ten percent of adults reported taking medication for asthma in Waitemata, adjusted for age. Asian females had a significantly lower prevalence than all females in Waitemata, adjusted for age.

Figure 84 Age-standardised prevalence of medicated asthma in Waitemata, adults 15+ years, by ethnicity (total response), 2006/07



Source: NZ Health Survey, HDIU

Asthma hospitalisation

Table 89 Asthma hospitalisations, 15+ years, age-standardised rates per 100,000 (and 95% confidence intervals) by ethnicity (prioritised), 2005-07

		Maori	Pacific	Asian	Other	Total
Waitemata	Female	342.5 (290.8–400.6)	410.8 (342.9–488.1)	44.9 (31.1–62.8)	124.6 (114.1–135.9)	144.3 (134.6–154.4)
	Male	181.1 (142.0–227.7)	203.2 (153.9–263.2)	25.2 (15.0–39.9)	55.3 (48.1–63.4)	66.7 (59.9–74.0)
	Total	267.2 (233.7–304.1)	314.8 (271.1–363.4)	34.9 (26.1–45.8)	90.6 (84.1–97.5)	106.5 (100.6–112.8)
New Zealand	Female	274.8 (261.5–288.6)	335.8 (312.3–360.7)	60.0 (52.3–68.6)	90.6 (87.5–93.8)	118.1 (115.1–121.2)
	Male	140.2 (130.3–150.6)	156.1 (140.1–173.5)	33.1 (27.5–39.5)	43.6 (41.3–45.9)	59.4 (57.1–61.7)
	Total	211.6 (203.2–220.3)	251.4 (236.8–266.7)	47.7 (42.8–53.1)	67.6 (65.7–69.6)	89.7 (87.8–91.7)

Source: NMDS, HDIU

The asthma hospitalisation rate for Waitemata was significantly higher than the national rate. The rate for females was double the rate for males. Maori and Pacific people had significantly higher rates than Other people, who had a significantly higher rate than Asian people.

Chronic obstructive pulmonary disease prevalence

Chronic obstructive pulmonary disease (COPD) is a permanent and non-reversible air-flow restriction into and out of the lungs. Emphysema and chronic bronchitis are the most common forms of COPD. The most common symptoms are cough and breathlessness. The main risk factor for COPD is smoking.

Table 90 Age-standardised prevalence (percent, and 95% confidence intervals) of self-reported chronic obstructive pulmonary disease by ethnicity (total response), 45+ years, 2006/07

		Maori	Pacific	Asian	Other	Total
Waitemata	**Female**	*	*	7.7 (0.5 - 30.2)	7.4 (4.0 - 12.2)	7.7 (4.6 - 12.1)
	Male	*	*	*	6.4 (2.5 - 13.0)	5.8 (2.4 - 11.6)
	Total	30.0 (4.9 - 70.1)	3.2 (0.3 - 12.1)	3.9 (0.3 - 16.1)	6.9 (3.6 - 10.1)	6.8 (3.9 - 9.6)
New Zealand	**Female**	12.9 (9.2 - 16.6)	7.4 (3.0 - 14.8)	2.9 (1.1 - 6.3)	7.4 (6.3 - 8.5)	7.4 (6.5 - 8.4)
	Male	12.7 (6.7 - 18.7)	4.8 (2.0 - 9.5)	2.2 (0.4 - 6.2)	5.6 (4.3 - 6.8)	5.6 (4.4 - 6.7)
	Total	12.8 (9.2 - 16.3)	6.2 (3.3 - 10.4)	2.6 (1.3 - 4.6)	6.5 (5.7 - 7.3)	6.5 (5.8 - 7.2)

* Rates not presented for groups with small numbers. Source: NZ Health Survey, HDIU

In Waitemata, 5.8 percent of males and 7.7 percent of females aged 45 years and over reported that they had chronic obstructive pulmonary disease, adjusted for age.

Maori had the highest rate of COPD prevalence, followed by Other, Pacific people and Asian in New Zealand.

Chronic obstructive pulmonary disease hospitalisation

Table 91 Chronic obstructive pulmonary disease hospitalisation, 45+ years, age-standardised rates per 100,000 (and 95% confidence intervals) by ethnicity (prioritised), 2005-07

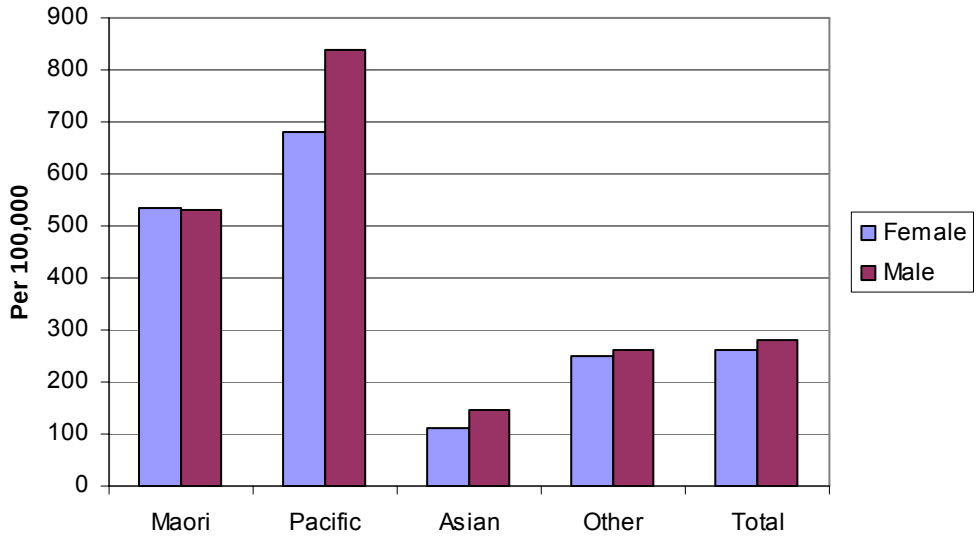
		Maori	Pacific	Asian	Other	Total
Waitemata	Female	1576.2 (1335.6–1847.6)	1038.0 (826.8–1286.8)	134.7 (84.4–203.9)	463.3 (438.4–489.4)	500.4 (475.7–526.0)
	Male	1082.9 (861.2–1344.1)	2217.9 (1838.9–2652.1)	306.1 (215.5–421.9)	479.1 (451.2–508.2)	525.4 (497.7–554.2)
	Total	1359.2 (1190.6–1545.0)	1515.4 (1314.1–1738.8)	211.7 (161.2–273.1)	464.5 (446.1–483.5)	505.9 (487.6–524.7)
New Zealand	Female	1823.9 (1756.5–1893.2)	848.3 (779.0–922.1)	115.8 (94.3–140.7)	427.8 (419.6–436.1)	515.3 (506.7–524.0)
	Male	1449.1 (1383.3–1517.3)	1799.9 (1682.1–1923.7)	321.7 (281.9–365.4)	511.6 (502.0–521.3)	588.7 (578.9–598.6)
	Total	1647.2 (1599.9–1695.7)	1246.6 (1182.6–1313.2)	208.4 (186.7–231.9)	460.1 (454.0–466.4)	542.5 (536.1–548.9)

Source: NMDS, HDIU

The rate of chronic obstructive pulmonary disease hospitalisations in Waitemata was significantly lower than the national rate. Maori and Pacific people had significantly higher rates than Other people, with Asian people having the lowest rate.

Respiratory infection hospitalisation

Figure 85 Respiratory infection hospitalisation, 15-74 years, age-standardised rates per 100,000 in Waitemata by ethnicity (prioritised), 2005-07



Source: NMDS

Pacific people experienced the highest rate of hospitalisation due to respiratory infection, followed by Maori and Other.

Infectious Disease

Mortality

Table 92 Infectious disease mortality, age standardised rates per 100,000, by ethnicity (prioritised) and gender, 2003-2005

		Maori	Pacific	Asian	Other	Total
Waitemata	Female	*	*	*	2.4 (1.6–3.4)	2.8 (2.0–3.8)
	Male	*	*	*	3.3 (2.1–4.8)	3.5 (2.4–5.0)
	Total	6.6 (2.4–14.5)	*	*	2.8 (2.1–3.6)	3.1 (2.4–3.9)
New Zealand	Female	7.1 (5.0–9.7)	8.9 (5.6–13.5)	2.4 (1.1–4.8)	3.2 (2.9–3.5)	3.7 (3.3–4.0)
	Male	8.5 (6.0–11.7)	5.6 (3.0–9.3)	3.6 (1.6–6.8)	3.4 (3.0–3.8)	3.9 (3.4–4.3)
	Total	7.6 (6.0–9.5)	7.8 (5.5–10.8)	2.9 (1.7–4.7)	3.3 (3.0–3.5)	3.8 (3.5–4.0)

Source: Mortality data, HDIU Note: * Rates not presented for groups with small numbers

Infectious disease is a relatively minor cause of avoidable mortality, accounting for 2.2% of all avoidable mortality in Waitemata. Never the less, it is important because considerable public health resource is aimed at maintaining or reducing this low impact. Waitemata's infectious disease mortality is not significantly different from New Zealand's as a whole.

Notifications

Notifications data were sourced from Institute of Environmental Science and Research Limited (ESR) and were only provided for Maori, Pacific, and Other ethnic groups. Data for Asian peoples were not available separately, but are part of the data for the Other group. A wide range of infectious diseases are notifiable, only the most important are given here.

Table 93 Age-standardised notifications rates for various infectious disease per 100,000, by ethnicity, Waitemata and NZ, 2004–06

	Waitemata				NZ			
	Maori	Pacific	Other	Total	Maori	Pacific	Other	Total
Campylobacteriosis	67.4	52.7	445.3	380.2	121.7	63.6	412.1	342.7
	(53.8–83.5)	(39.0–69.7)	(433.5–457.5)	(370.2–390.4)	(116.4–127.1)	(57.8–69.8)	(408.0–416.3)	(339.4–346.1)
Salmonellosis	13.4	14.1	30.8	26.9	19.3	14.5	39	32.9
	(7.8–21.5)	(7.3–24.5)	(27.6–34.4)	(24.2–29.9)	(17.3–21.5)	(11.8–17.8)	(37.6–40.3)	(31.8–34.0)
Cryptosporidiosis	3.9	*	9.6	8.1	8	3.6	27.1	21.2
	(1.4–8.5)		(7.8–11.7)	(6.6–9.9)	(6.8–9.3)	(2.4–5.1)	(25.9–28.3)	(20.3–22.1)
Giardiasis	4.3	*	35	29.5	11	4.7	40.8	33.2
	(1.7–8.9)		(31.7–38.5)	(26.8–32.5)	(9.5–12.6)	(3.3–6.5)	(39.4–42.1)	(32.1–34.2)
Hepatitis B	*	6.4	1.7	2	1.9	4.5	1	1.4
		(2.1–14.8)	(1.1–2.6)	(1.4–2.9)	(1.3–2.7)	(3.0–6.4)	(0.8–1.3)	(1.2–1.6)
Meningococcal	3.9	10.4	4.9	5.5	9.3	14.2	4.9	6.8
	(1.6–8.1)	(5.4–18.2)	(3.7–6.4)	(4.3–6.9)	(8.1–10.7)	(11.7–17.0)	(4.4–5.4)	(6.3–7.4)
Rheumatic fever (Initial attack)	*	*	*	0.5	5.7	6.1	0.4	2
				(0.2–1.0)	(4.7–6.8)	(4.5–8.0)	(0.3–0.6)	(1.7–2.3)
Tuberculosis	7.5	29.1	8	9.3	13.1	25.6	7.4	8.6
	(2.8–16.4)	(19.0–42.7)	(6.5–9.8)	(7.8–11.0)	(11.2–15.1)	(21.7–30.0)	(6.9–8.0)	(8.1–9.2)

Source: ESR Notifications, HDIU

Campylobacteriosis, Salmonellosis, Cryptosporidiosis, and Giardiasis are all enteric diseases (causes of gastroenteritis). Many cases of these conditions will occur without people visiting a doctor or having laboratory tests that allow the diagnosis to be confirmed. Therefore differences in rates of notification between groups may not represent differences in prevalence of disease in the community. Campylobacteriosis is by far the most commonly notified of these diseases. New

Zealand has the highest reported national rate of this condition reported in the literature (Baker, Wilson et al. 2006). The rates of notifications for all these infections are higher amongst Others than Maori and Pacific people.

Nationally the rates of notification for Hepatitis B, Rheumatic Fever, Meningococcal disease, and Tuberculosis are higher for Maori, and particularly Pacific people, than for Others.

Musculoskeletal Conditions

Arthritis prevalence

Arthritis is a group of conditions that involve inflammation of one or more joints. Chronic arthritis can results in long term pain and deformity. Osteoarthritis is the most common form of arthritis and usually results from an accumulated wear and tear. It is common in the elderly and usually affects the hip and knee joints. Other common types of arthritis are rheumatoid arthritis and gout.

Table 94 Arthritis prevalence in Waitemata, age-standardised percent (and 95% confidence intervals), 15+ years, by ethnicity (total response), 2005-07

	Maori	Pacific	Asian	Other	Total
Female	8.4 (6.0-11.4)	6.6 (4.1-9.9)	5.9 (3.5-9.3)	13.9 (11.9-16.2)	12.5 (10.6-14.6)
Male	8.6 (6.2-11.7)	7.2 (4.2-11.3)	4.0 (1.9-7.2)	11.3 (9.3-13.5)	10.4 (8.5-12.6)
Total	8.5 (6.4-11.1)	6.9 (4.6-9.8)	5.0 (3.1-7.4)	12.6 (10.8-14.6)	11.5 (9.8-13.2)

Source: NZ Health Survey, HDIU

Other people had the highest rate of arthritis prevalence followed by Maori, Pacific people and Asian, but the difference was not statistically significant

Osteoporosis

Osteoporosis is loss of bone density and causes bones to become brittle and fragile, which can lead to fractures even in the absence of injury. Osteoporosis develops gradually and is more common in older people.

Figure 86 Osteoporosis prevalence in Waitemata, age-standardised percent (and 95% confidence intervals) by ethnicity (total response), 15+ years, 2005-2007

	Maori	Pacific	Asian	Other	Total
Female	1.5 (0.6-3.0)	1.9 (0.7-4.2)	2.1 (0.6-5.0)	4.6 (3.4-6.0)	3.9 (2.9-5.2)
Male	0.9 (0.2-2.7)	*	0.5 (0.0-4.0)	0.8 (0.1-2.6)	0.8 (0.1-2.5)
Total	1.2 (0.4-2.7)	1.0 (0.2-2.9)	1.3 (0.4-3.2)	2.7 (1.8-3.9)	2.5 (1.5-3.4)

Source: NZ Health Survey, HDIU

Females had a significantly higher prevalence of self-reported osteoporosis than males. Although Other had the highest rate, the difference was not statistically significant (except compared with Maori women). Many cases of osteoporosis are undiagnosed and therefore not included here.

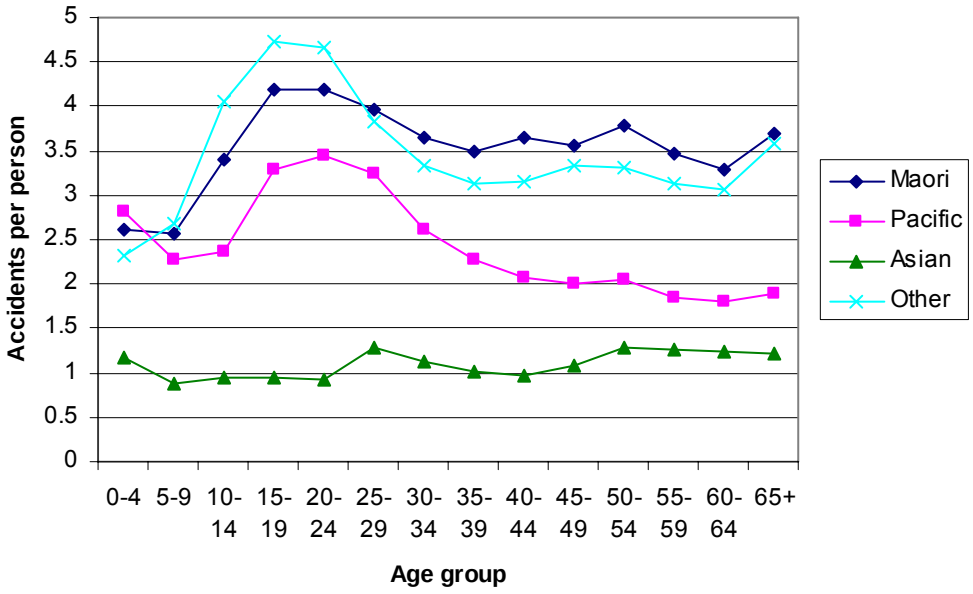
Injury

Injury is a significant cause of both death and morbidity in Waitemata. Injury may be minor and treated by GPs or other health professionals in the community or more major requiring hospitalisation.

Incidence

The Accident Compensation Corporation (ACC) collects data about all accidents that result in a claim for treatment. The age standardised ACC claim rates for Maori, Pacific people, Asian and Other were respectively 3.6, 2.4, 1.1 and 3.5 per person in Waitemata, 2006/07. However, the claim rate is an under-estimate of the incidence of injury accidents, particularly for Asian. Research has shown that Asian might experience more barriers in accessing injury prevention and rehabilitation services than other ethnic groups in New Zealand (Tse, Sobrun-Maharaj et al. 2006).

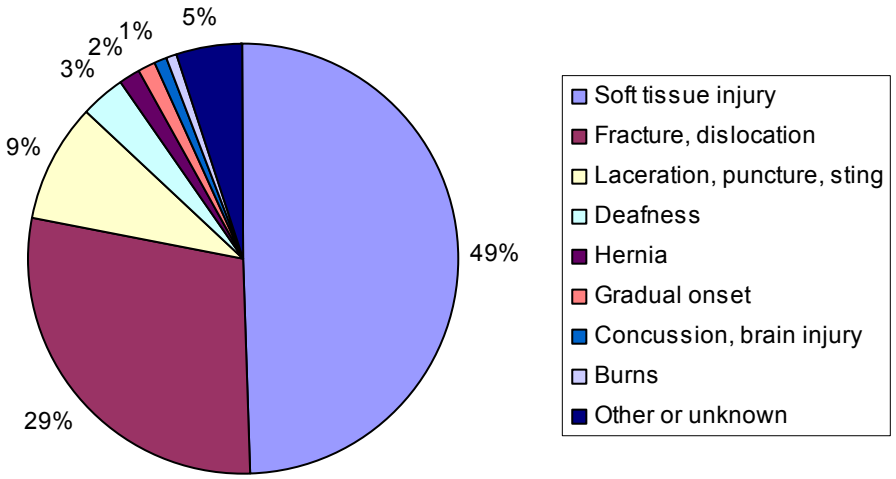
Figure 87 Age-specific ACC claim rate in Waitemata by ethnicity, 2006/07



Source: ACC

Youth and younger adults have the highest rate of ACC claims. This is likely to reflect greater risk taking behaviour and greater participation in sports and higher risk employment.

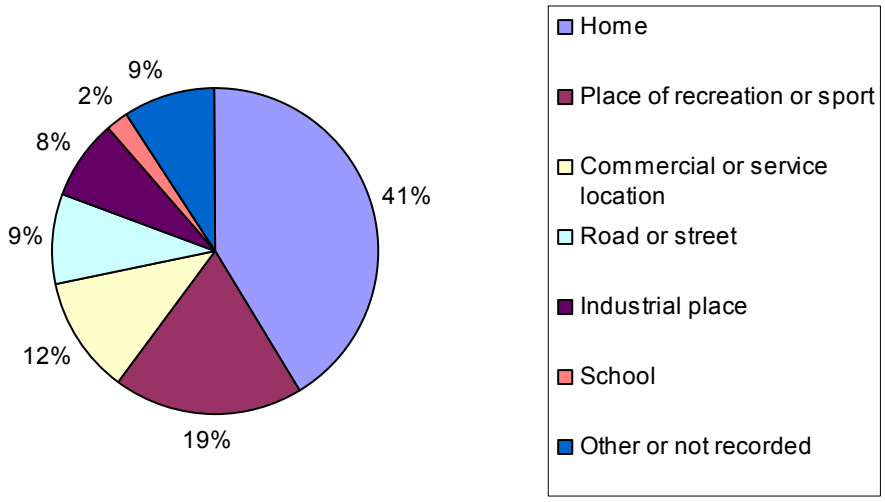
Figure 88 Types of ACC injury claims in Waitemata, 2006/07



Source: ACC

Soft tissue injury was the major type of injuries in the claims, followed by fracture/dislocation and laceration/puncture/sting.

Figure 89 Places of injuries of the ACC claims in Waitemata, 2006/07



Source: ACC

Two out of five injuries occurred at home and one out of five during recreation or sport.

Hospitalisation

Table 95 Unintentional injury hospitalisation, all ages, age-standardised rates per 100,000 (and 95% confidence intervals) by ethnicity (prioritised), 2005-07

		Maori	Pacific	Asian	Other	Total
Waite-mata	Female	1470.7 (1377.3–1568.8)	1342.8 (1239.0–1452.8)	660.7 (608.0–716.7)	1225.3 (1198.8–1252.2)	1190.0 (1167.1–1213.3)
	Male	2562.9 (2438.7–2691.9)	2831.8 (2679.4–2990.6)	844.5 (785.9–906.2)	2073.5 (2034.1–2113.5)	1989.9 (1957.3–2022.9)
	Total	1996.2 (1919.0–2075.8)	2067.4 (1975.7–2162.2)	750.6 (711.1–791.7)	1651.7 (1628.1–1675.6)	1588.8 (1568.9–1608.8)
New Zealand	Female	1184.5 (1161.6–1207.7)	1160.6 (1125.5–1196.6)	580.9 (559.0–603.4)	908.2 (900.3–916.0)	947.8 (940.7–954.9)
	Male	2233.3 (2201.2–2265.7)	2466.2 (2414.0–2519.3)	800.3 (775.0–826.2)	1633.3 (1621.2–1645.5)	1696.0 (1685.5–1706.5)
	Total	1686.3 (1666.9–1706.0)	1796.0 (1764.8–1827.7)	689.7 (673.0–706.8)	1271.7 (1264.0–1278.8)	1318.9 (1311.0–1325.2)

Source: NMDS, HDIU

The unintentional injury hospitalisation rate in Waitemata was significantly higher than the national rate. Males had a significantly higher rate than females. Maori and Pacific people had significantly higher rates than Other people, who had a significantly higher rate than Asian people.

Table 96 Unintentional injury mortality, all ages, age-standardised rates per 100,000 (and 95% confidence intervals) by ethnicity (prioritised), 2003-05

		Maori	Pacific	Asian	Other	Total
Waitemata	Female	9.2 (3.7 - 19.1)	*	11.6 (5.6 - 21.3)	8.7 (6.9 - 10.9)	9.2 (7.5 - 11.3)
	Male	45.6 (27.9 - 70.4)	17.0 (6.8 - 35.1)	16.6 (9.3 - 27.4)	20.9 (17.3 - 24.9)	22.1 (18.8 - 25.7)
	Total	25.5 (16.8 - 37.0)	8.1 (3.3 - 16.7)	13.9 (9.0 - 20.6)	14.7 (12.7 - 16.8)	15.4 (13.6 - 17.4)
New Zealand	Female	24.2 (20.9 - 27.9)	9.9 (6.6 - 14.2)	8.9 (6.4 - 12.1)	11.4 (10.7 - 12.2)	13.3 (12.5 - 14.1)
	Male	62.2 (56.6 - 68.3)	32.6 (26.3 - 40.0)	18.2 (14.4 - 22.8)	28.3 (26.9 - 29.8)	32.2 (30.9 - 33.7)
	Total	42.0 (38.8 - 45.4)	20.7 (17.2 - 24.7)	13.1 (10.9 - 15.7)	19.7 (18.9 - 20.5)	22.4 (21.7 - 23.2)

* Rates not presented for groups with small numbers. Source: Mortality, HDIU

Overall, Waitemata had a significantly lower unintentional injury mortality rate than the national rate. Males had a significantly higher rate than females.

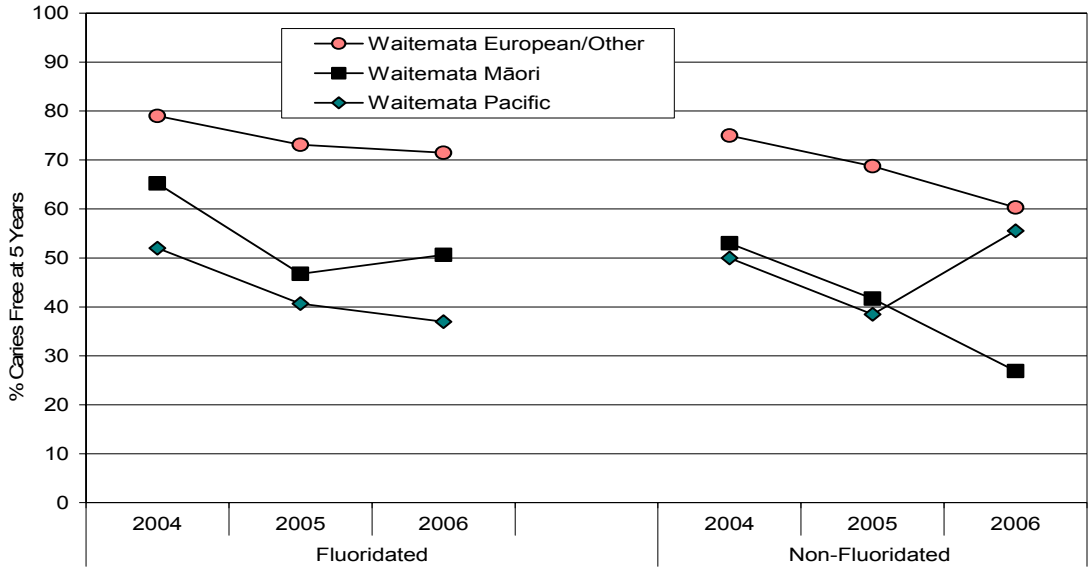
At the national level, Maori had a significantly higher rate of unintentional injury mortality than other ethnicities. A similar pattern was also observed in Waitemata.

Oral Health

Oral health conditions include tooth decay, abscesses and infections in the mouth, and gum disease. Poor oral health can lead to pain as well as difficulty eating and speaking.

Children

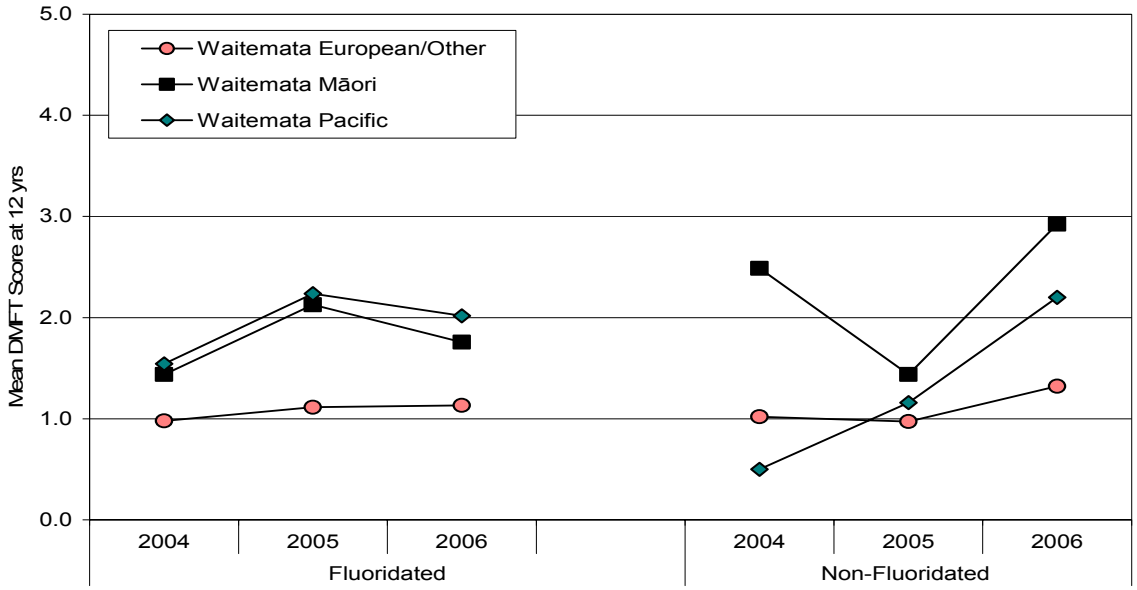
Figure 90 Percentage of children caries free at 5 years by ethnicity (prioritised), Waitemata, 2004-2006



Source: The Health of Children and Young People in the Waitemata Region

In 2006 the percentage of children in Waitemata who were caries free was higher than the New Zealand average. However, programme coverage was only 55.8% at 5 years, indicating that the number of children with poorer dental health outcomes may be underestimated. Only children who were assessed, completed treatment and were still 5 years old were included in the analysis. Maori and Pacific children had poorer rates than European/Other. Children in fluoridated areas are more likely to be caries free than children in non-fluoridated areas (the numbers of Pacific children in non-fluoridated areas is small so results are not accurate).

Figure 91 Mean DMFT scores at 12 years by ethnicity (prioritised), Waitemata, 2004-2006



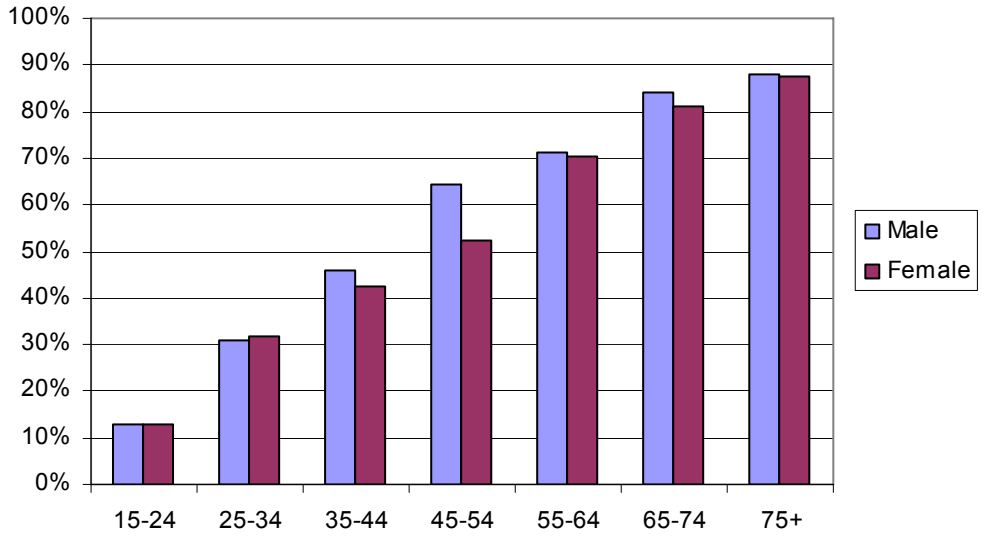
Source: The Health of Children and Young People in the Waitemata Region

The average number of decayed, missing or filled teeth (Mean DMFT) was lower in Waitemata than the New Zealand. Programme coverage was 67.9%, indicating that the number of children with poorer dental health outcomes may be underestimated. Only children who were assessed, completed treatment and were still 12 years old were included in the analysis. Maori and Pacific children had poorer rates than European/Other.

Adults

There is only very limited information available on adult oral health until the Oral Health Survey is completed this year. The NZ Health Survey had limited information on self-reported oral health which is only available at a national level.

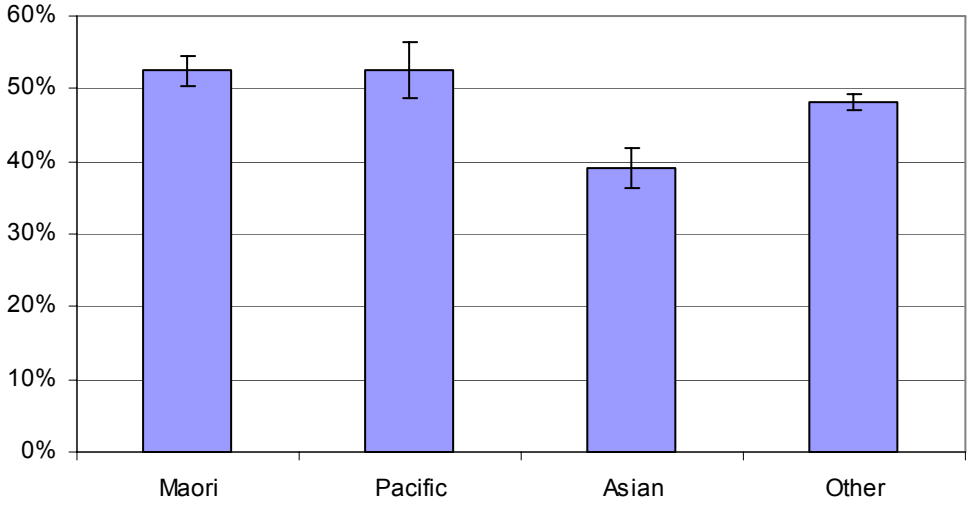
Figure 92 Adults who have had one or more teeth removed due to decay, abscess, infection, or gum disease by age and gender, NZ, 2006/07



Source: NZ Health Survey

Nearly half of all adults have had one or more teeth removed due to disease. There is little difference in gender but there is a marked increase with age.

Figure 93 Adults who have had one or more teeth removed due to decay, abscess, infection, or gum disease by ethnicity (total response), unadjusted for age, NZ, 2006/07



Source: NZ Health Survey

There are only small differences by ethnicity in the above figure. However after adjusting for age Maori and Pacific are about 25% more likely to have a tooth removed due to disease.

Other Long Term Conditions

There are a wide range of other long term health conditions that affect adults. The New Zealand Health Survey asked participants if they had any other long term conditions. Waitemata results were not available so national results are given here.

Table 97 Prevalence of other long term conditions in adults by gender, New Zealand, 2006/07

Health condition	Men	Women	Total
Neck or back disorders	24.2 (23.2-25.2)	21.3 (20.3-22.4)	23.1 (21.6-24.6)
Migraine	5.5 (4.7-6.3)	12.9 (11.8-14.0)	9.5 (8.8-10.2)
Eczema/dermatitis	4.1 (3.3-5.0)	9.5 (8.5-10.4)	6.6 (6.0-7.1)
Bowel disorders*	3.2 (2.5-3.9)	5.9 (5.2-6.6)	5.0 (4.5-5.5)
Gallbladder problems/gallstones	1.9 (1.4-2.3)	4.4 (3.9-4.9)	3.8 (3.4-4.2)
Thyroid conditions	1.0 (0.7-1.3)	5.0 (4.3-5.6)	3.6 (3.2-4.0)
Stomach/gastric ulcers	3.2 (2.8-3.9)	2.5 (2.0-2.9)	3.3 (2.9-3.7)
Prostate problems	3.8 (3.2-4.4)	na	
Endometriosis	na	3.2 (2.7-3.7)	
Epilepsy	1.0 (0.7-1.4)	1.1 (0.9-1.4)	1.1 (0.9-1.3)
Alcohol use disorders	1.4 (1.0-1.7)	0.7 (0.5-1.0)	1.0 (0.8-1.2)
Eating disorders	0.3 (0.2-0.5)	1.3 (1.0-1.6)	1.0 (0.8-1.2)
Bladder and kidney disorders	0.6 (0.4-0.8)	0.6 (0.4-0.8)	0.8 (0.7-1.0)
Drug use disorders	0.8 (0.5-1.0)	0.5 (0.3-0.7)	0.6 (0.5-0.8)
Psoriasis	0.4 (0.2-0.7)	0.5 (0.3-0.8)	0.5 (0.3-0.7)

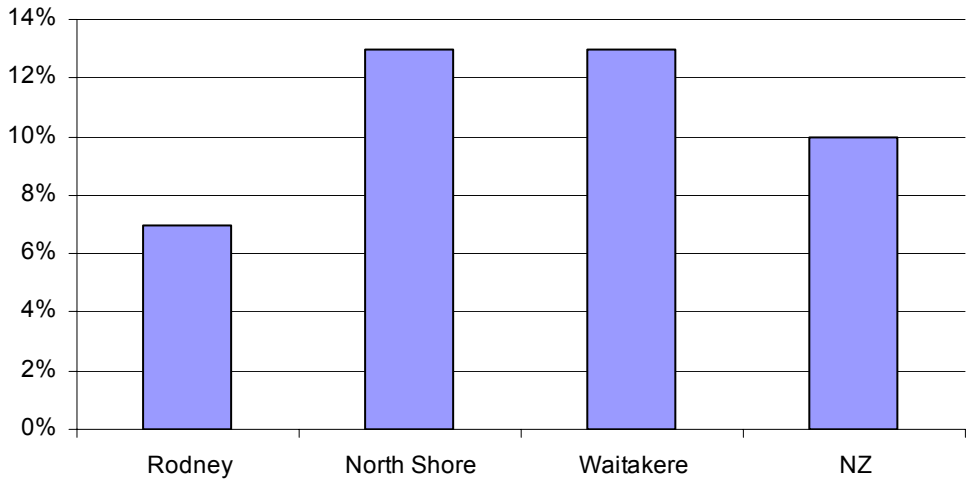
* Includes irritable bowel syndrome, inflammatory bowel disease, celiac disease, diverticular disease Source: NZ Health Survey

Mental Health

Stress

Stress describes a person's physical or emotional response to demands or pressures that they may experience from time to time. Whilst some stress can be positive, high levels of negative stress can have a impact on people's mental and physical health. High levels of negative stress (always or most of the time) were experienced by a smaller proportion of Rodney residents (7%) than North Shore or Waitakere residents (both 13%).

Figure 94 Residents experiencing negative stress always or most of the time, by territorial authority, 2006



Source: Quality of Life Survey 2006

Psychological distress

The Kessler 10-item scale (K-10) is a set of questions used internationally to screen populations for non-specific psychological distress and serious mental illness. Many studies have found that the higher the K-10 score, the more likely the respondent is to have a mental disorder. In Waitemata, psychological distress (high or very high probability of having an anxiety or depressive disorder; i.e. K-10 score of 12 or more) was more common among Pacific people than among Others.

Figure 95 Prevalence (age-standardised, %, 95% confidence intervals) of psychological distress among people aged 15+ by ethnicity, 2006/07

		Maori	Pacific	Asian	Other	Total
WDHB	Female	9.3 (7.0–12.0)	10.4 (7.1–14.5)	6.5 (3.8–10.3)	4.8 (3.2–6.8)	5.4 (3.8–7.4)
	Male	6.4 (4.3–9.2)	8.7 (5.0–13.9)	4.2 (1.9–7.9)	3.7 (2.2–5.9)	4.1 (2.6–6.1)
	Total	8.0 (6.1–10.2)	9.6 (6.8–13.0)	5.4 (3.4–8.2)	4.3 (2.8–6.2)	4.8 (3.3–6.3)
New Zealand	Female	13.2 (11.2–15.3)	14.7 (11.5–18.3)	9.2 (6.7–12.4)	6.8 (5.7–8.0)	7.7 (6.7–8.7)
	Male	9.1 (7.3–11.2)	12.3 (8.6–16.8)	5.9 (3.8–8.8)	5.3 (4.2–6.5)	5.8 (4.9–6.9)
	Total	11.3 (9.8–12.9)	13.5 (11.0–16.4)	7.7 (5.9–9.8)	6.1 (5.2–7.0)	6.8 (6.1–7.4)

Source: New Zealand Health Survey 2006/07, HDIU

Self-reported chronic mental health condition

Approximately 12% of adults reported a chronic mental health condition in Waitemata. Asian women had a lower prevalence of self-reported chronic mental health condition than all women in Waitemata. Nationally, Pacific and Asian people are less likely to report a chronic mental health condition. For Pacific people this is in contrast to the psychological distress findings above.

Table 98 Prevalence (age-standardised, %, 95% confidence intervals) of any self-reported chronic mental health condition among people aged 15+ by ethnicity, 2006-07

		Maori	Pacific	Asian	Other	Total
WDHB	Female	15.2 (11.9–19.0)	8.3 (5.2–12.4)	4.6 (2.1–8.5)	15.2 (12.6–18.1)	13.8 (11.2–16.6)
	Male	9.2 (6.3–12.9)	6.9 (3.6–11.6)	3.7 (1.5–7.6)	10.9 (8.4–13.9)	9.9 (7.5–12.8)
	Total	12.4 (9.6–15.7)	7.6 (4.8–11.3)	4.2 (2.0–7.7)	13.1 (10.7–15.9)	11.9 (9.4–14.1)
New Zealand	Female	17.3 (14.7–20.1)	9.4 (7.1–12.3)	5.2 (3.5–7.4)	17.3 (15.8–18.8)	15.7 (14.3–17.0)
	Male	10.5 (8.4–12.9)	7.8 (5.1–11.3)	4.3 (2.8–6.2)	12.4 (11.0–13.9)	11.3 (10.0–12.6)
	Total	14.1 (12.3–16.1)	8.7 (6.7–11.0)	4.8 (3.5–6.3)	14.9 (13.7–16.2)	13.5 (12.8–14.3)

Source: New Zealand Health Survey 2006/07, HDIU

Mental health prevalence (overall)

National mental health prevalence data was obtained from Te Rau Hinengaro, the New Zealand Mental Health Survey (Oakley Browne, Wells et al. 2006). Over one fifth (21%) of people aged 16+ nationally had ever met the criteria for a major mental disorder at some point and had experienced symptoms or an episode in the preceding 12 months.

Figure 96 12-month prevalence (%) of any mental disorder[1] among people aged 16+ in New Zealand, 2003/04

	%	95% CI
Total	20.7	19.5-21.9
Age group (years)		
16-24	28.6	25.1-32.3
25-44	25.1	23.2-27.1
45-64	17.4	15.5-18.8
65 and over	7.1	5.7-8.8
Gender		
Male	17.1	15.5-18.8
Female	24.0	22.4-25.6

1. DSM (Diagnostic and Statistical Manual of Mental Disorders)-IV CIDI

Source: Te Rau Hinengaro: The New Zealand Mental Health Survey

Almost 40% of people aged 16+ nationally had ever met the criteria for a major mental disorder at some point. Nearly 20% had had 2 or more disorders.

Figure 97 Life-time prevalence (%) of any mental disorder[1] among people aged 16+ in New Zealand, 2003/04

Disorder Groups	Total % (95% CI)	Age group (years) % (95% CI)				Gender (95% CI)	
		16-24	25-44	45-64	65 and over	Male	Female
No disorder	60.5 (58.8,62.1)	58.4 (54.1,62.6)	54.9 (52.1,57.6)	60.3 (57.4,63.1)	77.6 (74.4,80.6)	63.5 (61.0,65.8)	57.7 (55.5,59.9)
Any disorder	39.5 (37.9,41.2)	41.6 (37.4,45.9)	45.1 (42.4,47.9)	39.7 (36.9,42.6)	22.4 (19.4,25.6)	36.5 (34.2,39.0)	42.3 (40.1,44.5)
Two disorders	9.9 (9.2,10.6)	11.3 (9.4,13.5)	10.8 (9.7,12.1)	10.6 (9.3,12.0)	4.6 (3.7,5.7)	8.7 (7.8,9.8)	10.9 (10.0,11.9)
Three or more disorders	9.7 (9.0,10.4)	11.3 (9.4,13.4)	12.3 (11.1,13.6)	8.9 (7.8,10.1)	2.4 (1.5,3.6)	8.4 (7.5,9.5)	10.8 (9.9,11.8)

1. DSM (Diagnostic and Statistical Manual of Mental Disorders)-IV CIDI

Source: Te Rau Hinengaro: The New Zealand Mental Health Survey

Mental health prevalence (specific disorders)

The 12-month prevalence of any anxiety disorder, any mood disorder and any substance use disorder were 14.8%, 8.0 % and 3.5%, respectively. Substance abuse disorders are further broken down in the sections on alcohol use and drug use.

Figure 98 12-month prevalence (%) of specific mental disorders[1] among people aged 16+ in New Zealand, 2003/04

Disorder groups	Total % (95% CI)	Age groups years % (95% CI)				Gender % (95% CI)	
		16-24	25-44	45-64	65 and over	Male	Female
Anxiety disorders							
Panic disorders	1.7 (1.4-1.9)	2.4 (1.7-3.6)	2.1 (1.7-2.6)	1.2 (0.9-1.6)	0.6 (0.3-1.1)	1.3 (1.0-1.7)	2.0 (1.7-2.4)
Agoraphobia without panic	0.6 (0.5-0.8)	0.7 (0.3-1.2)	0.8 (0.6-1.2)	0.6 (0.3-0.9)	0.2 (0.0-0.5)	0.4 (0.3-0.7)	0.8 (0.6-1.1)
Specific phobia	7.3 (6.8-7.8)	9.3 (7.6-11.3)	8.3 (7.5-9.3)	6.9 (6.0-7.8)	3.2 (2.4-4.3)	4.3 (3.7-5.0)	10.1 (9.2-10.9)
Generalised anxiety disorder	2.0 (1.7-2.3)	1.6 (0.9-2.6)	2.8 (2.3-3.4)	1.8 (1.3-2.3)	1.0 (0.6-1.5)	1.4 (1.1-1.8)	2.6 (2.2-3.1)
Post traumatic stress disorder	3.0 (2.6-3.4)	2.4 (1.6-3.6)	3.5 (2.9-4.3)	3.2 (2.5-4.1)	1.7 (0.8-3.0)	1.6 (1.1-2.2)	4.2 (3.6-4.9)
Obsessive compulsive disorder	0.6 (0.4-0.9)	1.9 (0.6-3.0)	0.8 (0.5-1.2)	0.2 (0.0-0.4)	0.1 (0.0-0.5)	0.7 (0.4-1.2)	0.5 (0.3-0.8)
Any anxiety disorder	14.8 (13.9-15.7)	17.7 (15.1-20.6)	18.2 (16.6-19.9)	13.2 (11.8-14.7)	6.0 (4.7-7.6)	10.7 (9.5-12.0)	18.6 (17.3-20.0)
Mood disorders							
Major depressive disorder	5.7 (5.2-6.2)	8.7 (6.8-11.0)	6.3 (5.6-7.2)	5.2 (4.4-6.2)	1.7 (1.2-2.4)	4.2 (3.5-5.0)	7.1 (6.3-7.8)
Dysthymia	1.1 (0.9-1.4)	1.5 (0.7-2.6)	1.2 (0.9-1.7)	1.2 (0.8-1.6)	0.4 (0.2-0.9)	1.0 (0.7-1.4)	1.3 (1.0-1.6)
Bipolar disorder	2.2 (1.9-2.5)	3.9 (2.9-5.4)	2.8 (2.3-3.3)	1.4 (1.1-1.9)	0.2 (0.1-0.6)	2.1 (1.6-2.6)	2.3 (1.9-2.8)
Any mood disorder	8.0 (7.4-8.6)	12.7 (10.4-15.4)	9.2 (8.3-10.2)	6.8 (5.9-7.9)	2.0 (1.5-2.7)	6.3 (5.5-7.2)	9.5 (8.7-10.5)
Substance abuse disorders							
Any substance abuse disorder	3.5 (3.1-4.0)	9.6 (7.9-11.5)	4.2 (3.6-5.0)	1.2 (0.9-1.6)	<0.1 (0.0-0.2)	5.0 (4.3-5.8)	2.2 (1.8-2.7)

1. DSM (Diagnostic and Statistical Manual of Mental Disorders)-IV CIDI
Source: Te Rau Hinengaro: The New Zealand Mental Health Survey

Mental health conditions seen by Mental Health Services

Only a proportion of mental health conditions are seen by Mental Health Services. Most mental health problems are not seen by Mental Health Services but are managed by the person and their family, sometimes with the assistance of primary care or others in the community. The conditions seen by Mental Health Services are likely to reflect the burden suffered by people with the most severe mental health conditions. People with some mental health conditions (e.g. schizophrenia) are much more likely to be seen by Mental Health Services than people with some other conditions (e.g. anxiety disorders) where only the most severely affected will be seen.

Table 99 Numbers of Waitemata residents seen by Mental Health Services by diagnosis and ethnicity, 2007

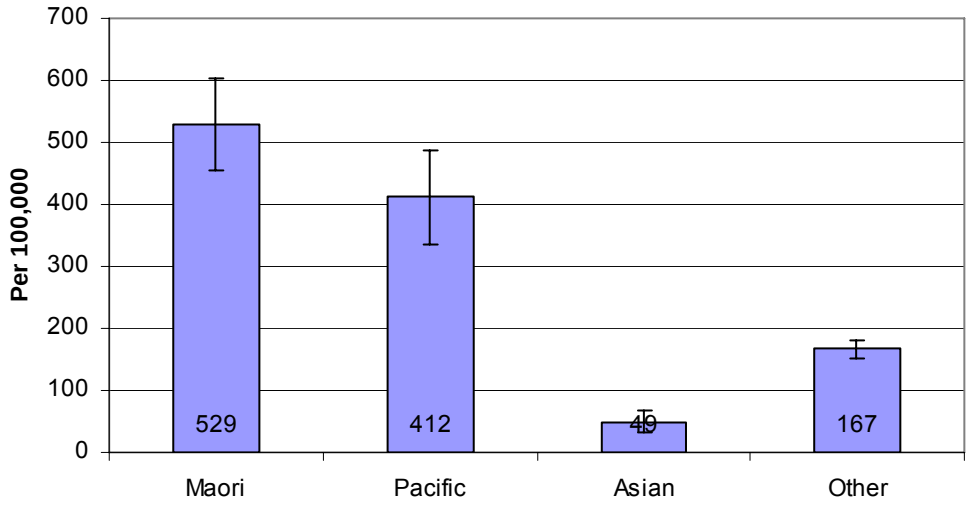
	Ethnic Group				
	Maori	Pacific	Asian	Other	Total
Schizophrenia	208	116	33	589	946
Other psychotic disorders	51	26	23	186	286
Schizoaffective disorder	30	34	7	96	167
Bipolar disorder	70	29	22	421	542
Unipolar depression	95	33	61	1,061	1,250
Anxiety disorders	39	19	13	462	533
Adjustment disorders	35	13	12	195	255
Personality disorders	13	3	3	93	112
Dementias	14	13	15	331	373
Alcohol related conditions	19	3	2	198	222
Drug related conditions	42	1	7	149	199
Childhood conditions	59	9	12	364	444
Other diagnoses	64	22	25	545	656
No diagnosis made	1,130	434	237	4,480	6,281
Grand Total	1,869	755	472	9,170	12,266

Source: MHINC Note: more than one diagnosis may be made

The conditions most commonly seen in people attending Mental Health Services are depression, schizophrenia, bipolar disorder, and anxiety disorders. Dementias and childhood conditions are also common. Childhood conditions include attention deficit and hyperactivity disorder (ADHD), childhood autism, conduct disorders and learning disorders. Many people see Mental Health Services without a diagnosis being made.

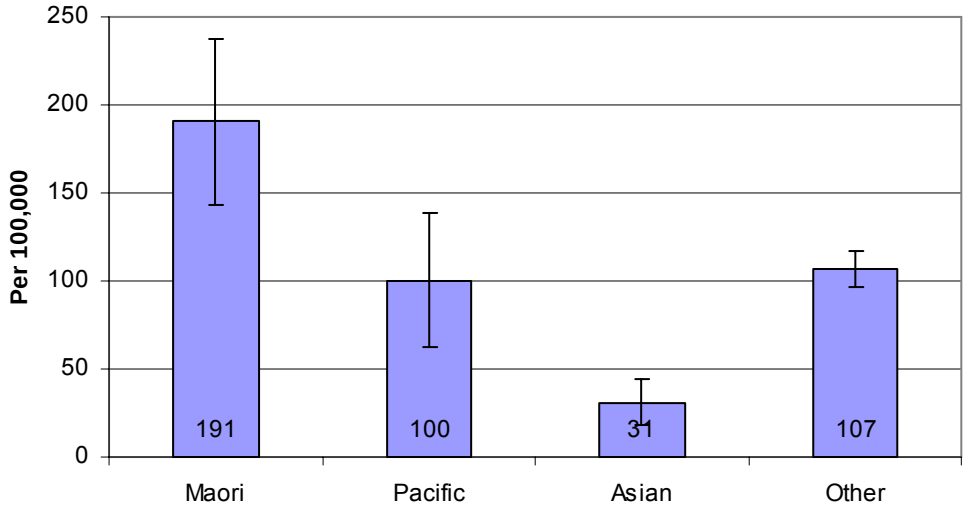
The following figures compare the attendance at Mental Health Service of the most common of these disorders between ethnic groups. Maori have high rates of attendance for all these conditions whilst Asians have low rates. Others have high rates of attendance for depression and anxiety disorders. The largest differences between ethnic groups are for schizophrenia where Maori are three times as likely as Others to been seen by Mental Health Services and Pacific people are two and a half times as likely to be seen.

Figure 99 Proportion of people seen by Mental Health Services for schizophrenia by ethnicity, age-standardised, 2007



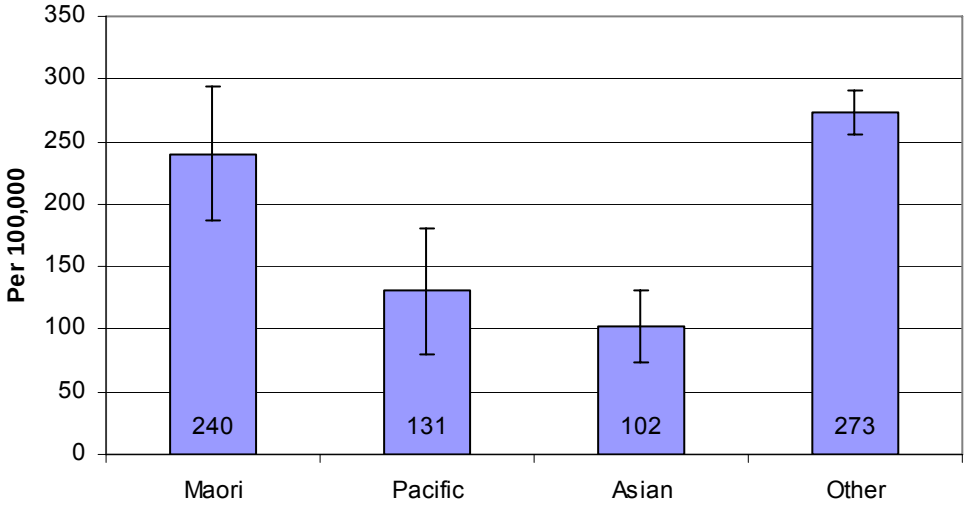
Source: MHINC

Figure 100 Proportion of people seen by Mental Health Services for bipolar disorder by ethnicity, age-standardised, 2007



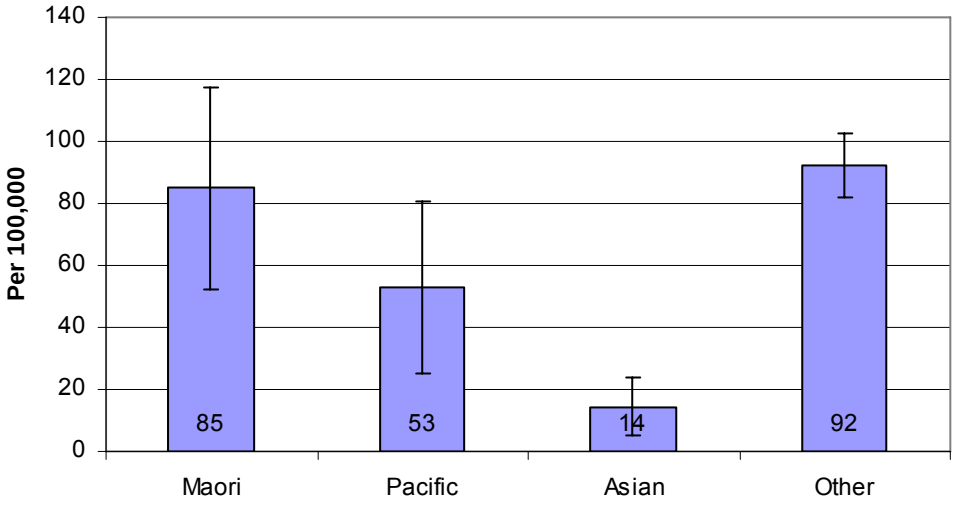
Source: MHINC

Figure 101 Proportion of people seen by Mental Health Services for depression by ethnicity, age-standardised, 2007



Source: MHINC

Figure 102 Proportion of people seen by Mental Health Services for anxiety disorders by ethnicity, age-standardised, 2007



Source: MHINC

Suicidal behaviour, self-harm hospitalisations and suicide

Suicidal behaviour

Suicidal behaviours can be categorised as suicidal ideation (thinking seriously about committing suicide), suicide plan (making a plan for committing suicide) and suicide attempt (making a suicide attempt) (Oakley Browne, Wells et al. 2006). The lifetime prevalence of each of these behaviours was 15.7%, 5.5% and 4.5%, respectively.

Figure 103 12-month and life-time prevalence (%) of suicidal behaviours among people aged 16+ in New Zealand, 2003/04

	Twelve-month prevalence % (95% CI)			Lifetime prevalence (95% CI)		
	Male	Female	Total	Male	Female	Total
Suicidal ideation	2.6 (2.2-3.2)	3.7 (3.2-4.4)	3.2 (2.8-3.6)	14.0 (12.8-15.2)	17.4 (16.3-18.5)	15.7 (14.9-16.6)
Suicide plan	0.9 (0.7-1.3)	1.0 (0.8-1.4)	1.0 (0.8-1.2)	4.6 (3.9-5.3)	6.4 (5.7-7.1)	5.5 (5.0-6.0)
Suicide attempt	0.4 (0.2-0.8)	0.4 (0.3-0.6)	0.4 (0.3-0.6)	3.4 (2.8-4.1)	5.6 (4.9-6.2)	4.5 (4.1-5.0)

Source: Te Rau Hinengaro: The New Zealand Mental Health Survey.

Self-harm hospitalisations

The intentional self-harm hospitalisation rate for Waitemata did not differ significantly from the national rate. The rate for females in Waitemata was double the male rate. Maori had a higher rate than Others (although the difference was not statistically significant). The rate for Maori and Others was higher than that for Pacific and Asian people.

Table 100 Self-harm hospitalisations (age-standardised rates per 100,000, 95% confidence intervals) among people aged 5+ by ethnicity (prioritised), 2005-07

		Maori	Pacific	Asian	Other	Total
WDHB	Female	155.3 (126.2–189.1)	44.4 (27.1–68.5)	60.3 (46.1–77.5)	151.2 (140.1–162.9)	129.4 (120.9–138.3)
	Male	108.7 (82.7–140.2)	60.1 (38.5–89.4)	15.8 (8.9–26.1)	77.4 (69.3–86.2)	69.2 (62.8–76.1)
	Total	132.6 (112.7–155.0)	51.7 (37.6–69.4)	38.6 (30.4–48.3)	114.2 (107.3–121.5)	99.6 (94.2–105.1)
New Zealand	Female	127.9 (120.3–136.0)	63.3 (54.9–72.5)	58.5 (52.5–65.1)	148.6 (144.7–152.6)	130.5 (127.5–133.6)
	Male	78.5 (72.1–85.3)	52.7 (44.9–61.5)	17.9 (14.5–21.8)	67.3 (64.7–70.0)	63.4 (61.3–65.6)
	Total	104.1 (99.1–109.4)	58.1 (52.3–64.4)	38.8 (35.2–42.6)	108.2 (105.8–110.6)	97.5 (95.6–99.3)

Source: Sector Services, Information Directorate, Ministry of Health (prepared by Health & Disability Intelligence Unit)

Suicide

In Waitemata the suicide rate for males was more than the rate for females. Overall, the rate was lower than that observed nationally.

Table 101 Suicide deaths (age-standardised rates per 100,000, 95% confidence intervals) among people aged 5+ by ethnicity (prioritised), 2003-05

		Maori	Pacific	Asian	Other	Total
Waitemata	Female	*	*	*	5.5 (3.7–7.9)	4.6 (3.2–6.5)
	Male	17.6 (8.4–32.4)	12.8 (4.1–29.8)	*	18.7 (15.1–22.9)	17.1 (14.1–20.5)
	Total	10.9 (5.7–19.1)	8.3 (3.3–17.2)	3.0 (1.0–7.0)	11.9 (9.9–14.2)	10.6 (8.9–12.4)
New Zealand	Female	9.0 (7.1–11.4)	3.8 (2.0–6.7)	4.8 (3.0–7.3)	6.1 (5.4–6.8)	6.5 (5.8–7.1)
	Male	32.3 (28.2–36.8)	15.5 (11.3–20.8)	7.9 (5.3–11.4)	19.7 (18.4–21.1)	20.6 (19.4–21.8)
	Total	19.9 (17.7–22.3)	9.5 (7.2–12.3)	6.1 (4.6–8.1)	12.7 (12.0–13.5)	13.3 (12.6–14.0)

*Rates not presented for groups with small numbers.
Source: HDIU

Disability

Disability for adults includes people with disability in hearing, seeing, speaking, mobility, agility, or people having intellectual, psychiatric or psychological disability. Child disability includes children with disability in hearing, seeing, or speaking, or children who use specialised or technical equipment, or who receive special education, or who have intellectual, psychiatric or psychological disability, or who have a chronic condition.

The disability rates provided in the table below were calculated based on the estimated number of people with a disability divided by the estimated number of people with and without disability from the 2006 Household Disability Survey. Due to survey design and sample issues, data cannot be broken down to DHB level. Instead, estimates were provided for the four northern DHBs combined.

The rates are provided by age group breakdown; however caution should be exercised when comparing the rates between Maori and non-Maori, particularly for age groups with a wider age range, because the two ethnic groups have different age distributions. For the 65+ years age group, comparisons should not be made between different ethnic groups as Maori in this age group are much younger than non-Maori. Nor should comparisons be made between males and females in the 65+ age group, as there are more older women than men.

Northern region

Table 102 Disability prevalence of residents living in private households, crude percent, 2006

	Northern region*				New Zealand			
	0–14 years	15–44 years	45–64 years	65+ years	0–14 years	15–44 years	45–64 years	65+ years
Female	7.7	6.4	15.1	37.0	8.6	8.3	19.1	41.0
Male	10.7	6.7	14.5	36.6	12.1	9.5	20.8	41.2
Total	9.2	6.5	14.8	36.8	10.4	8.9	19.9	41.1
Maori	12.2	9.8	23.1	42.2	14.2	13.2	27.9	46.6
Non-Maori	8.5	6.0	14.2	36.5	9.3	8.1	19.2	40.8

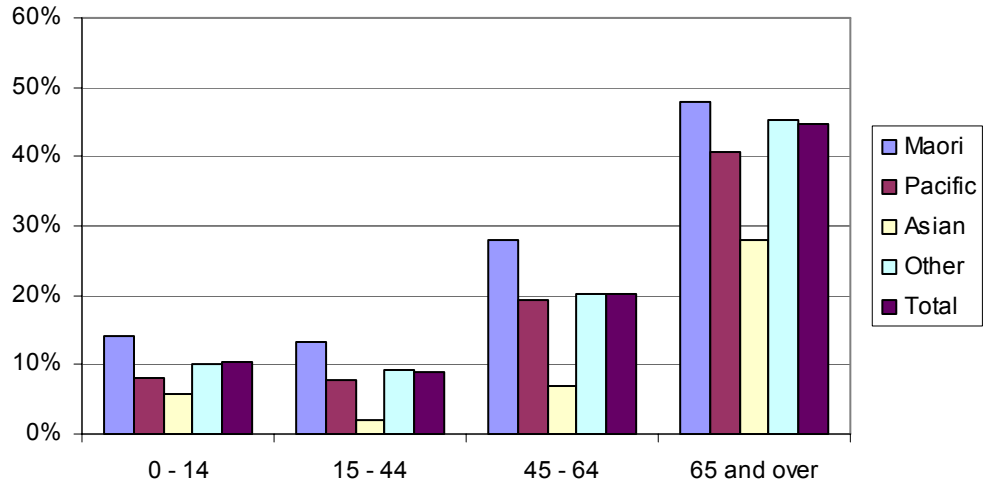
*The Northern region includes Northland, Waitemata, Auckland, and Counties Manukau DHBs
Source: Disability Survey 2006

The Northern region had lower proportions of people with experience of disability than New Zealand as a whole.

More information is available about disability at a national level.

Ethnicity

Figure 104 Prevalence of any disability by ethnicity (total response) and age, New Zealand, 2006

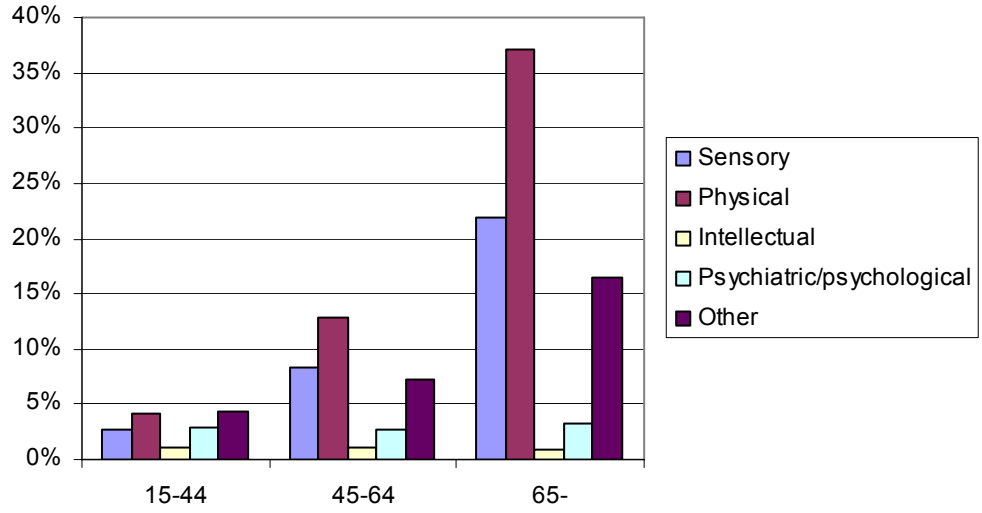


Source: 2006 Disability Survey

National data shows that Asian people have a low rate of disability in all age groups. This is likely to be mainly due to people with disabilities being less likely to migrate to New Zealand. Disability rates increase with age for adults of all ethnicity and 45% of people 65 years and older have some disability.

Adults

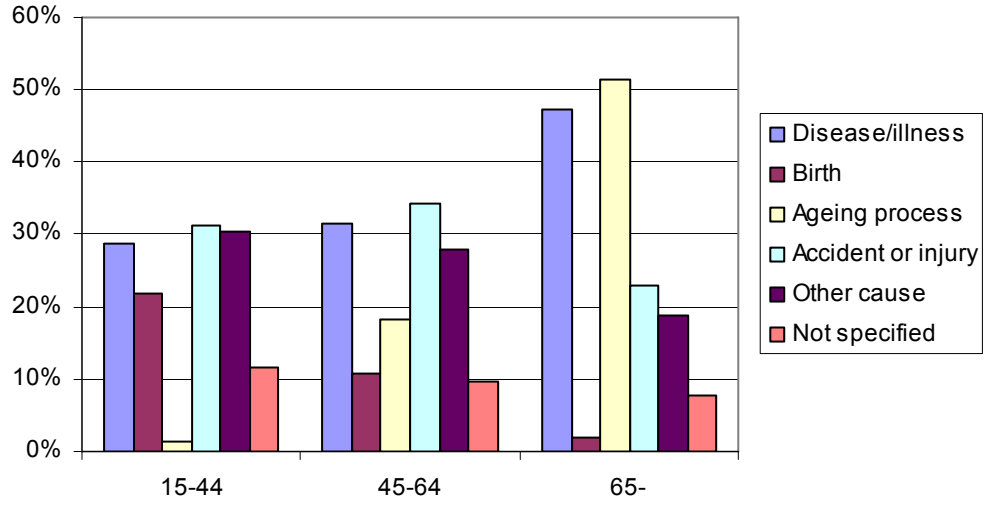
Figure 105 Prevalence of various types of disability by age, adults, New Zealand, 2006



Source: 2006 Disability Survey

Sensory and physical disabilities are the most common types of disabilities amongst adults and increase in prevalence with age. Intellectual and psychiatric/psychological disabilities are less common and do not vary in prevalence with age. 60% of adults with disabilities had more than one disability (50% of those aged 15-44, 53% of those aged 45-64, and 73% of those aged 65 years and older. Multiple disabilities were also more common in women (63% vs. 54%)

Figure 106 Prevalence of various causes of disability by age, adults, New Zealand, 2006



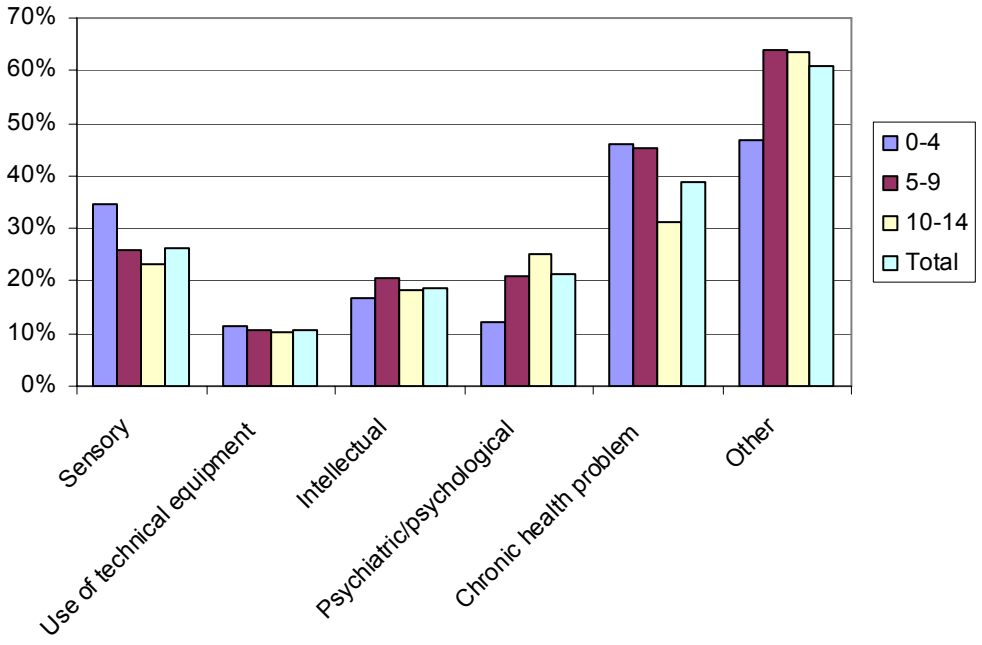
Source: 2006 Disability Survey

Birth related problems, disease and illness, accidents, and aging processes are the most common causes of disability amongst adults. Unsurprising disease and illness, and aging processes are a more common cause amongst older people and birth related problems are less common.

Of adults with disability 37% had 'low' support needs, 47% 'medium' support needs, and 16% high support needs. Approximately 6% of adults with disabilities were in residential care facilities.

Children

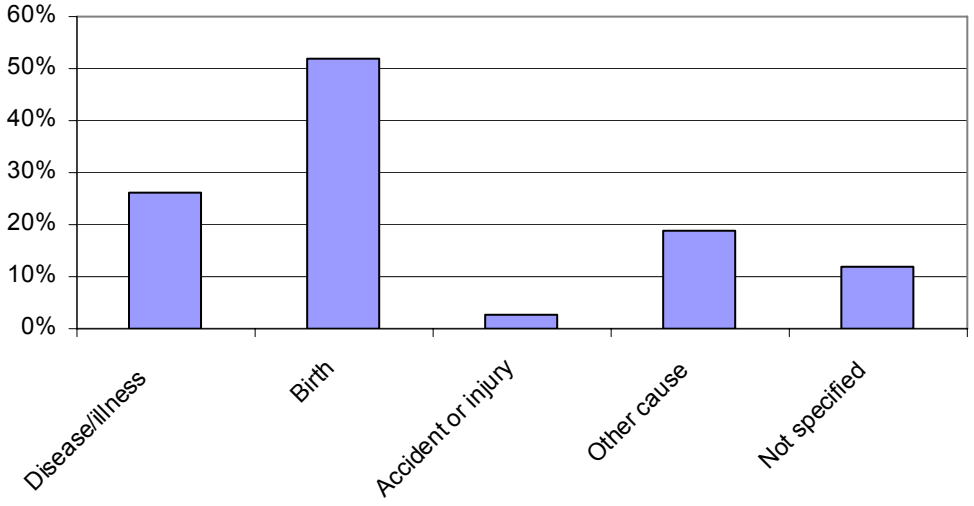
Figure 107 Prevalence of various causes of disability by age, children, New Zealand, 2006



Source: 2006 Disability Survey

The most common types of disability amongst children were sensory disability, chronic health problems, and other (this category includes special education). Just under half of all children with a disability (48%) had a multiple disabilities.

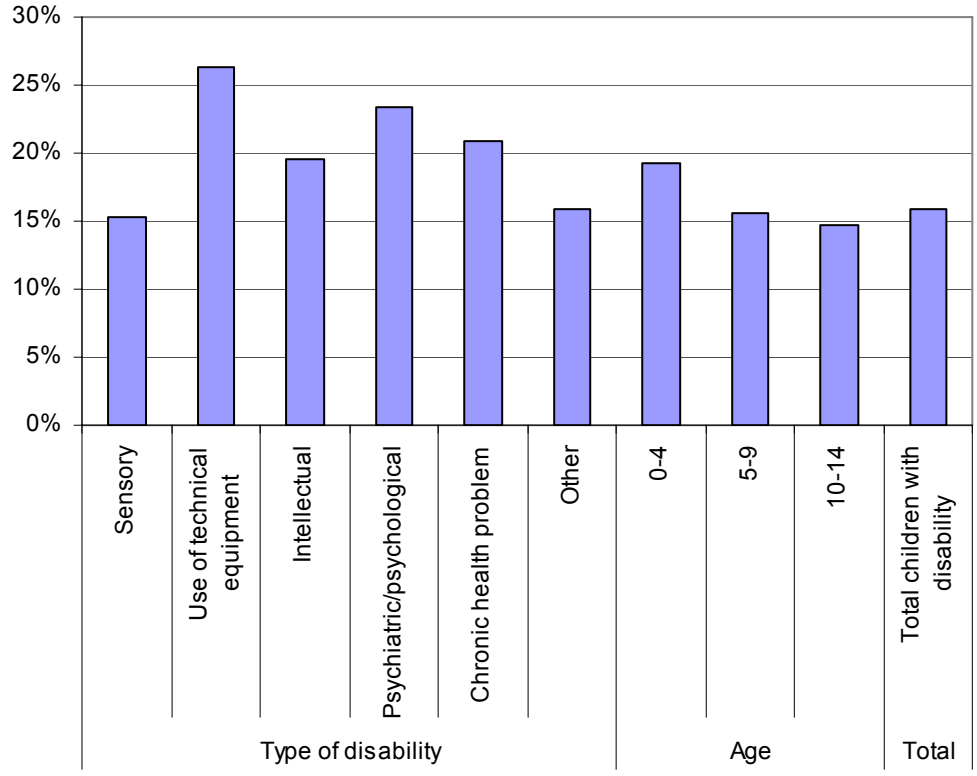
Figure 108 Prevalence of various causes of disability by age, children, New Zealand, 2006



Source: 2006 Disability Survey

Over 50% of disabilities existed at birth and a further 26% were caused by disease or illness.

Figure 109 Proportion of children with disability who have an unmet need for a health service, by disability type and age, New Zealand, 2006



Source: 2006 Disability Survey

Of children with a disability 41% have 'low' support needs, 45% have 'medium' support needs, and 14% have 'high' support needs. 16% of children also have unmet needs for health services. Over 20% of children with psychiatric or psychological problems, chronic health problems, and those who need technical equipment have unmet needs for health services.

Population Groups

Maternity and Birth

Pregnancy complications

Table 103 Pregnancy complications, number of admissions and rate per 1000 births, by ethnicity (prioritised), 2004–06

		Maori	Pacific	Asian	Other	Total
Waitemata	Admissions (2004–06)	938	903	775	3,207	5,823
	Rate per 1000 births	310.5	378.0	240.8	250.0	271.4
New Zealand	Admissions (2004–06)	12,157	7,409	4,739	29,371	53,676
	Rate per 1000 births	301.7	411.7	284.0	286.9	302.6

Source: NMDS, HDIU

For mothers living in Waitemata, the rate of admission to hospital for pregnancy complications was lower than the New Zealand rate. Patterns across ethnic groups at the district level were similar to national patterns, with Pacific mothers having the highest rate of admissions across all ethnic groups for Waitemata.

Operative delivery

Table 104 Delivery events, publicly funded, by type of birth and ethnicity (prioritised), 2007

	Birth type	Maori		Pacific		Asian		Other		Total	
		No.	%	No.	%	No.	%	No.	%	No.	%
Waitemata	Normal birth	638	74%	635	75%	617	59%	2,369	58%	4,259	62%
	Caesarean section	172	20%	170	20%	290	28%	1,260	31%	1,892	28%
	Assisted birth	55	6%	41	5%	139	13%	483	12%	718	10%
	Total	865	100%	846	100%	1,046	100%	4,112	100%	6,869	100%
New Zealand	Normal birth	9,266	77%	4,845	77%	3,246	58%	21,199	60%	38,556	65%
	Caesarean section	2,095	17%	1,116	18%	1,563	28%	9,979	28%	14,753	25%
	Assisted birth	689	6%	333	5%	762	14%	3,935	11%	5,719	10%
	Total	12,050	100%	6,294	100%	5,571	100%	35,113	100%	59,028	100%

Source: NMDS, HDIU, 2008

In Waitemata, 62% of (publicly funded) birth events were normal vaginal deliveries, which was similar to the proportion of normal deliveries for New Zealand in total (65%). Patterns across ethnic groups at the DHB level were similar to national patterns, with a greater proportion of Maori and Pacific mothers having normal vaginal deliveries than mothers in the Asian and Other ethnic groups. This may be, at least in part, because Maori and Pacific mothers are often younger.

Low Birth Weight

Low birth weight (LBW) is defined as a birth weight less than 2,500g. Birth weight is determined by duration of gestation and by foetal growth so LBW may be due to preterm birth or a problem with growth. LBW predicts neonatal morbidity and mortality.

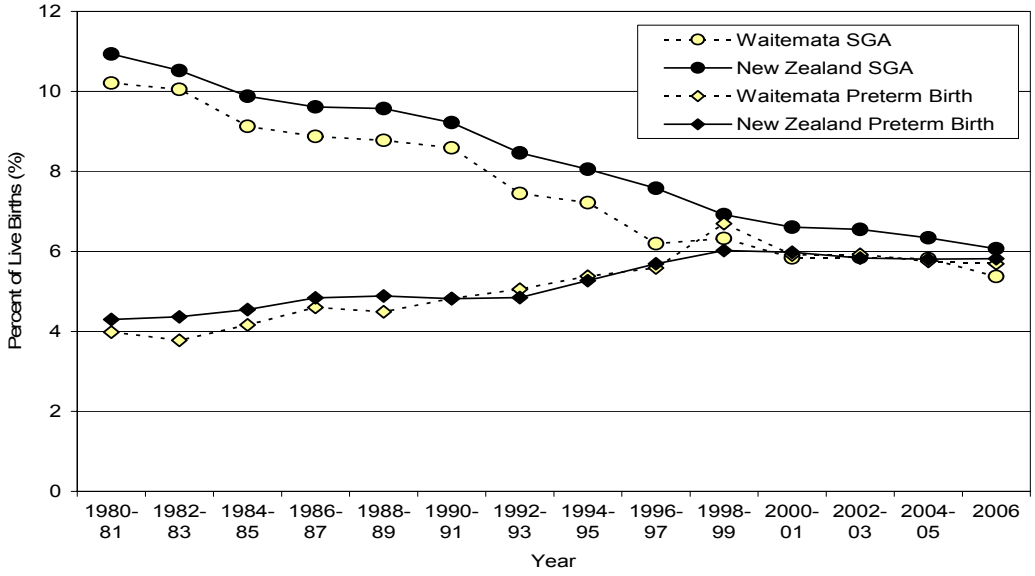
Table 105 Low birth weight, by ethnicity (prioritised) and gender, Waitemata and NZ, rate per 1000 live births (95% confidence intervals), 2003–05

		Maori	Pacific	Asian	European/Other	Total
Waitemata	Female	61.2 (50.7–73.3)	42.4 (31.7–55.6)	83.6 (69.6–99.6)	64.1 (57.6–71.2)	63.8 (59.0–68.9)
	Male	69.9 (59.0–82.3)	37.6 (28.0–49.5)	54.1 (43.3–66.7)	50.7 (45.0–56.9)	53.3 (49.0–57.8)
	Total	65.7 (58.0–74.2)	39.9 (32.6–48.4)	68.3 (59.4–78.1)	57.2 (52.9–61.9)	58.4 (55.1–61.7)
New Zealand	Female	74.2 (70.8–77.8)	49.7 (45.2–54.6)	85.1 (78.7–91.9)	61.0 (58.7–63.3)	65.7 (64.0–67.5)
	Male	65.5 (62.4–68.8)	43.2 (39.1–47.6)	67.3 (61.8–73.1)	53.5 (51.4–55.7)	57.1 (55.5–58.7)
	Total	69.8 (67.4–72.1)	46.3 (43.3–49.6)	75.8 (71.6–80.2)	57.2 (55.6–58.8)	61.3 (60.1–62.5)

Source: NMDS, HDIU

Low birth weight varies by ethnicity with Maori and Asian having the highest rates and Pacific the lowest. Low birth weight is due to the baby either being small for gestational age (SGA) or born early (pre-term). Small for gestational age (SGA) is defined as a birthweight below the 10th percentile for gestational age. SGA is associated with deprivation, maternal smoking and poor nutritional status. Babies with SGA have higher neonatal mortality and morbidity.

Figure 110 Rates of small for gestational age and preterm birth, Waitemata and NZ, singleton live births 1980-2006



Source: The Health of Children and Young People in the Waitemata Region

Rates of SGA have decreased in both New Zealand and Waitemata over the last 20 years, and were lower in Waitemata. During 2002 – 2006, rates were highest among Asian, Indian and Maori babies. Preterm birth rates in New Zealand and Waitemata have increased over the same time period. Preterm births are defined as those born at less than 37 weeks gestation. The preterm birth rate in Waitemata is similar to that of New Zealand. It is not clear whether increases in pre-term birth are due to increased obstetric intervention for at risk babies or reflect a true rise in spontaneous preterm birth (Craig, Jackson et al. 2006).

Perinatal Mortality

Perinatal mortality includes foetal deaths of 20 weeks or more gestation or 400 grams birthweight, plus infant deaths 7days after birth.

Table 106 Perinatal mortality, rate per 1000 total births (and 95% confidence intervals) by gender and ethnicity (prioritised), Waitemata and NZ, 2003–05

		Maori	Pacific	Asian	Other	Total
Waitemata	Female	7.7 (4.3–12.8)	9.7 (5.0–16.9)	9.9 (5.6–16.4)	8.4 (6.1–11.2)	8.7 (6.9–10.7)
	Male	8.6 (5.1–13.6)	9.5 (5.1–16.3)	9.8 (5.6–16.0)	9.0 (6.7–11.8)	9.1 (7.4–11.1)
	Total	8.2 (5.6–11.5)	9.6 (6.2–14.2)	9.9 (6.7–14.0)	8.7 (7.1–10.6)	8.9 (7.7–10.3)
New Zealand	Female	8.1 (7.0–9.3)	12.4 (10.2–14.9)	12.4 (10.1–15.2)	9.4 (8.5–10.3)	9.6 (9.0–10.3)
	Male	11.3 (10.0–12.7)	11.8 (9.7–14.2)	11.4 (9.2–13.9)	9.6 (8.7–10.5)	10.5 (9.8–11.2)
	Total	9.7 (8.9–10.6)	12.1 (10.6–13.8)	11.9 (10.3–13.7)	9.5 (8.9–10.1)	10.1 (9.6–10.5)

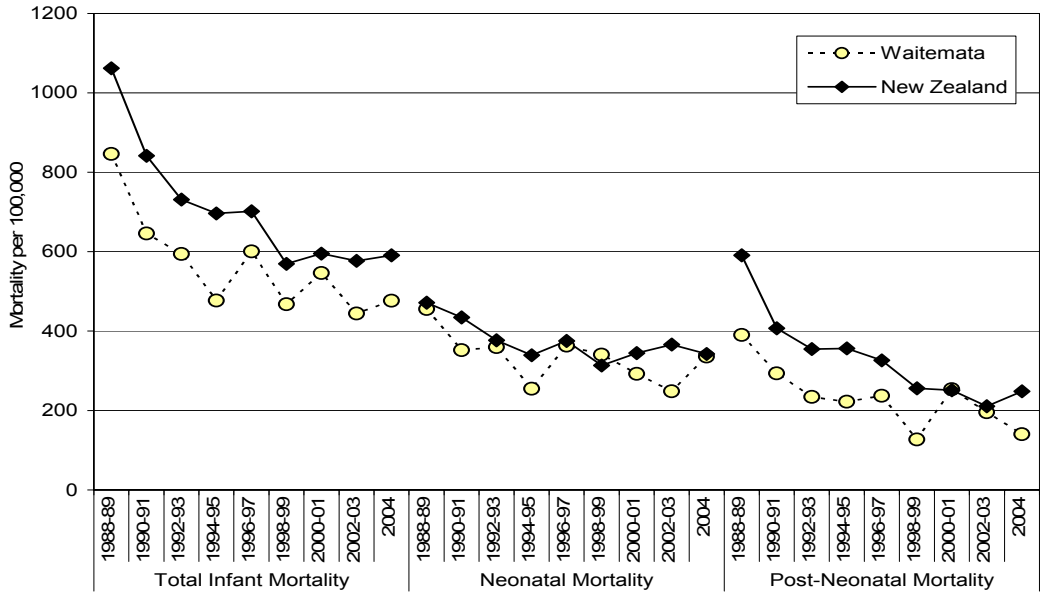
Source: NMDS HDIU, 2008

The rate of perinatal mortality in Waitemata was 8.9 per 1000 total births. This did not differ significantly from the national rate.

Children

Infant mortality

Figure 111 Total, neonatal and post-neonatal mortality, Waitemata and NZ, 1988-2004



Source: The Health of Children and Young People in the Waitemata Region

Infant mortality rates have declined in Waitemata during the last decade and were generally lower than the New Zealand average.

Table 107 Total infant mortality, by ethnicity (prioritised) and gender, Waitemata and NZ, rate per 1000 live births (95% confidence intervals), 2003–05

		Maori	Pacific	Asian	Other	Total
Waitemata	Female	8.3 (4.7–13.5)	*	*	2.8 (1.5–4.5)	3.9 (2.7–5.3)
	Male	10.1 (6.3–15.5)	*	*	3.0 (1.7–4.8)	4.3 (3.1–5.7)
	Total	9.2 (6.5–12.7)	3.1 (1.3–6.1)	2.6 (1.1–5.1)	2.9 (2.0–4.0)	4.1 (3.3–5.0)
New Zealand	Female	6.1 (5.2–7.2)	7.3 (5.6–9.3)	4.6 (3.2–6.4)	3.7 (3.1–4.3)	4.8 (4.4–5.3)
	Male	8.3 (7.2–9.5)	7.2 (5.6–9.1)	3.7 (2.5–5.3)	4.8 (4.2–5.5)	6.0 (5.5–6.5)
	Total	7.2 (6.5–8.0)	7.2 (6.1–8.6)	4.1 (3.2–5.3)	4.3 (3.8–4.7)	5.4 (5.1–5.8)

* Rates not presented for groups with small numbers. Source: Mortality, HDIU

Infant mortality rates were highest for Maori both within Waitemata and at the national level.

Child Mortality

Table 108 Most frequent causes of mortality outside the neonatal period in children 0-14 Years, Waitemata 2000-2004

Cause of Death	Number: Total 2000-2004	Number: Annual Average	Rate per 100,000	% Deaths in Age Group
Post-Neonatal (29-364 days)				
SIDS	27	5.4	80.8	39.1
Congenital Anomalies	12	2.4	35.9	17.4
Suffocation/Strangulation in Bed	7	1.4	20.9	10.1
Injury / Poisoning	6	1.2	18.0	8.7
All Other Causes	17	3.4	50.9	24.6
Total	69	13.8	206.5	100.0
Children 1-14 Years				
Injury / Poisoning	30	6.0	6.5	36.1
Neoplasms	13	2.6	2.8	15.7
Congenital Anomalies	12	2.4	2.6	14.5
All Other Causes	28	5.6	6.1	33.7
Total	83	16.6	18.0	100.0

Source: Mortality, The Health of Children and Young People in the Waitemata Region

Fortunately, death of children and young people in New Zealand is a rare occurrence. In Waitemata district sudden infant death syndrome (SIDS) was the major cause of death among children less than one year old. For children 1-14 years the leading cause of death was injury and poisoning.

Overall hospitalisation

Table 109 Most frequent causes of post-neonatal hospital admissions in children 0-14 yrs, Waitemata, 2002-2006

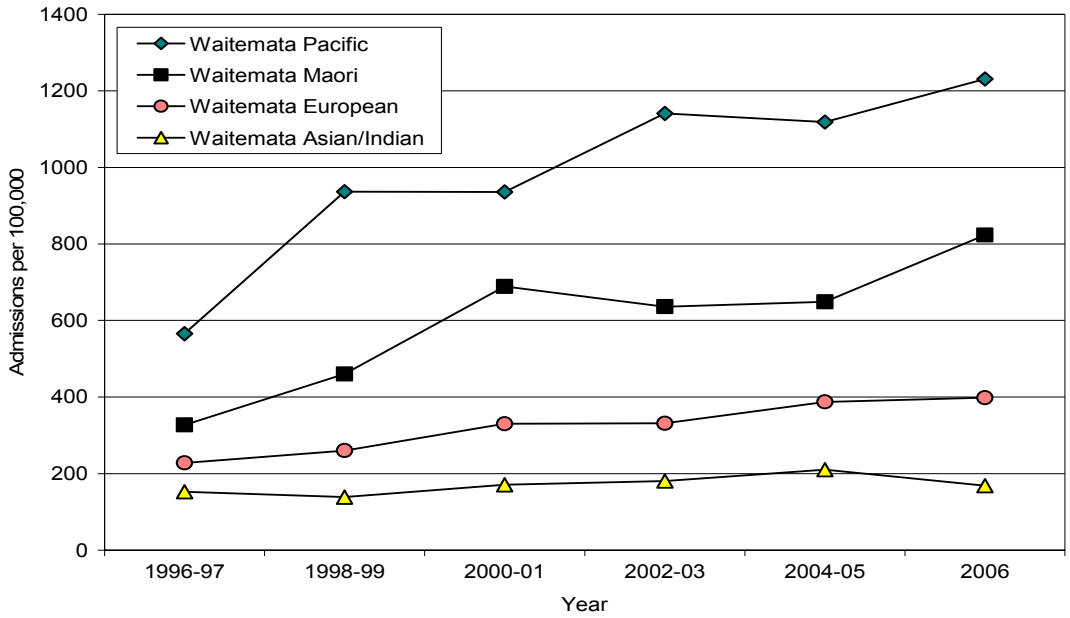
Primary Diagnosis / Procedure	Total 2002-2006	Rate per 1,000	% of Type	% of Total
Acute Admissions (by Primary Diagnosis)				
Injury / Poisoning	5,832	11.5	17.2	10.9
Gastroenteritis	2,781	5.5	8.2	5.2
Asthma	2,740	5.4	8.1	5.1
Viral Infections NOS	2,254	4.4	6.6	4.2
Bronchiolitis	2,168	4.3	6.4	4.0
Pneumonia	2,087	4.1	6.2	3.9
Skin Infections	1,624	3.2	4.8	3.0
Abdominal/Pelvic Pain	1,113	2.2	3.3	2.1
Acute URTI NOS	1,040	2.0	3.1	1.9
Urinary Tract Infections	740	1.5	2.2	1.4
Other Diagnoses	11,537	22.7	34.0	21.5
Total	33,916	66.7	100.0	63.1
Arranged Admissions (by Primary Diagnosis)				
Neoplasm / Chemotherapy	1,024	2.0	20.9	1.9
Injury / Poisoning	630	1.2	12.8	1.2
Immune Disorders	161	0.3	3.3	0.3
Metabolic Disorders	153	0.3	3.1	0.3
Dental Conditions	123	0.2	2.5	0.2
Other Diagnoses	2,818	5.5	57.4	5.2
Total	4,909	9.7	100.0	9.1
Waiting List Admissions (by Primary Procedure)				
Grommets	3,730	7.3	25.1	6.9
Dental Procedures	2,103	4.1	14.2	3.9
Procedures on Tonsils and Adenoids	1,567	3.1	10.5	2.9
Inguinal Hernia Repair	425	0.8	2.9	0.8
No Procedure Listed	713	1.4	4.8	1.3
Other Procedures	6,318	12.4	42.5	11.8
Total	14,856	29.2	100.0	27.7
ACC Admissions				
Total ACC Admissions	35	0.1	100.0	0.1
Total	53,716	105.7	100.0	100.0

Note: Injury and Mental Health Emergency Department Cases Removed
Source: NMDS, The Health of Children and Young People in the Waitemata Region

Injury and poisoning was the most common cause of acute hospital admission among children 0-14 years, followed by gastroenteritis and asthma. The most common of arranged hospitalisations was neoplasm/chemotherapy. The main causes of waiting list admissions were grommets, dental procedures and procedures on tonsils and adenoids.

Infectious disease

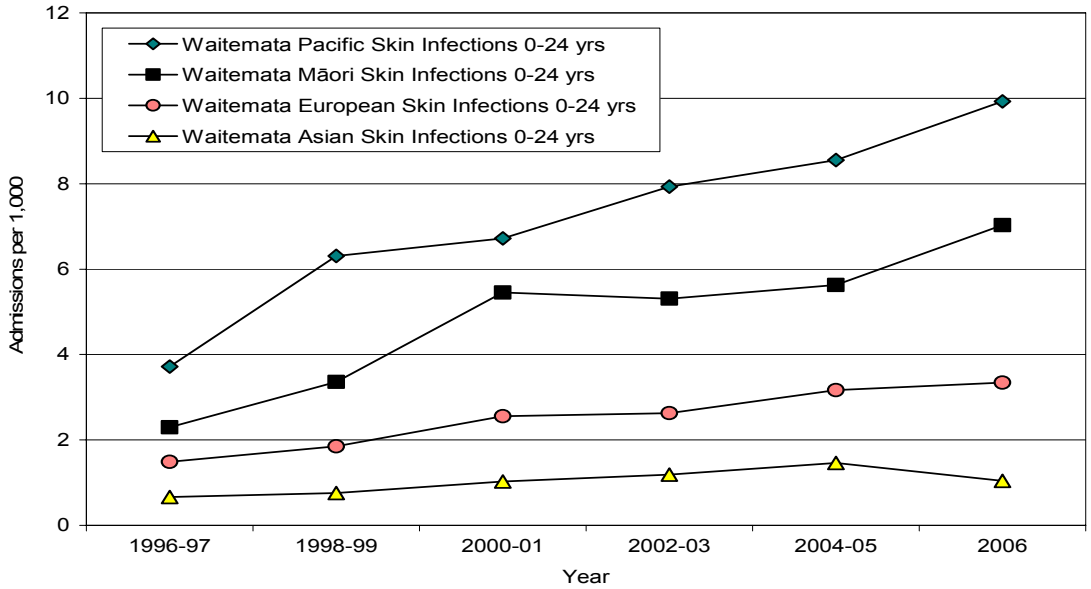
Figure 112 Hospital admissions for serious bacterial infections in children and young people 0-24 years by ethnicity (prioritised), Waitemata, 1996-2006



Source: NMDS, The Health of Children and Young People in the Waitemata Region

Since 1990 there has been a large increase in the number of children and young people admitted to hospital with serious bacterial infections in New Zealand, and this pattern was mirrored in Waitemata. The majority of these are serious skin infections. Rates were higher among Pacific and Maori children and young people, males and those living in most deprived areas.

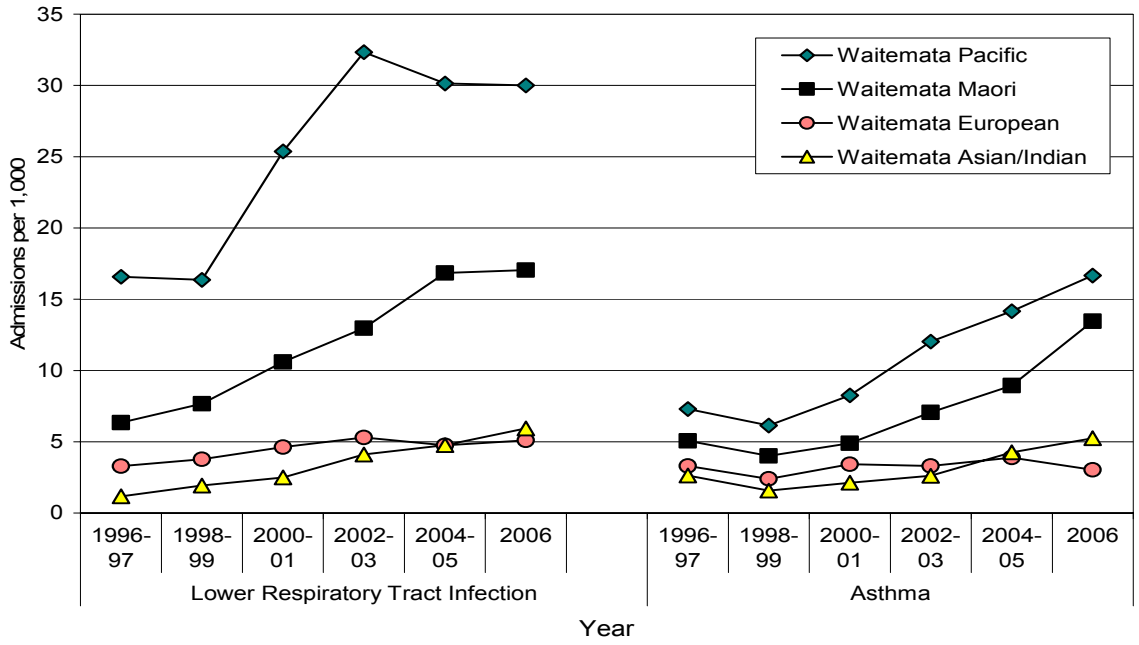
Figure 113 Hospital admissions due to serious skin infection in children and young people 0-24 years by ethnicity (prioritised), Waitemata 1996-2006



Source: NMDS, The Health of Children and Young People in the Waitemata Region

Respiratory

Figure 114 Hospital admissions for lower respiratory tract infections and asthma in children 0-14 years by ethnicity (prioritised), Waitemata, 1996-2006



Source: NMDS, The Health of Children and Young People in the Waitemata Region

During 2002-2006 asthma and bronchiolitis were the leading causes of lower respiratory admissions. Pacific and Maori children had higher rates then other groups.

Cancer

Table 110 Cancer Registrations in Children 0-14 Years and Young People 15 – 24 Years, Waitemata and. NZ, 2000-2004

Cancer Site	Number: Total 2000-2004	Number: Annual Average	Rate Per 100,000	% of Registrations
Children 0-14 Years Waitemata				
Lymphoid Leukaemia	25	5.0	5.1	30.5
Brain	12	2.4	2.4	14.6
Kidney	7	1.4	1.4	8.5
Lymphoma	5	1.0	1.0	6.1
All Other Cancers*	33	6.6	6.7	40.2
Total Waitemata	82	16.4	16.6	100.0
Total New Zealand	685	137.0	16.1	100.0

Note: All Other Cancers were Myeloid Leukaemia, Adrenal, Melanoma, Testis, Neoplasm of Uncertain Behaviour, Bone and Cartilage, Thyroid and Other Malignancies
Source: Cancer Register, The Health of Children and Young People in the Waitemata Region

Cancer in children in New Zealand is relatively rare, with just over a third of cases attributed to leukaemia. In Waitemata, lymphoid leukaemia was the most frequently notified form of cancer, followed by tumours of the brain. The most frequent cause of death was brain cancer, followed by lymphoid leukaemia.

Injury

Table 111 Most frequent causes of injury related hospital admission for children 0-14 years, Waitemata and NZ, 2002-2006

Mode of Injury	Number: Total 2002-06	Number: Annual Average	Rate per 100,000	% of Total
Waitemata				
Falls	3,194	638.8	628.6	48.1
Mechanical Forces: Inanimate	1,546	309.2	304.3	23.3
Mechanical Forces: Animate	273	54.6	53.7	4.1
Transport: Cyclist	383	76.6	75.4	5.8
Transport: Pedestrian	132	26.4	26.0	2.0
Transport: Vehicle Occupant	124	24.8	24.4	1.9
Transport: Motorbike	62	12.4	12.2	0.9
Transport: Other Land Transport	95	19.0	18.7	1.4
Electricity / Fire / Burns	162	32.4	31.9	2.4
Accidental Poisoning	156	31.2	30.7	2.3
Assault	63	12.6	12.4	0.9
Intentional Self Harm	49	9.8	9.6	0.7
Accidental Threat to Breathing	33	6.6	6.5	0.5
Drowning / Submersion	22	4.4	4.3	0.3
Undetermined Intent	6	1.2	1.2	0.1
Other Causes	344	68.8	67.7	5.2
Total Waitemata	6,644	1328.8	1307.6	100.0
Total New Zealand	61,769	12353.8	1437.1	100.0

Note: Mechanical Forces Inanimate includes being accidentally struck/crushed/injured by an object/implement

Source: NMDS, The Health of Children and Young People in the Waitemata Region

The most frequent cause of injury-related hospital admission for children 0-14 years was falls followed by mechanical forces. Rates for all causes were lower in Waitemata than at the national level.

Table 112 Most frequent causes of injury related mortality in children and young people 0-24 Years, Waitemata and NZ, 2000-2004

Cause of Death	Number: Total 2000-2004	Number: Annual Average	Rate per 100,000	% of Deaths
Waitemata				
Intentional Self Harm	57	11.4	7.2	35.6
Transport: Vehicle Occupant	41	8.2	5.2	25.6
Transport: Pedestrian	6	1.2	0.8	3.8
Transport: Other Land Transport	8	1.6	1.0	5.0
Drowning / Submersion	17	3.4	2.1	10.6
Assault	9	1.8	1.1	5.6
Accidental Threat to Breathing	8	1.6	1.0	5.0
All Other Causes	14	2.8	1.8	8.8
Total Waitemata	160	32.0	20.2	100.0
Total New Zealand	1,940	388.0	28.2	100.0

Source: Mortality, The Health of Children and Young People in the Waitemata Region

Intentional self-harm was the most frequent cause of injury-related mortality in Waitemata 2000-2004. While the rate was 7.2/100,000, the national rate in this period was 7.7/100,000. The second most frequent cause of injury-related mortality was transport: vehicle occupant. Here, the rate for Waitemata was 5.2/100,000 compared with a national rate of 8.8/100,000.

Child health conditions

A number of chronic childhood conditions are common but rarely result in death or hospitalisation. The New Zealand Health Survey asked about a range of health conditions and the estimates are given here. Results for Waitemata have not being calculated so national results are given.

Table 113 Prevalence of various childhood health conditions, New Zealand, 2006/07

Condition	Percent (95% CI)
Asthma	14.8 (13.5-16.2)
Eczema	14.1 (12.8-15.50
Allergy (all types)	6.2 (5.3-7.1)
Birth conditions	3.8 (3.0-4.8)
Diabetes	0.2 (0.1-0.4)
Attention deficit hyperactivity disorder (ADHD)	1.2 (0.9-1.6)
Permanent hearing problems	1.2 (0.8-1.60
Visual problems that cannot be corrected by glasses	0.8 (0.4-1.2)
Epilepsy	0.5 (0.3-0.7)
Autism spectrum disorder	0.4 (0.3-0.7)

Birth conditions include spina bifida, congenital heart defects, intellectual impairment from birth, and Down's Syndrome

Source: NZ Health Survey 2006/07

Immunisation

Immunisation is one of the most successful and cost-effective public health interventions. The New Zealand Immunisation schedule offers protection against ten vaccine preventable diseases: diphtheria, pertussis, tetanus, poliomyelitis, hepatitis B, measles, mumps, rubella, Haemophilus influenza type B, and invasive pneumococcal disease.

Table 114 Immunisation coverage for children enrolled on the National Immunisation Register by milestone age and ethnicity (prioritised), Waitemata and NZ, 1 April 2008 - 1 July 2008

Immunisation Coverage	Other	Maori	Pacific	Asian
Waitemata				
6 Months	61%	43%	57%	79%
12 Months	87%	75%	85%	90%
18 Months	68%	60%	63%	73%
24 Months	77%	76%	80%	81%
New Zealand				
6 Months	64%	41%	54%	75%
12 Months	87%	74%	83%	90%
18 Months	72%	56%	64%	76%
24 Months	81%	69%	78%	80%

Source: Ministry of Health National Immunisation Register

Immunisation coverage is measured at the milestone ages of 6 months, 12 months, 18 months and 24 months. The national target is 95% coverage at 24 months but Waitemata remains well below this level. Coverage at 24 months in the quarter April 1 to July 1 2008 was 77.6% in Waitemata and 77.8% at the national level. Coverage for Maori, Pacific and Asian children was higher in Waitemata than for New Zealand overall.

Young People

Mortality

Table 115 Most frequent causes of mortality in young people 15-24 years, Waitemata, 2000-2004

Cause of Death	Number: Total 2000-2004	Number: Annual Average	Age specific rate per 100,000	% Deaths in Age Group
Injury / Poisoning	60	12.0	20.1	35.9
Suicide	56	11.2	18.7	33.5
Neoplasms	11	2.2	3.7	6.6
Asthma	5	1.0	1.7	3.0
All Other Causes	35	7.0	11.7	21.0
Total	167	33.4	55.9	100.0

Source: Mortality, The Health of Children and Young People in the Waitemata Region

For young people 14-24 years, the leading cause of death was injury and poisoning followed by suicide.

Hospitalisation

Table 116 Most frequent causes of hospital admissions in young people 15-24 Years, Waitemata, 2002-2006

Primary Diagnosis / Procedure	Total 2002-2006	Age specific rate per 1,000	% of Type	% of Total
Reproductive Admissions (By Diagnosis)				
Pregnancy & Delivery	9,479	60.6	88.4	24.7
Early Pregnancy Loss	939	6.0	8.8	2.4
Therapeutic Abortion	307	2.0	2.9	0.8
Total	10,725	68.6	100.0	28.0
Acute Admissions (by Primary Diagnosis)				
Injury/Poisoning	4,231	13.3	21.1	11.0
Abdominal/Pelvic Pain	1,583	5.0	7.9	4.1
Skin Infections	1,090	3.4	5.4	2.8
Mental Health	981	3.1	4.9	2.6
Gastroenteritis	837	2.6	4.2	2.2
Appendicitis	785	2.5	3.9	2.0
Asthma	639	2.0	3.2	1.7
Urinary Tract Infections	631	2.0	3.1	1.6
STIs/Pelvic Inflammatory Disease	381	1.2	1.9	1.0
Pneumonia	222	0.7	1.1	0.6
Other Diagnoses	8,696	27.4	43.3	22.7
Total	20,076	63.2	100.0	52.3
Arranged Admissions (by Primary Diagnosis)				
Injury/Poisoning	723	2.3	20.0	1.9
Neoplasm / Chemotherapy	326	1.0	9.0	0.8
Mental Health	132	0.4	3.6	0.3
Metabolic Disorders	119	0.4	3.3	0.3
Haemolytic Anaemia	106	0.3	2.9	0.3
Other Diagnoses	2,212	7.0	61.1	5.8
Total	3,618	11.4	100.0	9.4
Waiting List Admissions (by Primary Procedure)				
Procedures on Tonsils and Adenoids	414	1.3	10.7	1.1
Diagnostic Procedures on Intestine	392	1.2	10.2	1.0
Skin/Subcutaneous Tissue Procedures	381	1.2	9.9	1.0
Dental Procedures	306	1.0	7.9	0.8
Removal Internal Fixation Device	225	0.7	5.8	0.6
Other Procedures	2,142	6.7	55.5	5.6
Total	3,860	12.2	100.0	10.1
ACC Admissions				
Total ACC Admissions	93	0.3	100.0	0.2
Total	38,372	120.8	100.0	100.0

Note: Injury and Mental Health Emergency Department Cases Removed. NMDS coverage of therapeutic abortions is partial, so figure may not accurately reflect the number of terminations during this period.
Source: NMDS The Health of Children and Young People in the Waitemata Region

The most frequent cause of acute hospital admission for young people 15-24 years was injury and poisoning and this was also the main cause of arranged admissions.

Cancer

Table 117 Most frequent causes of cancer registration in young people 15-24 Years, Waitemata, 2002-2006

Cancer Site	Number: Total 2000-2004	Number: Annual Average	Rate Per 100,000	% of Registrations
Young People 15-24 Years Waitemata				
Cervix: Carcinoma in Situ	257	51.4	174.7	73.0
Melanoma: Malignant (Skin)	20	4.0	6.7	5.7
Lymphoma: Hodgkins	14	2.8	4.7	4.0
Bone and Cartilage	7	1.4	2.3	2.0
Testis	7	1.4	4.6	2.0
Brain	5	1.0	1.7	1.4
Thyroid	5	1.0	1.7	1.4
Leukaemia	5	1.0	1.7	1.4
All Other Cancers*	32	6.4	10.7	9.1
Total Waitemata	352	70.4	117.8	100.0
Total New Zealand	3,496	699.2	133.9	100.0

Note: All Other Cancers were Other In Situ Neoplasm, Melanoma in Situ, Other Lymphomas, Malignant Cervical, Kidney, Ovary and Other Malignancies; Rates for cancers of reproductive organs are gender specific.
Source: The Health of Children and Young People in the Waitemata Region

In young people, cervical carcinoma in situ was the most frequent cause of registration and melanoma was the leading form of invasive disease. Small numbers make the Waitemata data difficult to interpret.

Mental health

The following data provides information on mental health hospital admissions amongst young people in WDHB. While hospitalisation is important it must be remembered that these are only the most severe and disabled group of people with mental health disorders and there is a much larger group with less serious illness for whom we have little information.

Table 118 The most frequent reasons for a hospital admission with a mental health issue in young people 15-24 yrs, Waitemata and NZ, 2002-2006

Diagnosis	Number: Total 2002-2006	Number: Annual Average	Rate per 100,000	% of DHB Total
Waitemata				
Schizophrenia	333	66.6	104.8	29.9
Schizotypal/Delusional Disorders	209	41.8	65.8	18.8
Bipolar Affective Disorder	139	27.8	43.8	12.5
Depression	109	21.8	34.3	9.8
Other Mood Disorders	27	5.4	8.5	2.4
Alcohol/Drug Mental Health Effect	79	15.8	24.9	7.1
Stress Reaction/Adjustment Disorder	61	12.2	19.2	5.5
Personality Disorders	35	7.0	11.0	3.1
Eating Disorders	24	4.8	7.6	2.2
Other Mental Health Issues	97	19.4	30.5	8.7
Total	1,113	222.6	350.3	100.0
New Zealand				
Schizophrenia	3,406	681.2	125.1	24.2
Schizotypal/Delusional Disorders	1,882	376.4	69.1	13.4
Depression	1,936	387.2	71.1	13.8
Bipolar Affective Disorder	1,216	243.2	44.6	8.6
Other Mood Disorders	376	75.2	13.8	2.7
Alcohol/Drug Mental Health Effect	1,707	341.4	62.7	12.1
Stress Reaction/Adjustment Disorder	1,135	227.0	41.7	8.1
Personality Disorders	863	172.6	31.7	6.1
Eating Disorders	308	61.6	11.3	2.2
Other Mental Health Issues	1,246	249.2	45.7	8.9
New Zealand Total	14,075	2,815.0	516.8	100.0

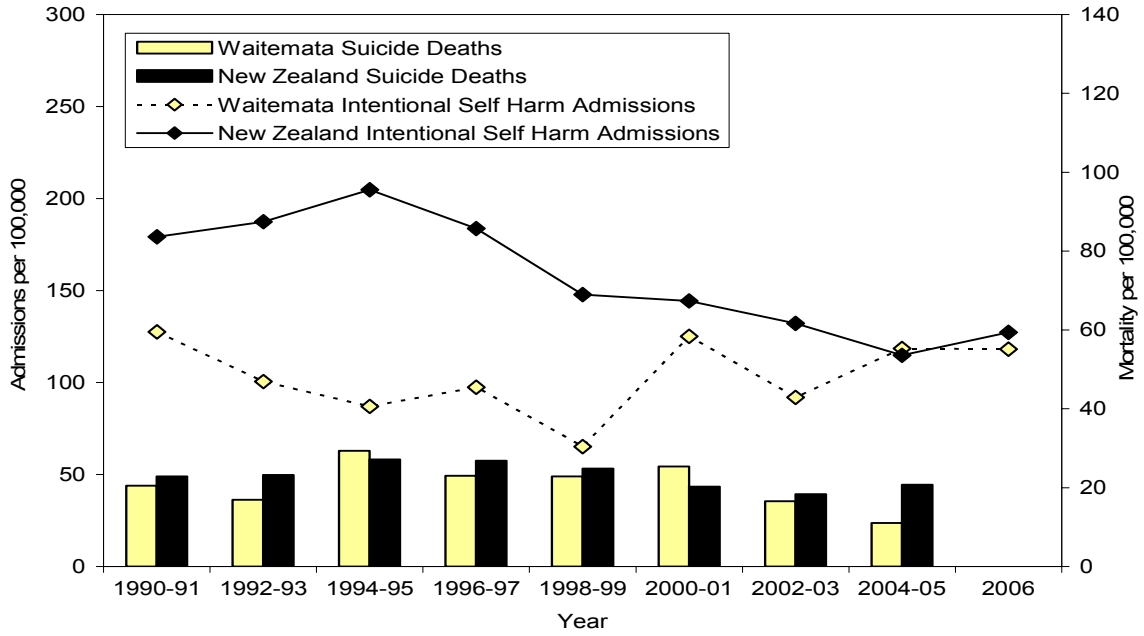
Source: The Health of Children and Young People in the Waitemata Region.

In Waitemata, schizophrenia was the most frequent reason for admission, followed by schizotypal/delusional disorders. While rates were lower in Waitemata, these should be viewed with caution as many mental health services are offered on an outpatient basis and access to inpatient services may not reflect the burden of disease. While admissions for schizophrenia and bipolar affective disorder increase with age, admissions for eating disorders were more frequent amongst teenagers.

Suicide

Youth suicide rates in New Zealand had been increasing since the early 1970s and increased rapidly in the late 1980s and early 1990s. Rates peaked in 1996 and since then have begun to decline. During 200-2004 suicide rates were highest among young men in their early 20s, Maori young people and those living in more deprived areas. Hospital admissions were highest among young women in their mid to late teens, European and Maori young people and those living in more deprived areas.

Figure 115 Admissions due to self inflicted injury and deaths due to suicide in young people 15-24 yrs, Waitemata and NZ, 1990-2006 (Admissions) & 1990-2004 (Deaths)

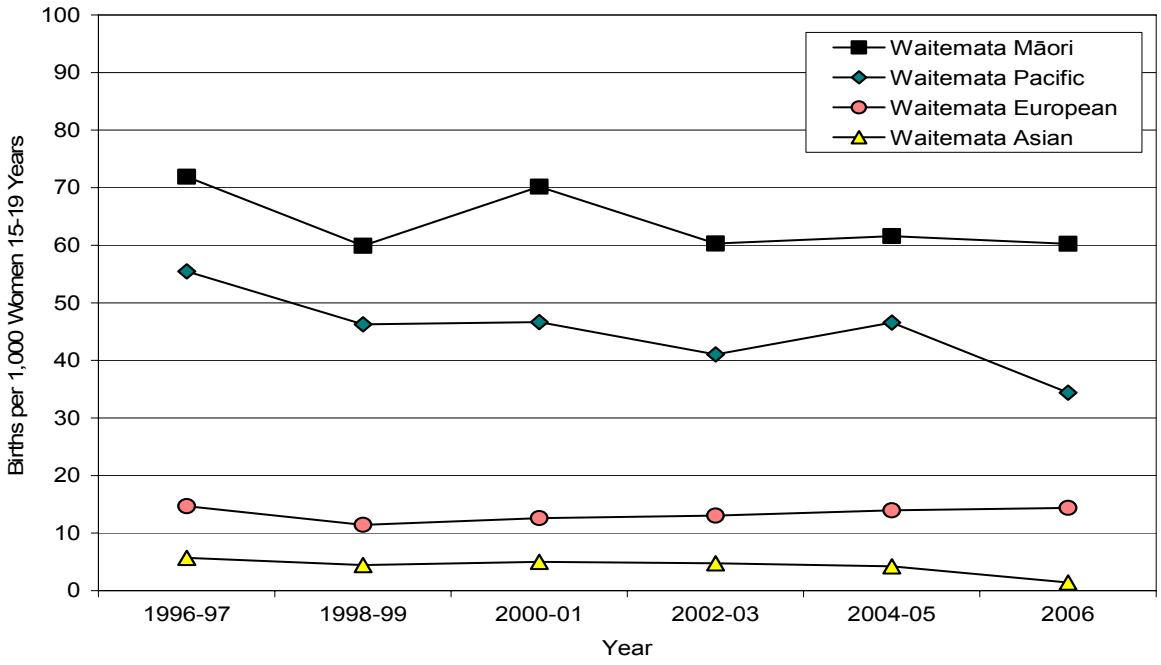


Source: The Health of Children and Young People in the Waitemata Region

In Waitemata admissions for self inflicted injuries remained relatively static from 1990-2006. Suicide mortality has generally been lower than the New Zealand average. Small numbers preclude an analysis of ethnic rates.

Teen pregnancy

Figure 116 Teenage birth rates by maternal ethnic group (prioritised), Waitemata, 1996-2006



Source: The Health of Children and Young People in the Waitemata Region

In New Zealand, the teenage birth rate increases with level of deprivation, and is higher for Maori young women (Craig, Jackson et al. 2006). Falling birth rates over the last 15 years have been accompanied by an increase in the termination rate. Between 1990 and 2006 the teenage birth rate in Waitemata was consistently lower than the New Zealand birth rate. Rates were highest for Maori, followed by Pacific.

Older People

Demography

In 2006 there were 52,944 people in Waitemata who were 65 years or older. This was 11% of the district population and 10.7% of all older people in New Zealand.

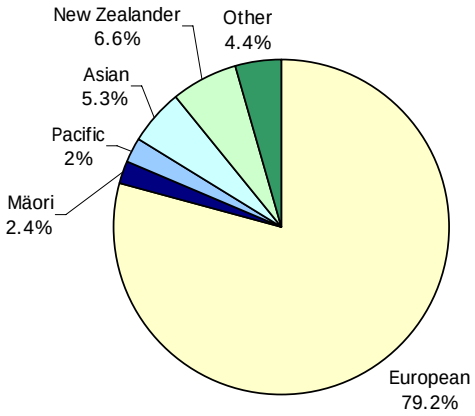
Table 119 Change in the number of older people between 2001 and 2006, Waitemata and NZ

	Waitemata				New Zealand			
	2001	2006	Change	% Change	2001	2006	Change	% Change
65-74	25,458	28,542	3,084	12.1%	246,168	265,479	19,311	7.8%
75-84	16,146	18,423	2,277	14.1%	155,622	173,454	17,832	11.5%
85+	4,746	5,979	1,233	26.0%	48,648	56,557	8,019	16.5%
Total 65+	46,747	52,944	6,594	14.2%	450,438	495,600	45,162	10.0%
Total All	429,747	481,614	51,867	12.1%	3,737,322	4,027,947	290,625	7.8%

Source: Census, Older People of Waitemata

In all age categories above 65 years, Waitemata has experienced a faster rate of growth than the country as a whole. Especially notable is the growth in Waitemata's 85+ population between 2001 and 2006, with the high growth of 26%. This trend is predicted to continue with the 65+ population predicted to more than double to 114,000 by 2026.

Figure 117 Waitemata's 65+ population by ethnicity (total response), 2006

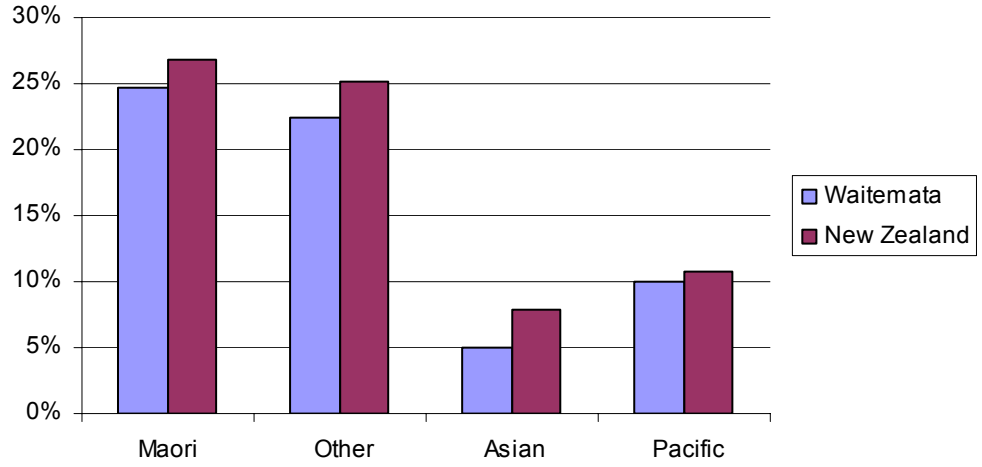


Source: Census, Older People of Waitemata

86% of Waitemata's older population was European or New Zealander, with only very small numbers of Maori and Pacific people.

Living arrangements

Figure 118 People in Waitemata aged 65+ living alone by ethnicity (total response), 2006

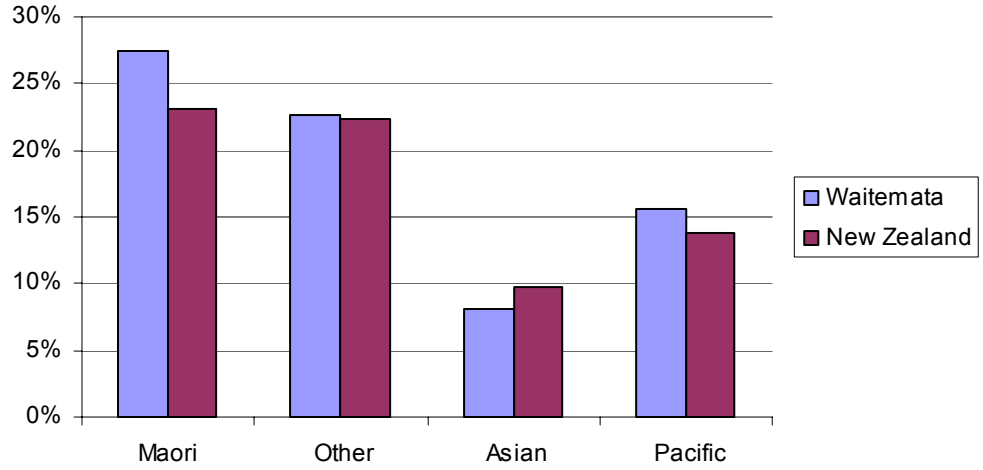


Source: Census 2006

The proportion of older Waitemata people living alone was greatest among Maori (25%), followed by Other (22%), Pacific (10%) and then Asian (5%) people.

Work

Figure 119 People in Waitemata aged 65+ that are employed, by ethnicity (total response), 2006

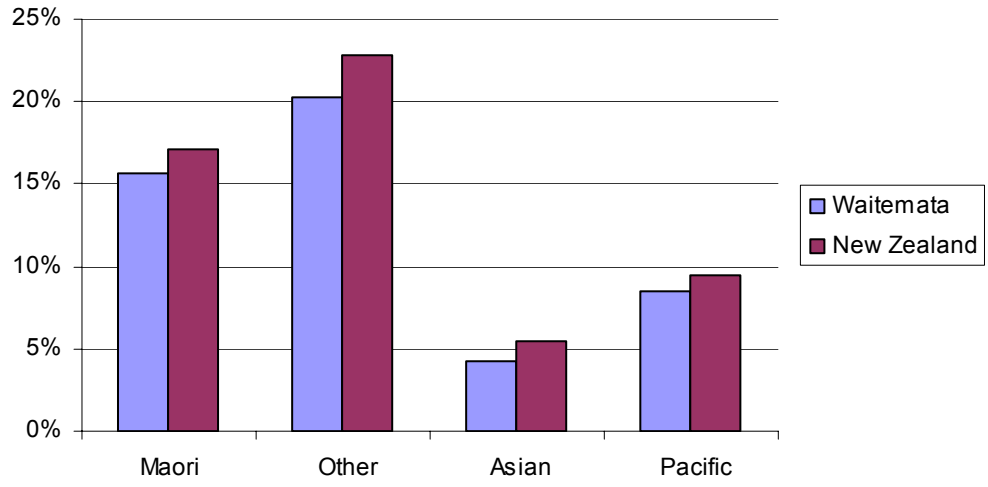


Source: Census 2006

The proportion of older Waitemata people working was greatest among Maori (27%), followed by Other (23%), Pacific (16%) and then Asian (8%) people.

Volunteer work

Figure 120 People in Waitemata aged 65+ that participate in voluntary (unpaid) work, by ethnicity (total response), 2006



Source: Census 2006

The proportion of older Waitemata people undertaking unpaid volunteer work was greatest among Other (20%), followed by Maori (16%), Pacific (8%) and then Asian (4%) people

Leading causes of hospitalisation

The following tables rank the leading causes of hospitalisation for older people. As these tables do not provide actual rates care should be taken when comparing the ranking of one population group to another.

Table 120 Leading causes of hospitalisation among men aged 65+, Waitemata and NZ, 2005-07

New Zealand		Waitemata	
Causes	Rank	Causes	Rank
Ischaemic heart disease	1	Ischaemic heart disease	1
Skin cancers	2	Respiratory infections	2
Chronic obstructive pulmonary disease	3	Chronic obstructive pulmonary disease	3
Respiratory infections	4	Angina	4
Congestive heart failure	5	Skin cancers	5

Source: NMDS, HDIU

Table 121 Leading causes of hospitalisation among women aged 65+, Waitemata and NZ, 2005-07

New Zealand		Waitemata	
Causes	Rank	Causes	Rank
Ischaemic heart disease	1	Ischaemic heart disease	1
Falls	2	Falls	2
Chronic obstructive pulmonary disease	3	Angina	3
Disorders of the eye and adnexa	4	Chronic obstructive pulmonary disease	4
Arthrosis	5	Disorders of the eye and adnexa	5

Source: NMDS, HDIU

The leading causes of hospitalisation among older Waitemata males and females were largely comparable to those of older males and females nationally: ischaemic heart disease and chronic obstructive pulmonary disease for males and females, along with respiratory infections and skin cancers for older males, and falls and disorders of the eye and adnexa (ICD-10-AM H25-H28) for older females. Angina featured separately to ischaemic heart disease among both older males and females in Waitemata (only ischaemic heart disease featured among males and females nationally).

Table 122 Leading causes of hospitalisation by ethnicity (prioritised) among people aged 65+, Waitemata and NZ, 2005-07

	New Zealand		Waitemata	
	Causes	Rank	Causes	Rank
Maori	COPD	1	Ischaemic heart disease	1
	Ischaemic heart disease	2	COPD	2
	Respiratory infections	3	Respiratory infections	3
	Congestive heart failure	4	Congestive heart failure	4
	Diabetes	5	Diabetes	5
Pacific	Respiratory infections	1	COPD	1
	COPD	2	Respiratory infections	2
	Diabetes	3	Ischaemic heart disease	3
	Ischaemic heart disease	4	Diabetes	4
	Congestive heart failure	5	Congestive heart failure	5
Asian	Ischaemic heart disease	1	Ischaemic heart disease	1
	Disorders of the eye and adnexa	2	Diabetes	2
	Diabetes	3	Disorders of the eye and adnexa	3
	Respiratory infections	4	Respiratory infections	4
	Angina	5	Angina	5
Other	Ischaemic heart disease	1	Ischaemic heart disease	1
	Skin cancers	2	Falls	2
	Falls	3	Angina	3
	Chronic Obstructive Pulmonary Disease	4	Chronic Obstructive Pulmonary Disease	4
	Arthrosis	5	Respiratory infections	5

Source: NMDS, HDIU

Additional leading causes of hospitalisation among Waitemata's older people were: congestive heart failure and diabetes (among older Maori and Pacific people), disorders of the eye and adnexa and angina (among older Asians) and falls and angina (among older Others). Among older Others, angina and respiratory infections featured as leading causes of hospitalisation in Waitemata but not nationally, whereas skin cancers and arthosis featured nationally but not in Waitemata.

Disease-specific hospitalisations

Ischaemic heart disease

Table 123 Ischaemic heart disease age-standardised hospitalisation rate per 100,000 (and 95% confidence intervals) by ethnicity (prioritised) among people aged 65+, 2003-05

		Maori	Pacific	Asian	Other	Total
WDHB	Female	4251.2 (3409.6–5237.5)	3792.8 (3033.8–4684.1)	1368.1 (1048.9–1753.8)	2324.4 (2226.5–2425.4)	2381.8 (2286.6–2479.9)
	Male	3914.7 (3033.9–4971.6)	3187.1 (2357.8–4213.5)	2746.7 (2259.6–3307.7)	4496.3 (4337.1–4659.9)	4355.4 (4206.6–4508.1)
	Total	4091.4 (3472.6–4788.5)	3544.7 (2972.0–4195.6)	2008.9 (1720.7–2331.6)	3318.7 (3228.5–3410.7)	3280.2 (3194.8–3367.3)
New Zealand	Female	2991.9 (2821.3–3170.1)	2257.6 (2043.9–2487.7)	1628.1 (1476.4–1791.1)	2098.0 (2067.4–2128.9)	2144.9 (2115.3–2174.9)
	Male	3241.5 (3050.5–3441.5)	3191.1 (2898.6–3505.2)	2597.5 (2394.8–2812.8)	3696.0 (3648.5–3743.8)	3641.7 (3597.0–3686.9)
	Total	3133.4 (3004.4–3266.5)	2656.0 (2479.8–2841.4)	2082.2 (1956.8–2213.5)	2832.4 (2805.1–2859.9)	2830.7 (2804.7–2856.9)

Source: Sector Services, Information Directorate, Ministry of Health (prepared by HDIU)

The ischaemic heart disease (IHD) hospitalisation rate of older people in Waitemata was higher than the national rate. Older males had a higher rate than older females in both Waitemata and New Zealand. The IHD hospitalisation rate of older Other males was higher than that for older Pacific and Asian males in Waitemata. Among older females in Waitemata, Maori and Pacific females had a higher rate of IHD hospitalisation than Other females; Other females had a higher rate than Asian females.

Cerebrovascular disease (Stroke)

Table 124 Cerebrovascular disease age-standardised hospitalisation rate per 100,000 (and 95% confidence intervals) by ethnicity (prioritised) among people aged 65+, 2003-05

		Maori	Pacific	Asian	Other	Total
Waite-mata	Female	854.1 (506.2–1349.8)	1661.6 (1163.7–2300.3)	703.2 (471.0–1010.0)	631.2 (582.9–682.4)	670.1 (621.9–721.1)
	Male	1002.5 (533.8–1714.4)	2702.4 (1902.8–3725.0)	669.4 (444.8–967.5)	876.5 (808.2–948.9)	901.9 (835.7–972.0)
	Total	921.5 (626.1–1308.0)	2054.5 (1610.4–2583.2)	687.3 (520.5–890.4)	743.5 (702.7–786.1)	774.6 (734.6–816.3)
New Zealand	Female	1083.2 (980.4–1193.9)	1225.7 (1068.0–1400.1)	692.4 (593.0–803.6)	626.9 (611.1–643.0)	667.7 (651.9–683.8)
	Male	994.2 (886.7–1111.0)	1669.1 (1452.5–1908.9)	877.7 (760.3–1008.2)	855.3 (833.0–878.0)	885.9 (864.2–908.0)
	Total	1053.9 (978.2–1133.9)	1410.0 (1279.8–1549.7)	786.3 (708.5–870.3)	732.7 (719.4–746.2)	768.7 (755.6–782.0)

Source: NMDS, HDIU

The stroke hospitalisation rate for older people in Waitemata did not differ from the national rate. Older males had a higher rate than older females in Waitemata and New Zealand. Older Pacific males had the highest rate among older males in Waitemata. Older Pacific females had a higher rate than Asian and Other females in Waitemata.

Falls

Table 125 Fall-related age-standardised hospitalisation rate per 100,000 (and 95% confidence intervals) by ethnicity (prioritised) among people aged 65+, 2003-05

		Maori	Pacific	Asian	Other	Total
Waite-mata	Female	2166.9 (1548.0–2950.7)	1970.2 (1420.0–2663.2)	1635.0 (1267.1–2076.4)	2503.0 (2409.9–2598.8)	2461.5 (2372.3–2553.1)
	Male	1372.3 (849.5–2097.7)	1642.5 (1041.2–2464.6)	626.0 (396.9–939.4)	1882.0 (1782.5–1985.6)	1811.7 (1718.2–1909.0)
	Total	1809.3 (1384.0–2324.2)	1862.0 (1437.0–2373.2)	1145.3 (920.9–1407.7)	2249.5 (2180.9–2319.8)	2195.6 (2130.3–2262.4)
New Zealand	Female	1420.9 (1300.3–1549.6)	1357.7 (1190.0–1542.4)	1490.8 (1341.2–1652.6)	1802.0 (1776.0–1828.2)	1778.8 (1753.9–1803.9)
	Male	1245.0 (1119.0–1381.3)	1440.0 (1231.7–1673.5)	687.6 (577.7–812.4)	1333.9 (1306.4–1361.8)	1321.9 (1295.7–1348.6)
	Total	1356.1 (1267.3–1449.4)	1393.8 (1261.5–1536.2)	1130.6 (1033.6–1234.2)	1605.9 (1587.0–1625.1)	1588.2 (1570.1–1606.6)

Source: NMDS, HDIU

The hospitalisation rate due to falls for older people in Waitemata was higher than the national rate. Older females had a higher rate than older males in both Waitemata and New Zealand. In Waitemata the falls-related hospitalisation rate was higher among Other than among Asian older females. The rate was higher among Other and Pacific than among Asian older males in Waitemata.

Musculoskeletal disease

Table 126 Musculoskeletal disease age-standardised hospitalisation rate per 100,000 (and 95% confidence intervals) by ethnicity (prioritised) among people aged 65+, 2003-05

		Maori	Pacific	Asian	Other	Total
Waite-mata	Female	3182.3 (2445.4–4071.5)	2581.9 (1960.6–3337.7)	1209.8 (903.6–1586.5)	2297.0 (2196.0–2401.6)	2256.3 (2161.1–2354.6)
	Male	3551.7 (2716.8–4562.3)	2502.9 (1803.9–3383.2)	742.1 (493.1–1072.6)	2067.7 (1959.9–2179.9)	2040.6 (1938.9–2146.3)
	Total	3324.3 (2765.0–3963.6)	2570.3 (2091.3–3126.2)	986.2 (782.0–1227.4)	2191.5 (2117.6–2267.4)	2159.2 (2089.5–2230.7)
New Zealand	Female	2606.1 (2448.4–2771.2)	2206.3 (1995.3–2433.5)	1328.2 (1192.5–1475.1)	2443.1 (2408.1–2478.4)	2406.4 (2373.5–2439.7)
	Male	3235.7 (3042.3–3438.2)	2509.3 (2251.5–2788.6)	909.5 (788.1–1044.3)	2304.2 (2266.5–2342.4)	2300.6 (2264.9–2336.8)
	Total	2885.7 (2762.5–3013.0)	2339.5 (2174.5–2513.8)	1120.7 (1029.0–1218.4)	2377.9 (2352.2–2403.7)	2356.8 (2332.6–2381.2)

Source: NMDS, HDIU

The hospitalisation rate due to musculoskeletal disease was significantly lower for older people in Waitemata than New Zealand. Older females had a significantly higher rate than older males in Waitemata and New Zealand. In Waitemata the rate of musculoskeletal disease hospitalisation was higher among older Maori, Pacific and Other people than among older Asian people. The rate was higher among older Maori males and females (separately and combined) than among older Other people in Waitemata.

Chronic obstructive pulmonary disease

Table 127 Chronic obstructive pulmonary disease age-standardised hospitalisation rate per 100,000 (and 95% confidence intervals) by ethnicity (prioritised) among people aged 65+, 2003-05

		Maori	Pacific	Asian	Other	Total
Waite-mata	Female	2973.5 (2294.9–3790.0)	2410.9 (1795.1–3169.9)	403.4 (239.1–637.6)	1104.6 (1037.1–1175.2)	1149.8 (1083.8–1218.7)
	Male	2474.7 (1775.9–3357.2)	6704.6 (5449.2–8162.7)	841.1 (549.4–1232.4)	1345.3 (1260.6–1434.3)	1444.3 (1360.3–1532.0)
	Total	2788.2 (2282.7–3372.2)	4160.1 (3521.0–4881.6)	597.5 (434.1–802.1)	1200.5 (1147.6–1255.2)	1270.2 (1218.2–1324.0)
New Zealand	Female	3719.7 (3530.9–3916.1)	1880.9 (1684.3–2094.2)	337.9 (268.0–420.6)	998.6 (976.8–1020.7)	1133.4 (1111.2–1156.0)
	Male	3366.9 (3168.3–3574.7)	5063.0 (4683.2–5465.4)	931.8 (802.7–1075.8)	1384.7 (1356.3–1413.6)	1540.3 (1511.6–1569.4)
	Total	3557.1 (3419.6–3698.6)	3212.7 (3015.7–3419.2)	603.0 (532.7–680.0)	1158.5 (1141.2–1176.0)	1303.0 (1285.3–1320.8)

Source: NMDS, HDIU

There was no difference in the hospitalisation rate due to chronic obstructive pulmonary disease (COPD) between older people in Waitemata and New Zealand. Older males had a higher hospitalisation rate than older females in Waitemata and New Zealand. In Waitemata older males, the rate of hospitalisation for COPD was highest among Pacific men, followed by Maori, Other and then Asian. Among Waitemata older females, the COPD hospitalisation rate for Maori and Pacific females was higher than that for Other females, which was higher than that for Asian females.

Leading causes of mortality

The large majority of deaths amongst older people are from cardiovascular disease (43%), cancers (28%), or respiratory diseases (10%).

The following tables rank the leading causes of mortality among older males. As these tables do not provide actual rates care should be taken when comparing the ranking of one population group to another.

Table 128 Leading causes of mortality among males aged 65+, 2003-05

New Zealand		Waitemata	
Causes	Rank	Causes	Rank
Ischaemic heart disease	1	Ischaemic heart disease	1
Stroke	2	Stroke	2
Chronic Obstructive Pulmonary Disease	3	Chronic Obstructive Pulmonary Disease	3
Diabetes	4	Lung cancer	4
Lung cancer	5	Diabetes	5

Source: NMDS, HDIU

Table 129 Leading causes of mortality among femlaes aged 65+, 2003-05

New Zealand		Waitemata	
Causes	Rank	Causes	Rank
Ischaemic heart disease	1	Ischaemic heart disease	1
Stroke	2	Stroke	2
Chronic Obstructive Pulmonary Disease	3	Chronic Obstructive Pulmonary Disease	3
Diabetes	4	Diabetes	4
Lung cancer	5	Lung cancer	5

Source: NMDS, HDIU

The leading causes of mortality among older Waitemata males and females were the same as those of older males and females nationally: ischaemic heart disease, cerebrovascular disease (stroke), chronic obstructive pulmonary disease, diabetes and lung cancer.

Table 130 Leading causes of mortality by ethnicity (prioritised) among people aged 65+, 2003-05

	New Zealand		Waitemata DHB	
	Causes	Rank	Causes	Rank
Maori	Ischaemic heart disease	1	Ischaemic heart disease	1
	Stroke	2	Stroke	2
	Diabetes	3	Diabetes	3
	Chronic obstructive pulmonary disease	4	Lung cancer	4
	Lung cancer	5	Chronic obstructive pulmonary disease	5
Pacific	Ischaemic heart disease	1	Ischaemic heart disease	1
	Stroke	2	Diabetes	2
	Diabetes	3	Stroke	3
	Chronic obstructive pulmonary disease	4	Chronic obstructive pulmonary disease	4
	Lung cancer	5	Lung cancer	5
Asian	Ischaemic heart disease	1	Ischaemic heart disease	1
	Stroke	2	Stroke	2
	Diabetes	3	Diabetes	3
	Lung cancer	4	Lung	4
	Chronic obstructive pulmonary disease	5	Chronic obstructive pulmonary disease	5
Other	Ischaemic heart disease	1	Ischaemic heart disease	1
	Stroke	2	Stroke	2
	Chronic obstructive pulmonary disease	3	Chronic obstructive pulmonary disease	3
	Lung cancer	4	Lung cancer	4
	Diabetes	5	Colorectal cancer	5

Source: NMDS, HDIU

There were some differences across the ethnic groups in leading causes of mortality for older people in Waitemata. Diabetes was a leading cause for older Maori, Pacific and Asian people, while colorectal cancer was a leading cause for older Other people.

Disease-specific mortality

Ischaemic heart disease

Table 131 Ischaemic heart disease age-standardised mortality rate per 100,000 (and 95% confidence intervals) by ethnicity (prioritised) among people aged 65+, 2003-05

		Maori	Pacific	Asian	Other	Total
Waitemata	Female	625.2 (312.1–1118.6)	1120.1 (693.4–1712.2)	238.3 (102.9–469.5)	555.9 (515.2–599.1)	561.6 (521.6–603.9)
	Male	1516.7 (971.8–2256.8)	2747.0 (1890.9–3857.8)	399.7 (199.5–715.1)	917.5 (847.9–991.2)	946.0 (877.7–1018.1)
	Total	1032.4 (719.1–1435.9)	1734.0 (1302.6–2262.4)	307.3 (185.0–479.8)	712.5 (674.7–751.8)	728.1 (690.9–766.7)
New Zealand	Female	1046.5 (940.8–1160.7)	819.8 (685.4–972.8)	372.8 (295.1–464.6)	643.9 (629.5–658.6)	663.9 (649.5–678.5)
	Male	1636.9 (1487.7–1797.1)	1519.3 (1298.9–1766.4)	576.2 (468.8–700.8)	1046.2 (1021.8–1071.0)	1074.2 (1050.3–1098.5)
	Total	1304.3 (1215.4–1397.9)	1108.2 (986.3–1240.9)	467.4 (401.5–541.2)	819.6 (806.3–833.0)	843.3 (830.2–856.5)

Source: NMDS, HDIU

The ischaemic heart disease mortality rate among older people in Waitemata was lower than that observed nationally. Older males had a higher rate than older females in Waitemata and New Zealand. Among older Waitemata males and females (separately and combined) the rate was higher in Pacific than among Other, and the rate was higher among Other than among Asian people.

Cerebrovascular disease (Stroke)

Table 132 Cerebrovascular disease age-standardised mortality rate per 100,000 (and 95% confidence intervals) by ethnicity (prioritised) among people aged 65+, 2003-05

		Maori	Pacific	Asian	Other	Total
Waitemata	Female	571.8 (285.4–1023.1)	523.7 (251.1–963.1)	275.3 (125.9–522.6)	350.3 (318.4–384.5)	360.7 (328.9–394.7)
	Male	420.2 (136.4–980.6)	671.8 (290.0–1323.8)	164.3 (53.3–383.3)	305.3 (265.9–349.0)	309.0 (270.6–351.4)
	Total	496.7 (283.9–806.6)	585.2 (346.8–924.8)	229.1 (125.3–384.4)	337.7 (312.4–364.6)	344.6 (319.7–371.0)
New Zealand	Female	489.1 (416.9–570.2)	650.5 (531.0–788.9)	379.8 (301.6–472.1)	374.6 (363.7–385.8)	386.3 (375.5–397.4)
	Male	403.7 (328.5–491.0)	609.8 (473.5–773.0)	237.5 (170.4–322.1)	351.6 (337.7–366.0)	358.5 (344.8–372.5)
	Total	456.8 (403.3–515.5)	653.2 (559.0–758.8)	325.7 (270.5–388.9)	369.9 (361.2–378.8)	379.7 (371.1–388.4)

Source: NMDS, HDIU

The stroke mortality rate of older people in Waitemata was lower than the national rate.

Chronic obstructive pulmonary disease

Table 133 Chronic obstructive pulmonary disease age-standardised mortality rate per 100,000 (and 95% confidence intervals) by ethnicity (prioritised) among people aged 65+, 2003-05

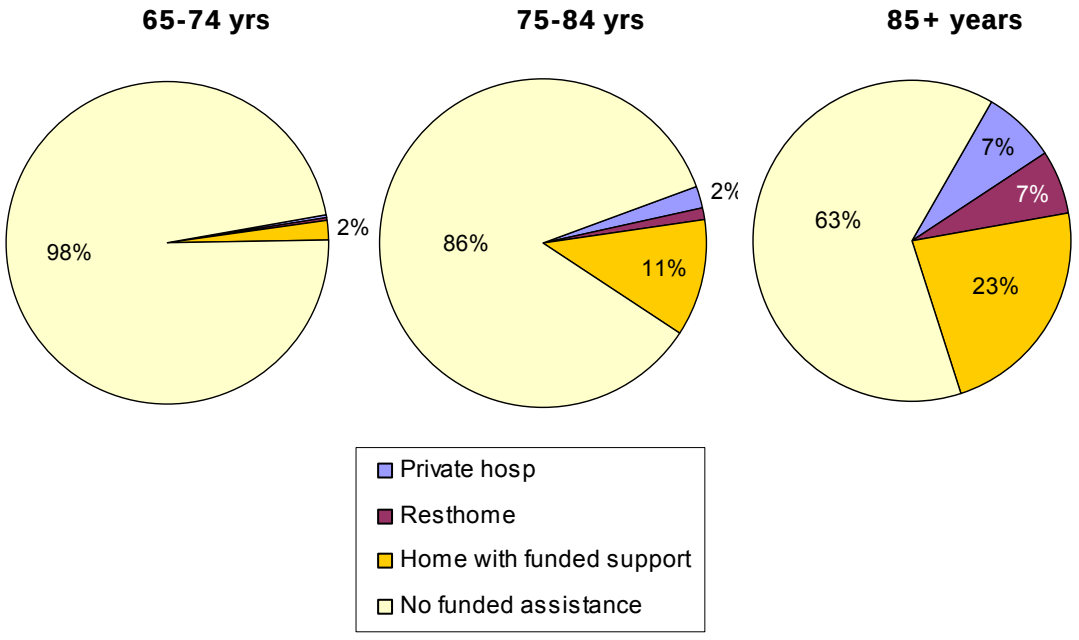
		Maori	Pacific	Asian	Other	Total
Waitemata	Female	238.2 (77.3–555.8)	362.9 (145.9–747.6)	*	168.1 (143.6–195.5)	169.2 (145.5–195.7)
	Male	483.5 (194.4–996.2)	*	*	312.5 (272.5–356.8)	306.8 (268.6–348.9)
	Total	352.8 (182.3–616.2)	321.1 (154.0–590.4)	95.3 (30.9–222.4)	223.3 (201.6–246.7)	221.7 (200.9–244.2)
New Zealand	Female	496.3 (426.3–574.6)	227.2 (160.0–313.2)	66.4 (36.3–111.5)	186.8 (178.3–195.7)	198.6 (190.1–207.4)
	Male	577.6 (490.0–676.4)	563.2 (427.7–728.1)	139.6 (88.5–209.5)	317.1 (303.7–330.8)	327.6 (314.6–341.1)
	Total	527.3 (472.2–587.1)	354.0 (286.4–432.8)	98.7 (69.5–136.1)	237.6 (230.3–245.2)	248.9 (241.6–256.3)

* Rates not presented for groups with small numbers.
Source: NMDS, HDIU

The chronic obstructive pulmonary disease mortality rate for older people in Waitemata did not differ from the national rate. Older males had a higher rate than older females in Waitemata and New Zealand.

Support services

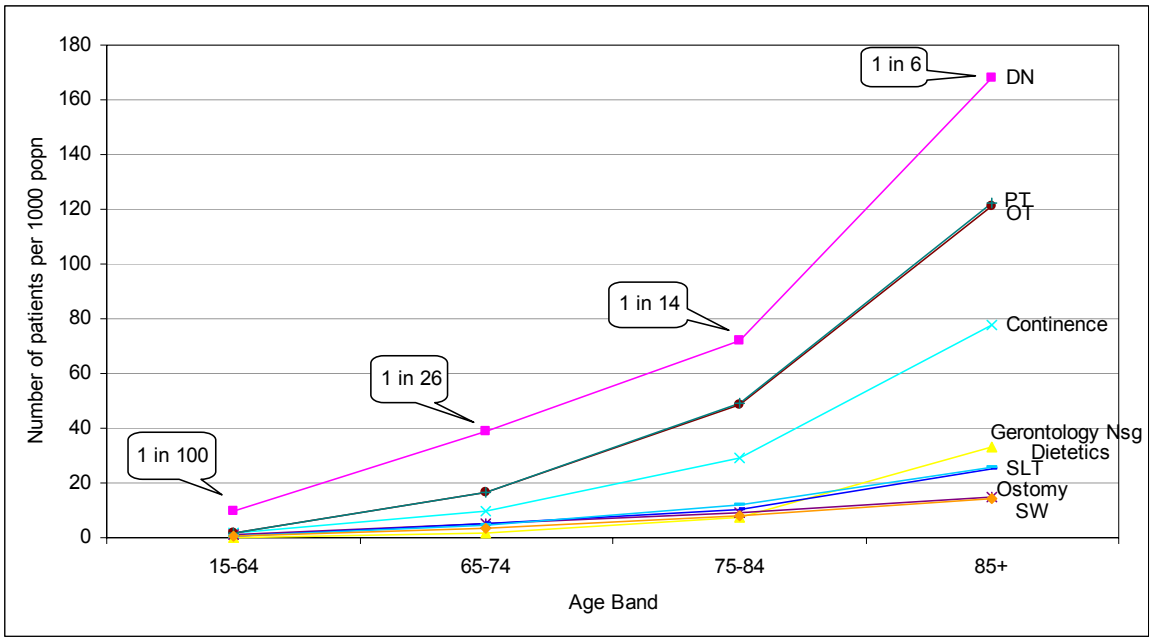
Figure 121 Proportion of older people requiring support services by age, Waitemata, 2007



Source: Older People in Waitemata

The usage of funded support services increases dramatically with age; in the population aged 85+, 37% accessed a funded support service (either residential or home-based) in May 2007, compared to only 2% of the 65-74 year age band.

Figure 122 Rates of people requiring home health clinical services by age group, Waitemata, 06/07



Source: Older People in Waitemata

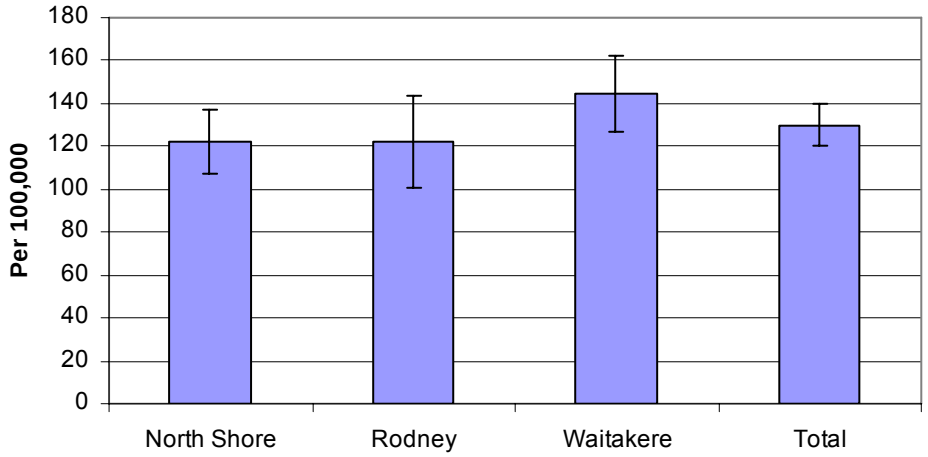
Home health clinical services are comprised of district nursing, specialist gerontology nursing, continence and ostomy nursing, physiotherapy, occupational therapy, speech language therapy, dietetics and social work. Overall, two thirds of the patients of these services are older people, with that proportion varying by service. In 06/07 Home Health services had 7,624 people (uniquely counted on NHI) aged 65+ on their caseloads. Utilisation increases in all services as age increases. Although District Nursing has one of the lowest proportions of older people, the service still has the highest utilisation by older people due to its overall high volumes.

Rodney, North Shore and Waitakere

As discussed previously North Shore, Rodney, and Waitakere have markedly different populations and determinants of health. In this section we look at two indicators of health: avoidable mortality, and avoidable hospitalisation. These indicators are important because they measure the potential

Avoidable mortality

Figure 123 Avoidable mortality, 0-74 years, age-standardised rates per 100,000, 2005-07 by territorial authority

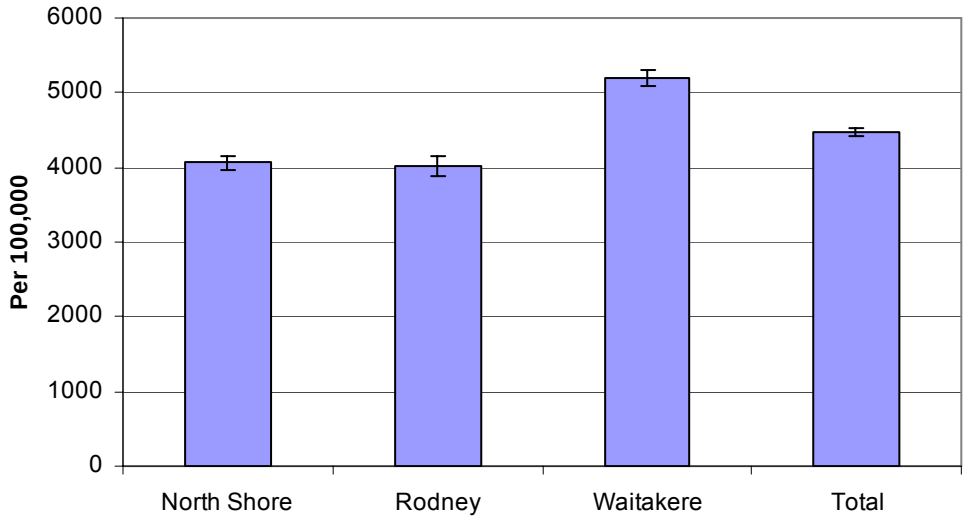


Source: Mortality data

Waitakere City appears to have higher avoidable mortality rates than either Rodney or North Shore but the confidence intervals overlap.

Avoidable hospitalisations

Figure 124 Avoidable hospitalisations, 0-74 years, age-standardised rates per 100,000, 2005-07 by territorial authority



Source: NMDS

People in Waitakere had higher rates of avoidable hospitalisation than people in North Shore and Rodney.

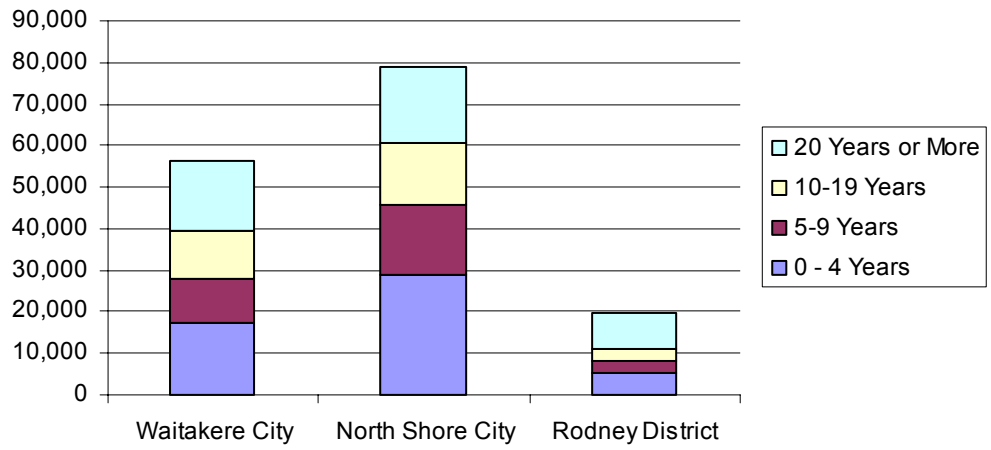
Migrants and Refugees

The Immigration Act 1987 radically altered the criteria for admission of new migrants into New Zealand. These changes, and the subsequent establishment of a points system to quantify the criteria specified in the new Act, changed the characteristics of immigrants and the demography of the Auckland region. The number of permanent residency permits and visas approved increased steadily from the 1980s and there has been a corresponding increase in the percentage of the population born overseas.

In 2006, 32% of residents of Waitemata were born overseas, compared with 23% at the national level. In North Shore City, 40% of residents were born overseas, 32% in Waitakere and 23% in Rodney. Fifty-one percent of people living in Waitemata who were born overseas lived in North Shore City, 37% lived in Waitakere and 13% lived in Rodney.

Within Waitemata in 2006, of those residents born overseas, 32% or 51,618 had lived in New Zealand for fewer then 5 years, 19% or 30,153 had lived in New Zealand for 5-9 years, 18% or 28,968 for 10-19 years, and 28% or 44,157 for 20 years or more.

Figure 125: Residents born overseas by territorial authority and length of time in New Zealand, 2006

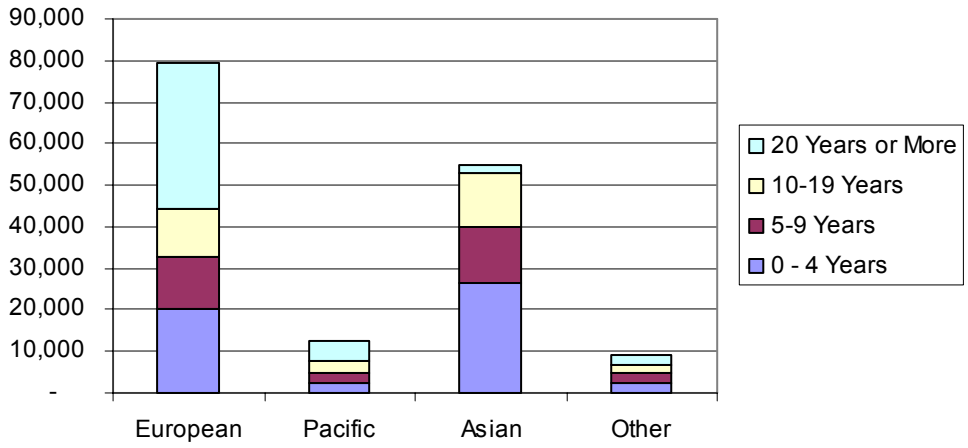


Source: Census 2006

The length of time people born overseas had lived in New Zealand differed by territorial authority. Fifty-six percent of people in Waitemata District who had lived in New Zealand for fewer than 5 years lived in North Shore City.

Within Waitemata District, 26% of people of European ethnicity (81,486) were born overseas, 2% of Maori (873), 39% of Pacific (13,863) and 83% (56,865) of Asian. The majority of residents who had lived in New Zealand fewer than 5 years were Asian (26,349), followed by European (20,358).

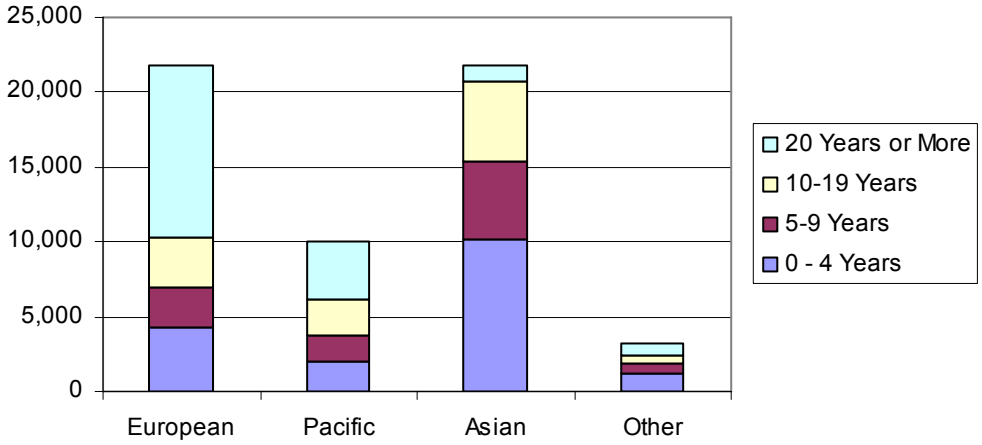
Figure 126 Waitemata residents born overseas by ethnicity (total response) and years in New Zealand, 2006



Source: Census 2006

In Waitakere City in 2006, a greater proportion of those born overseas were of Pacific ethnicities compared to Waitemata District, although 35% had lived in New Zealand for 20 years or more. Approximately half the European population born overseas had lived in New Zealand for 20 years or more. Most Asian residents born overseas had lived in New Zealand for fewer than 20 years, and almost half had lived in New Zealand for fewer than 5 years.

Figure 127 Waitakere City residents born overseas by ethnicity (total response) and years in New Zealand, 2006

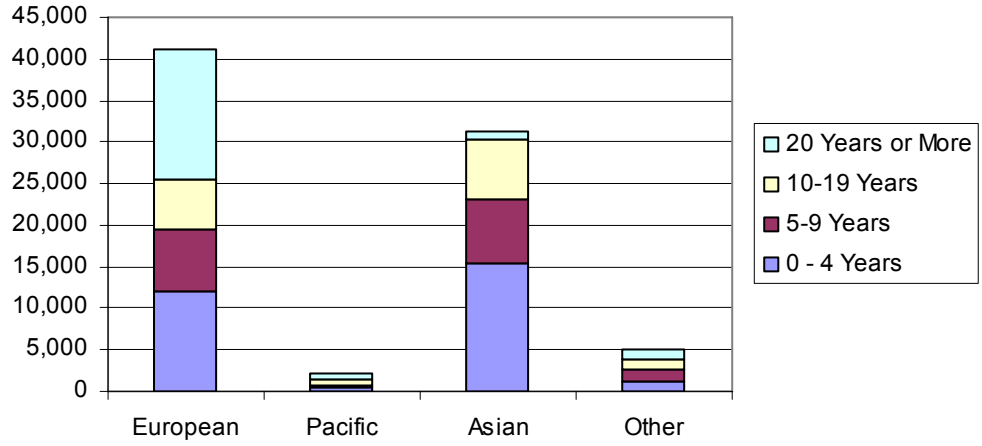


Source: Census 2006

In North Shore City in 2006, the largest groups of residents born overseas were European followed by Asian. Thirty seven percent of the European group had lived in New Zealand for 20 years or more, and 28% (11,958) had lived in New Zealand for fewer than 5 years. Very few people of Asian

ethnicity had lived in New Zealand for 20 years or more, and almost half had lived in New Zealand for fewer than 5 years.

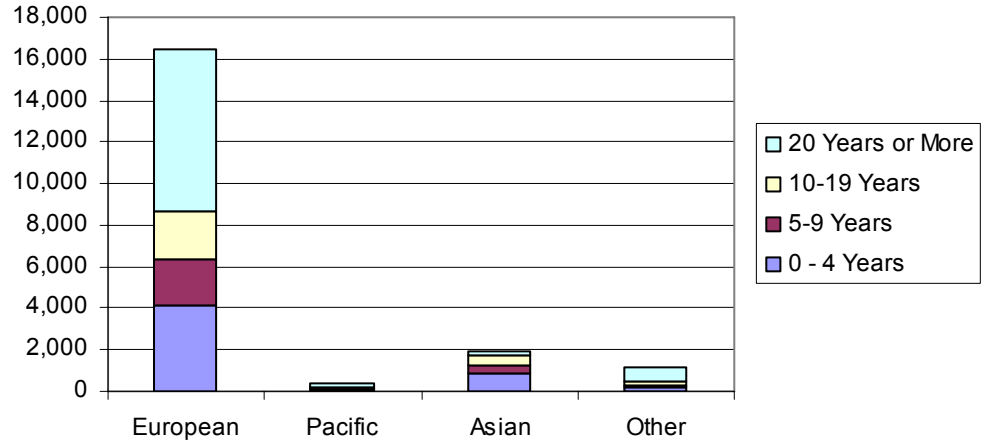
Figure 128 North Shore City residents born overseas by ethnicity (total response) and years in New Zealand, 2006



Source: Census 2006

In Rodney in 2006, almost all residents born overseas were European, and almost half of them had lived in New Zealand for more than 20 years.

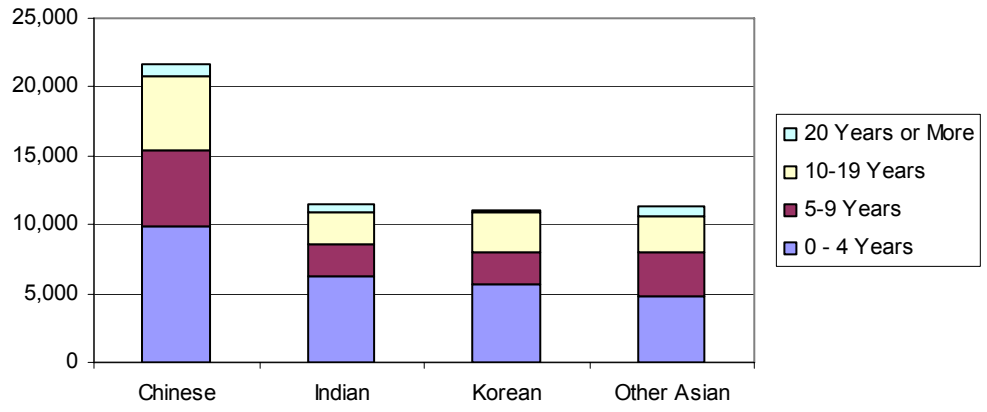
Figure 129 Rodney District residents born overseas by ethnicity (total response) and years in New Zealand, 2006



Source: Census 2006

The population group with the largest number of recent migrants in Waitemata District is the Asian group. Chinese is the largest group, followed by Indian and Korean.

Figure 130 Waitemata residents of Asian ethnicities born overseas, by ethnicity (total response) and years in New Zealand, 2006



Source: Census 2006

English language ability is important in order to participate in New Zealand society. The following table shows the responses to the 2006 Census question 'In which language(s) could you have a conversation about a lot of everyday things?' The table includes responses for Waitemata residents who spoke Other Languages only. In addition, not everyone who can have a conversation in English about everyday things necessarily has enough English to manage a conversation with a health professional about a health issue.

Table 134 Waitemata residents who speak Other Languages Only (neither English, Maori nor NZ sign language), 2006, total responses

Ethnicity (total response)	Waitakere	North Shore	Rodney	Waitemata
European	282	453	75	810
Maori	6	6	3	15
Samoan	1,209	129	3	1,341
Cook Islands Maori	21	3	0	24
Tongan	219	99	15	333
Niuean	33	6	0	39
Tokelauan	18	3	0	21
Fijian	18	3	3	24
Tuvaluan	168	3	3	174
Other Pacific Peoples	24	3	0	27
Total Pacific Peoples	1,683	249	24	1,956
Chinese	2,037	2,787	117	4,941
Indian	582	204	27	813
Korean	876	2,652	165	3,693
Other Asian	531	516	30	1,077
Total Asian	3,999	6,144	339	10,482
Other Ethnicity	324	297	12	633
Total	6,345	7,161	447	13,953

Source: Census 2006

75% of those who could not hold a conversation in English we Asians and 14% Pacific people.

Interpreter services are a critical support service for many Waitemata residents when they access heath services. Waitemata DHB Asian Health Support Service provides interpreting services to all non-English speaking clients accessing Waitemata DHB mainstream services; HealthWest PHO; Harbour Health PHO; Te Puna PHO and Waiora Trust PHO. The table below is a summary of medical appointments with interpreting support for migrant clients accessing Waitemata DHB mainstream services, and has been included to demonstrate the diversity of cultural groups now found within Waitemata District. Interpreter services provided to refugees are not shown here, but are included in a table below.

Table 135: Interpreter services provided to migrant clients of Waitemata DHB services (2007-2008)

Languages	Job Episodes	Languages	Job Episodes
Mandarin	2842	Niuean	13
Korean	1865	Lao	11
Cantonese	1166	Turkish	11
Samoan	399	Dutch	10
Russian	254	Sinhalese	10
Hindi	251	Urdu	10
Thai	222	Armenian	9
Tongan	167	Cook Is. Maori	6
Croatian	79	Macedonian	5
Japanese	70	Hungarian	4
Vietnamese	70	Bangla	3
Spanish	67	Shanghainese	3
Kurdish	49	Sri Lankan	3
Tamil	48	Yugoslavian	3
Indonesian	41	Bosnian	2
Gujarati	39	German	2
Czech	36	Albanian	1
Filipino	33	Hokkien	1
Romanian	24	Malay	1
Tuvaluan	24	Montenegro	1
French	20	Pampango (Filipino)	1
Bulgarian	18	Polish	1
Fijian (Hindi)	18	Portuguese	1
Serbian	18	Ukrainian	1
Tagalog (Filipino)	15	**Total:**	**7948**

Source: Waitemata DHB Asian Health Support Service

Consultation with migrant and refugee communities on the development of the Auckland Regional Settlement Strategy found that their experience with health services was generally satisfactory, but that the health sector needed to address the following:

- Information about migrant/refugee entitlement to health services and how to access health services.

- Language support in accessing services.
- Awareness-raising, and where necessary de-stigmatising, mental well-being issues within new settler communities.
- Mental health services and general health services being delivered in culturally appropriate ways.

Refugees

New Zealand is one of nine countries that accepts for resettlement an annual quote of about 700 United Nations mandated refugees. In addition to this New Zealand accepts asylum seekers for processing. These are individuals who seek refugee status either at the border or from the community. The number of asylum seekers has dropped dramatically over the last few years. According to New Zealand Immigration service statistics, in financial year 1997/98 there were 2591 claims by asylum seekers for refugee status, but in the last financial year, 2007/08, there were only 203, of which 29% of claimants were successful. This fall in asylum seekers is a global phenomenon and not confined to New Zealand. New Zealand also accepts an annual quota of family reunification refugees, usually totalling around 300. Refugees and asylum seekers come from a wide range of countries. Examples include: Iraq, Congo, Myanmar, Eritrea, Colombia, Afghanistan, Bhutan and many other countries.

The nationality of refugees accepted into New Zealand varies over time. However, during the last 8 years, the majority of refugees have come from Afghanistan, Iraq, Iran, Myanmar, Somalia, Eritrea, Ethiopia, Sudan, Burundi and the Democratic Republic of Congo.

Over the past 2-3 years and specifically the past year, Massey, Henderson, Glendene & Kelston have been active settlement areas. There are established Afghan, Ethiopian and Eritrean communities in New Lynn and Kelston (i.e. been here over 10 years). Burmese (which comprises of many different ethnicities & languages but the majority Chin), Eritrean, Iraqi, Congolese, Sudanese and Afghan families are joining the new settler communities. The Burmese and Eritrean are the main communities being settled, although we can expect an increase in the Congolese community over the next year.

The numbers of families settling in these areas is approximately 5-8 families per intake with 6 intakes per year. The Burmese, Iraqi & Afghan families are smaller (2-3 children) while the African families can be much larger (4-6 children). Often families are solo mums. Refugees continue to be settled elsewhere in the district including the North Shore through family reunification. The foreseeable future sees Massey & Henderson continuing to be areas of resettlement for quota refugees. There is a moratorium on settling on the North Shore due to limited NZ Housing stock availability.

Refugee Health assessment

On arrival in New Zealand, quota refugees undergo compulsory medical screening at the Mangere Refugee Resettlement Centre (MRRC). Free medical screening is available for asylum seekers and family reunification refugees, however it is voluntary and up-take is far from universal. These screening services are funded by the Ministry of Health and provided by the Auckland Regional Public Health Service (ARPHS). ARPHS' medical officers complete the medical screening and in a majority of cases then refer the individual on to the primary care sector (for the quota refugees, this

will occur when their time at MRRC is complete and for asylum seekers ideally when the screening process is complete).

Health status of refugees and asylum seekers

Little current comprehensive information exists regarding the demographic distribution of refugees in this region or their health status. Solomon undertook a comparative assessment of the health status of quota refugees and concluded that their overall health status was comparable to that of Pacific people (Solomon 1997). He found no evidence to suggest that the health status of asylum seekers was quantitatively different from that of quota refugees. However, it can be expected that they will have a high immediate and on-going level of health needs for the following reasons:

- In its annual quota of Mandated refugees, New Zealand gives priority to women at risk and medical/disabled refugees.
- Refugees are frequently from countries (e.g. sub-Saharan Africa) where there are high levels of poverty, under-resourced health services, high levels of maternal and infant mortality and low life expectancy.
- Refugees may well have been exposed to torture, violence and other trauma.
- Refugees may have spent many years fleeing their country of origin and in that time have had little or no access to health services.
- They are now needing to settle in an unfamiliar country and culture where, despite the assistance available to them, there will be numerous issues that they will need to confront and overcome e.g. language and cultural barriers, employment and educational barriers.

Reports commissioned in 1997 by the Transitional Health Authority (Solomon 1997) and the HealthWest Primary Health Organisation (Assured Directions 2003) in 2003 summarised the health needs of refugees as relating to their pre and post settlement experiences and falling broadly into the following areas:

- Infectious diseases e.g. tuberculosis, HIV infection, hepatitis B.
- Mental health conditions e.g. post traumatic stress disorder, depression.
- Women's health needs e.g. antenatal health, contraception, screening and management of conditions such as female genital mutilation (FGM).
- Chronic diseases e.g. diabetes.
- Smoking.

Many of these health problems could be alleviated by improvement in the proportion of asylum seekers and family reunification refugees accessing the regional medical screening services and improved access for all refugees to public health, primary health care and primary mental health care services, including access to interpreter services.

Current refugee health services and initiatives

- *Waitemata DHB Community Child Health and Disability Service* – provides assistance to families from refugee backgrounds in the Auckland region.
- *Mental Health Services for Refugees* – Community Mental Health Service, West, has a Mental Health Clinician working with clients from refugee backgrounds who are referred to the Henderson Community Mental Health Centre. Consultancy is provided to Waitemata Mental Health services regarding refugee mental health issues.

- *Regionally funded Refugees as Survivors Mobile Team* provides clinical cultural mental health assessment for mental health practitioners working with clients from refugee backgrounds in the Auckland region
- *Refugees Services (social work team)* provides six week settlement support for new refugee placement
- *Asian cultural mental health service (managed by Asian health support services)* provides communication/engagement support and coordination of clinical cultural mental health assessment for non-English speaking Asian migrant and refugee clients accessing Waitemata DHB mainstream services
- *Asian health support services : (collaboration with Refugees as Survivors) as part of developing a culturally capable workforce to work with migrant and refugee clients*
    - Developed Cross-Cultural Resources for practitioners working with culturally and linguistically diverse clients – for cultural information on 14 cultures (7 Asian and 7 Eastern Mediterranean refugee cultures) as a reference toolkit
    - Developed CALD Training course for practitioners to learn to work more effectively with migrant and refugee clients as well as interpreters
- *WATIS Translation & Interpreting Service (managed by Asian Health Support Services)* provides secondary and primary health face to face and telephone interpreting services for all non-English speaking refugee clients accessing Waitemata DHB mainstream services; HealthWest PHO; Harbour Health PHO; Te Puna PHO and Waiora Trust PHO.

The table below is a summary of medical appointments with interpreting support for refugee clients accessing Waitemata DHB mainstream services.

Table 136 Interpreter services provided to refugee clients of Waitemata DHB (2007-08)

Languages	Job Episodes
Farsi (Persian)	353
Arabic	311
Cambodian	194
Burmese	165
Punjabi	49
Tigringa (Ethiopian)	28
Pushtu	25
Dari (ME)	22
Kirundi	21
Somali	13
Karen	10
Ethiopian	6
Kinyarwanda	5
Swahili	4
Kiribati	3
Amharic	1
Amharic (Ethiopian)	1
Chin (Burmese)	1
Khmer	1
Sudanese	1
Total	**1214**

Source: Waitemata DHB Asian Health Support Service

Health Services

Primary Care

Workforce

Information about professional groups in the New Zealand health workforce is presented in the table below. Information includes the number of people, and full-time equivalent (FTE) if collected, with an annual practising certificate who participated in a workforce survey in 2006 or 2007.

Table 137 Number and FTEs for selected health professional workforce groups, by year

Year	Group	Unit	Waitemata		New Zealand	
			Number / FTE	Number / FTE per 10,000 population	Number / FTE	Number / FTE per 10,000 population
2006	GPs	Number	321	6.6	3,106	7.6
		FTE	–	–	–	–
2006	Medical specialists	Number	232	4.7	3,175	7.8
		FTE	–	–	–	–
2007	Nurses	Number	3,326	67.3	41,811	101.8
		FTE	2,606.3	52.8	32,585.4	79.4
2007	Midwives	Number	257	5.2	2,511	6.1
		FTE	200.5	4.1	2,000.9	4.9
		FTE	22.7	0.5	888.6	2.2
2006	Dentists	Number	139	2.8	1,575	3.8
		FTE	115.4	2.4	1,292.9	3.2

Data sources: GPs– MCNZ Health Workforce Annual Survey 2006. Nurses, midwives,– NZHIS Health Workforce Annual Survey 2007. Dentists – Dental Council of New Zealand – 2006 Workforce Analysis. Prepared by HDIU

Data quality/additional notes: Accurate FTE data were not available for GPs, specialists, or psychiatrists; FTE data for nurses (including mental health nurses) should be used with caution. DHB is the DHB area in which the health worker's main employer is located. Some nurses, midwifes, mental health nurses, and psychologist did not provide this information.

For all professional groups the rate of number of professionals registered per 10,000 population is lower in Waitemata than for New Zealand in total. For some of these groups Waitemata residents may be using providers outside of the district, as discussed below.

PHOs

Table 138 Number of practices and enrolled population of PHOs in Waitemata, September 2008

PHO	Practices				Enrolled population
	North Shore	Rodney	Waitakere	Total	
Coast to Coast		1		1	13,991
Harbour	33	3		36	151,465
Te Puna Hauora	2			2	11,398
ProCare Network North	15	11	1	27	101,328
Health West			25	25	118,074
Waiora			8	8	42,305
Total	**50**	**15**	**34**	**99**	**438,561**

Source: PHO enrolments 2008

There are six PHOs and 99 general practices in the Waitemata District. PHOs vary considerably in size of enrolled population.

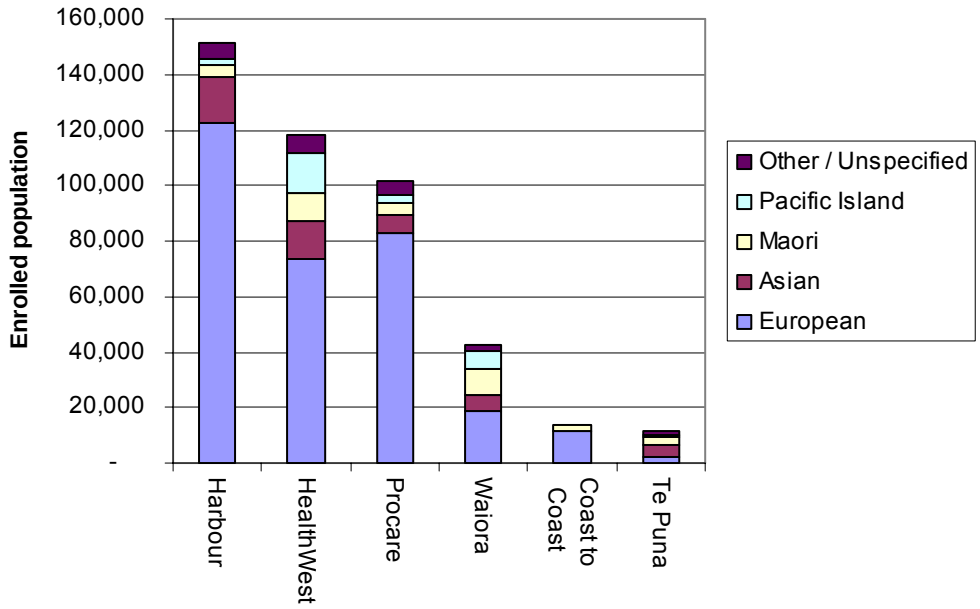
Table 139 Enrolment of Waitemata population in PHOs, September 2008

	Number	Proportion of Waitemata population	Proportion of PHO's enrolled population
Other DHB residents enrolled in Waitemata PHOs	27,967		6.4%
Waitemata residents enrolled in Waitemata PHOs	410,594	78.8%	93.6%
Waitemata residents enrolled in PHOs outside the district	71,008	13.6%	
Waitemata residents not enrolled in PHOs	39,498	7.6%	
Waitemata total population	521,100	100.0%	
PHO Total enrolled population	438,561		100.0%

Source: PHO enrolments 2008

92% of Waitemata's population is enrolled with a PHO. However 14% of our population is enrolled with PHOs outside Waitemata district, mainly Auckland DHB PHOs. A smaller number of people from outside the district are enrolled with Waitemata PHOs.

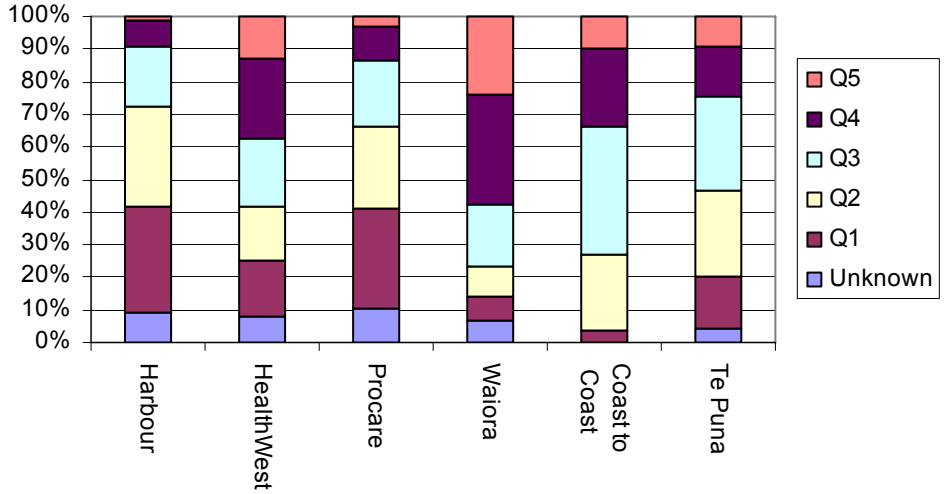
Table 140 Enrolled population by ethnicity (prioritised) of Waitemata PHOs, September 2008



Source: PHO Enrolments 2008

The district's PHOs have quite different populations with Health West, Waiora, and Te Puna PHOs having more ethnically diverse populations.

Table 141 Enrolled population of Waitemata PHOs by NZDep2006 quintile, September 2008



Source: PHO Enrolments 2008

The majority of Waiora PHO's enrolled population live in more deprived areas, whereas Harbour and Procare's populations mainly live in less deprived areas.

Enrolment and Utilisation

Enrolment coverage

Table 142 PHO enrolment by gender and ethnicity (total response) for adults, Waitemata and NZ, age adjusted, 2006/07

		Waitemata percent	New Zealand percent
Gender	Female	93.1 (90.5 - 95.2)	94.5 (93.6 - 95.3)
	Male	89.9 (87.4 - 92.2)	91.3 (90.2 - 92.3)
	Total	91.6 (89.4 - 93.8)	93.0 (92.4 - 93.5)
Ethnicity	Maori	90.5 (87.7 - 92.8)	90.9 (87.6 - 93.5)
	Pacific	90.7 (87.1 - 93.6)	91.1 (87.1 - 94.2)
	Asian	82.8 (79.2 - 86.0)	83.1 (79.2 - 86.6)
	Other	92.6 (90.1 - 94.7)	93.0 (89.9 - 95.5)

Source: NZ Health Survey, HDIU

In the NZ Health Survey just over 90 percent of adults in the Waitemata district were enrolled with a Primary Health Organisation, which is similar to the national rate. The coverage rate for Asian people was significantly lower than the other ethnic groups.

Data on enrolments with PHOs by ethnicity can also be calculated from data provided to Waitemata DHB by the PHOs.

Table 143 Percentage of population enrolled with a PHO, by ethnicity, Waitemata DHB, 2008

	Maori	Pacific	Other	Total
Waitemata DHB domiciled population 2008	50,860	36,470	433,770	521,100
PHO enrolments by WDHB domiciled population				
In WDHB PHOs	30,786	25,952	353,856	410,594
In other DHB PHOs	3,940	9,915	57,153	71,008
Total enrolments by WDHB domiciled population	34,726	35,867	411,009	481,602
Enrolment percentage by ethnicity	68%	98%	95%	92%

Source: WDHB, July 08 - September 08 (2008 Q3) reporting

This suggests a much lower proportion of Maori are enrolled. Possible explanations include that Maori ethnicity is not well recorded in general practice systems or that people think they are enrolled with a provider but actually are not. This warrants further investigation.

GP utilisation

Table 144 Percent of adults who have seen a GP in the last 12 months by gender and ethnicity (total response), Waitemata and NZ, age adjusted, 2006/07

		Maori	Pacific	Asian	Other	Total
Waitemata	Female	81.6 (77.1 - 85.5)	78.4 (72.7 - 83.3)	72.1 (66.1 - 77.6)	84.7 (80.6 - 88.2)	83.0 (79.1 - 86.5)
	Male	73.4 (68.5 - 78.0)	75.6 (69.6 - 81.0)	69.3 (63.8 - 74.4)	78.0 (73.9 - 81.7)	76.8 (72.8 - 80.4)
	Total	77.8 (73.5 - 81.7)	77.1 (72.0 - 81.6)	70.8 (66.0 - 75.3)	81.4 (77.6 - 84.9)	80.0 (76.6 - 83.5)
New Zealand	Female	81.7 (79.1 - 84.1)	78.5 (74.2 - 82.3)	72.2 (67.4 - 76.7)	84.8 (83.1 - 86.4)	83.1 (81.5 - 84.7)
	Male	73.5 (70.1 - 76.7)	75.7 (70.9 - 80.1)	69.4 (65.2 - 73.3)	78.1 (76.1 - 80.0)	76.9 (75.1 - 78.6)
	Total	77.9 (75.5 - 80.1)	77.2 (73.7 - 80.4)	70.9 (67.6 - 74.0)	81.6 (80.0 - 83.0)	80.1 (79.1 - 81.2)

Source: NZ Health Survey, 2006/07

Eighty percent of adults in Waitemata DHB have seen a general practitioner (GP) in the past 12 months; this is similar to the national prevalence. In Waitemata, the prevalence of GP visits in the past 12 months among Asian females is significantly lower than the prevalence for all females.

Nurse utilisation

Table 145 Percent of adults who had seen a practice nurse in the last 12 months by gender and ethnicity (total response), Waitemata and NZ, age adjusted, 2006/07

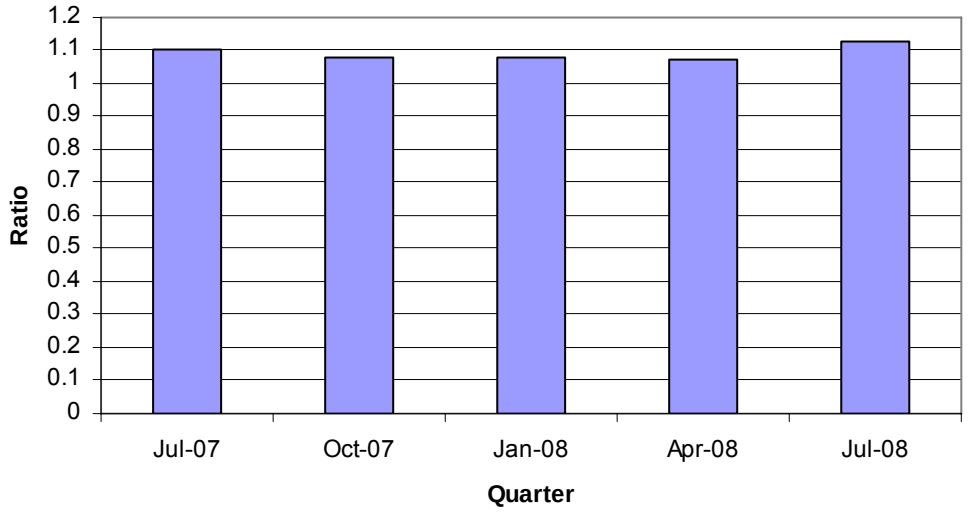
		Maori	Pacific	Asian	Other	Total
Waitemata	Female	46.4 (42.1 - 50.8)	36.8 (30.1 - 43.8)	27.0 (21.9 - 32.7)	45.2 (41.4 - 49.1)	43.2 (39.5 - 47.0)
	Male	28.8 (24.2 - 33.7)	24.9 (19.1 - 31.5)	15.2 (10.7 - 20.6)	33.8 (30.1 - 37.6)	31.5 (27.9 - 35.2)
	Total	38.2 (34.3 - 42.3)	31.1 (26.0 - 36.6)	21.5 (17.2 - 26.3)	39.7 (36.2 - 43.4)	37.6 (33.1 - 39.7)
New Zealand	Female	48.8 (45.8 - 51.8)	38.7 (32.7 - 44.9)	28.4 (24.2 - 32.9)	47.6 (45.3 - 49.9)	45.4 (43.3 - 47.5)
	Male	30.3 (26.8 - 33.9)	26.2 (21.1 - 31.8)	15.9 (12.5 - 19.9)	35.5 (33.5 - 37.6)	33.1 (31.2 - 34.9)
	Total	40.2 (37.7 - 42.7)	32.7 (28.6 - 37.1)	22.6 (19.5 - 25.9)	41.8 (40.0 - 43.5)	39.5 (38.3 - 40.7)

Source: NZ Health Survey, 2006/07

Females in Waitemata DHB were significantly more likely to visit a nurse in the past 12 months than males. The proportion of Asian people who have visited a nurse in the past 12 months is significantly lower than the proportion of all people in Waitemata DHB.

High needs utilisation

Figure 131 Ratio of GP and nurse utilisation by high needs enrolees to non-high needs enrolees, by quarter, Waitemata, 2007-2008

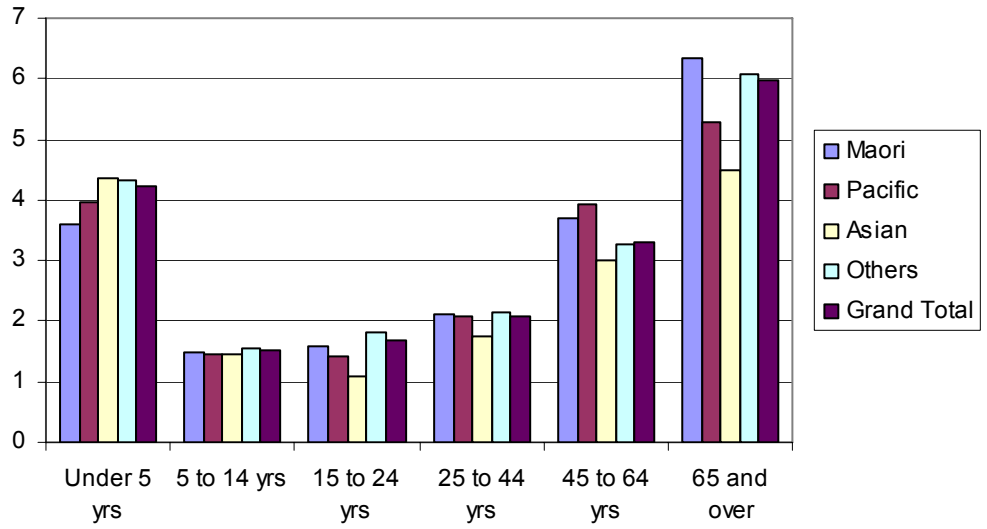


Source: NDSA, Performance Management Programme

As part of the PHO Performance Management Programme the utilisation of general practitioners and practice nurses by high needs and non-high needs groups is monitored. High needs group means all enrolees who are Maori, Pacific, or live in NZDep2006 quintile 5 areas. These groups have poorer health and higher health needs so primary care aims to ensure they access general practice services at least equally to lower needs groups. In Waitemata they have consistently utilised general practice at a higher rate than non-high need. It is important to recognise that people who are not enrolled in PHOs are not included in this measure and it is possible that these people have higher needs.

The same data source provides information on number of medical and nursing consultations provided by general practices that belong to PHOs. There may be some under reporting of utilisation particularly for nursing consultations.

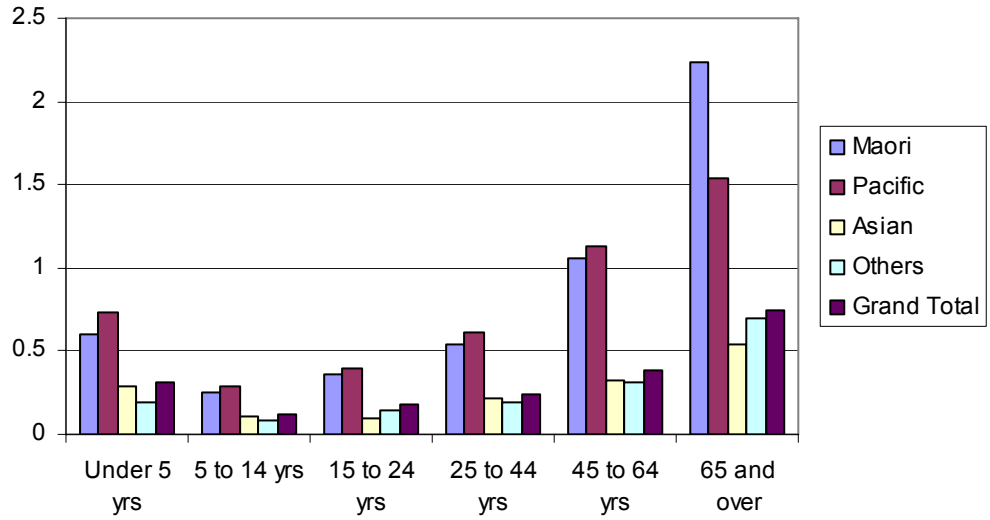
Figure 132 Average number of medical consultations per year by age group and ethnicity (prioritised), Waitemata, 2007/08



Source: NDSA, Performance Management Programme

Doctor utilisation varies greatly by age group with higher utilisation amongst young children and older people. There is little variation by ethnicity although rates seem to be lower amongst Maori preschoolers, and Asian youth and older people.

Figure 133 Average number of nurse consultations per year by age group and ethnicity (prioritised), Waitemata, 2007/08



Source: NDSA, Performance Management Programme

Nurse consultation rates are lower than for doctors, although there is probably under reporting. Maori and Pacific people seem to use nurses more than other groups.

Unmet need

People were asked if in the last 12 months they had needed to see a GP and not done so for any reason.

Table 146 Percent of adults with an unmet need for a GP visit in the last 12 months by gender and ethnicity (total response), Waitemata and NZ, age adjusted, 2006/07

		Maori	Pacific	Asian	Other	Total
Waitemata	Female	17.8 (15.0 - 21.0)	14.1 (10.4 - 18.6)	10.9 (8.0 - 14.5)	7.4 (5.5 - 9.7)	8.7 (6.8 - 10.9)
	Male	10.7 (8.0 - 13.9)	12.6 (9.1 - 16.8)	6.6 (3.9 - 10.2)	5.9 (4.0 - 8.3)	6.4 (4.5 - 8.7)
	Total	14.5 (12.2 - 17.1)	13.4 (10.3 - 17.1)	8.9 (6.5 - 11.9)	6.7 (4.8 - 8.9)	7.6 (5.7 - 9.5)
New Zealand	Female	16.0 (13.7 - 18.5)	12.7 (9.4 - 16.6)	9.8 (7.4 - 12.7)	6.6 (5.7 - 7.6)	7.8 (6.9 - 8.8)
	Male	9.6 (7.5 - 12.0)	11.3 (8.3 - 15.0)	5.9 (3.8 - 8.7)	5.3 (4.4 - 6.4)	5.7 (4.8 - 6.7)
	Total	13.0 (11.4 - 14.7)	12.0 (9.4 - 15.1)	8.0 (6.2 - 10.1)	6.0 (5.2 - 6.9)	6.8 (6.2 - 7.4)

Source: NZ Health Survey 2006/07

The prevalence of unmet need for general practitioner in the past 12 months in Waitemata is not significantly different from the prevalence for all New Zealand. Maori females and Pacific males were more likely to experience unmet need for a GP than the respective total populations in Waitemata. The most common causes of unmet need were not being able to get an appointment, cost, didn't want to make a fuss or couldn't be bothered, and not being able to spare the time.

General practice consultations

The information in this section is mainly taken from the National Primary Medical Care Survey which was undertaken in 2001/02. Therefore it needs to be read in the context that it is national rather than district information and it is seven years old and prior to the primary health care reforms. It is reported here as it is the best information available to give a picture of general practice at the coal-face.

Relationships

7.5% of patients seen by GPs in the survey were new to the practice and 12.3% were new to the GP. This was most common among young people, where 16.7% of 15-24 year old patients were new to the practice. This may be due to a number of reasons including young people shifting from their childhood practice, poor engagement with primary care, and the fact that many young people often have acute minor illnesses or injuries where continuity of care may be less valued than easy access.

GPs rated their rapport with patients as high in 69% of cases and low in only 1.3% of cases.

The 2006/07 New Zealand Health Survey provides some information from a national perspective about relationships from a patient's perspective (Ministry of Health 2008).

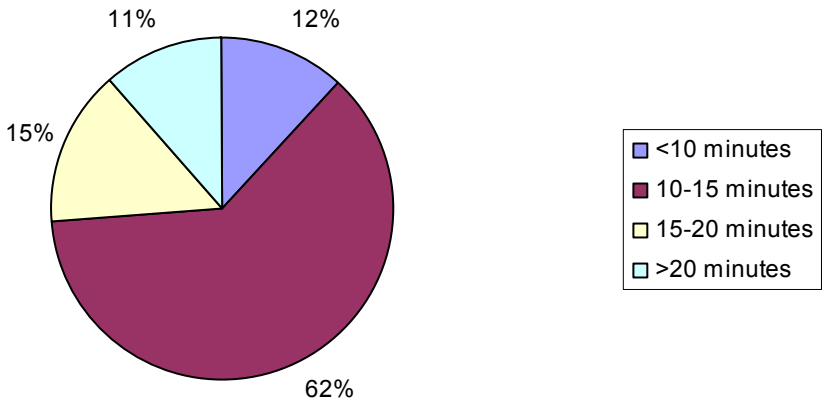
Overall 91.7% of adults said their primary health care provider treated them with dignity and respect 'all of the time' and 6.7% 'most of the time'. Asian, Pacific, Maori and adults living in NZDep2006 quintile 5 areas were less likely to report being treated with dignity and respect 'all of the time' but differences were small.

75.9% of adults reported their primary care provider listened carefully to what they had to say 'all of the time' and 19.8% 'most of the time'. Maori women and people living in NZDep2006 quintile 5 areas were slightly less likely to report being listened to carefully 'all of the time'.

74.8% of adults reported that their primary health care provider discussed their healthcare as much as they wanted 'all of the time' and 18.8% 'most of the time'. Maori, Pacific, and people living in NZDep2006 quintile 5 areas were slightly less likely to have had their health discussed as much as they wanted 'all of the time' although again differences were small.

Consultation duration

Figure 134 Duration of GP consultations, NZ, 2001/02

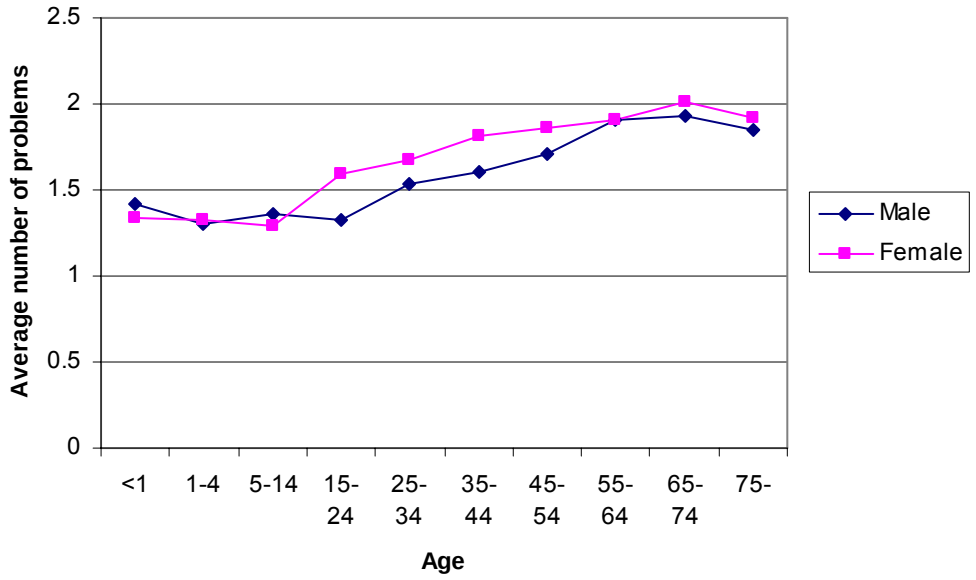


Source: NatMedCa 2001/02

The mean duration of GP consultations was 14.9 minutes and nearly two-thirds of consultations were between 10-15 minutes in length.

Number of problems seen

Figure 135 Average number of problems seen by age, NZ, 2001/02



Source: NatMedCa 2001/02

The mean number of problems seen in a GP consultation was 1.67, with two problems been seen in 27% of consultations and three or more problems in 18% of consultations. The mean number of consultations increased with age and was similar for male and female patients except for a slightly higher number in women of reproductive age.

Type of problems seen

Table 147 Type of problems managed by general practitioners, NZ, 2001/02

Problem grouping, by READ2 chapter*	Problem grouping – % of visits	Percent of all problems	Percent of new problems
Respiratory	**22.8**	**14.7**	**23.1**
Acute respiratory infections		7.9	16.7
Chronic obstructive airways disease		3.2	0.9
Pneumonia and influenza		1.4	2.4
Actions	**17.0**	**11.3**	**5.7**
Preventive procedures including immunisation		5.5	3.0
Operations		2.3	1.2
Cardiovascular/circulatory	**13.7**	**9.2**	**3.1**
BP – hypertensive disease		4.6	0.6
Arteriosclerotic heart disease		1.5	0.3

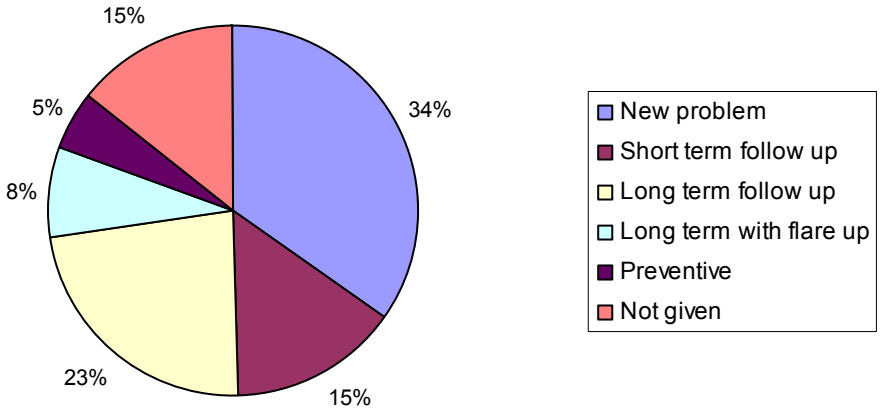
Problem grouping, by READ2 chapter*	Problem grouping – % of visits	Percent of all problems	Percent of new problems
Nervous system / sense organs	**13.2**	**8.2**	**10.0**
Ear diseases		3.8	5.3
Disorders of eye		1.6	2.4
Injury/poisoning	**11.6**	**7.1**	**10.1**
Sprains and strains of joints and adjacent muscles		2.4	3.7
Skin / subcutaneous tissue	**10.7**	**6.7**	**9.3**
Dermatitis/dermatoses		2.5	3.1
Skin infections		1.4	2.5
Musculoskeletal / connective tissue	**8.9**	**5.7**	**4.4**
Arthritis and related disorders		2.1	1.1
Rheumatism, excluding the back		1.7	1.8
Vertebral column disorders		1.4	1.2
Investigations	**8.5**	**5.3**	**4.2**
Mental	**7.7**	**4.9**	**3.1**
Depression/anxiety and other non-psychotic disorders		2.5	2.2
Non-organic psychoses		2.3	1.0
Genito-urinary	**7.4**	**4.6**	**5.3**
Female genital tract disorders		1.4	1.2
Urinary system diseases		1.3	1.9
Digestive	**7.2**	**4.4**	**4.5**
Duodenal diseases		1.5	1.1
Infectious/parasitic	**6.8**	**4.3**	**7.1**
Endocrine/nutritional/metabolic/immunity	**6.1**	**4.0**	**1.0**
Endocrine gland diseases, including goitre		2.2	0.4
Metabolic and immunity disorders		1.7	0.4
Symptoms non-specific	**5.6**	**3.5**	**4.2**
Cancers/neoplasms	**3.9**	**2.4**	**2.5**
Benign neoplasms		0.8	1.2
Unspecified conditions	**3.8**	**2.3**	**1.5**
Health status and contact with health services factors		2.1	1.4

Problem grouping, by READ2 chapter*	Problem grouping – % of visits	Percent of all problems	Percent of new problems
Blood / blood-forming organs	**0.8**	**0.5**	**0.3**
Pregnancy/childbirth/puerperium	**0.5**	**0.3**	**0.3**
Congenital	**0.3**	**0.2**	**0.1**
Perinatal	**0.06**	**0.03**	**0.05**
Not coded	**0.7**	**0.4**	**0.3**
Total (N)	**(8258)**	**100% (13,583)**	**100% (4860)**

Source: NatMedCa 2001/02

General practitioners manage a wide range of problems. The most common problems seen are upper and lower respiratory tract infections, cardiovascular disorders, ear and eye conditions, injuries, skin and musculoskeletal disorders.

Figure 136 Problem status, NZ, 2001/02



Source: NatMedCa 2001/02

Half of problems seen by general practitioners are either new problems or short term follow ups. Nearly a third of problems are long term conditions and only 5% are for preventive care (although 15% were not classified).

One in twenty problems (5%) were judged by GPs as very urgent, a further third (33%) as requiring attention that day, and the remainder were judged as being need to be seen within the week (44%) or the month (19%).

Management

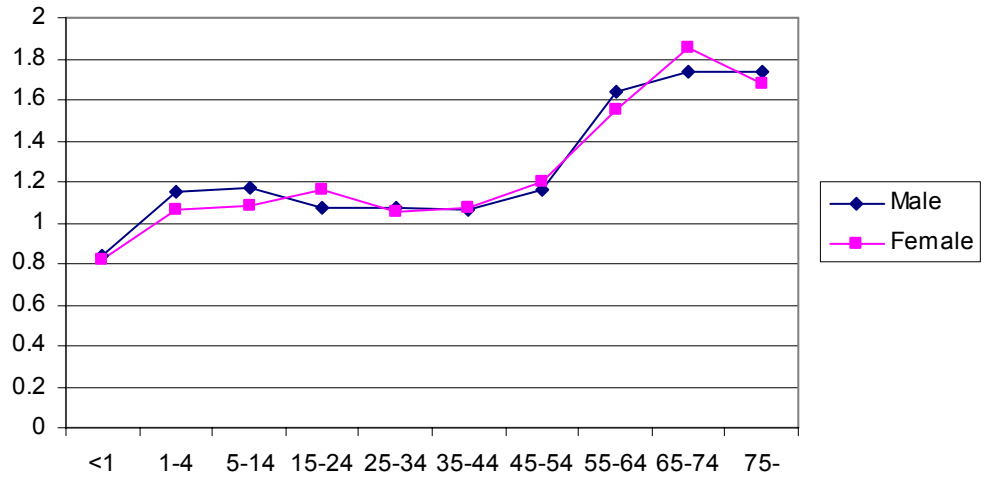
Table 148 Proportion of visits at which various treatments were given, NZ, 2001/02

Treatment	Percentage of all visits
No treatment	8.0
Prescription	66.2
Health advice	38.5
Any test	29.0
-Laboratory test	17.2
-Imaging	4.1
Referral	16.0
Minor surgery	6.6
Follow up	6.9

Source: NatMedCa 2001/02

Some type of treatment was provided by the GP to the patient given in the large majority of cases and in two-thirds of cases a prescription was given. Investigations (either laboratory tests or imaging) were organised in over a quarter of consultations. Arranging definite follow up was quite uncommon. However referral on to others was more common with 1.3% being referred on as an emergency, 8% being referred to specialists, and 6% to non-medical health professionals.

Figure 137 Average number of prescription items prescribed per visit by age, NZ, 2001/02



Source: NatMedCa 2001/02

Patients receive on average 1.3 prescription items per visit. However, this varies considerably by age group with older people receiving more prescriptions. This is likely to reflect the burden of chronic disease in older people.

Table 149 Percentage of adults who have received a prescription in the last 12 months by gender and ethnicity (total response), Waitemata and NZ, adjusted for age, 2006/07

		Maori	Pacific	Asian	Other	Total
Waitemata	Female	80.2 (74.4 - 85.1)	79.9 (73.1 - 85.6)	70.4 (63.5 - 76.7)	82.1 (76.8 - 86.6)	80.8 (75.6 - 85.3)
	Male	67.9 (62.3 - 73.1)	69.9 (62.3 - 76.8)	62.5 (55.3 - 69.3)	71.6 (66.3 - 76.5)	70.3 (65.2 - 75.1)
	Total	74.5 (69.2 - 79.3)	75.1 (68.9 - 80.7)	66.7 (60.5 - 72.5)	77.0 (71.9 - 81.6)	75.8 (69.6 - 78.6)
New Zealand	Female	78.5 (75.6 - 81.1)	78.2 (73.7 - 82.3)	69.0 (64.0 - 73.6)	80.3 (78.5 - 82.1)	79.1 (77.3 - 80.8)
	Male	66.5 (63.4 - 69.4)	68.5 (62.6 - 73.9)	61.2 (55.8 - 66.4)	70.1 (67.7 - 72.4)	68.8 (66.6 - 71.0)
	Total	72.9 (70.5 - 75.2)	73.6 (69.7 - 77.2)	65.3 (61.3 - 69.2)	75.4 (73.6 - 77.1)	74.2 (72.9 - 75.4)

Source: NZ Health Survey 2006/07

Three quarters of adults in Waitemata had received a prescription in the last year. Adult females in Waitemata were significantly more likely to receive a prescription in the past 12 months than males.

Preventive care

General practice caries out a wide range of preventive health measures including screening for early disease, immunisation, and counselling on lifestyle issues. These roles give general practice important opportunities to improve the health of Waitemata residents and reduce health disparities.

Childhood vaccination

Childhood vaccination is covered in the Child section on p.148.

Influenza vaccination

Table 150 Percentage of 65 years and older people who received an influenza vaccination in the last 12 months by gender and ethnicity (total response), Waitemata and NZ, age adjusted, 2006/07

		Waitemata percent	New Zealand percent
Gender	Female	61.4 (50.5 - 72.3)	63.3 (60.2 - 66.4)
	Male	60.7 (48.4 - 73.0)	64.6 (61.2 - 68.0)
	Total	61.1 (52.4 - 69.7)	63.9 (61.7 - 66.1)
Ethnicity	Maori	N/A	63.1 (56.1 - 70.2)
	Non-Maori	61.5 (52.7 - 70.2)	64.0 (61.6 - 66.4)

Source: NZ Health Survey 2006/07

In the Waitemata district in the past twelve months, about 60 percent of people aged 65 years or older either received an influenza vaccine, or arrangements were made by a primary health provider for the person to receive an influenza vaccine

Blood Pressure, Cholesterol and Glucose testing

Testing for blood pressure, cholesterol, and glucose levels are an important part of assessing people's cardiovascular risk and diagnosing diabetes.

Table 151 Percentage of adults who have had a blood pressure test in the last year by gender and ethnicity (total response), Waitemata and NZ, age adjusted, 2006/07

		Maori	Pacific	Asian	Other	Total
Waitemata	Female	60.0 (54.5 - 65.4)	69.5 (60.9 - 77.3)	62.4 (55.4 - 69.0)	68.5 (63.6 - 73.1)	67.7 (63.0 - 72.2)
	Male	58.3 (52.1 - 64.4)	61.4 (54.0 - 68.4)	57.4 (50.3 - 64.4)	65.9 (60.9 - 70.6)	65.0 (60.2 - 69.6)
	Total	59.3 (54.1 - 64.4)	65.7 (59.2 - 71.9)	60.1 (54.1 - 66.0)	67.3 (62.6 - 71.8)	66.5 (59.3 - 67.7)
New Zealand	Female	55.0 (51.4 - 58.6)	63.7 (56.5 - 70.5)	57.1 (51.7 - 62.4)	62.8 (60.3 - 65.1)	62.1 (59.9 - 64.2)
	Male	53.5 (48.9 - 58.0)	56.3 (50.3 - 62.1)	52.6 (46.9 - 58.3)	60.4 (57.8 - 62.9)	59.6 (57.2 - 61.9)
	Total	54.4 (51.2 - 57.4)	60.3 (55.3 - 65.0)	55.1 (50.8 - 59.4)	61.7 (59.6 - 63.7)	60.9 (59.5 - 62.3)

Source: NZ Health Survey 2006/07

Two thirds of adults in Waitemata had their blood pressure tested in the past 12 months.

Table 152 Percentage of adults who have had a cholesterol test in the last 12 months by gender and ethnicity (total response), Waitemata and NZ, age adjusted, 2006/07

		Maori	Pacific	Asian	Other	Total
Waitemata	Female	25.4 (21.1 - 30.1)	32.9 (26.6 - 39.8)	28.4 (23.1 - 34.0)	33.0 (29.0 - 37.1)	32.6 (28.7 - 36.7)
	Male	32.5 (27.4 - 38.0)	36.3 (30.1 - 42.8)	41.9 (36.0 - 47.9)	44.2 (40.1 - 48.4)	43.1 (39.1 - 47.2)
	Total	28.4 (24.3 - 32.9)	34.5 (29.3 - 40.0)	34.4 (29.6 - 39.5)	38.0 (34.1 - 42.0)	37.3 (30.6 - 38.0)
New Zealand	Female	20.8 (18.2 - 23.6)	27.0 (21.8 - 32.7)	23.2 (19.4 - 27.4)	27.0 (25.2 - 28.9)	26.7 (25.0 - 28.4)
	Male	26.7 (23.0 - 30.6)	29.7 (24.7 - 35.1)	34.3 (29.7 - 39.1)	36.2 (34.2 - 38.3)	35.3 (33.4 - 37.2)
	Total	23.3 (21.0 - 25.7)	28.3 (24.5 - 32.3)	28.2 (25.0 - 31.6)	31.2 (29.6 - 32.7)	30.6 (29.6 - 31.6)

Source: NZ Health Survey 2006/07

Males were significantly more likely to have a cholesterol check in the past 12 months than females in Waitemata. The prevalence of having a cholesterol check in the past 12 months among Maori males is significantly lower than all males in Waitemata.

Table 153 Percentage of adults who have been tested for diabetes in the last 12 months by age and ethnicity (total response), Waitemata and NZ, age adjusted, 2006/07

		Maori	Pacific	Asian	Other	Total
Waitemata	Female	29.1 (16.9 - 44.0)	27.0 (12.7 - 45.8)	23.0 (13.9 - 34.6)	16.8 (12.9 - 20.6)	18.8 (15.4 - 22.2)
	Male	50.2 (14.5 - 85.7)	33.8 (17.1 - 54.2)	29.2 (15.6 - 46.3)	23.7 (18.4 - 29.0)	24.9 (20.2 - 29.6)
	Total	37.1 (21.3 - 52.9)	30.0 (18.5 - 43.9)	25.2 (17.4 - 32.9)	20.0 (16.7 - 23.2)	21.5 (18.7 - 24.3)
New Zealand	Female	26.0 (23.2 - 28.8)	36.8 (31.4 - 42.1)	28.5 (23.8 - 33.2)	16.9 (15.5 - 18.4)	19.2 (17.9 - 20.4)
	Male	30.4 (26.7 - 34.1)	34.4 (28.6 - 40.1)	37.2 (31.9 - 42.5)	21.8 (20.3 - 23.3)	23.7 (22.4 - 25.0)
	Total	27.9 (25.4 - 30.3)	35.6 (32.0 - 39.3)	32.4 (28.4 - 36.5)	19.1 (18.0 - 20.2)	21.2 (20.2 - 22.2)

Source: NZ Health Survey 2006/07

In Waitemata, about 25 percent of males and 19 percent of females had a diabetes check in the past 12 months.

Cervical screening

It is recommended that all women in New Zealand have a cervical smear every three years (or more often if indicated). Cervical smears can detect early precancerous changes on the cervix at a stage where treatment is effective and relatively minor.

Table 154 Had cervical smear in last three years (age-standardised percent, and 95% confidence interval), of women 20–69 years who had a primary health care provider, 2006/07 NZHS, by ethnicity (prioritised)

	Maori	Pacific	Asian	Other	Total
Waitemata	75.5 (65.3–85.7)	55.4 (36.1–74.6)	46.5 (33.5–59.5)	88.9 (84.0–93.8)	76.4 (71.2–81.5)
New Zealand	75.1 (72.0–78.1)	61.3 (56.0–66.6)	57.5 (51.5–63.4)	83.4 (81.3–85.5)	78.4 (76.6–80.3)

Source: HDIU

Of women in Waitemata aged 20–69 years who had a primary health care provider, 76.4% had a cervical smear in last three years. The prevalence among European/Other women in Waitemata was significantly higher than total women, while Asian women had a significantly lower prevalence, adjusted for age.

Breast screening

Mammography is used to identify early breast cancer. Finding breast cancer early means that women have a better chance of surviving the disease. In New Zealand free mammography is provided to all women aged 45-69 years.

Table 155 Breast screening coverage rate (percent, and 95% confidence interval), women 45–69 years, 2006–07, by ethnicity (prioritised)

	Maori	Pacific	Asian	Other	Total
Waitemata	45.5 (43.4–47.7)	47.6 (45.1–50.1)	49.5 (48.0–51.1)	55.3 (54.7–56.0)	53.8 (53.3–54.3)
New Zealand	43.9 (43.4–44.5)	44.7 (43.8–45.6)	45.8 (45.1–46.5)	60.7 (60.3–60.9)	57.6 (57.2–57.8)

Source: National Screening Unit, HDIU

Of women in the Waitemata district aged 45 to 69 years, nearly 54% had a mammogram to check for early signs of breast cancer, which was lower than the national percentage (57.6%). The screening coverage rate was lower for Other in the Waitemata district, than the rate Other women in New Zealand in total, for women aged 45 to 69 years. However, this data does not include screening mammography done privately.

Chronic care

Chronic or long term conditions are very common and cause significant disability, early death, and use a large proportion of our health service. Most chronic care is provided in primary care. Well organised and high quality chronic care can delay the progress of chronic disorders, prevent the development of complications and reduce the financial cost to the health system. Unfortunately there is currently little information collected about the management of chronic conditions except for diabetes.

Get Checked uptake

Table 156 Estimated percentage of people with diabetes who had a free annual diabetes by ethnicity (prioritised) by DHB, 2007

DHB	Total	Maori	Other	Pacific
Northland	56%	51%	60%	n/a
Waitemata	47%	29%	49%	62%
Auckland	72%	32%	72%	102%
Counties Manukau	97%	62%	95%	133%

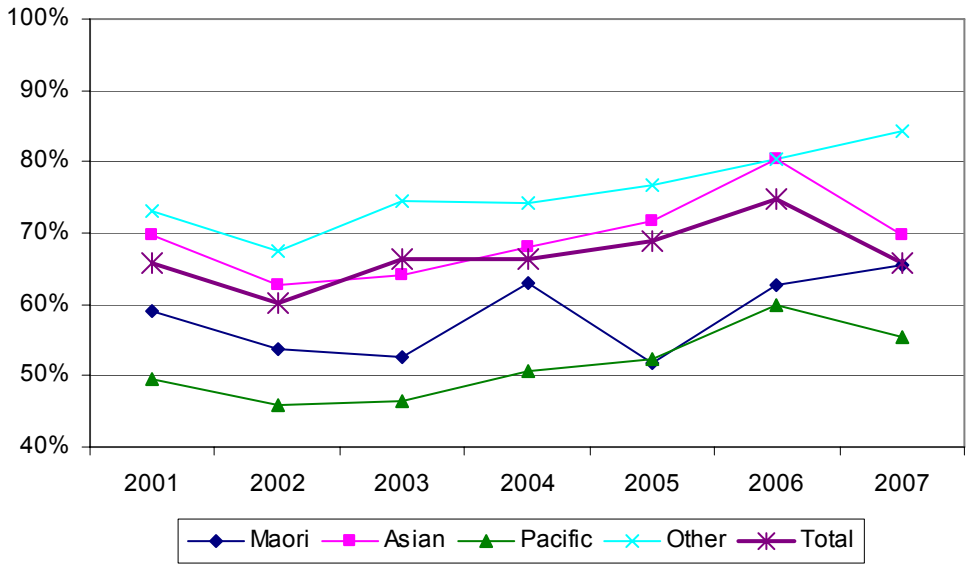
Source: Local Diabetes Teams Annual Reports, 2008

Fewer than half of the estimated number of people with diabetes in the Waitemata district have had an annual free check, in the twelve months to December 2007. This is much lower than is being achieved by some DHBs. A smaller percentage of Maori are estimated to have had a free diabetes check than people in the Pacific and Other ethnic groups. Note that actual numbers of people with diabetes are not known so these are estimates. This may be the reason for some coverage rates being over 100%. It should also be noted that many people with diabetes receive regular care outside the Get Checked programme.

Diabetes measures of care

Good glycaemic control (blood sugar levels within or near the normal range) and good blood pressure control in people with both type 1 and type 2 diabetes have been shown to reduce the risk of long term complications, including CVD (UKPDS Group 1998; UKPDS Group 1998). An audit of the care of people with diabetes has been undertaken in west Auckland for about ten years. Not all people with diabetes are covered but in 2007 more than 2,000 patient's care was audited.

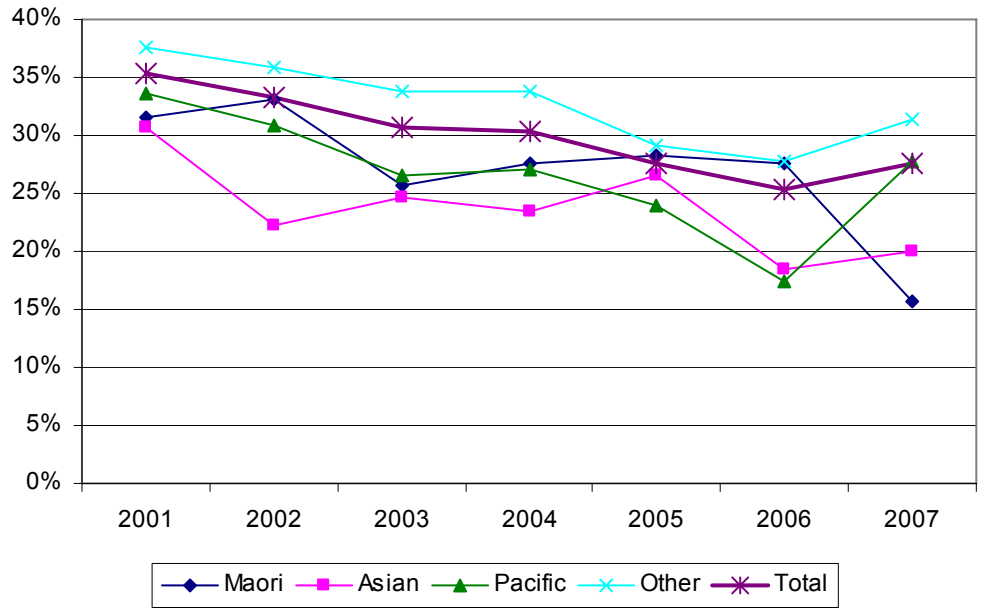
Figure 138 Proportions of patients with diabetes who had an HbA1c <8%, crude rates, West Auckland, 2001-2007



Source: Diabetes Care Support Service Audit

HbA1c is a measure of the adequacy of glycaemic control. About one third of patients have HbA1c's of over 8% or poor glycaemic control. National guidelines targets are for an HbA1c of less than or equal to 7% (New Zealand Guidelines Group 2003). There has been a trend over time for the proportion of people with HbA1c less than 8% to increase. Maori and Pacific people are less likely to have good glycaemic control.

Figure 139 Proportion of patients with diabetes whose systolic blood pressure is greater than 140mmHg, crude rates, West Auckland, 2001-07



Source: Diabetes Care Support Service Audit

There has also been a long term trend for systolic blood pressure control to improve over time but a least a quarter of people have systolic blood pressure of greater than 140mmHg. Guidelines for people with diabetes are most benefit is achieved by blood pressure being 130/80mmHg or less (New Zealand Guidelines Group 2003). Others are the ethnic group most likely to have higher blood pressure. This may be because Others with diabetes tend to be older.

Retinal screening

Table 157 Percentage of people on the diabetes register who have had retinal screening in the two years to September 2007 by ethnicity (prioritised) by DHB

DHB	Total	Maori	Other	Pacific
Northland	74%	76%	73%	n/a
Waitemata	71%	70%	71%	71%
Auckland	62%	59%	60%	67%
Counties Manukau	65%	68%	66%	64%

Source: Local Diabetes Teams Annual Reports, 2008

People with diabetes are recommended to have retinal screening every two years to help prevent blindness. This is being achieved in about 70% of people across all ethnicities.

Care Plus uptake

Care Plus is a national primary health care programme targeting people with high health need due to chronic conditions, mental health needs, or terminal illness. Care Plus aims to improve chronic care

management, reduce inequalities, improve primary health care teamwork and reduce the cost of services for high-need primary health users.

Waitemata has been allocated places for 21,885 people on the Care Plus Programme. In September 2008, 13,758 people were enrolled, which is an uptake of 72%. Currently 17% of people enrolled in Care Plus are Maori or Pacific and 11% live in deprived areas (NZDep quintile 5 areas).

After-hours services

Table 158 After hours medical centres in Waitemata

Name	Location	Hours of operation
Waitakere City		
Westgate Medical Centre	Ferndale Drive, Massey	8am-8pm Mon-Friday 9am-6pm Sat, Sun
Westcare New Lynn Clinic	2140 Great North Road, New Lynn	7-days, 8am-10pm
Westcare Henderson Clinic	131 Lincoln Road, Henderson	24/7
North Shore		
White Cross Glenfield Ltd	436-440 Glenfield Road, Glenfield	7-days, 8am-10pm
Shorecare Milford	209 Shakespeare Road, Takapuna	24/7
Shorecare Northcross	948 East Coast Road	7-days, 8am-10pm
Apollo	119 Apollo Drive, Albany	7-days, 8am-8pm
Rodney		
Coastcare	Red Beach Shopping Centre	7-days, 8am-10pm
Wellsford Medical Centre	Wellsford	7-days, 8am-8pm

There are two Accident and Medical Centres that are open 24 hours a day and seven days a week, one in Milford and one in Henderson. Wellsford Medical Centre provides phone triage and an on-call GP after 8pm. In addition there are a number of centres that provide extended hours and service on the weekend. Only those that are open seven days a week for at least eight hours are listed here. Fees for after-hours care may be higher than normal GP care and this may be a barrier to some people.

Complementary health services

Table 159 Percentage of adults who have used a complementary and alternative health care worker over the last 12 months by gender and ethnicity (total response), Waitemata and NZ, age adjusted, 2006-07

		Maori	Pacific	Asian	Other	Total
Waitemata	Female	23.7 (14.3 - 35.4)	14.6 (5.9 - 28.1)	22.7 (15.5 - 29.9)	27.7 (21.6 - 33.8)	25.3 (20.9 - 29.8)
	Male	27.9 (6.7 - 60.5)	7.8 (0.2 - 37.7)	15.7 (8.9 - 24.8)	15.6 (10.4 - 20.7)	15.0 (11.0 - 19.0)
	Total	25.7 (12.7 - 38.6)	11.5 (4.1 - 24.0)	20.0 (15.0 - 25.0)	21.6 (17.0 - 26.1)	20.4 (17.0 - 23.7)
New Zealand	Female	22.5 (19.9 - 25.0)	16.5 (12.3 - 20.7)	19.5 (16.2 - 22.9)	23.7 (22.2 - 25.1)	22.3 (21.1 - 23.5)
	Male	17.0 (13.9 - 20.2)	9.8 (6.5 - 13.2)	15.3 (11.3 - 19.4)	14.9 (13.1 - 16.7)	14.1 (12.7 - 15.6)
	Total	20.0 (17.9 - 22.0)	13.3 (10.8 - 15.8)	17.6 (15.0 - 20.2)	19.4 (18.3 - 20.5)	18.4 (17.4 - 19.3)

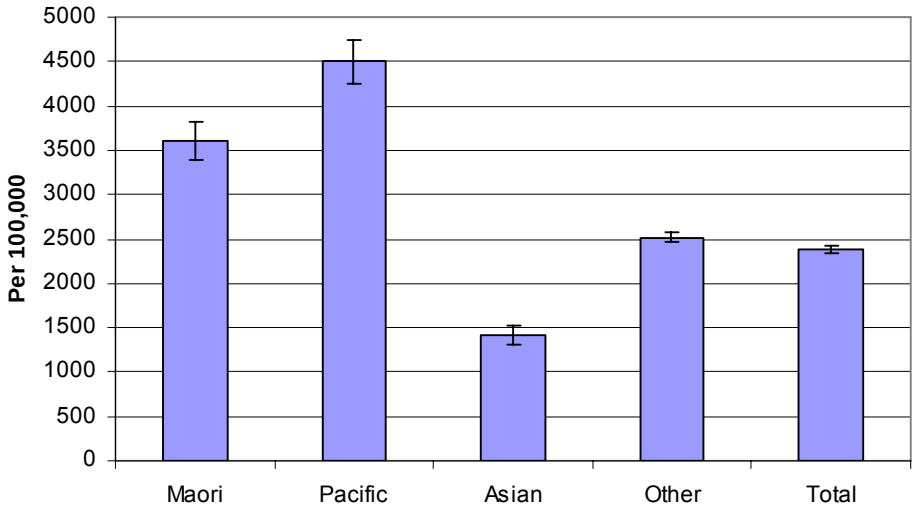
Source: NZ Health Survey, 2006/07

One in four women and one in seven men in Waitemata have used a complementary or alternative health worker in the last 12 months.

Ambulatory Sensitive Hospitalisation

Ambulatory sensitive hospitalisations (ASH) are a subcategory of avoidable hospitalisations. They are hospitalisations that could potentially be avoided by interventions in primary care; either through preventing disease or complications of diseases or by early and effective treatment. ASH is a measure of the effectiveness of primary care although a wide range of other factors will affect ASH

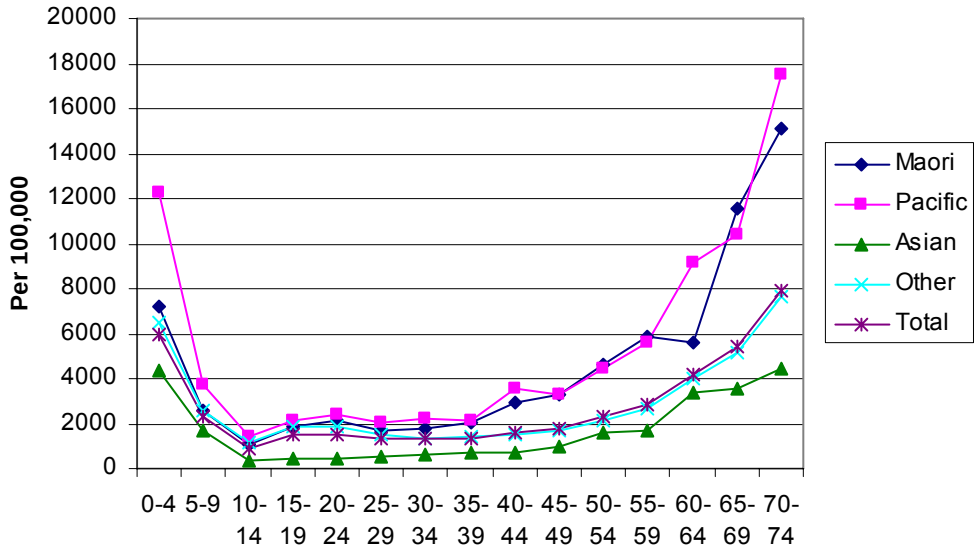
Figure 140 Ambulatory Sensitive Hospitalisations by prioritised ethnicity, 0-74 years, Waitemata, age-standardised, 2005-2007



Source: NMDS

ASH rates are much higher for Maori and Pacific people than for Others, whilst Asian people have the lowest rates.

Figure 141 Ambulatory Sensitive Hospitalisations by prioritised ethnicity, 0-74 years, Waitemata, age-specific, 2005-2007



Source: NMDS

ASH rates are highest at each end of the age range. Maori and Pacific rates are again seen to be high with Pacific child rates being particularly high. High ASH rates amongst Maori and Pacific people may indicate poor access to primary care or less effective treatment in primary care due to a range of barriers, or may be due to factors outside primary care.

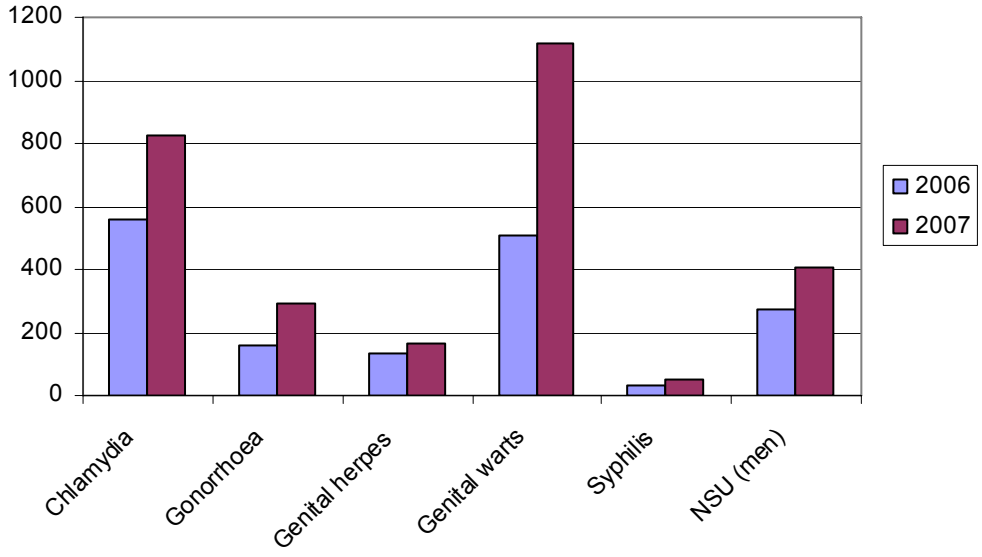
Sexual Health

Information on sexually transmitted diseases (STIs) is limited in New Zealand. Sexual Health Clinics, Family Planning Clinics and Student and Youth Health Clinics report all confirmed cases of STIs to the Institute of Environmental Science and Research (ESR). However, many services, including general practices, do not and the picture is therefore far from complete. In addition, Chlamydia and Gonorrhoea cases are reported by some laboratories. All laboratories in the Auckland Region report cases of Chlamydia so this provides a relatively complete picture. Gonorrhoea is not reported by WDHB laboratories.

The following information therefore provides limited information on the relatively frequency of STIs, and the ages affected.

Sexual Health Clinic Data

Figure 142 Number of new presentations of sexually transmitted diseases to sexual health clinics in the Auckland region, 2006 and 2007

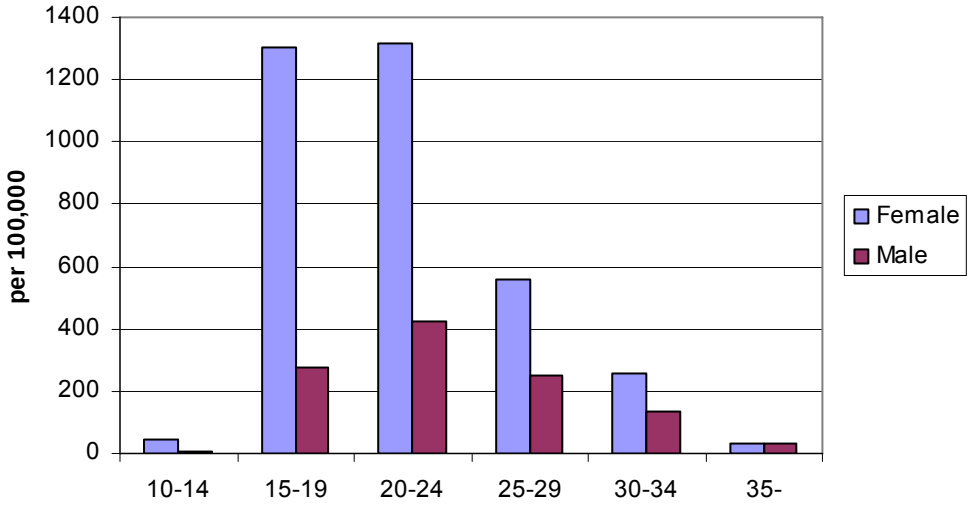


Source: ESR

Chlamydia and genital warts are the most common STIs that are seen in sexual health clinics in the Auckland Region. National data shows these are also the most common STIs being diagnosed at Family Planning and Student and Youth Health Services although in these services Chlamydia is far more predominant. In 2007, in these services 76% of all STIs diagnosed were Chlamydia, 14% genital warts, 5% Gonorrhoea, 4% genital herpes, and 1% non-specific urethritis (NSU) in men. These differences in case mix presumably reflect the different clientele that these services serve and the fact that patients with genital warts are often referred to Sexual Health Clinics because of their expertise. There is an increase in numbers of all types of STI diagnosed in 2007.

Chlamydia

Figure 143 Incidence of Chlamydia infection (laboratory confirmed cases) by age and gender, Auckland region, April-June 2008



Source: ESR

Chlamydia is a very common infection in young people, especially women. 1.3% of women aged 15-24 had a confirmed case of Chlamydia in a 3 month period.

HIV/AIDS

Nationally there were 195 new cases of Human Immunodeficiency Virus (HIV) infection reported in 2007. This is a fall from a peak in 2005 when 218 cases were reported. 44% of cases were in homosexual men, 38% in heterosexual men and women, 4% due to perinatal transmission, 2% in injecting drug users, and 13% of unknown risk. 31 new cases of Acquired Immunodeficiency Syndrome (AIDS) were notified in 2007 nationally.

Family planning

The Family Planning Association runs clinics that provide contraception, sexual health, menopause advice, and cervical smears. In addition it runs health promotion programmes and professional development programmes around sexual health.

In Waitemata the Family Planning Association has clinics in Henderson and Takapuna. In addition there are 5 school based outreach clinics. Family Planning is contracted to provide 21,775 general sexual health consultations, 850 school based consultations, and 2186 maternity consultations each year in Waitemata. Of the general sexual health consultations, 58% are contracted for people under the age of 22. Between July and September 2008 6.8% of clients seen were Maori, 5.6% Pacific, and 87.6% other ethnicities.

Other primary health care workers

Figure 144 Proportion of people who have seen other health professionals in the last 12 months, New Zealand, 2006/07

Type of health care worker	Prevalence in children	Prevalence in adults
Pharmacist	8.8	18.4
Physiotherapist	2.7	13.0
Chiropractor	3.0	5.4
Osteopath		4.4
Dietician	0.9	1.9
Optician or optometrist	6.1	12.9
Occupational therapist	0.7	0.8
Speech-language therapist	2.3	-
Midwife	5.3	2.9
Psychologist, counsellor, or social worker	3.3	3.5

Source: NZ Health Survey 2006/07

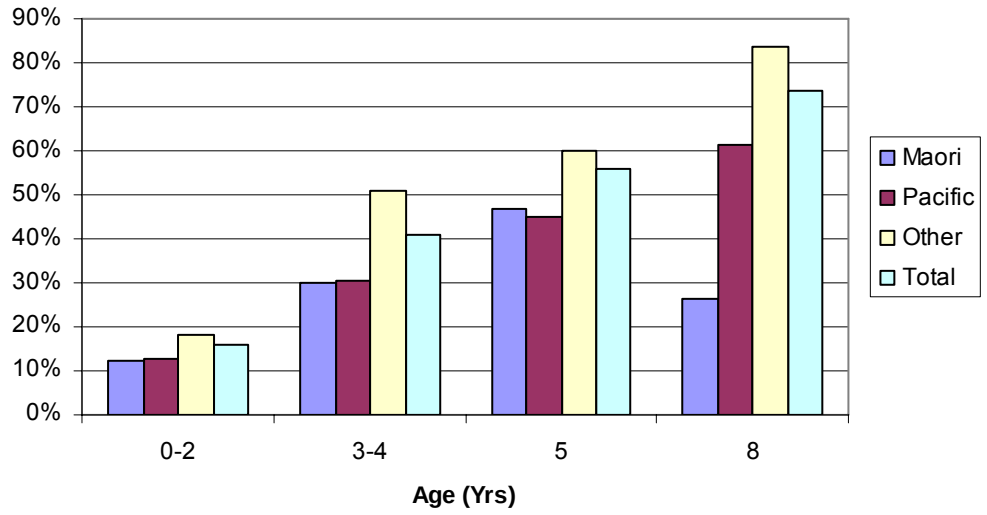
Pharmacists, physiotherapist and opticians were the health professionals seen most often after general practitioners and practice nurses. Adults were more likely to see most health professions than were children.

Oral health care

Children

The Auckland Regional Dental Service provides free dental care in schools and the community up to Intermediate School age.

Figure 145 Estimated percentage of children examined by Auckland Regional Dental Service, by age and ethnicity (prioritised), Waitemata, 2006



Source: Auckland Regional Dental Service

Coverage by the school dental service increases with age but is far from complete particularly for Maori and Pacific children.

Adolescents

It is estimated that 53% of Waitemata adolescents (year 9 until 17 years) are enrolled in the oral health service as against 59% nationally.

Adults

Table 160 Proportion of adults who have seen an oral health worker by gender, age and ethnicity (total response), Waitemata and NZ, age adjusted, 2006/07

		Maori	Pacific	Asian	Other	Total
Waitemata	Female	40.9 (36.3 - 45.7)	33.1 (27.2 - 39.4)	36.3 (31.1 - 41.8)	56.9 (52.7 - 61.0)	52.5 (48.5 - 56.5)
	Male	32.1 (27.0 - 37.5)	33.0 (27.1 - 39.3)	31.8 (26.2 - 37.8)	49.3 (44.9 - 53.6)	45.6 (41.5 - 49.8)
	Total	36.8 (32.4 - 41.3)	33.1 (28.2 - 38.2)	34.2 (29.6 - 39.0)	53.2 (49.2 - 57.2)	49.2 (45.6 - 52.8)
New Zealand	Female	41.6 (38.3 - 44.9)	33.6 (28.7 - 38.9)	36.9 (32.9 - 41.1)	57.8 (55.4 - 60.2)	53.3 (51.2 - 55.5)
	Male	32.6 (28.7 - 36.6)	33.5 (28.6 - 38.8)	32.3 (27.8 - 37.1)	50.1 (47.3 - 52.8)	46.4 (43.9 - 48.8)
	Total	37.4 (34.5 - 40.4)	33.6 (30.0 - 37.3)	34.8 (31.5 - 38.1)	54.1 (51.8 - 56.3)	50.0 (48.5 - 51.4)

Source: NZ Health Survey 2006/07

Nearly 50 percent of adults in Waitemata have seen an oral health care worker in the past 12 months. Maori, Pacific and Asian people were significantly less likely than Others to have seen an oral health care worker.

Table 161 Percentage of adults with unmet need for oral health care in the last 12 months by gender and ethnicity (total response), Waitemata and NZ, age adjusted, 2006/07

		Maori	Pacific	Asian	Other	Total
Waitemata	Female	24.8 (21.3-28.5)	18.6 (13.8-24.2)	12.9 (9.0-17.6)	12.1 (8.4-16.7)	12.4 (9.3-16.2)
	Male	18.6 (14.7-22.9)	14.9 (10.4-20.3)	6.8 (3.4-11.8)	10.9 (8.1-14.3)	10.9 (8.2-14.1)
	Total	21.7 (18.7-25.1)	16.8 (13-21.1)	9.9 (6.5-14.2)	11.5 (8.9-14.6)	11.7 (9.2-14.2)
New Zealand	Female	22.5 (19.9-25.2)	16.8 (12.6-21.8)	11.7 (8.5-15.5)	11 (8-14.6)	11.3 (9.1-13.8)
	Male	16.9 (13.8-20.3)	13.5 (9.6-18.2)	6.1 (3.5-10)	9.9 (8.2-11.8)	9.9 (8.3-11.6)
	Total	19.7 (17.7-21.8)	15.2 (12.2-18.6)	9 (6.4-12.2)	10.4 (9-12)	10.6 (9.8-11.4)

Source: NZ Health Survey 2006/07

12% of Waitemata's adult population had an unmet need for oral health care in the last 12 months. The proportion of Maori with unmet need was greater than Other.

Secondary Care

Emergency Department

Emergency departments provide care and treatment for those with serious injuries or illness and are open 24 hours a day, seven days a week.

Capacity

Currently there are 53 bed spaces in the North Shore Hospital Emergency Department and 23 bed spaces in the Waitakere Hospital Emergency Department. However, with the planned Lakeview development on the North Shore site in 2011, the Emergency Department will be reconfigured to 35 bed spaces with a 56 bed Acute Admission Unit (AAU). The Waitakere Hospital Emergency Department will also expand operations to become a 24/7 facility with an additional 20 AAU bed spaces.

Utilisation

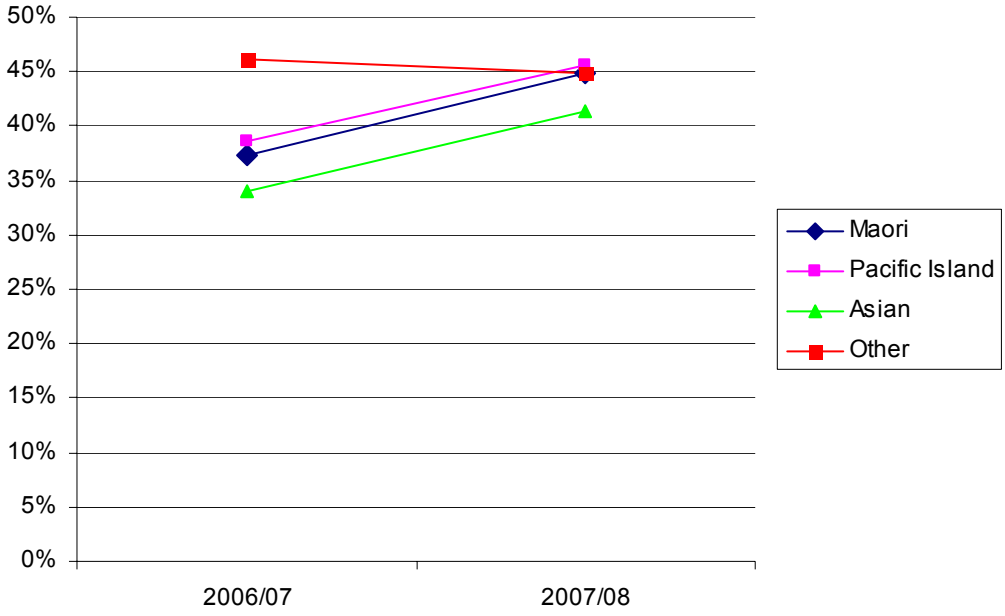
Table 162 Age-standardised prevalence rates (percent, and 95% confidence intervals) of use of public hospital emergency departments by adults (15 yrs +), by gender and ethnicity (prioritised), Waitemata and NZ, 2006/07

		Maori	Pacific	Asian	Other	Total
WDHB	Female	8.2 (5.8–11.2)	7.3 (4.2–11.7)	4.2 (2.0–7.6)	6.5 (4.5–9.0)	6.4 (4.5–8.8)
	Male	9.1 (6.1–12.8)	7.9 (4.1–13.4)	4.5 (2.1–8.2)	8.1 (6.1–10.6)	7.7 (5.7–10.2)
	Total	8.6 (6.4–11.4)	7.6 (4.7–11.4)	4.3 (2.3–7.2)	7.3 (5.4–9.6)	7.0 (5.1–8.9)
New Zealand	Female	9.9 (8.1–12.0)	8.9 (6.0–12.4)	5.0 (3.3–7.3)	7.9 (6.7–9.1)	7.7 (6.7–8.8)
	Male	11.0 (8.5–13.9)	9.5 (5.9–14.3)	5.4 (3.4–8.0)	9.8 (8.6–11.2)	9.3 (8.2–10.6)
	Total	10.4 (8.8–12.2)	9.2 (6.7–12.2)	5.2 (3.9–6.8)	8.8 (7.8–9.9)	8.5 (7.8–9.2)

Source: 2006/07 NZHS data prepared by HDIU, 2008

In the NZ Health Survey about 7% of adults in Waitemata had presented at the emergency department of a public hospital in the last 12 months, adjusted for age.

Figure 146 Percentage of Emergency Department visits that are low priority (triage 4 & 5), by ethnicity, Waitemata, 2006/07-2007/08



Source: WDHB ECC Triage data

Nearly half of Emergency Department visits were triage category 4 and 5 - these are considered low priority conditions that could usually have been treated in primary care.

Outpatient Services

Outpatient clinics provide care to people in the community that primary care is unable to provide. This may include people referred by primary care for specialist advice and management and people being followed up after a period in hospital. The National Non-admitted Patient Appointment Collection was introduced in 2006 and is still being developed.

Gender and ethnicity

Table 163 Mean visits to outpatient department at public hospital for Waitemata domiciled adults (15 years +), by gender and ethnicity (prioritised), age-standardised, 2007

Gender	Maori	Pacific	Asian	Other	Total
Male	0.44	0.33	0.15	0.37	0.34
Female	0.51	0.41	0.19	0.42	0.38

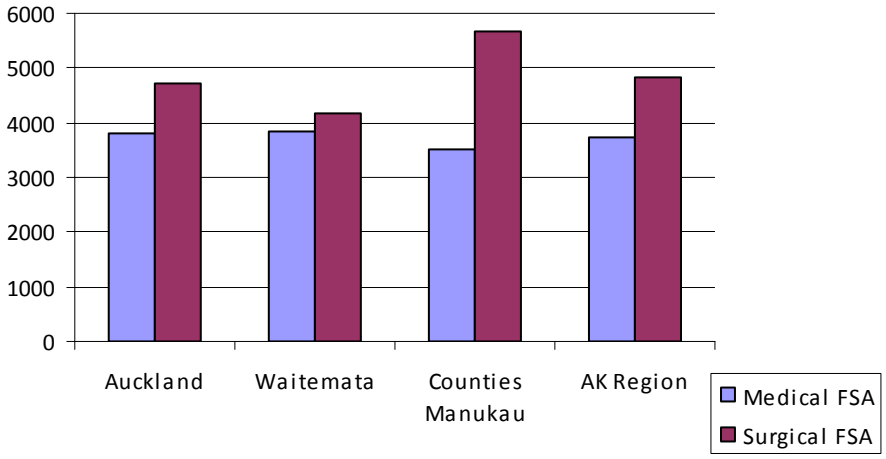
Source: NNPAC, 2007

Waitemata domiciled Maori had the highest rates of outpatient department utilisation for 2007 when adjusted for age. Asian use of outpatient services is low. Females had a slightly higher use than males.

Specialty

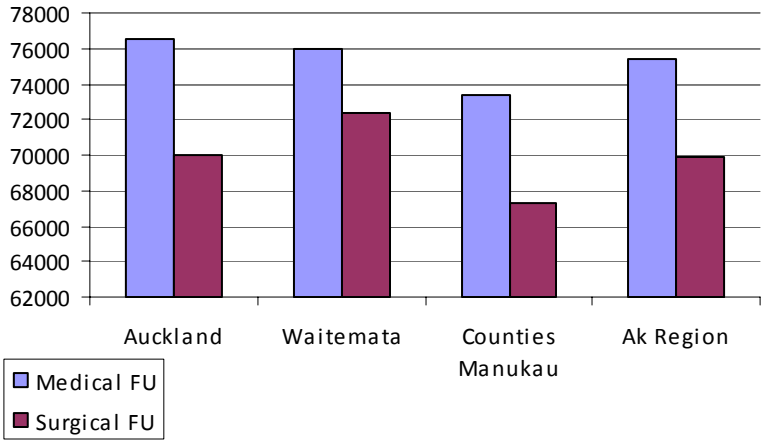
The following analysis was taken from work done on Inter District Flows. It is not age standardised and differences in age structures between DHB's may account for some differences.

Figure 147 Rate of Medical and Surgical First Specialist Appointment (FSA) for Auckland region DHBs per 100,000 of population, 2006/07



Source: IDF washup data, 2006/07

Figure 148 Rate of Medical and Surgical Follow-up (FU) appointments for Auckland region DHBs per 100,000 of population, 2006/07

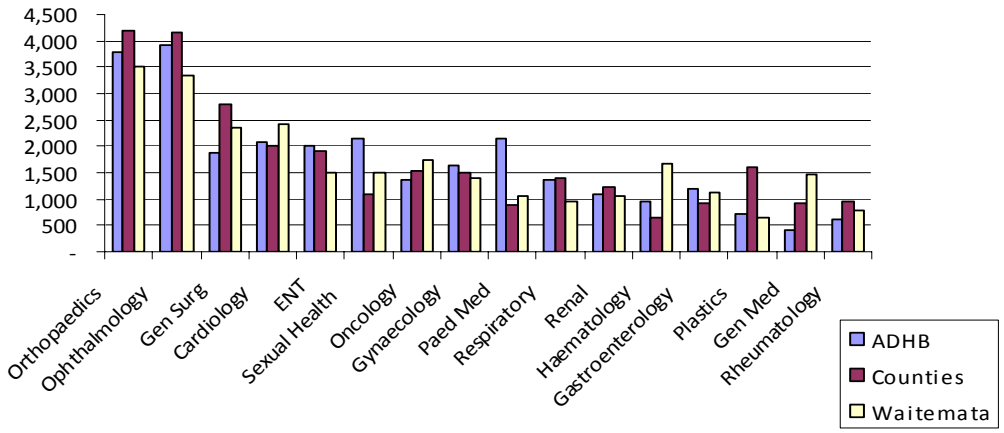


Source: IDF washup data

When comparing the rate per 100,000 of the population of outpatient appointments across the Auckland region, Waitemata rates are higher than the Auckland region as a whole for Medical FSAs

and FUs and Surgical FUs. However, Surgical FSA rates are less than the rate for the entire Auckland region.

Figure 149 Rate of appointments for Auckland region DHBs per 100,000 of population, by specialty, 2006/07, where total number of appointment greater than 10,000



Source: IDF washup data

The overall pattern of specialist clinic use was similar for the three DHBs with orthopaedics and ophthalmology having the highest utilisation.

Hospitals

Capacity

Waitemata DHB has experienced significant pressure over the last three years as acute demand, largely driven by population growth, has outstripped bed capacity. The following table highlights the bed deficit at June 2008.

Table 164 2007/08 Waitemata DHB bed day volume in comparison to beds available as at June 08

Site	Specialty Group	Total Bed days 2007/08	Actual Occupancy	Actual Beds as at June 08	Bench-mark Bed need	**Surplus (Deficit)**
North Shore	1 Medical	66,854	108%	170	215	(45)
	2 Surgical	49,103	89%	152	158	(6)
	3 Older Adults	16,974	75%	62	55	7
	Subtotal	132,931	95%	384	428	(44)
	4 Paediatric	6	0%	-	0	(0)
	5 Neonates	3,913	89%	12	16	(4)
	6 Women	11,177	61%	50	41	9
	Subtotal	15,096	67%	62	57	5
North Shore Total		**148,027**	**91%**	**446**	**486**	**(40)**
Waitakere	1 Medical	25,737	93%	76	83	(7)
	2 Surgical	184	0%	-	1	(1)
	3 Older Adults	12,400	79%	43	40	3
	Subtotal	38,321	88%	119	124	(5)
	4 Paediatric	2,038	37%	15	9	6
	5 Neonates	4,035	92%	12	17	(5)
	6 Women	6,835	51%	37	25	12
	Subtotal	12,908	55%	64	51	13
Waitakere Total		**51,229**	**77%**	**183**	**174**	**9**
Total	1 Medical	92,591	103%	246	298	(52)
	2 Surgical	49,287	89%	152	159	(7)
	3 Older Adults	29,374	77%	105	95	10
	Subtotal	171,252	93%	503	552	(49)
	4 Paediatric	2,044	37%	15	9	6
	5 Neonates	7,948	91%	24	34	(10)
	6 Women	18,012	57%	87	66	21
	Subtotal	28,004	61%	126	108	18
Total		**199,256**	**87%**	**629**	**660**	**(31)**

Source: Bed Capacity Analysis report, Powell, 2008

This shows a net bed deficit across both hospital sites of 31 beds for 2007/08 at benchmark occupancy levels, noting that

- Actual beds are based on available beds (the physically available beds) and not resourced beds (the beds funded for service delivery), and that from time to time beds are "closed" due to staffing or infection control issues which exacerbates bed deficits.
- Some additional bed capacity that was commissioned during the year is counted in the actual beds, but was not available for the whole year.

- Not all beds are interchangeable and the pressure in medical services cannot be distributed into paediatric, maternity and women's health beds. Consequently the bed deficit in medical impacts negatively on ECC, surgery and services for older people.

Additional bed capacity is being commissioned in 2008/09 which will mitigate the risk for the winter of 2009, but the DHB will still need to find some additional capacity for 2010.

Long term projections for Waitemata DHB hospital facilities show the need to continue to increase capacity to meet expected acute demand. The commissioning of planned facilities in 2011 (the Lakeview Unit) will provide relief until about 2013, when the requirement to refurbish existing wards, planned service changes, and growth in population will begin to reduce the impact of the additional beds.

Site developments at both Waitakere and North Shore Hospitals are currently being planned that are expected to provide, progressively, capacity for the DHB beyond 2020. At the same time the DHB is working with primary care to explore opportunities to develop more decentralised community based service delivery, whilst developing and maintaining strong, safe, core acute hospital services.

Acute utilisation

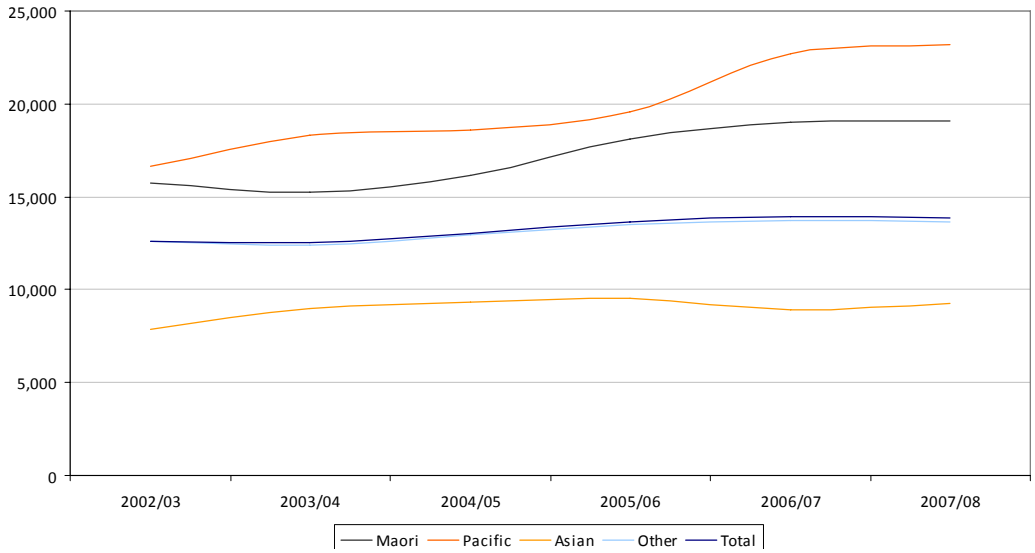
Adults

Table 165 Age-standardised acute discharges per 100,000 adults from public hospitals for Waitemata residents by ethnicity (prioritised), 2002/03 - 2007/08

	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08
Maori	15,751	15,250	16,149	18,086	19,042	19,064
Pacific	16,653	18,286	18,604	19,594	22,708	23,164
Asian	7,891	8,999	9,304	9,506	8,897	9,277
Other	12,592	12,402	12,942	13,502	13,736	13,619
Total	12,632	12,538	13,056	13,650	13,943	13,860

Source: NMDS data, 2002/03-2007/08

Figure 150 Age-standardised acute discharges from public hospitals for Waitemata residents by ethnicity (prioritised), 15+ years, 2002/03 - 2007/08



Source: NMDS data, 2002/03-2007/08

For adults, the age-standardised rates of acute discharges from public hospitals are highest and have risen most significantly for Maori and Pacific between 2002/03 and 2007/08. Asian utilisation rates are low.

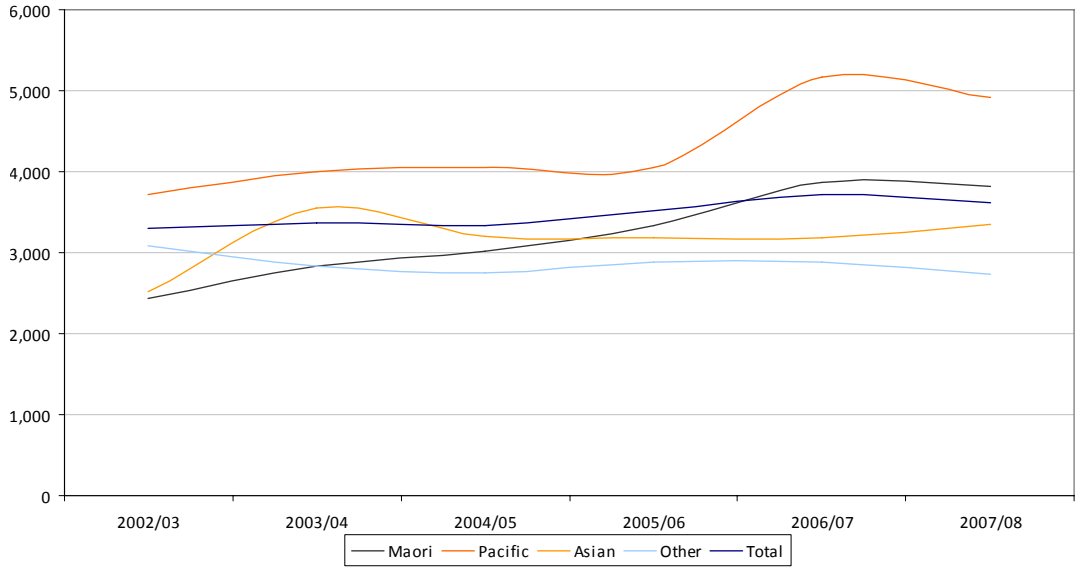
Children

Table 166 Age-standardised acute discharges from public hospitals for Waitemata children by ethnicity (prioritised), 2002/03 - 2007/08

	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08
Maori	2,426	2,841	3,015	3,333	3,867	3,823
Pacific	3,717	3,995	4,055	4,058	5,164	4,914
Asian	2,522	3,558	3,199	3,191	3,176	3,343
Other	3,077	2,838	2,750	2,890	2,888	2,737
Total	3,293	3,367	3,327	3,510	3,723	3,620

Source: NMDS data, 2002/03-2007/08

Figure 151 Age-standardised acute discharges from public hospitals for Waitemata children by ethnicity (prioritised), 2002/03 - 2007/08

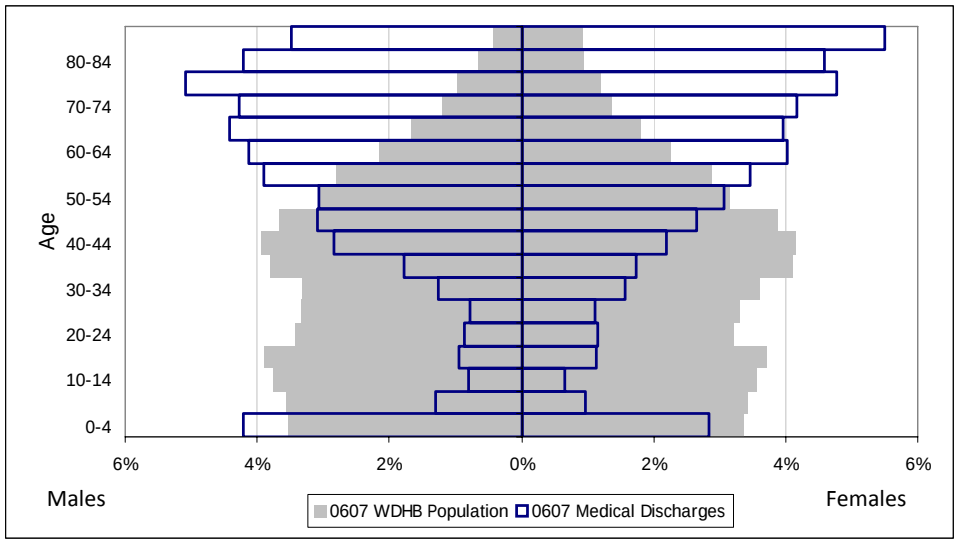


Source: NMDS data, 2002/03-2007/08

Acute admission rates for children are highest for Pacific children, followed by Maori. Rates for Maori and Pacific children have increased over the time period particularly from 2004-2006. Rates for Asian children are higher than for Other.

Total utilisation by age

Figure 152 Distribution of medical inpatient admissions and population by age, Waitemata, 2006/07

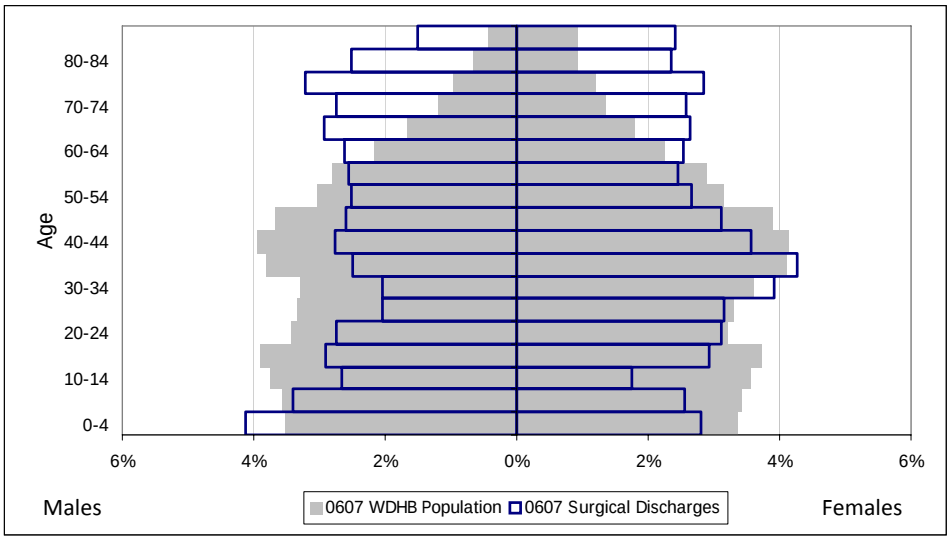


Source: Older People of Waitemata

In 2006/07, older people (65 years+) made up 11% of the population but accounted for 57% of the inpatient admissions.

Utilisation of surgical services by older people is high compared to other age groups, but the distribution is not as marked as for medical services. Women have a higher utilisation during child bearing years.

Figure 153 Distribution of surgical inpatient admissions and population by age, Waitemata, 2006/07



Source: Older People of Waitemata

Non-acute services

Non-acute services are inpatients admissions that are planned or elective and are frequently for surgery or other procedures. The most frequently used service related groups are given here.

Figure 155 Age standardised non-acute admission rates per 100,000 for Waitemata residents, cardiac and cardiothoracic, by year and by ethnicity (average of 2002/03-2007/08)

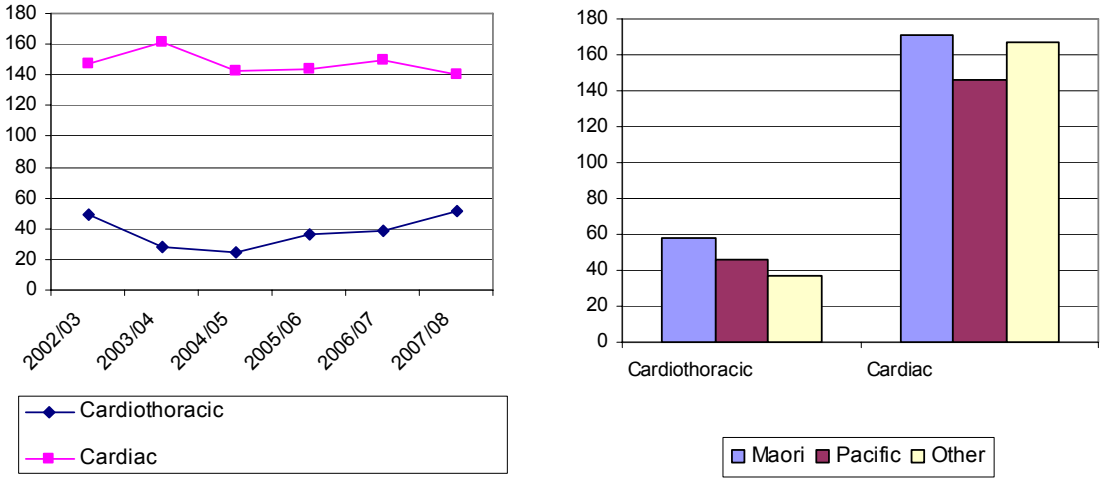


Figure 154 Age standardised non-acute admission rates per 100,000 for Waitemata residents, dental, ENT, and eye, by year and by ethnicity (average of 2002/03-2007/08)

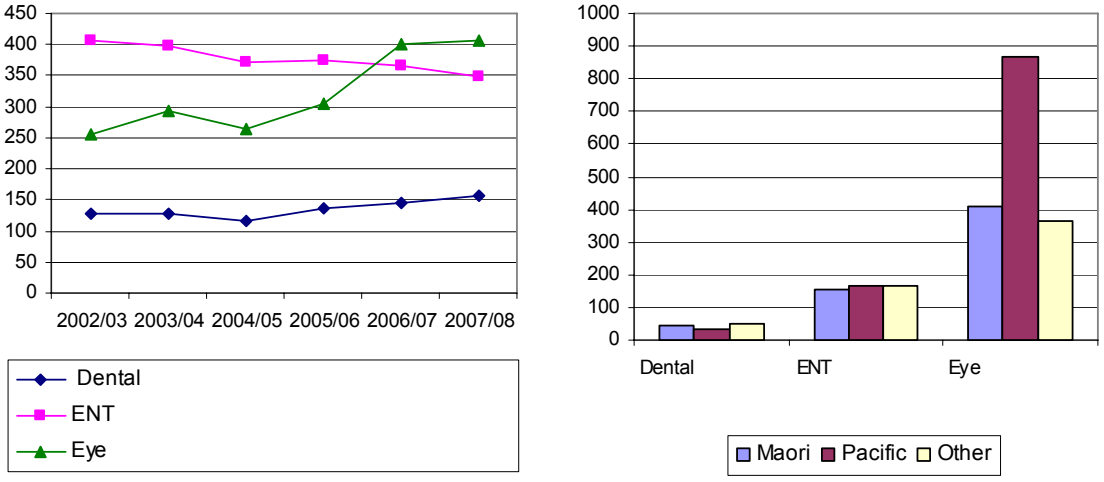


Figure 156 Age standardised non-acute admission rates per 100,000 for Waitemata residents, orthopaedics, plastics, and vascular surgery, by year and by ethnicity (average of 2002/03-2007/08)

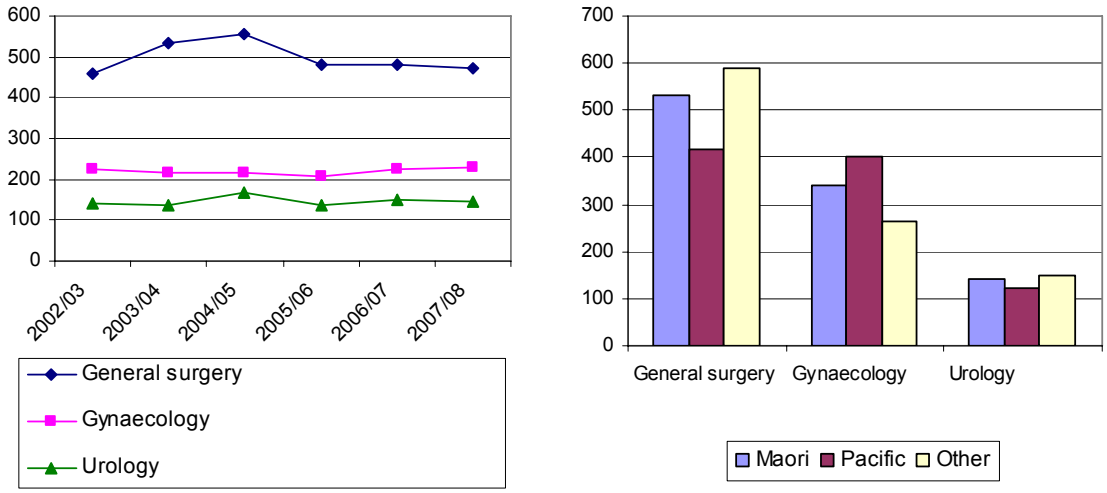
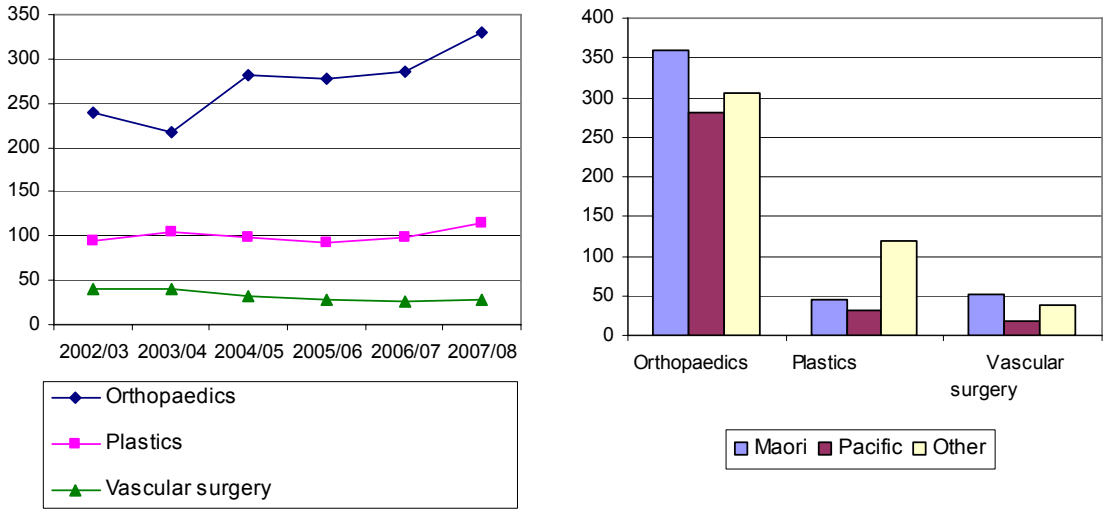


Figure 157 Age standardised non-acute admission rates per 100,000 for Waitemata residents, orthopaedics, plastics, and vascular surgery, by year and by ethnicity (average of 2002/03-2007/08)



There has been an increase in the proportion of people receiving non-acute orthopaedic and eye services over the last 6 years and a decrease in the proportion receiving non-acute ENT and vascular surgery. Other services utilisation has remained fairly stable.

Pacific people are more likely to have non-acute eye services. Others are more likely to receive non-acute plastics services than Maori or Pacific people.

Elective surgery

Table 167 Age-standardised rates per 100,000 (and 95% confidence intervals) of elective surgery discharges at public hospital, by ethnicity (prioritised), 2005–07

		Maori	Pacific	Asian	Other	Total
WDHB	Female	3208.6 (3066.0–3356.1)	3351.2 (3183.3–3525.7)	1719.9 (1636.6–1806.4)	2705.2 (2664.1–2746.7)	2622.1 (2587.2–2657.3)
	Male	2995.6 (2855.4–3140.9)	3085.8 (2922.6–3255.6)	1689.2 (1599.4–1782.6)	2779.2 (2735.7–2823.2)	2678.2 (2641.2–2715.6)
	Total	3120.7 (3019.8–3224.1)	3247.9 (3129.3–3369.8)	1723.1 (1661.2–1786.7)	2739.1 (2709.3–2769.3)	2651.0 (2625.5–2676.6)
New Zealand	Female	5005.2 (4956.8–5053.9)	4161.3 (4092.4–4231.1)	2255.4 (2214.4–2297.0)	3872.5 (3849.3–3889.6)	3882.7 (3859.4–3897.5)
	Male	3525.3 (3483.5–3567.6)	3327.4 (3264.7–3391.0)	1784.7 (1744.0–1826.1)	3266.4 (3246.8–3282.2)	3204.0 (3184.8–3217.7)
	Total	4316.8 (4284.4–4349.3)	3761.2 (3714.3–3808.4)	2050.1 (2020.9–2079.6)	3567.6 (3546.2–3579.2)	3549.8 (3528.5–3559.9)

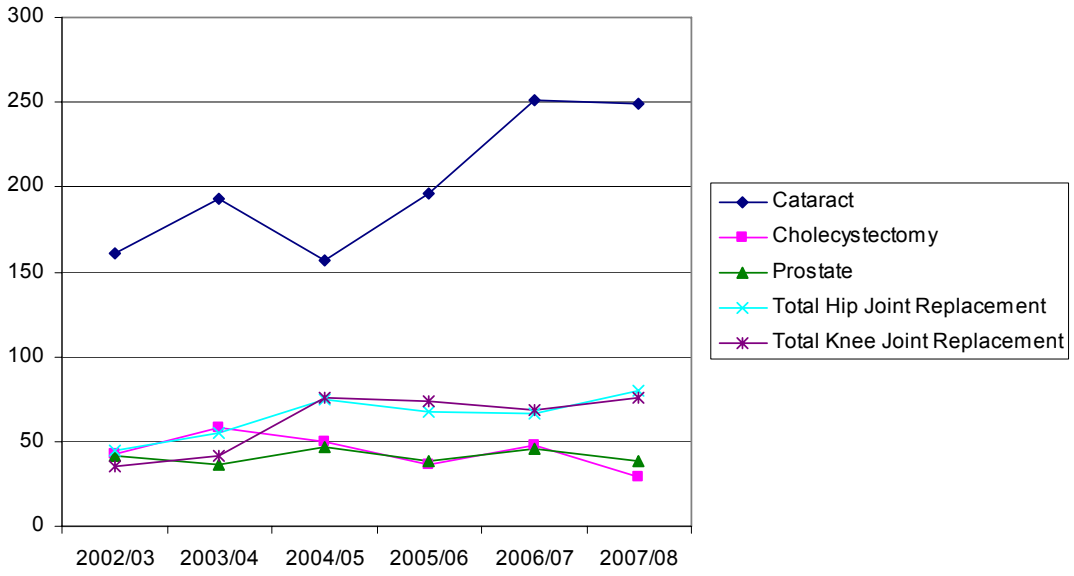
Source: NMDS data prepared by HDIU, 2008

Waitemata had a significantly lower rate of elective surgery discharges than the national rate. Maori and Pacific people had significantly higher rates than Others whilst Asians had a low rate.

Common elective procedures

Information on five common elective procedures is provided to examine time trends and access by ethnicity.

Figure 158 Age standardised surgery rates per 100,000 of Waitemata residents, for selected procedures, 2002/03 - 2007/08

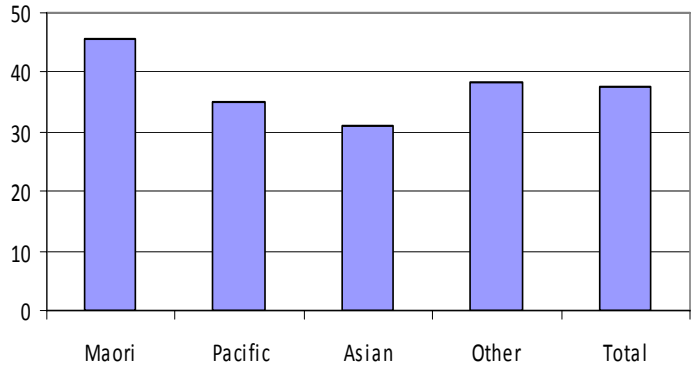


Source: NMDS data, 2002/03-2007/08

There has been an increase in the rate of hip and knee joint replacements and cataract surgery for Waitemata residents. This is in line with an increase in funding from the government to increase the number of surgeries performed for these particular procedures. The rates of prostate surgery and cholecystectomies have remained stable.

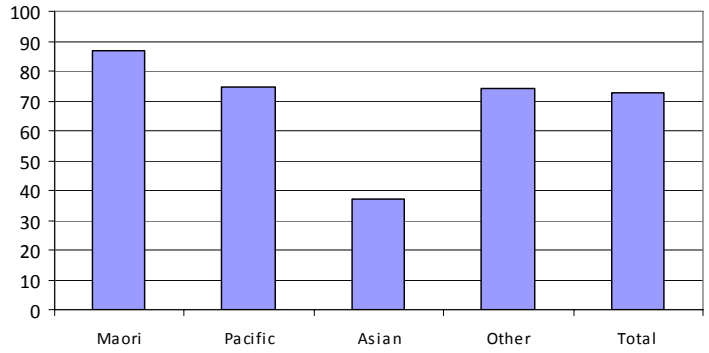
In general elective surgery rates were highest for Maori and lowest for Asians although there is variation amongst procedures.

Figure 159 Age standardised surgery rates per 100,000 of Waitemata residents by ethnicity (prioritised), for choleycystectomy procedures, 2005/06 - 2007/08



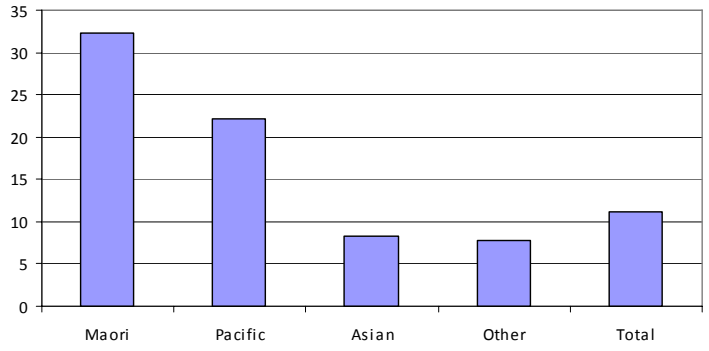
Source: NMDS data, 2005/06-2007/08

Figure 160 Age standardised surgery rates per 100,000 of Waitemata residents by ethnicity (prioritised), for total knee joint replacement procedures, 2005/06 - 2007/08



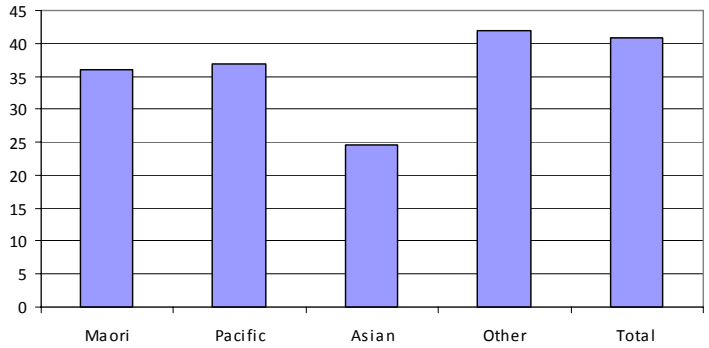
Source: NMDS data, 2005/06-2007/08

Figure 161 Age standardised surgery rates per 100,000 of Waitemata residents by ethnicity (priortised), for tubal ligation procedures, 2005/06 - 2007/08



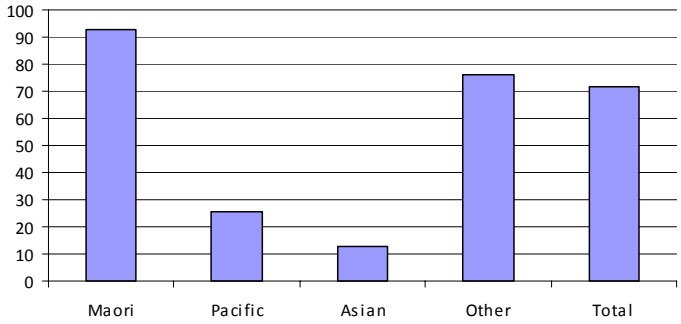
Source: NMDS data, 2005/06-2007/08

Figure 162 Age standardised surgery rates per 100,000 of Waitemata residents by ethnicity (priortised), for prostate procedures, 2005/06 - 2007/08



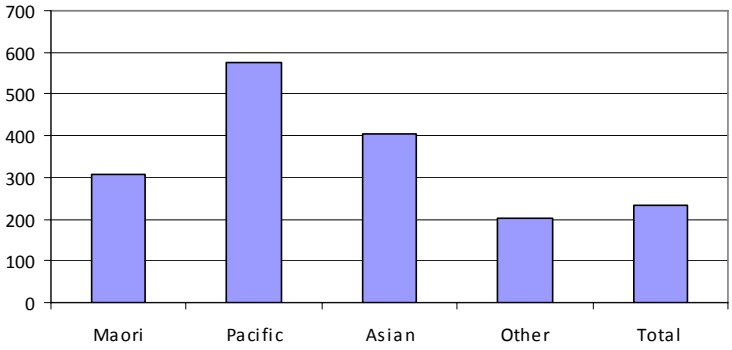
Source: NMDS data, 2005/06-2007/08

Figure 163 Age standardised surgery rates per 100,000 of Waitemata residents by ethnicity (priortised), for total hip joint replacement procedures, 2005/06 - 2007/08



Source: NMDS data, 2005/06-2007/08

Figure 164 Age standardised surgery rates per 100,000 of Waitemata residents, by ethnicity (priortised) for cataract procedures, 2005/06 - 2007/08



Source: NMDS data, 2005/06-2007/08

Waiting times for elective treatment

Table 168 Elective services: summary of number of people treated and waiting times for people assured of treatment, for 2007/08

Specialty		Waitemata					New Zealand				
		Average DWA	Number treated	Time assured			Average DWA	Number treated	Time assured		
				0–5 months	6–8 months	9+ months			0–5 months	6–8 months	9+ months
Cardiothoracic	Number	n/a	n/a	n/a	n/a	n/a	62.1	1,754	1,573	108	73
	%	–	n/a	n/a	n/a	n/a	–	100%	90%	6%	4%
Ear, nose and throat	Number	85.8	1,341	1207	93	41	75.9	17,150	15,648	1,154	348
	%	–	100%	90%	7%	3%	–	100%	91%	7%	2%
Ophthalmology	Number	n/a	n/a	n/a	n/a	n/a	82.7	16,446	14,870	1,271	305
	%	–	n/a	n/a	n/a	n/a	–	100%	90%	8%	2%
General surgery	Number	53.3	2,309	2,186	74	49	55.8	27,686	26,101	1,101	484
	%	–	100%	95%	3%	2%	–	100%	94%	4%	2%
Gynaecology	Number	60.6	973	906	41	26	73	14,086	12,819	1,021	246
	%	–	100%	93%	4%	3%	–	100%	91%	7%	2%
Neurosurgery	Number	n/a	n/a	n/a	n/a	n/a	49.4	1,273	1,214	44	15
	%	–	n/a	n/a	n/a	n/a	–	100%	95%	3%	1%
Orthopaedics	Number	33.2	1,612	1,599	11	2	87.1	16,047	13,968	1,555	524
	%	–	100%	99%	1%	0%	–	100%	87%	10%	3%
Paediatric surgery	Number	n/a	n/a	n/a	n/a	n/a	64	2,467	2,248	141	78
	%	–	n/a	n/a	n/a	n/a	–	100%	91%	6%	3%
Plastics	Number	n/a	n/a	n/a	n/a	n/a	46.8	7,425	7,104	194	127
	%	–	n/a	n/a	n/a	n/a	–	100%	96%	3%	2%
Urology	Number	61.2	789	750	30	9	66.5	6,902	6,405	354	143
	%	–	100%	95%	4%	1%	–	100%	93%	5%	2%
Vascular	Number	n/a	n/a	n/a	n/a	n/a	45.4	1,075	1,041	19	15
	%	–	n/a	n/a	n/a	n/a	–	100%	97%	2%	1%
Dental	Number	n/a	n/a	n/a	n/a	n/a	80.9	6,084	5,486	479	119
	%	–	n/a	n/a	n/a	n/a	–	100%	90%	8%	2%
Total	Number	56.8	7,024	6,648	249	127	70.2	118,395	108,477	7,441	2,477
	%		100%	95%	4%	2%	–	100%	92%	6%	2%

Notes: Extracted 7 August 2008.

Definitions: Average DWA – the average number of days between being assured of treatment within six months, and receiving that treatment. Time assured – the number of days between being assured of treatment within six months, and receiving that treatment.

Data inclusion criteria: patients exited treated, 2007/08; surgical specialties only; normal procedures only; publicly funded events only; DHB agencies only.
Source: NMDS data prepared by HDIU, 2008

For publicly funded elective services in New Zealand, the average number of days between being assured of treatment within six months and receiving that treatment was 70.2 days and for Waitemata patients 56.8 days.

For publicly funded elective services for Waitemata DHB, 95% of patients assured of treatment within six months received their treatment within five months, of all patients receiving treatment in 2007/08 across the specialities shown in the table, which was similar to the national percentage (92%).

The specialities with the highest proportion of people receiving treatment nine months or more after being assured of treatment within six months were gynaecology and the ear, nose and throat specialities (3% of those treated, each), for Waitemata DHB.

Cancer radiotherapy waiting times

Table 169 Percentage of cancer patients who started radiation treatment before four weeks and from four to eight weeks from their first specialist assessment, on a national and Auckland regional level

	Treatments started in current month	Patients in priority category A, B and C								
		Jul 2007	Aug 2007	Sep 2007	Oct 2007	Nov 2007	Dec 2007	Jan 2008	Feb 2008	Mar 2008
New Zealand	% Waited < 4 weeks	66%	77%	79%	71%	68%	74%	55%	67%	68%
	% Waited 4–8 weeks	28%	21%	18%	24%	29%	20%	36%	22%	26%
	Total % waited 0–8 weeks	94%	98%	97%	95%	97%	94%	91%	89%	94%
Auckland region	% Waited < 4 weeks	68%	82%	88%	66%	69%	72%	50%	65%	68%
	% Waited 4–8 weeks	29%	18%	11%	33%	31%	26%	40%	26%	31%
	Total % waited 0–8 weeks	97%	100%	99%	99%	100%	98%	90%	91%	99%

Source: Health Target data: Cancer Treatment Wait Times for Patients in Priority Categories A, B and C, Ministry of Health.

The table below shows the percentage of patients who waited less than four weeks and four to eight weeks between first specialist assessment and the start of radiation oncology treatment. This excludes patients where the start of radiation treatment is scheduled to permit safe and effective sequencing of chemotherapy (category D).

The Auckland region includes Northland, Auckland, Counties Manukau and Waitemata DHBs.

In the Auckland region, 99% of cancer patients began radiation treatment within eight weeks of their first specialist assessment, which was higher than the New Zealand percentage (94%), for treatments started in March 2008.

Mental Health

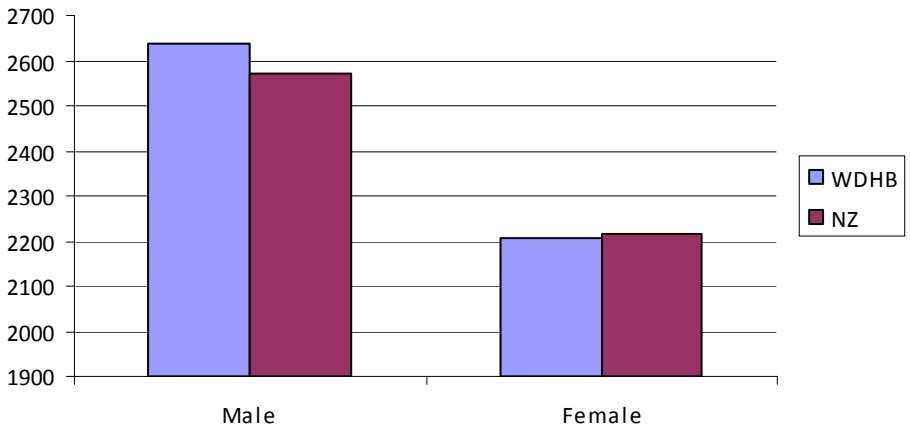
Utilisation of DHB mental health services by Waitemata residents

This section provides an overview of the Mental Health Information National Collection (MHINC) data regarding the type of DHB mental health services utilised by Waitemata residents in 2007. Unfortunately NGO provider data is not well collected so we are unable to provide information on this important area.

Gender

Use of DHB mental health services by residents was slightly higher amongst Waitemata males than among total NZ males; use by Waitemata females was very similar to that of total NZ females. In both Waitemata and across NZ, use by males was higher than among females.

Figure 165: Age-standardised rates (per 100,000) of use of DHB mental health services by gender, Waitemata and NZ, 2007

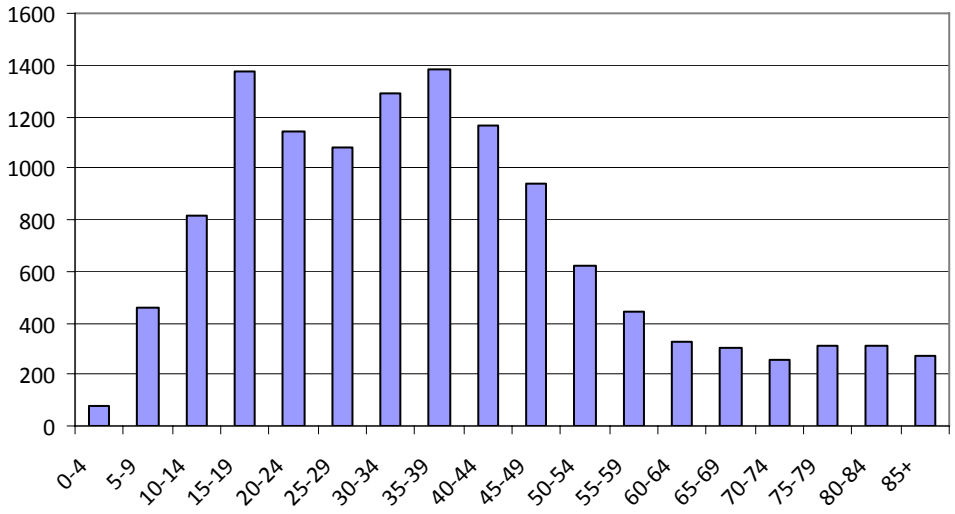


Source: Mental Health Information National Collection

Age

The majority of Waitemata residents seen by DHB mental health services were aged 15-49 years.

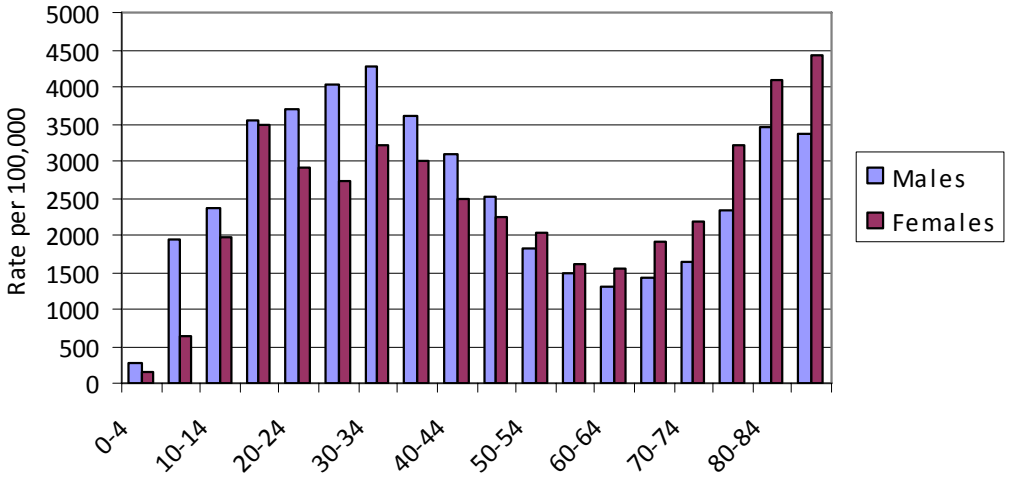
Figure 166: Number of Waitemata residents seen by DHB mental health services by age-group, 2007



Source: Mental Health Information National Collection

The rate of utilisation is highest amongst young adults and people over the age of 75. Up to the age of 54 years male use of DHB mental health services was greater than that among females. This trend reversed from age 55 years when use among women exceeded that of men.

Figure 167: Age-group specific rates (per 100,000) of use of DHB mental health services by gender, Waitemata residents, 2007



Source: Mental Health Information National Collection

Ethnicity

The ethnic composition of Waitemata clients seen by DHB mental health services (at Level 1 and 2 ethnicity) is provided below. Europeans and Maori make up the bulk of clients.

Table 170: Number and proportion (%) of Waitemata residents seen by DHB mental health services by ethnicity (prioritised), 2007

SNZ Level 1 ethnicity				SNZ Level 2 ethnicity		
Group	no.	%	Code	Ethnic description	no.	%
European	8,259	65.8%	10	European NFD	330	2.6%
			11	New Zealand European/Pakeha	6,902	55.0%
			12	Other European	1,027	8.2%
Maori	1,887	15.0%	21	Maori	1,887	15.0%
Pacific	749	6.0%	30	Pacific peoples NFD	17	0.1%
			31	Samoan	338	2.7%
			32	Cook Island Maori	112	0.9%
			33	Tongan	98	0.8%
			34	Niuean	61	0.5%
			35	Tokelauan	9	0.1%
			36	Fijian	76	0.6%
			37	Other Pacific peoples	38	0.3%
Asian	474	3.8%	40	Asian NFD	24	0.2%
			41	Southeast Asian	33	0.3%
			42	Chinese	127	1.0%
			43	Indian	149	1.2%
			44	Other Asian	141	1.1%
Other	1,187	9.5%	51	Middle Eastern	84	0.7%
			52	Latin American/Hispanic	12	0.1%
			53	African	50	0.4%
			54	Other	662	5.3%
			99	Not Stated	379	3.0%
Total	12,556	100%			12,556	100%

Source: Mental Health Information National Collection

The rate of use of mental health services in Waitemata was greatest among Maori, then Other, Pacific and then Asian. Across ethnic groups the rate of use was greater in Waitemata than NZ.

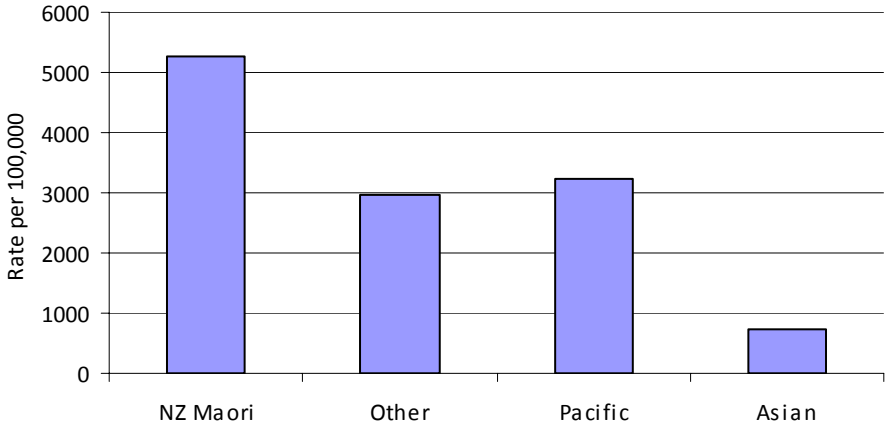
Table 171: Crude rate (per 100,000) of residents seen by DHB mental health services in Waitemata and total NZ by ethnicity (prioritised), 2007

Ethnic group	Waitemata clients (rate per 100,000)	Total NZ clients (rate per 100,000)
Maori	4401.1	3397.3
Pacific	2462.9	2024.8
Asian	715.4	784.3
Other	2761.7	2539.6
Total	2607.2	2482.6

Note: 2006 population is used to derive rates, as no split for Asian available for later years.
Source: Mental Health Information National Collection

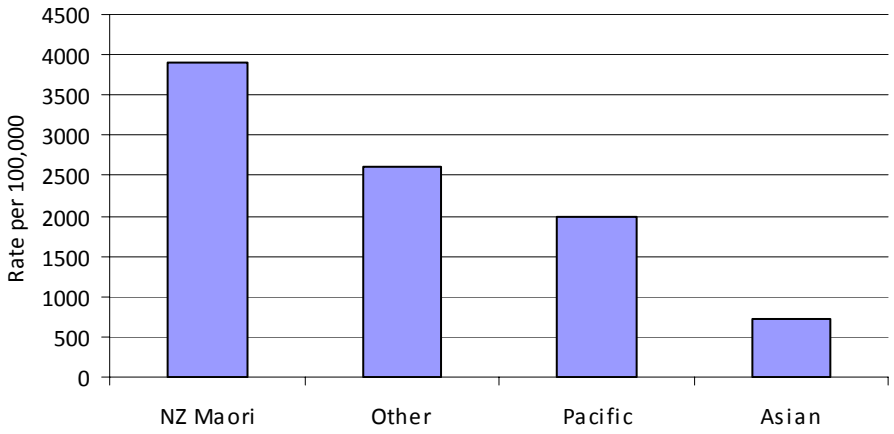
When rates were age-standardised, the use of DHB mental health services remained greatest among Maori males and females. Utilisation by Asian people is very low which may reflect access issues.

Figure 168: Age-standardised rate (per 100,000) of male Waitemata residents seen by DHB mental health services by ethnicity (prioritised), 2007



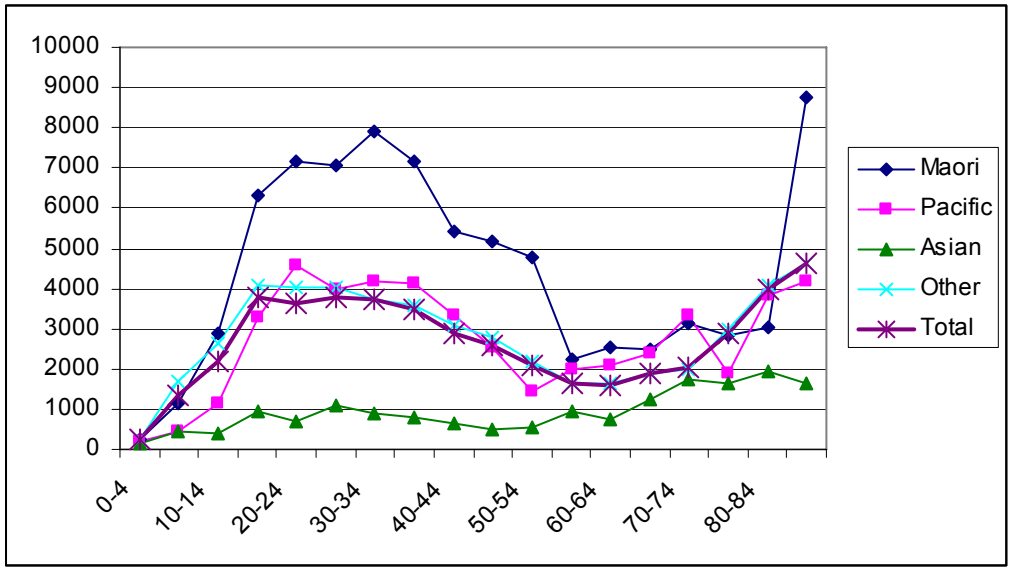
Note: 2006 population is used to derive rates, as no split for Asian available for later years.
Source: Mental Health Information National Collection

Figure 169: Age-standardised rate (per 100,000) of female Waitemata residents seen by DHB mental health services by ethnicity (prioritised), 2007



Note: 2006 population is used to derive rates, as no split for Asian available for later years.
Source: Mental Health Information National Collection

Figure 170: Age-specific rate (per 100,000) of unique Waitemata clients seen by DHB mental health services by age group and ethnicity (prioritised), 2007



Note: 2006 population is used to derive rates, as no split for Asian available for later years.
Source: Mental Health Information National Collection

Rates for Maori are high compared to other groups for youth and adults. Rates in older people are not reliable due to small numbers. Rates for Pacific people are similar to Others except for children where they are low. Rates for Asian people are low through all age groups.

Table 172: Waitemata and NZ clients seen by DHB mental health services by ethnicity, 2007

		Maori	Pacific	Asian	Other	Total
Waite-mata	Number of people seen	1709	681	397	7605	10392
	Access[1] rate (%)	4.1	2.2	0.6	2.6	2.4
	Age-standardised rate (per 100,000) and 95% CI	4235.6 (4037.1–4441.3)	2297.6 (2128.2–2476.8)	535.1 (483.7–590.4)	2532.3 (2475.7–2589.9)	2289.1 (2245.3–2333.5)
New Zealand	Number of people seen	17784	4097	2322	61414	85617
	Access[1] rate (%)	3.2	1.8	0.7	2.5	2.4
	Age-standardised rate (per 100,000) and 95% CI	3354.8 (3305.7–3404.5)	1855.3 (1798.9–1913.0)	604.4 (580.1–629.5)	2447.8 (2428.4–2467.2)	2310.3 (2294.8–2325.8)

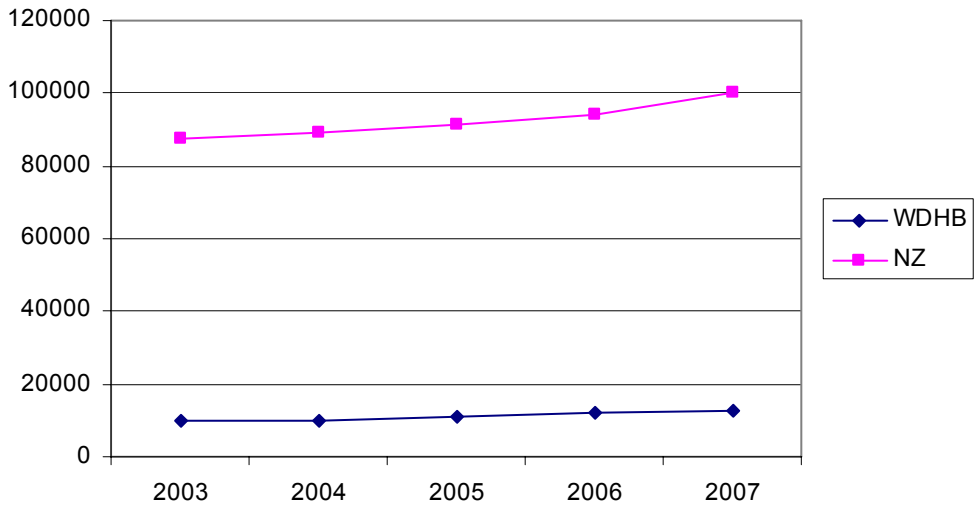
1. Access rate = proportion (crude rate) of the population seen during the year (of people living in the specified DHB district aged 0–64 years) by secondary mental health and addiction services
Source: Mental Health Information National Collection, HDIU

After adjusting for age, the use of DHB mental health services among Waitemata people aged less than 65 years in 2007 was not significantly different from the national rate. Use among Maori, Pacific and Other people in Waitemata was higher than the national rate.

Trends in use

There has been a gradual increase in the number of residents seen by DHB mental health services over 2003-2007 for both the Waitemata and total NZ populations.

Figure 171: Numbers of residents seen by DHB mental health services annually, 2003-2007



Source: Mental Health Information National Collection

DHB of service

Waitemata residents seen by DHB mental health services were most likely to have been seen by WDHB services (84.9%). Waitemata clients also received DHB mental health services from Auckland (6.0%), Northland (4.8%), Counties Manukau (2.5%) and Waikato (1.2%) DHBs.

Table 173: Proportion (%) of Waitemata residents seen by DHB mental health services by DHB of service, 2007

DHB of service	Number	Percentage
Counties Manukau	344	2.5%
Waitemata	11791	84.9%
Auckland	828	6.0%
Other DHBs	102	0.7%
Waikato	164	1.2%
Northland	661	4.8%
Total	13,890	

Source: Mental Health Information National Collection

Team type

The numbers of Waitemata residents seen, along with the numbers of bed nights and contacts are shown for each team type in the table below. As each individual may have been seen by different teams the total number of clients in is greater than the number of unique clients seen by DHB mental health services in 2007 (15,218 vs. 12,556).

Table 174: Bed nights, contacts and clients events among Waitemata residents by team type, 2007

Team type	Team type description	Bed nights[1]	Contacts[2]	Clients [3]
01	Inpatient Team	26,120	3041	627
02	Community Team	6	151,815	5,994
03	Alcohol and Drug Team	2,044	27,589	3,105
04	Child, Adolescent and Family Team	886	29,772	1,867
05	Forensic Team	8,758	5,349	397
06	Kaupapa Maori Team	0	7,133	237
07	Pacific Island Team	0	9,791	264
08	Residential Team	3,786	13	26
09	Community Skills Enhancement Team	0	1,696	86
10	Alcohol and Drug Kaupapa Maori Team	0	2,739	278
11	Alcohol and Drug Dual Diagnosis Team	0	2,534	101
12	Intellectual Disability Dual Diagnosis Team	0	541	43
13	Psycho-geriatric Team	5,490	21,003	1,297
14	Youth Specialty Team	53	8,331	411
15	Maternal Mental Health Team	0	7,019	301
16	Eating Disorder Team	57	2,334	75
17	Needs Assessment and Service Coordination Team	0	30	4
18	Specialist Psychotherapy Team	0	2,230	95
21	Child and Youth Alcohol and Drug Services	0	1	1
99	Other	0	18	9
	Total	47,200	277,630	0

1. Bed night = healthcare user occupying a bed at midnight in the ward or residential service
2. . Contacts = individual contacts, attendances, groups, and day programmes reported to MHINC
3. Clients = number of clients seen

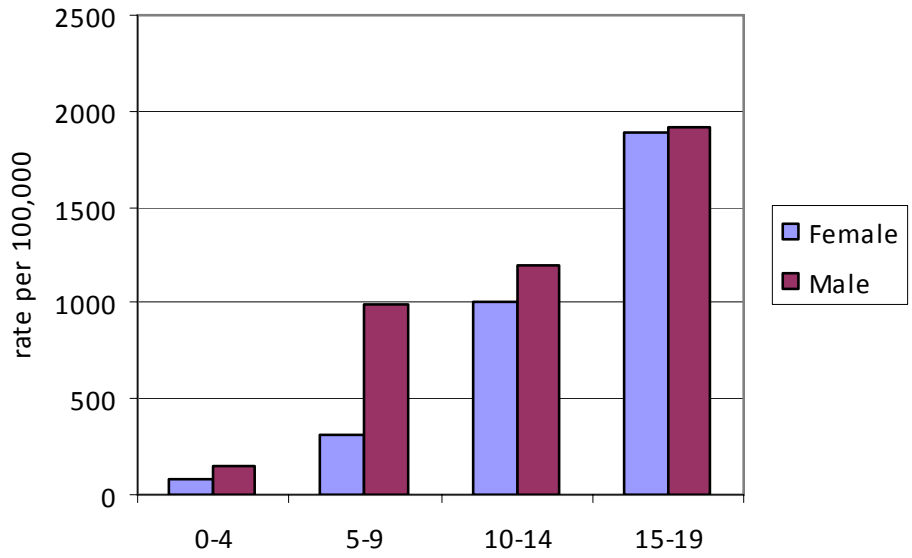
Note: Interactions with the mental health system are recorded in the MHINC as contacts or bed nights, never both.

Source: Mental Health Information National Collection

Children and youth

Male use of DHB mental heath services was largely greater than that of female children and youth in Waitemata. Older children are more likely to be seen.

Figure 172: Age specific rate (per 100,000) of Waitemata residents aged 0-19 years seen by DHB mental health services by age-group and gender, 2007



Source: 2007 MHINC data prepared by MoH, 2008

Maori and Other children and youth were overrepresented among Waitemata clients among those aged 1-19 years based on the ethnic profile of the Waitemata population as a whole.

Figure 173: Waitemata residents aged 0-19 years accessing DHB mental health services, by ethnicity (prioritised), 2007

	Waitemata clients aged 0-19 years		Waitemata population aged 0-19 years	
Ethnic Group	no.	% of total	no.	% of total
Maori	508	18.6%	19,908	14.2%
Pacific	160	5.9%	13,212	9.4%
Asian	106	3.9%	20,430	14.5%
Other	1,950	71.6%	87,096	61.9%
Total	2,724	100.0%	140,646	100.0%

Source: Mental Health Information National Collection and Census

The numbers of Waitemata residents aged 0-19 years seen, along with the numbers of bed nights and contacts are shown for each team type below. As each individual may have been seen multiple times and by different teams the total number of clients is greater than the number of residents seen by DHB mental health services in 2007 (3,321 vs. 2,724).

Figure 174: Clients, contacts and bed nights for Waitemata residents aged 0-19 years by team type, 2007

Team type	Team type description	Bed nights[1]	Contacts[2]	Clients[3]
1	Inpatient Team	2,493	276	71
2	Community Team		7,715	508
3	Alcohol and Drug Team	13	778	204
4	Child, Adolescent and Family Team	970	32,962	1,896
5	Forensic Team	386	401	52
6	Kaupapa Maori Team		362	22
7	Pacific Island Team		254	33
8	Residential Team	6	0	2
9	Community Skills Enhancement Team		42	16
10	Alcohol and Drug Kaupapa Maori Team		548	63
11	Alcohol and Drug Dual Diagnosis Team		107	7
12	Intellectual Disability Dual Diagnosis Team		47	2
13	Psycho-geriatric Team		3	1
14	Youth Specialty Team	53	6,854	374
15	Maternal Mental Health Team		406	21
16	Eating Disorder Team		1,458	42
17	Needs Assessment and Service Coordination Team		7	1
18	Specialist Psychotherapy Team		29	2
21	Child and Youth Alcohol and Drug Services		8	2
99	Other		6	2
	Total	3,921	52,263	3,321

1. Bed night = healthcare user occupying a bed at midnight in the ward or residential service
2. Contacts = individual contacts, attendances, groups, and day programmes reported to MHINC
3. Clients = number of clients seen

Source: Mental Health Information National Collection

Acute inpatient admissions

Waitemata clients seen by DHB inpatient mental health teams were most likely to have been seen by Waitemata DHB (72.39%). The next most frequently used provider for inpatient mental health services was Auckland DHB (9.8%).

Table 175: Number of Waitemata residents receiving acute inpatient services by DHB of service, 2007

DHB of Service	Number	Percent
Counties Manukau	31	4.1%
Waitemata	553	72.3%
Auckland	71	9.3%
Waikato	17	2.2%
Northland	18	2.4%
Other DHBs	75	9.8%
Total	765	100.0%

Team Type = 01 (Inpatient Team) Note: some people may have been seen by more than one DHB
Source: Mental Health Information National Collection

The bed night rate was 26% lower in Waitemata than nationally, whereas the contact rate was 22% higher.

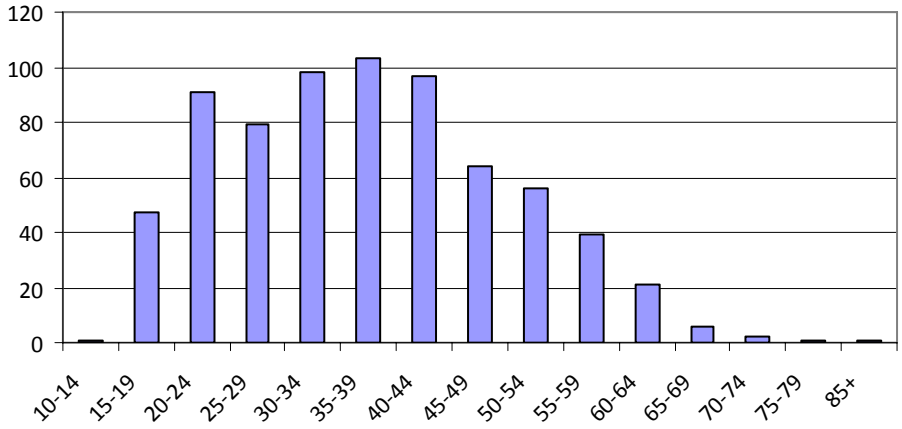
Table 176: Mental health bed nights and contacts, Waitemata and NZ, 2007

	Contacts		Bed nights	
	Number	Per 100,000 of population	Number	Per 100,000 of population
Waitemata	277,630	54,154	38,442	7,498
NZ	1,874,147	44,335	431,657	10,211

1. Bed night = healthcare user occupying a bed at midnight in the ward or residential service 2. Contacts = individual contacts, attendances, groups, and day programmes reported to MHINC
Source: Mental Health Information National Collection

Most Waitemata clients seen by DHB inpatient mental health teams were aged 20-44 years.

Figure 175: Number of Waitemata residents receiving acute inpatient services, by age group, 2007



Team Type = 01 (Inpatient Team)
Source: Mental Health Information National Collection

The average number of inpatient episodes per client was greatest among Maori (1.42) compared with other ethnic groups. The average length of stay was longest among Asian people (47.2 days). The average number of inpatient episodes per client was lower in Waitemata than in NZ overall (1.3 vs. 1.5) although the average length of stay was considerably longer in Waitemata than in NZ (41.5 vs. 25.7 days).

Table 177: Inpatient episodes among unique Waitemata clients by length of stay and ethnicity (prioritised), 2007

Ethnic Group	Waitemata					NZ	
	Unique Clients	Number of episodes	Total LOS (days)	Average LOS (days)	Average number of episodes per client	Average LOS (days)	Average number of episodes per client
Maori	89	126	4,354	34.6	1.42	24.2	1.66
Pacific	56	72	2,857	39.7	1.29	32.2	1.45
Asian	33	40	1,888	47.2	1.21	31.1	1.33
Other	463	609	26,005	42.7	1.32	25.7	1.51
Total	641	847	35,104	41.5	1.32	25.7	1.54

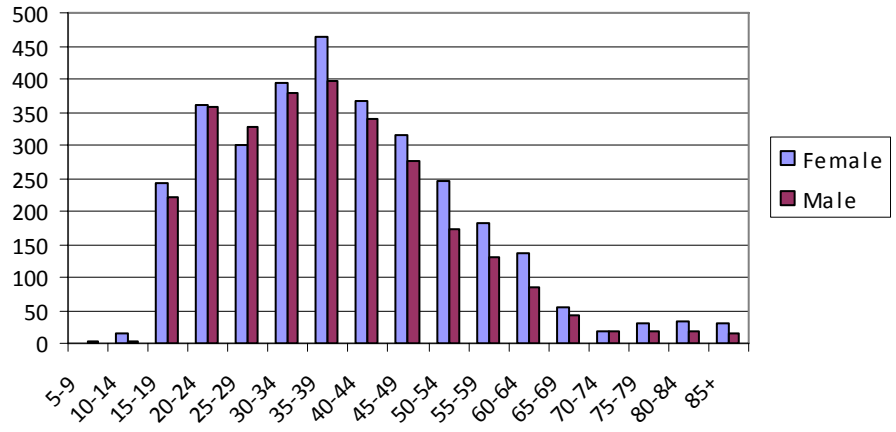
Source: Mental Health Information National Collection

Note: LOS (length of stay) applies to intensive care inpatient, acute inpatient or sub-acute inpatient services only

Community-based services

Most Waitemata residents seen by DHB community teams were aged 20-49 years. Use by females was greater than males across most age groups.

Figure 176: Waitemata residents seen by community teams by age-group and gender, 2007



Team Type = 02 (Community Team)
Source: 2007 MHINC data prepared by MoH, 2008

The numbers of Waitemata clients seen by community teams (Team Type 02), along with the numbers of contacts and average contacts per client are shown in Table 178 below.

Table 178: Waitemata clients seen by community teams by type of service, 2007

Service	Service description	Clients Seen	Contacts[1]	Average number of contacts per client
T01	Mental health crisis attendances	5,636	47,355	8.4
T05	Mental health crisis respite care	3		
T06	Mental health individual treatment attendances	7,318	79,401	10.9
T07	Mental health group programme attendances	329	2074	6.3
T08	Mental health care co-ordination contacts	5,425	32,871	6.1
T09	Early psychosis intervention attendances	91	1,392	15.3
T10	Support needs assessment attendances	77	148	1.9
T15	Court liaison attendances	40	45	1.1
T17	Substance abuse detoxification	1	2	2.0
T22	Mental health day treatment programme attendances	8	108	13.5
T23	Mental health day activity programme attendances	5	177	35.4
T30	Respite care occupied bed days	2		
T31	Home based contacts	266	3,464	13.0
T32	Mental health contact with family/whanau	345	691	2.0
Total		19,546	167,728	8.6

Team Type = 02 (Community Team)

1. Contacts = individual contacts, attendances, groups, and day programmes reported to MHINC

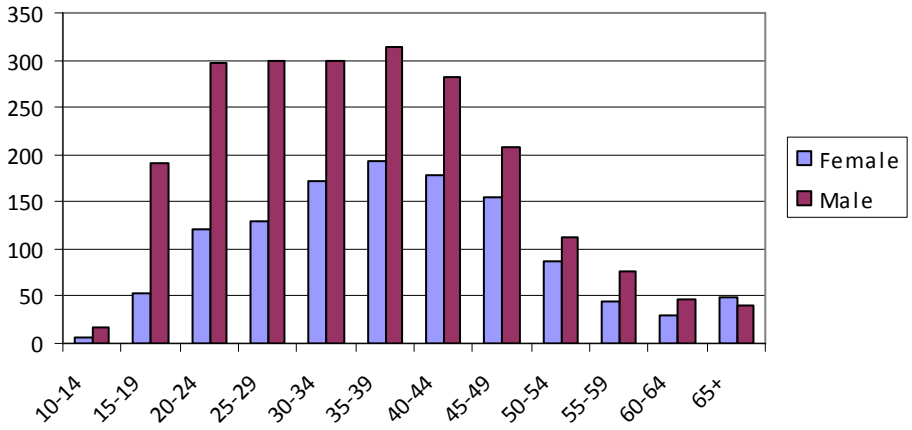
Note: Interactions with the mental health system are recorded in the MHINC as contacts or bed nights, never both.

Source: Mental Health Information National Collection

Alcohol and other drug services

The number of males using Alcohol and Drug teams in Waitemata was greater than females up to the age of 65 years. This equalisation reflects the higher number of females in the older population.

Figure 177: Number of Waitemata resident seen by alcohol and drug teams by age-group and gender, 2007



Team Type = 03 (Alcohol and Drug Team), 10 (Alcohol and Drug Kaupapa Maori Team), 11 (Alcohol and Drug Dual Diagnosis Team) and 21 (Children and youth, alcohol and drug services)
Source: Mental Health Information National Collection

Use of alcohol and drug services was greatest among Maori compared with other ethnic groups in Waitemata and NZ. Use of alcohol and drug services was greater among Maori, Other and Pacific people in Waitemata than in NZ.

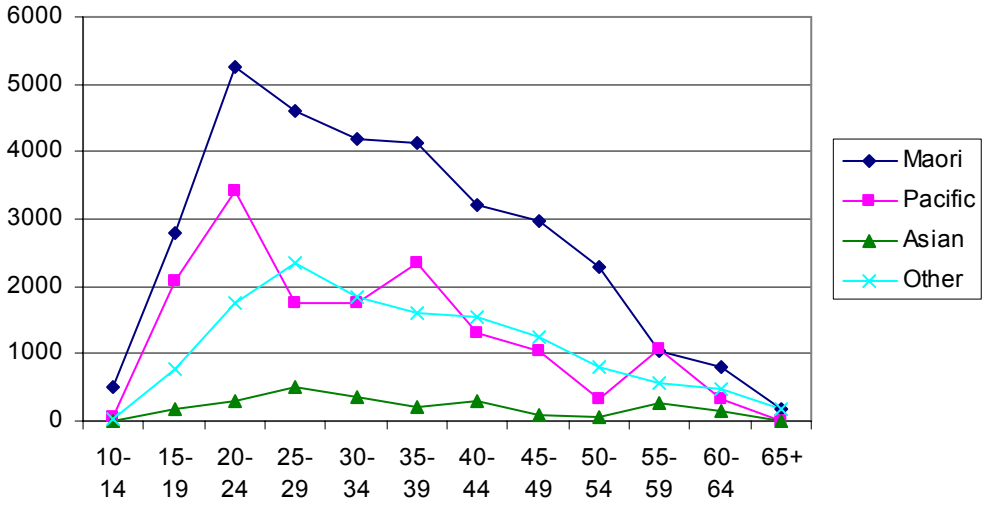
Table 179: Age-standardised rates for clients seen by alcohol and drug teams Waitemata and NZ by ethnicity (prioritised), 2007

	Waitemata					NZ		
Ethnic group	No.	% of total	Age-standardised rate per 100,000	95% CI Lower Limit	95% CI Upper Limit	Age-standardised rate per 100,000	95% CI Lower Limit	95% CI Upper Limit
Maori	715	21.04	1722.9	1596.4	1849.4	1044.0	1016.7	1071.3
Pacific	196	5.77	651.4	560	742.8	415.8	389	442.7
Asian	75	2.21	99.6	76.7	122.5	86.2	76.9	95.5
Other	2,412	70.98	713.5	683.9	743.1	573.9	564.7	583
Total	3,398	100						

Team Type = 03 (Alcohol and Drug Team), 10 (Alcohol and Drug Kaupapa Maori Team), 11 (Alcohol and Drug Dual Diagnosis Team) and 21 (Children and youth, alcohol and drug services)
Note: 2006 population is used to derive rates, as no split for Asian available for later years.
Source: Mental Health Information National Collection

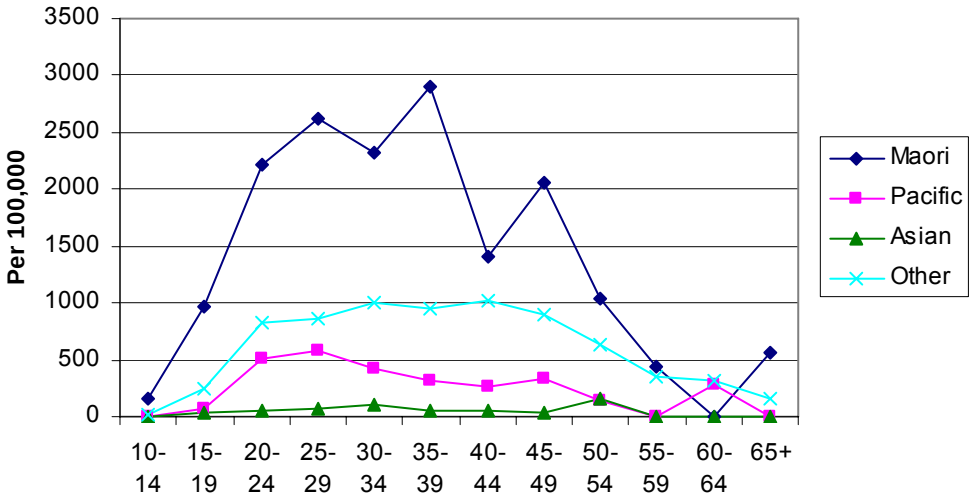
Use of alcohol and drug services was greatest among young men. This age difference was less pronounced for women. Utilisation after the age of 60 is low. Maori rates are high for both genders. Asian and Pacific females have lower rates of utilisation than Others.

Figure 178: Age-specific rates (per 100,000) for male Waitemata residents seen by alcohol and drug teams by ethnicity (prioritised), 2007



Team Type = 03 (Alcohol and Drug Team), 10 (Alcohol and Drug Kaupapa Maori Team), 11 (Alcohol and Drug Dual Diagnosis Team) and 21 (Children and youth, alcohol and drug services)
Note: 2006 population is used to derive rates, as no split for Asian available for later years.
Source: Mental Health Information National Collection

Figure 179: Age-specific rates (per 100,000) for female Waitemata residents seen by alcohol and drug teams by ethnicity (prioritised), 2007



Team Type = 03 (Alcohol and Drug Team), 10 (Alcohol and Drug Kaupapa Maori Team), 11 (Alcohol and Drug Dual Diagnosis Team) and 21 (Children and youth, alcohol and drug services)
Note: 2006 population is used to derive rates, as no split for Asian available for later years.
Source: Mental Health Information National Collection

Use of alcohol and drug services by team type are provided below.

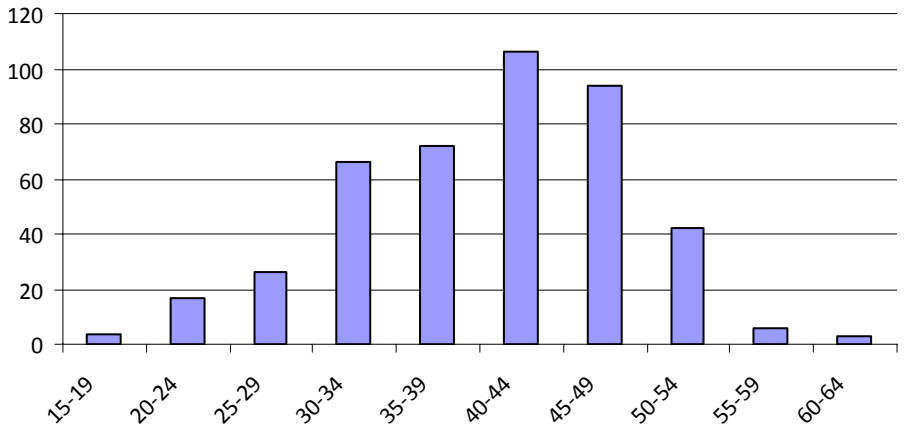
Table 180: Use of alcohol and drug services by Waitemata clients by team type and ethnicity (prioritised), 2007

Ethnic group	03 A+D team		10 A+D Kaupapa Maori team		11 A+D Dual Diagnosis team		21 Child & Youth A+D service	Total
	n	%	n	%	n	%	n	n
Maori	509	16.4%	254	91.4%	17	16.8%	1	781
Pacific	191	6.2%	2	0.7%	3	3.0%		196
Asian	71	2.3%	0	0.0%	4	4.0%		75
Other	2334	75.2%	22	7.9%	77	76.2%		2433
Total	3105	100.0%	278	100.0%	101	100.0%	1	3485

Source: Mental Health Information National Collection

The greatest number of Waitemata residents using the methadone service was in middle age groups.

Figure 180: Number of Waitemata residents using methadone service by age group, 2007



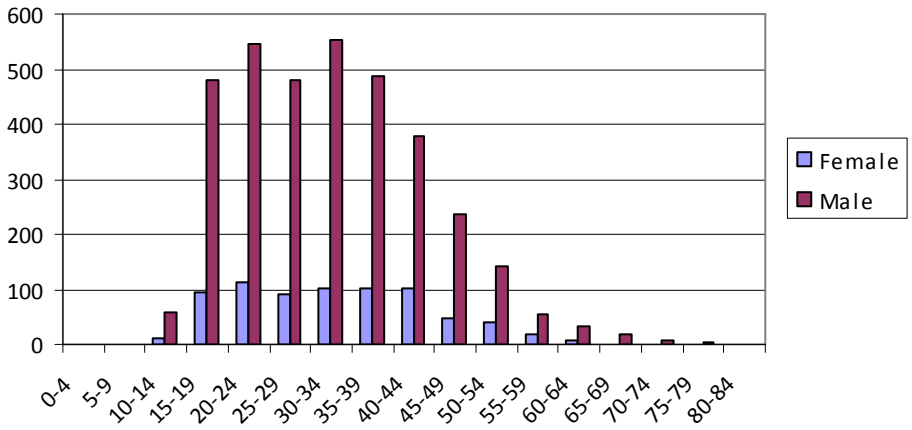
Methadone service = seen by either a DHB methadone service (T18) or authorised GPs (T19) or both
Source: 2007 MHINC data prepared by MoH, 2008

85% of methadone service users were Other, 13% Maori and only 2% were Pacific or Asian.

Forensic services

Forensic services are predominately used by males from 15-50 years of age.

Figure 181: Forensic team clients by age group, NZ, 2007



Team Type = 05 (Forensic Team)
Source: 2007 MHINC data prepared by MoH, 2008

The use of forensic mental health services much higher amongst Maori in both Waitemata and nationally.

Table 181: Waitemata residents seen by forensic teams by ethnicity, 2007

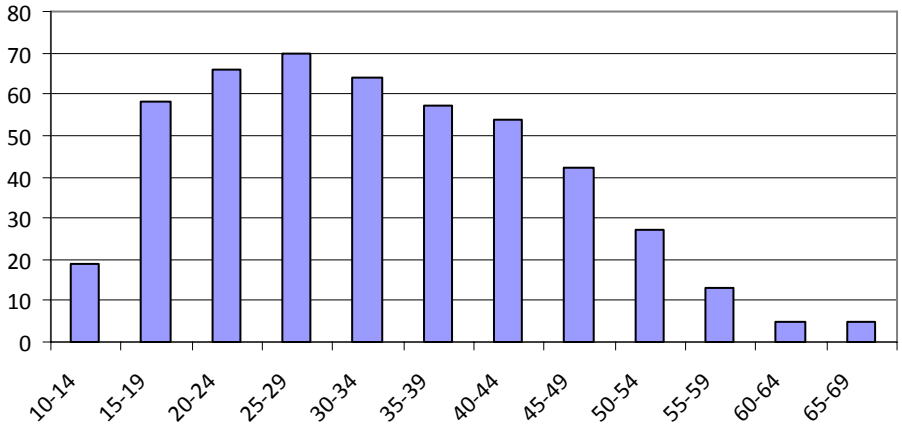
	Waitemata			NZ
Ethnic Group	Number	Percentage	Age-standardised rate per 100,000	Age-standardised rate per 100,000
Maori	138	34.8%	326.4	290.6
Pacific	37	9.3%	122.0	123.1
Asian	8	2.0%	11.6	16.9
Other	214	53.9%	69.4	88.5
Total	397	100.0%		

Source: 2007 MHINC data prepared by MoH, 2008

Maori mental health services

Most Waitemata clients seen by Kaupapa Maori teams identified as Maori (88%). 11% were Other and 1.5% Pacific. Most Waitemata clients seen by Kaupapa Maori mental health teams were aged 15-44 years.

Figure 182: Unique Waitemata clients seen by Kaupapa Maori teams by age-group, 2007



Team Type = 06 (Kaupapa Maori Team) and 10 (Alcohol and Drug Kaupapa Maori Team).
No Waitemata clients received services from Team Types 22 (Kaupapa Maori Tamariki and Rangatahi mental health services) or 23 (Kaupapa Maori dual diagnosis mental health and alcohol and drug services).
Source: Mental Health Information National Collection

Pacific mental health services

The ethnic profile of Waitemata clients seen by Pacific mental health teams is provided in Table 182 below.

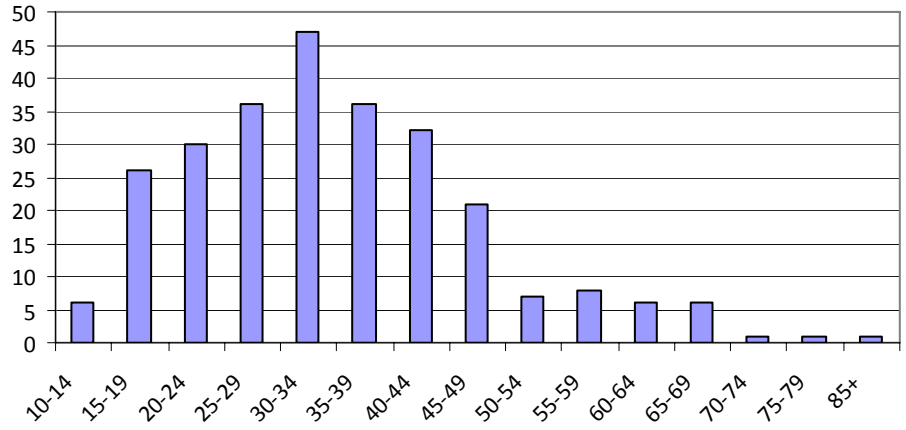
Table 182: Unique Waitemata clients seen by Pacific teams by ethnicity (prioritised), 2007

Ethnic group	Number	Percentage
Samoan	338	45.1
Cook Island Maori	112	15.0
Tongan	98	13.1
Fijian	76	10.1
Niuean	61	8.1
Other Pacific group	38	5.1
Pacific not further defined	17	2.3
Total	749	100%

Team Type = 07 (Pacific Island Team)
Source: Mental Health Information National Collection

Most Waitemata clients seen by Pacific mental health teams were aged 15-44 years.

Figure 18: Number of unique Waitemata clients seen by Pacific teams by age-group, 2007



Team Type = 07 (Pacific Island Team)
Source: Mental Health Information National Collection

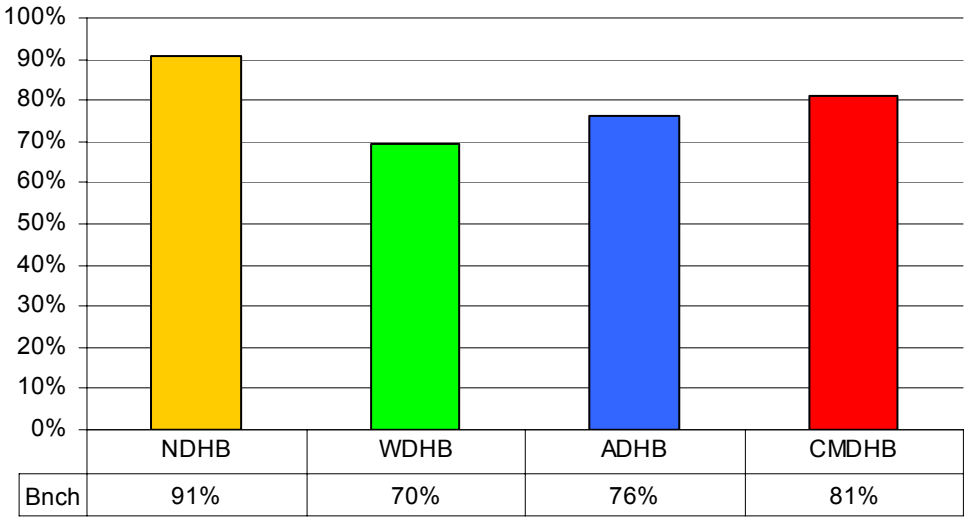
Blueprint funding

The Blueprint benchmarks were developed by the Mental Health Commission in 1998 (Blueprint for Mental Health Services in New Zealand) and indicate volumes of service required per 100,000 people for a range of mental health services.

Northern Region DHBs

In the 2006/07 financial year Waitemata DHB's funding was at 70% of the aggregated benchmark level. This was the largest gap against the aggregated benchmark level of the Northern Region DHBs.

Table 183 Proportion (%) of contracted mental health services against aggregated Blueprint mental health services by Northern Region DHB, 2006-07 (financial year)



	NDHB	WDHB	ADHB	CMDHB
Bnch	91%	70%	76%	81%

Source: Northern DHB Support Agency

NGO-provided services funded by Waitemata DHB

In addition to DHB providers, non-government organisations (NGOs) also provide mental health services. 37 NGOs are contracted to provide mental health services by Waitemata DHB for 2007/08. The following table lists the names of the NGOs with contracts with Waitemata DHB for 2007/08. NGOs which hold direct contracts with the Ministry of Health and are providing services in the Waitemata district are not included in the table.

Table 184 NGOs with mental health contracts with Waitemata DHB, for 2007/08

Accommodation for Mental Health Society
Action For Mental Health Society (North Shore/Rodney) Incorporated
Challenge Trust
Claire House Limited
Dayspring Trust
Delamore and Reidy Limited
Equip
Forest Hill Cottages 1999 Limited
Framework Trust
Future Choices Limited
Guardian Healthcare Group Limited
Harbour PHO Ltd
Komatua Holdings Limited
Lifeline Auckland
Mind and Body Consultants Limited
Mind Matters Trust
North Shore Community Health Network Incorporated
Odyssey House Trust
Pathways Trust
Procare Network North Limited
Radius Residential Care Limited
Schizophrenia Fellowship (Auckland) Incorporated
Shared Vision - North Harbour
Shared Vision - Rodney
Te Ha O Te Oranga
Te Kotuku Ki Te Rangi Charitable Trust
Te Puna Hauora o Te Raki Pae Whenua Society Inc
Te Runanga O Ngati Whatua
Te Whanau O Waipareira Trust
The Higher Ground Drug Rehabilitation Trust
Trustees of Goodwood Park Trust
Vaka Tautua Limited
Waitakere Shared Vision
Warrengate Private Hospital RCF Limited
West Auckland Living Skills Homes Trust Board
West Auckland Mental Health Support Trust
West Fono Health Trust

Source: HDIU

Waitemata mental health workforce

Size of the mental health workforce in the district

For mental health professionals whose main employer was located in the Waitemata district, psychiatrists were the only professional group with a level higher than or equal to that for New Zealand.

Table 185 Number and FTEs for selected mental health professional workforce groups whose main employer was located in Waitemata

Year	Group	Unit	Waitemata		New Zealand	
			Number / FTE	Number / FTE per 10,000 population	Number / FTE	Number / FTE per 10,000 population
2006	Psychiatrists	Number	72	1.5	589	1.4
		FTE	–	–	–	–
2007	Mental health nurses	Number	372	7.5	3,906	9.5
		FTE	343.7	7.0	3,554.3	8.7
2007	Psychologists	Number	43	0.9	625	1.5
		FTE	3.4	0.1	976.7	2.4

FTE = full time equivalent

Notes: (1) Accurate FTE data were not available for psychiatrists; (2) FTE data for mental health nurses should be used with caution; (3) FTE data was not reported for 11 mental health nurses and 15 psychologists

Source: Psychiatrists – MCNZ Health Workforce Annual Survey 2006; Mental health nurses and psychologists – NZHIS Health Workforce Annual Survey 2007; HDIU

Gaps against DHB service level agreements

For Waitemata DHB, the number of actual FTEs was 614 as at 31 March 2008. This was 106% of the number of FTEs in service level agreements, which was higher than the percentage across all Auckland region DHB providers in total (96%).

Table 186 Mental health FTEs for 2007/08, as at 31 March 2008

District Health Board	Full time equivalents (March quarter)		
	Service level agreement	Actual	Percentage
Auckland	428	406	95%
Counties Manukau	349	345	99%
Waitemata	581	614	106%
Total	3763	3602	96%

Source: HDIU

Maternity Care

Capacity

At North Shore Hospital there are 36 postnatal beds, 4 antenatal assessment beds and 10 birthing rooms.

At Waitakere Hospital there are 26 postnatal beds that can also be used for antenatal assessment and 8 birthing rooms.

There are three community based maternity units for women with low risk (normal) pregnancies. These are located at:
Helensville – 3-4 postnatal beds
Wellsford – 2 postnatal beds
Warkworth – 10 postnatal beds

There are also approximately 83 postnatal and antenatal beds at Auckland City Hospital (Auckland DHB).

Neonatal intensive care and Special baby care

Waitemata DHB does not have a Neonatal Intensive Care (i.e. Level III) Unit. Level II care is provided through the Special Care Baby Unit (SCBU) facilities. The Waitakere Hospital SCBU has 12 cots, while the North Shore Hospital facility has 14 cots.

Auckland DHB provides care via their Newborn Intensive Care Unit (NICU) which has 46 cots, comprising 16 Level 3 (intensive care) spaces and 30 Level 2 spaces. Level 2 spaces are divided into 20 High-Dependency Level 2 spaces and 10 Low-Dependency (Parent-Infant Nursery, or PIN) spaces.

Numbers of Midwives

Almost all general maternity care is provided by midwives. In January 2008, there were 135 self employed Lead Maternity Carer (LMC) midwives in the Waitemata region and 139 midwives employed by the DHB. While the number of self-employed midwives is increasing, this is not keeping pace with the demand generated through increasing birth rates. Also, there are too few midwives in West Auckland. As with other health professions, the average age of the midwifery workforce is increasing, with more than 50% of midwives over the age of 47 years (Galgali and Murray April 2008)

In 2006, of those who responded, the national average of full-time equivalent (FTE) midwives is 50.2 FTE midwives per 100,000 population. When extrapolated, this equates to about 56.9 FTE midwives per 100,000 population. For the Waitemata region, extrapolated figures indicate there are only 43.7 FTE midwives per 100,000 population.

Public Health Services

Introduction

There are a large number of organisations with an interest in public health, including ARPHS, DHBs, territorial authorities (TAs), PHOs and many other local and regional non-government organisations. A number of other statutory agencies, such as the New Zealand Food Safety Authority (NZFSA) also do work that significantly impacts upon public health. Gathering information on all these providers' activities was outside the scope of this document.

This section is written by Auckland Regional Public Health Service (ARPHS) and provides information on its activities only. ARPHS is the largest public health service provider in the Auckland region and has significant statuary and advisory roles.

ARPHS is a regional service operating across the three Auckland region DHBs, including Waitemata DHB. It is one of a national network of 12 public health units throughout New Zealand.

Principal service areas provided by ARPHS include:

- communicable disease control services
- obesity, cardiovascular disease and diabetes reduction services
- tobacco- and alcohol-related harm reduction services
- cancer control services
- environmental inequality reduction services
- environmental hazard reduction services

Communicable disease control

ARPHS primarily responds to communicable disease reported through the disease notification system. The notification system, a statutory requirement under the Health Act, requires that patients with any of a specific list of infectious diseases are reported to the public health service so that action can be taken to protect health risk to others. Services provided around individual patients vary by disease, but can include provision of education and advice, screening and provision of preventive treatment for contacts, and potentially isolation of infectious cases. Levels and patterns of notifications are monitored for all reported cases (surveillance) in order to determine and examine disease trends and to detect outbreaks.

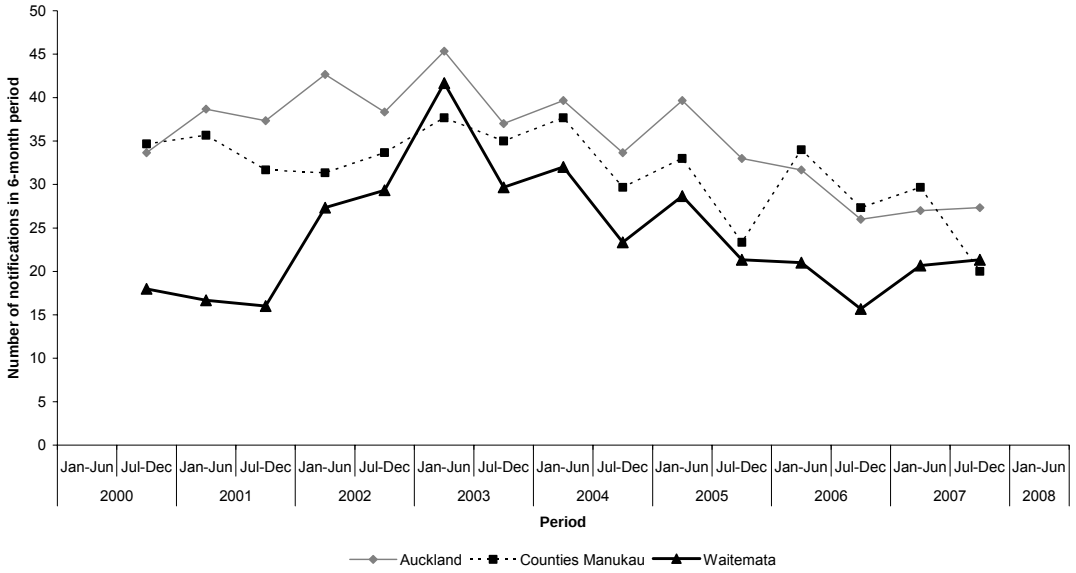
Communicable disease-related areas of work and trends of importance to Waitemata are described as follows.

Tuberculosis

Tuberculosis remains an important disease in the Auckland region. The number of individual patients reported with tuberculosis is not numerous: 131 patients with tuberculosis disease were reported in the Auckland region in 2007, 40 of whom (30.5%) were reported from Waitemata. However, each patient will require regular monitored treatment for at least a 6-9 month period. In addition, people who have been in contact with patients with infectious tuberculosis must be screened for infection, and may themselves require treatment.

The figure below shows the trend in tuberculosis notifications in the Auckland region. The peak number of cases in Waitemata occurred in the first half of 2003, associated with a large outbreak in a group of linked extended families in Waitakere. Since then, the number of cases in Waitemata has declined.

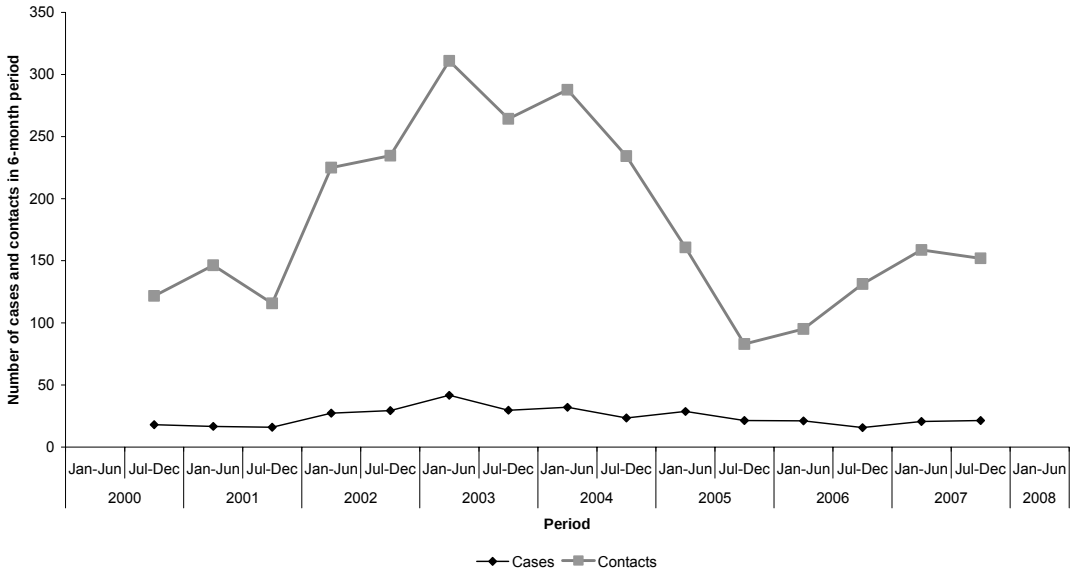
Figure 183 Tuberculosis notifications in the Auckland region, 18-month moving average, January 2000 to June 2008



Source: Auckland Regional Public Health Service 2008

The number of contacts requiring investigation is many times greater than the number of cases in any given period. Contact investigation is of great importance as it enables early detection of patients with tuberculosis disease and people with tuberculosis infection that has not yet manifested as disease. Treatment of these groups forestalls further dissemination of infection and protects the community.

Figure 184: Tuberculosis cases and contacts in Waitemata, 18-month rolling average, January 2000 - June 2008



Source: Auckland Regional Public Health Service 2008

BCG vaccination

BCG vaccination is effective in preventing severe forms of childhood tuberculosis. BCG is provided routinely to uninfected children identified as contacts of patients with tuberculosis, and to newborn children in high risk groups defined by the Ministry of Health (primarily those with parents who are of Pacific ethnicity or have emigrated from a country with a high rate of TB). ARPHS is the principal provider of BCG vaccination in the Auckland region.

Fewer BCG vaccinations are provided in Waitemata than in Auckland or Counties Manukau, likely due to differences in the size of the population at risk. However, an average of 132 BCG vaccinations were provided in Waitemata each month from January 2007 to September 2008 and have increased over time. The increased size of the Pacific and Asian communities in Auckland in recent years suggests that BCG vaccination demand is likely to continue increasing.

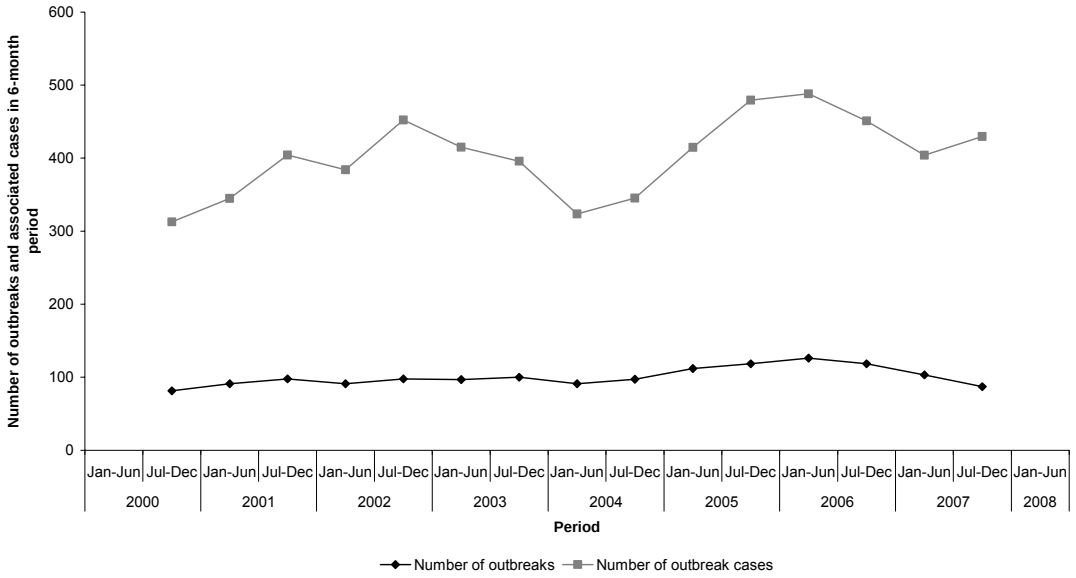
Enteric disease outbreaks

Outbreaks of enteric disease (mainly gastroenteritis, but also including hepatitis A and reactions due to ingestion of foodborne toxins) are detected by analysis of routine surveillance data or are reported directly by members of the public. Most of these outbreaks are due to consumption of contaminated food or contaminated water, or due to person-to-person spread in a household or communal setting.

In the 2007-08 financial year, 195 outbreaks of enteric disease were reported in the Auckland region: 35 (18%) in Waitemata. Collectively these outbreaks were known to have caused 2038 people in the Auckland region to become sick, 411 (20%) in Waitemata. Many outbreaks occur across DHB boundaries, so the number of outbreaks identified in Waitemata is likely to be an underestimate. The figure below shows the trend in reported outbreaks and in the number of outbreak-associated

patients in the period January 2000 – June 2008. This graph excludes elderly care and other institutional outbreaks.

Figure 185: Non-institutional enteric disease outbreaks (and associated cases) investigated by ARPHS in the Auckland region, 18-month rolling average, January 2000 - June 2008



Source: Auckland Regional Public Health Service 2008

Investigation and reporting of outbreaks enables prevention of outbreak spread, identification of failures of food safety in food preparation or handling, and collection of information on causes of enteric disease in the community to aid development of national and regional control strategies.

Hepatitis B

Hepatitis B is the world's most common serious liver infection. Most people with chronic hepatitis B were infected at birth or in childhood; a quarter eventually develop long term liver problems (primary liver cancer or cirrhosis), and a half of these will have their lives shortened as a result. In New Zealand, chronic hepatitis B occurs at much higher levels among Maori, Pacific peoples and among people from China and Southeast Asia than in other population groups.

Chronic hepatitis B is largely preventable by giving vaccine and immunoglobulin at birth and completing the remainder of the childhood vaccine series. ARPHS is currently auditing how well the preventive treatment at birth is being provided, and initial indications have been extremely positive. Other actions undertaken by ARPHS include following up contacts of patients with acute hepatitis B, and providing preventive treatment or vaccination to prevent further spread.

Environmental hazard reduction

Wastewater incident response and management

ARPHS provides public health input to wastewater incidents, primarily sewage overflows in dry-weather and wet-weather situations. This activity ensures that risk to public health is addressed and

mitigated by those managing the incident. During the 2007-08 financial year, ARPHS responded to 61 sewage overflow events in the Auckland region.

A number of rural and coastal communities in the Waitemata area have failing on-site systems for disposal of sewage and wastewater. Development of reticulation systems for these communities is a priority for ARPHS in forthcoming years.

Health and safety assessment of Early Childhood Education Centres

ARPHS carries out the pre-licence health and safety check on Early Childhood Education Centres (ECECs) in the Auckland region on behalf of the Ministry of Education. ARPHS reports advise the Ministry on a range of health and safety issues including sanitary facilities, infection control policies, ventilation and noise issues, and potential external environmental hazards such as poor air quality. The importance and complexity of these assessments is increasing with the trend for ECECs to be located in urban settings away from residential areas: in busier locations there is a higher potential for poor air quality and other external environmental hazards.

In the 2007-08 financial year, ARPHS provided health and safety assessments of 65 ECECs seeking licensure.

Monitoring and response to shellfish quality threats

Shellfish can become reservoirs of pathogens and toxins present in seawater due to sewage discharges, agricultural run-off or algal bloom events and may therefore cause illness. This is a particular issue for the population of Waitemata because the west Auckland coastline is a common site for recreational shellfish collection, and also occasionally experiences algal blooms. ARPHS is building relationships with local stakeholders to ensure shellfish is harvested safely by local people. Commercial shellfish farms are also vulnerable to contamination of waterways: changes in land use and growth of towns in previously-rural areas may increase this risk.

Response to food incidents

ARPHS receives and responds to complaints about food contamination. Responses to complaints are made under the provisions of the Food Act 1981. Data are not available specifically for Waitemata, but across the Auckland region ARPHS received 586 food complaints in the 2007-08 year. Of this total, 96 (16%) related to hygiene matters and were referred to respective territorial authorities to investigate. 226 (39%) related to the presence of foreign matter (e.g. glass, metal, insects, plastic) in food.

Investigation and response to food complaints are an important check on practices in food production and retail sectors. The legal standing of ARPHS response to food complaints means that recommendations can result in lasting improvements to food quality.

Drinking water quality

In the Auckland region, most urban areas receive high quality drinking water through mains supply. However, the quality of some smaller reticulated water supplies in rural communities is not always compliant with the Ministry of Health's benchmark Drinking Water Standards of New Zealand 2000.

The Waitemata area includes a large proportion of the region's high-risk water suppliers. ARPHS is continuing to work closely with those communities on the technical assistance and capital assistance programmes (TAP and CAP, respectively), as well as the routine monitoring and surveillance of these water supplies.

Alcohol-related harm reduction

Managing compliance with Sale of Liquor Act

The Sale of Liquor Act 1989 is a critically important statute for reducing alcohol-related harm in the community by implementing a system of control over the sale and supply of alcohol to the public. The Act entitles ARPHS to review and comment on applications for new and renewed liquor licenses, and ARPHS is thereby able to introduce a public health viewpoint to the process.

The table below shows the total number of liquor licensing applications for the Auckland region as a whole, and separately for the three territorial authorities in the Waitemata area.

Table 187 Liquor licensing applications, Auckland region and Waitemata

Year	Liquor Licensing Applications: Auckland Region			Total Liquor Licensing Applications: Waitemata		
	New	Renewals/ redefinition	Total	Rodney District	North Shore City	Waitakere City
2005	403	727	1130	92	133	77
2006	424	869	1293	101	172	88
2007	419	854	1274	108	146	79
2008 (Jan – Oct)	564	334	898	70	94	53

Source: Auckland Regional Public Health Service 2008

Compliance with the Sale of Liquor Act is also monitored in premises with existing licenses. This is done in two ways. Premises with On-Licenses (where alcohol is consumed on the premises) are monitored through use of pseudo patrons: individuals who visit the premises as regular patrons but who then report back to ARPHS on the premises' adherence to host responsibility standards. Between January and October 2008, 30 night visits undertaken by pseudo patrons were undertaken of On-Licensed premises in the Waitemata area.

Further monitoring is undertaken of both On-Licensed and Off-Licensed premises in collaboration with NZ Police and the District Licensing Authorities. This monitoring occurs as Controlled Purchase Operations, whereby individuals under the legal age for purchasing alcohol attempt to purchase alcohol, and report whether age identification was requested and whether the purchase was successful. Alcohol sales to minors continue, particularly in off-licensed premises.

Table 188: Results of Controlled Purchase Operations at licensed premises in Waitemata, Jan 07 - Oct 08

Territorial Authority	On-Licensed Premises				Off-Licensed Premises			
	Sale to underage patron		No sale		Sale to underage patron		No sale	
	n	%	n	%	n	%	n	%
North Shore	3	10	26	90	14	17	67	83
Waitakere	4	12	30	88	6	21	23	79
Rodney	-		-		5	19	21	81
Total	7	11	56	89	25	18	111	82

Source: Auckland Regional Public Health Service 2008

Improving nutrition, increasing physical activity and reducing obesity

ARPHS is one of a number of health promotion providers in the area of healthy eating and healthy activity in Waitemata. Promotion of healthy behaviours often works more effectively in settings, such as schools or workplaces than in activities directed at individuals. ARPHS provides programmes in the workplace and town retail centres. Other providers run programmes in a number of other settings including early childhood centres, schools, churches, Marae, and various other community venues.

Workplace health programmes

ARPHS coordinates a programme called Heartbeat Challenge™ that addresses cardiovascular risk factors in the workplace; namely poor nutrition, physical inactivity, smoking and stress. The programme framework enables and empowers employees to help drive the programme and contribute to programme content.

The aim of the programme is to create a workplace environment that supports wellbeing. Emphasis is placed on encouraging environmental change within the workplace such as in the provision of healthy food options in cafeterias, encouraging incidental exercise, providing bike racks and shower facilities and supporting smoking cessation programmes.

In the 2007-08 financial year, 18 new companies from a variety of industries approached ARPHS to introduce Heartbeat Challenge.

Healthy Kai

ARPHS Healthy Kai programme supports the primary prevention of obesity, Type 2 diabetes and cardiovascular disease by addressing the nutrition environment in specific town centres: one of these centres is Glen Eden, in the Waitemata area.

The programme works alongside retailers (programme partners) to increase the availability and quality of ready-to-eat Healthy Kai choices. These ready-to-eat foods are actively promoted to encourage the community to purchase these healthier food choices from their local town centre.

On the advice of the Ministry of Health, ARPHS is currently undertaking to transition the Healthy Kai programmes to community ownership.

Reducing the harm caused by tobacco

Managing compliance with the Smoke-free Environments Act 1990

The Smoke-free Environments Act 1990 provides for measures to reduce exposure to environmental tobacco smoke and to regulate the marketing, advertising and promotion of tobacco products, among other provisions. This legislation therefore provides mechanisms to reduce tobacco-related harm.

Under the Act, ARPHS investigates and takes action to address complaints about failure to provide smokefree environments, and about infringements of restrictions on advertising and tobacco sales to minors. The table below shows the volume of complaints received, both in the Auckland region as a whole and specifically in the Waitemata district. Since 2006 Waitemata has accounted for fewer than 1 in 9 complaints received.

Table 189: Complaints received by ARPHS under Smoke-free Environments Act 1990, 2005-08

Year	Total complaints, Auckland region	Complaints received from Waitemata	
	n	n	%
2005	120	20	17
2006	112	11	10
2007	111	9	8
2008 (Jan – Oct)	66	7	11

Source: Auckland Regional Public Health Service 2008

Responding to complaints is a largely passive process that requires members of the public to first consider laying a complaint, and then to know to contact the public health service. To complement this service, ARPHS is therefore undertaking proactive work to identify retailers selling tobacco products to minors. This work involves controlled purchase operations (CPOs), whereby children will approach retailers seeking to purchase tobacco products, despite being under the legal age to do so, and then report back to ARPHS on the responses they receive from retailers. In the period February to October 2008, 105 CPOs of tobacco sales were conducted in the Waitemata area. There are ongoing issues with tobacco retail including attempts by retailers to conceal graphic displays on cigarette packets, and sale of tobacco products to minors.

Healthy housing programmes

Housing quality influences health. Young children and elderly adults are vulnerable to illness that results from greater spread of infectious disease in overcrowded living conditions, and from cold, damp and poorly ventilated living conditions. Maori, Pacific peoples and poorer households tend to live in conditions with lower quality housing, exacerbating inequalities in health.

ARPHS has been contracted by Waitemata DHB to manage, coordinate and implement “Warm ‘n’ Well”, a new healthy housing programme targeted at children. This programme provides insulation for low income households (i.e. both for owners and private rentals) along with a health and social assessment and the associated referrals to appropriate agencies. Particular emphasis is being placed on inviting Maori and Pacific households to participate in the programme.

Refugee and asylum seekers' health screening

Quota refugee numbers have been fixed at an annual intake of 750 per year for many years. However, there is an impression that over the last year or so, there have been an increasing number of quota refugees with complex health needs. While this is difficult to verify, improved data collection over the last few months shows that 112 out of 499 quota refugees screened (22%) were diagnosed with chronic conditions such as diabetes and hypertension. These conditions are more usually associated with the resettlement country than those diagnoses associated with refugees, such as HIV infection and psychological problems due to trauma. A general practitioner is now involved in the Refugee Health Service to help assess and stabilise these conditions and refer on to secondary care where required.

Part of the screening process for all refugees is an assessment of their immunisation status, and a recommendation is made to their subsequent primary care provider about immunisations that are still required. A successful new initiative has been launched over the last year where refugees are immunised at the centre where required.

The number of asylum seekers has dropped dramatically over the last few years. According to New Zealand Immigration Service statistics, in financial year 1997/98 there were 2591 claims by asylum seekers for refugee status, but in the last financial year, 2007/08, there were only 203, of which 29% of claimants were successful. This fall in asylum seekers is a global phenomenon and not confined to New Zealand.

Future focus

Influencing sustainable development of Auckland region

Health and wellbeing are influenced by a broad range of policy decisions and are no longer the sole responsibility of the health sector. Planning and policy decisions by central government, local government and non-government agencies have an impact on health and wellbeing through effects on upstream determinants: economic, social, cultural and environmental.

The Auckland region faces a number of health and wellbeing challenges through changing demographics, increasingly diverse communities, outstanding infrastructure needs, the balancing of transport needs, and the reconciliation of urban design and urban intensification issues. One of ARPHS priority areas is in working to help ensure that the Auckland region's development is sustainable, in terms of the health and wellbeing of the population.

Health impact assessments

Health Impact Assessments (HIAs) are one of the mechanisms used by ARPHS to work for sustainable development. HIAs are an approach to systematically judge the intended and unintended effects of a policy, plan, programme or project on both the health of a population and the distribution of those effects within the population. In addition, HIAs help identify appropriate actions to manage those effects.

ARPHS has been working with stakeholders on HIAs in Waitemata, with information-sharing and relationship-building for communities in New Lynn, Ranui and Hobsonville. ARPHS has successfully

completed a number of HIAs, and will continue this work to ensure public health is recognised at an early stage in any major new developments in the Waitemata area.

Responsiveness to emerging public health threats

Biosecurity

Auckland has 1500 kilometres of coastline, two sea ports and two international airports, all of which are potential points of entry for insect and animal pests of public health significance. Cargo can also be opened and inspected at transitional facilities located throughout the Auckland region. Private yachts and marinas are also risk areas for imported pests.

The risk that exotic mosquitoes may become established in the Auckland region has become a reality in recent years, particularly in Waitemata: breeding colonies of exotic mosquitoes were discovered in Kaipara in 2006 and in Whangaparoa in 2005. These mosquito species are capable of carrying viruses to which most New Zealanders would lack immunity, therefore representing a threat to public health. Major control efforts were initiated to eradicate the mosquito colonies.

ARPHS has three main areas of involvement in biosecurity. Firstly, ARPHS mounts a round-the-clock response to interceptions of exotic insect and animal pests at ports of entry. In the 2007-08 financial year, 14 biosecurity interceptions or incursions were reported to ARPHS and triggered responses. Secondly, surveillance is maintained for exotic mosquitoes around maritime ports and airports: 1763 insects were sent for identification from surveillance activities and in response to public enquiries in 2007-08. Thirdly, ARPHS conducts ship sanitation inspections, as required under the International Health Regulations.

Border response

The threat of a global pandemic has been raised in recent years with emergence of SARS and H5N1 avian influenza. SARS has not been detected since 2003, but H5N1 avian influenza continues to cause outbreaks in poultry around the world, and also continues to cause infrequent illness and death among humans. While H5N1 avian influenza has not yet evolved into a form that is highly communicable between humans, this potential remains. Should this occur, the threat to public health would be great.

It is highly likely that any pathogen capable of causing a pandemic would be first detected outside New Zealand. As the gateway to New Zealand for 70% of international travellers, the Auckland region would be the staging ground for measures to prevent, or at least to delay, introduction of the pandemic into New Zealand. In conjunction with the Ministry of Health and border agencies, ARPHS has developed plans for responding to this scenario, and these will be continually refined and tested on an ongoing basis. There are large workforce implications for mounting a pandemic response, and Waitemata DHB continues to support this through allowing its nurses to participate in pandemic initial response team training run by ARPHS.

Even in the absence of a declared pandemic, ARPHS provides a round-the-clock response to ill travellers with potentially communicable disease arriving at Auckland International Airport.

Emergency management

Emergencies due to natural disasters or catastrophic man-made events can occur anywhere, at any time and without warning. In an emergency, essential services such as power and household water supplies could be disrupted and lead to unsafe, unhealthy or unsanitary conditions. ARPHS has an important role in supporting actions taken by Civil Defence and other lead agencies to prevent risk to public health.

As part of this role, ARPHS has active involvement in emergency management planning in the Auckland region. The objective of this work is to ensure capacity exists to respond appropriately to all communities, including those in Waitemata. Of particular relevance to Waitemata, however, is that Whenuapai airbase would feature significantly as a location of interest in planning a response to a local emergency.

Key Themes

Inequalities

Waitemata's people have relatively good health but some groups in our district suffer significantly poorer health than the population as a whole. Maori and Pacific people, people living in deprived areas and to a lesser extent people living in Waitakere are groups that have poor health. Maori and Pacific people live between four to nine years less than their counterparts in the Other group and have more than double the avoidable mortality rates. A wide range of health outcomes are reported in this HNA and for nearly all Maori and Pacific people have poorer outcomes. Although less information is provided on differences in health outcomes for people living in Waitakere and people in deprived areas it is also clear that their health outcomes are worse.

Poorer health may be due differences in the underlying determinants of health, differences in health behaviours, or due to differences in access to health care, or the quality of care received. All are interrelated.

The population groups identified above are the most socio-economically disadvantaged in our district. Socio-economic factors are the most important cause of health inequalities (National Advisory Committee on Health and Disability 1998). The DHB has some, but limited, ability to address these factors in conjunction with other sectors as discussed below.

Our health services can also reduce inequalities. To do so we need to prioritise services that address the most important conditions and risk factors causing inequalities, ensure all our services are designed to be easily accessed by these groups and ensure the quality of care provided is at least equal to that more advantaged groups receive.

In adults the most important risk factors driving inequalities are obesity (and diet) and smoking. The most important diseases are CVDs, diabetes, COPD, and some cancers (lung and breast especially).

The information presented in this HNA suggests that in some, but not all areas, Maori and Pacific people have equal utilisation to Others. However, given the high health needs of Maori and Pacific people we should be doing better. There is only limited data on the quality of care Maori and Pacific people receive and this is an important deficiency in our HNA.

Asian people

Asian people are now the second largest ethnic grouping in Waitemata and this is likely to increase over time. The Asian 'group' is in reality a mix of many very different groups with quite distinctive health needs. For example South Asians have high prevalence of CVD and diabetes.

Asians as a whole have very good health, however this is likely to be largely due to the healthy migrant effect. Over 80% of Asians were not born in New Zealand and most migrants are healthy. It is unlikely that this good health will be fully maintained. For some health behaviours such as physical activity Asians already fair badly.

Asians have low utilisation of most health services. This is in part due good health but is also likely to be due to access barriers, and in particular language difficulties. Asian people are the most likely

ethnic group to not speak English and are the largest users of translation services. It is important for the DHB to maximise the accessibility of its health service to Asian people.

Older people

We have an aging population. Over the next 20 years the number of people in Waitemata 65 years and older will double. Older people have high rates of many health conditions and disabilities, particularly those arising from non-communicable diseases and aging processes. They therefore require high rates of health service access particularly primary care, pharmaceuticals, and hospital medical services. Whilst the large majority of older people, even those 85 years and older, live independently without support, older people have much higher needs of support services than younger people.

In the future our health system will need to manage increasing service and support demands for older people. Health services will also need to focus on maintaining good health and independence.

Children and youth

Over a third of our population are children or youth. They are more likely to be Maori or Pacific and deprived than the general population.

The major causes for morbidity and mortality are very different than for adults. In children birth related problems, injury, SIDS, and acute and infective diseases are important issues. In young people injury, sexual health, suicide, and mental health are important issues. Childhood and youth is also a period of establishing health behaviours that will affect them throughout their life. Significant ethnic inequalities exist in all these areas.

Waitemata needs specific strategies to address these issues.

Health determinants

Social, cultural, and economic factors play the most important role in determining people's health. This HNA provides information on a range of these factors such as social support, access to one's own culture, education, income and employment. In general Maori and Pacific people are disadvantaged for most of these indicators, as are people living in Waitakere City and children.

These issues are outside the traditional role of the health sector. However, the DHB can provide health expertise and leadership in working with other sectors including City and District Councils, other government organisations and NGOs on these issues.

Lifestyle risk and protective factors and family violence are also important determinants of health. Smoking, diet and obesity are particularly important both in terms of the burden of disease they cause and in their contribution to inequalities. Lifestyle factors can be effectively addressed through public health measures and through a continued reorientation of primary care.

Non-communicable disease - long term conditions and cancer

Nearly all the most important causes of avoidable mortality and burden of disease are non-communicable diseases. The exceptions are injuries and depression. The most important conditions are CVDs, COPD, and cancers. Asthma and diabetes are also important.

Our health services are predominant designed to provide acute and reactive care. This model is not sufficient for managing these health conditions. They require organised and proactive services to significantly reduce their burden on our population. This may be in the form of addressing lifestyle factors such as smoking, population screening and risk assessment, or chronic care management approaches. The limited information this HNA provides on these approaches reflects the fact that our health services are not yet well organised to deliver this care.

Mental health

A large proportion of our population will suffer from a mental illness at sometime in their life, especially depression and anxiety disorders. A small proportion of our population will suffer from prolonged and very disabling mental health conditions. A significant number of people will kill themselves.

A wide range of intensity and types of health service are provided by mental health services and by primary care to meet this large burden of disease. Ensuring access to services that are sufficiently resourced to provide good care is an ongoing challenge for the DHB.

Primary care

An effective primary care system is crucial in dealing with all the issues discussed above. To be effective primary care must be accessible and provide best quality care for both acute and chronic conditions and preventive activities. It must also be sustainable.

Local data on primary care is limited in comparison to secondary care. Access to primary care seems to be generally good although high needs populations are probably not utilising primary care as much as their poorer health warrants and report higher unmet need. Most patients also report receiving good quality care. However, the limited data available suggests there is room for system improvement in acute, chronic and preventive care.

General practice is predominantly structured around short doctor consultations, dealing with multiple problems which are mainly new and acute. Management most commonly involves prescribing pharmaceuticals. This model may need to be revised and added to achieve best quality of care and maximum impact on the key issues discussed above.

Secondary care

Secondary care is characterised by the ongoing struggle to meet the needs of acute demand driven care whilst maintaining the resources to provide non-acute services that cannot be provided in primary care such as surgery, other procedures, and specialist advice and management.

Acute utilisation has risen over the last six years and is high for Maori and Pacific. There has been very significant pressure on bed capacity, particularly for medicine. This remains an ongoing issue. Our aging population will be an additional challenge.

The picture of non-acute secondary care services provided by this HNA is mixed and incomplete. Waitemata has low elective surgery rates but our waiting times seem to be better than New Zealand as a whole. Utilisation by Maori and Pacific people seems to be fairly equal to Others across and range of procedures.

No information is provided on quality which is a very important issue for secondary care services.

More work needs to be done to better understand the issues facing secondary care.

Glossary

Age-standardised rate (ASR)	Rates that have been statistically adjusted to enable valid comparison despite differences in the age structures of the populations being compared. In this report, the WHO World Standard population is used as the reference population for age standardisation.
Age-specific rate	Rates within specific age categories e.g. 0-14 years.
Ambulatory sensitive hospitalisations (ASH)	A subcategory of avoidable hospitalisations, comprising hospitalisations of people aged 0-74 years from causes considered to be responsive to prophylactic or therapeutic interventions deliverable in the ambulatory (non-inpatient) care setting.
Asian people	Asian people are the New Zealanders who identify with or feel they belong to one or more Asian ethnicities. The largest ethnicity among Asian people is Chinese, followed by Indian, Korean, Filipino, Japanese, Sri Lankan, Cambodian and Thai.
Avoidable hospitalisation(AH)	Hospitalisations of people aged 0-74 years due to causes considered to be responsive to preventive interventions or ambulatory health care. Also called Potentially Avoidable Hospitalisation (PAH)
Avoidable mortality (AM)	Deaths of persons aged 0-74 years from causes considered to be partly or wholly avoidable through preventive or therapeutic interventions. Also called Potentially Avoidable Hospitalisation (PAM)
Average length of stay (ALOS)	The sum of the lengths of stay for a group of patient encounters, divided by the number of encounters. A day stay (admitted and discharged on the same day) is counted as 0
Care Plus	A national programme for people with complex chronic conditions. It aims to improve chronic care management, reduce inequalities, and improve primary health care teamwork
Caries	Tooth decay
Census	The census is the official count of population and dwellings in New Zealand, providing a 'snapshot' of our society at a point in time. The New Zealand census is taken every five years, most recently in 2006. Unlike surveys everybody in New Zealand has to provide census information
Census area unit	Census area units are aggregations of meshblocks. They are commonly known as a suburb or geographic area within a territorial authority, with a maximum population of approximately 5,000.
Chronic disease	A disease lasting or expected to last for six months or longer.
Confidence interval	An indication of how accurate an estimate made from a sample is. Usually

(CI)	given as a 95% confidence interval. See methodology section.
Day patient	Or day stay – person is admitted and discharged on the same day. If care is less than 3 hours duration would normally be considered an outpatient. See also Inpatient and ALOS
Decile	Grouping of 10 e.g. lowest 10%, next 10% etc
Disability	A physical or mental impairment, which substantially limits one or more major life activities.
Disability-adjusted life year (DALY)	An integrated health gap measure, derived by adding YLL and YLD. One DALY thus represents one year of healthy life.
Disability support services	A disability support service (DSS) is a service provided to someone with a disability or long-term illness, where 'long-term' is defined as relating to a condition which has been, or is likely to be, present for six months or more.
District Health Board (DHB)	Organisations responsible for providing, or funding the provision of, health and disability services in their district. There are 21 DHBs in New Zealand of which Waitemata DHB is the largest
District Strategic Plan (DSP)	A plan that all DHBs need to produce that guides the long term (5 year) direction of the DHB. They are reviewed every 3 years and Health Needs Assessments help inform them.
Discharge	Person leaving hospital after a hospitalisation. The technically correct term, as the NMDS counts discharges rather than admissions (i.e. a record is not added to the NMDS unit the patient is discharged).
Domicile code	Statistic New Zealand Area unit code representing a healthcare user's usual residential address. Also used for health agency facility addresses.
Elective surgery	Surgery that has been organised in advance
Enrolment (in PHOs)	People need to enrol with a PHO (via their GP) in order to receive government subsidies for primary care. PHOs have a responsibility to improve the health of their enrolled population.
Ethnicity	'Ethnicity' is the ethnic group or groups that people identify with or feel they belong to. Ethnicity is a measure of cultural affiliation, as opposed to race, ancestry, nationality or citizenship. Ethnicity is self-perceived and people can belong to more than one ethnic group.
Get Checked	A national programme for diabetes care. It allows people with diabetes to have one free diabetes review per year and encourages quality systematic care.

Hazardous drinking	Drinking alcohol to a level where the person is at moderate risk of developing harm from alcohol in the future. This is assessed by scoring 8 or more on the World Health Organisation's Alcohol Use Identification Test (AUDIT).
Home health care	Healthcare provided in the home where if it was not available the client would need to be admitted to hospital
Household crowding	Housing space adequate to the needs and desires of a family is a core component of quality of life. Usually measured by the Canadian Crowding Index
ICD	International classification of diseases, WHO's internationally, accepted classification of diseases, injuries and cause of death. The tenth revision with clinical modifications, Australian version (ICD-10-AM) is used in this report.
Incidence	The number of new cases of a condition in a given time period. See also prevalence
Infant mortality rate	The number of live born infants dying before age one year, per 1000 live births. Excludes stillbirths.
Injury	An externally caused condition (i.e. external to the patient). Includes poisoning and self-harm.
Inpatient	A person admitted to hospital. Will often include day patients, but outpatients are excluded.
Iwi	The focal economic and political unit of the traditional Maori descent and kinship based hierarchy
Life-expectancy (LE)	A summary statistic derived from a life table, estimating the average number of years an individual of a given age is expected to live if current mortality rates continue to apply.
Low birth weight (LBW)	Any baby born weighing less than 2500g
Meshblock	The meshblock is the smallest geographic unit for which statistical data is collected and processed by Statistics New Zealand. A meshblock is a defined geographic area, varying in size from part of a city block to large areas of rural land. A meshblock typically has around 80 people living in it.
Morbidity	Any departure (subjective or objective) from a state of physiological or psychological wellbeing
Morbidity rate	Rate of illness in a population

Mortality data	The NZHIS-collated database of all deaths in New Zealand.
Mortality rate	Rate of death in a population. Calculated by dividing the number of deaths in a specified period by the average total population during that period.
National Cancer Registry (NCR)	A register of all people who develop cancer (except some skin cancers).
Neonatal	Period from birth to 27 days of age
National Certificate of Educational Achievement (NCEA)	National qualifications for senior secondary students. NCEA level 2 is mostly commonly achieved during year 12 (sixth form)
National Minimum Data Set (NMDS)	The NZHIS-collated database of all public hospital discharges. Largely complete within 3 months of end of period
NZDep2006	New Zealand Deprivation Index 2006. A census small area index of deprivation, derived by principal component analysis of nine socio-economic variables from the 2006 New Zealand census, using meshblocks (small areas with a median of 90 people). Often used in the form of a decile or quintile
New Zealand Health Survey (NZHS)	A national community survey that is undertaken every 4 years (most recently in 2006/07) that provides information on common health behaviours, conditions and health service use.
NZHIS	New Zealand Health Information Service, a branch of the Ministry of Health responsible for the national health collections
OECD countries	Organisation for Economic Co-operation and Development countries. These include: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom and United States.
Operative delivery	Delivery of a baby either by caesarean section or by other assistance such as forceps or ventoux suction.
Outpatient	Patients not requiring admission to hospital, but who either receive treatment in the emergency department, under-go short-term hospital-based specialist treatment (of less than 3 hours duration), or are treated in their homes by hospital-based staff.
Pacific people	The population of Pacific island ethnic origin (e.g. Samoan, Cook Island, Tongan, Niuean, Fijian and Tokelauan). Based on the census definitions.

Perinatal mortality rate	The number of foetal deaths of 20 weeks or more gestation or 400 grams birthweight, plus infant deaths within less than 168 completed hours after birth (7 days), per 1000 total births. i.e. includes stillbirths. In this document, the definition includes only infant deaths within or less than 7 days after birth.
Perinatal	Refers to babies who have completed 28 weeks of gestation and over, plus infants under seven days old.
Post neonatal	Babies from 28 days old to one year of age
Preterm	Baby born before 37 weeks gestation
Primary Health Organisation (PHO)	A local non-profit organisation for delivering and co-ordinating primary health care services. There are six PHOs in Waitemata
Prevalence	The number of instances of a given disease in a population at a designated time. Prevalence includes both new (incidence) and existing instances of a disease.
Preventable hospitalisations (PH)	A subcategory of potentially avoidable hospitalisations, comprising hospitalisations of persons aged 0-74 years from causes considered to be potentially preventable through population-based interventions.
Quality of Life Survey	A survey undertaken on behalf of 12 Territorial Authorities that measures a range of aspects of peoples quality of lifeIt was most recently undertaken in 2006.
Quintile	Grouping of 5 e.g. lowest 20%, next 20% etc
Rate	A rate is the frequency with which a health event occurs in a defined population. The components of the rate for a population are the numbers of deaths or cases (numerator), the population at risk (the denominator) and the specified time in which the events occurred. All rates are ratios, calculated by dividing the numerator by the denominator.
Rate ratio	The ratio of one rate divided by another rate. Used to express how much more or less at risk one group is compared to another from a particular risk or disease etc.
Recreational Water	coastal and inland fresh waters used for a range of contact recreational activities
Resident population	See usual residence

SF-36 (short form 36)	A health-related quality of life instrument comprising 36 questions that provide an eight dimensional description of health status, including scales relating to physical, mental and social functioning. It generates a profile of eight scores to describe the health of an individual or group.
Small for gestational age (SGA)	Baby born with a birth weight below the 10th percentile for its gestational age
Socio-economic status	Social position, measured by an ordinal scale indicating an individual's (or family's or household's) relative position in the social hierarchy, based on criteria such as income level, occupational class or educational attainment.
South Asian	People from the Indian Subcontinent (India, Sri Lanka, Pakistan, Bangladesh, Nepal) Also people of Subcontinent origin (e.g. Fijian Indian)
Te Reo	The Maori language
Territorial Authority (TA)	The unit of local government that has responsibility for such things as roads, sewers, buildings consents and land use. There are 73 TAs in New Zealand and three in Waitemata DHB – Rodney District, and Waitakere and North Shore Cities.
Usual residence	Is the address of the dwelling where a person considers himself or herself to usually reside.
Whanau	Family, relationships that have blood links to a common ancestor
Years of life lost (YLL)	An indicator of the social burden of fatal health outcomes. YLL may be calculated in two ways: 1. By subtracting the age at death from the life expectancy remaining at that age (YLL is then an indicator of "premature" mortality). 2. By subtracting the age at death from an arbitrary upper age limit-usually 70 years (YLL is then a measure of "presenescent" mortality.
Years lost to Disability (YLD)	A measure of the burden of non-fatal health outcomes used in the construction of the DALY. Understood as "year equivalents lost to severity adjusted disability".

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