Health, Education and Safety Report for the Whangarei District
# TABLE OF CONTENTS

## LIST OF FIGURES...............................................................................................6

## LIST OF TABLES..................................................................................................6

1. **INTRODUCTION.................................................................7**
   - Objectives........................................................................................................7
   - Population Growth Projections......................................................................7

2. **HEALTH.................................................................11**
   - Air Quality......................................................................................................13
   - Water Quality..................................................................................................14
     - Drinking Water............................................................................................14
     - Bathing and Shellfish Collection ..................................................................14
   - Waste Disposal/ Sanitation............................................................................15
   - Behavioural Risk Factors and Lifestyle Choices........................................15
     - Nutrition and Diet........................................................................................16
     - Physical Activity..........................................................................................17
     - Smoking and Alcohol...................................................................................17
   - Deprivation......................................................................................................19
   - Other Risk Factors........................................................................................21
     - Ultra Violet Radiation..................................................................................21
   - Biological Risk Factors..............................................................................21
     - Overweight/Obesity....................................................................................21
     - High Blood Pressure and High Cholesterol ..............................................22

3. **CURRENT HEALTH STATUS............................................................23**
   - Chronic Conditions.......................................................................................23
   - Avoidable Mortality and Hospitalisation....................................................23
   - Children and Infants....................................................................................24
   - Mental Health and Suicide..........................................................................24
   - Maori............................................................................................................25
   - Older People..................................................................................................25
     - Health Service Utilisation..........................................................................26
     - Residential Care..........................................................................................26

4. **EXISTING INFRASTRUCTURE AND SERVICES..................................27**
   - Northland District Health Board..................................................................27
   - Whangarei Hospital.......................................................................................27
   - Manaia Health Primary Health Organisation.............................................28
   - Access to Health Services............................................................................28
   - Health Professionals in the Northland District...........................................29
     - General Practitioners..................................................................................29
5. IMPROVEMENT OF CURRENT HEALTH STATUS ................................................. 32
   Manaia Health ................................................................................. 32
   Northland District Health Board ................................................ 32
   Northland Intersectoral Forum ..................................................... 33
   Air Quality ...................................................................................... 33
   Water Quality and Supply (Drinking Water) ........................................ 33
   Wastewater, Stormwater and Solid Waste Disposal ......................... 34
   Nutrition ......................................................................................... 34
   Promotion of Physical Exercise ...................................................... 34
   Smoking and Alcohol ................................................................. 35
   UV protection .............................................................................. 35
   Housing ......................................................................................... 35

6. FUTURE INFRASTRUCTURE AND SERVICES ............................................. 36
   Whangarei Hospital ........................................................................ 36
   Integrated Family Health Centres ................................................ 39
   Minor Surgery Initiative ................................................................ 39
   Primary Options Programme ....................................................... 39
   Residential Care ........................................................................... 40

7. EDUCATION .......................................................................................... 41
   Current Situation ........................................................................... 41
   Early Childhood Education (ECE) ................................................... 41
   Education in Primary and Secondary Schools ................................... 43
   Tertiary Education .......................................................................... 46
   Existing Infrastructure and Services ............................................... 48
   Early Childhood ............................................................................. 48
   Schools ......................................................................................... 48
   Transition from Secondary to Tertiary Education/Training/Workforce ... 49
   Tertiary Providers ........................................................................... 49
   Future Training Needs .................................................................... 51

8. SAFETY .................................................................................................... 56
   Current Situation ........................................................................... 56
   Crime and the Fear of Crime .......................................................... 56
   Indicators for Safety ....................................................................... 57
   Police Statistics ............................................................................. 58
   Current Police Issues .................................................................... 59
   Fire Service .................................................................................... 60
   Whangarei Community Report 2008 .............................................. 60
   Safety Issues for Older People ...................................................... 62
   Whangarei District Council ............................................................ 62
Existing infrastructure and services..........................................................63
Emergency Services..................................................................................63
Other Services .........................................................................................64
Future Infrastructure and Services..........................................................68
Police ........................................................................................................68
Ministry of Social Development.................................................................68
WDC/NRC ..............................................................................................69

9. COMPARISON OF THE THREE FUTURES........................................70
Future One – Lightly Regulated/Market Led Development..........................70
Future Two – Twin City/Urban and Coastal Spread....................................71
Future Three – Satellite Town/Rural and Coastal Villages..........................74

10. CONCLUSIONS...............................................................................77
REFERENCES ..........................................................................................81
APPENDIX ONE – MAP OF COMMUNITY FACILITIES .........................84
LIST OF FIGURES

Figure 1 Population Projections .......................................................................................................................... 8
Figure 2 Population age structure .......................................................................................................................... 8
Figure 3 Projected population pyramids for the Whangarei District ........................................................................ 9
Figure 4 Population projections for the 65+ and 85+ age groups in the Whangarei District ...................................... 9
Figure 5 Maori population age structure .............................................................................................................. 10
Figure 6 Independent Life Expectancy of New Zealanders at Birth, 1996-2006 ...................................................... 12
Figure 7 Life Expectancy of New Zealanders at Birth, by Ethnic Group and Sex, 1950-2007 ................................. 12
Figure 8 Selected causes of death cross-classified by condition within risk factor, New Zealand, 1997 .............. 16
Figure 9 New Zealand Index of Deprivation 2006 ................................................................................................ 20
Figure 10 Whangarei Hospital Concept Masterplan ............................................................................................. 38
Figure 11 School leaver attainment in Northland and New Zealand, 2008 ............................................................ 45
Figure 12 Citizens’ satisfaction survey 2009 – comparison with baseline: public trust & confidence, perceptions of safety and police in the community – Northland District ................................................................. 56

LIST OF TABLES

Table 1 Ten Most Popular Sport and Recreation Activities for Northlanders ............................................................. 17
Table 2 Age-standardised prevalence rates (per cent, with 95% confidence intervals) of current daily smokers, 15+ years, by ethnicity, 2006/07 NZHS .................................................................................................................. 18
Table 3 Hazardous drinking in adults (ages 15+), percentages based on age-standardised rates, Northland and New Zealand 2001/02 ................................................................. 18
Table 4 Percentage of obese adults (ages 15+) by ethnicity, Northland and New Zealand 2002/03 .................... 21
Table 5 Leading causes of avoidable hospitalisations, 0–74 years, 2005–07 .......................................................................................................................... 23
Table 6 Leading causes of avoidable mortality, males and females, 0–74 years, 2003–05 ........................................ 24
Table 7 Distribution of older people (65+) in residential care, 2002/2003 ............................................................ 26
Table 8 Number and FTEs for selected health professional workforce groups, by year ..................................... 29
Table 9 Certified hospital providers located in the Whangarei District, as at June 2008 ...................................... 30
Table 10 Actual and projected numbers of patients using Whangarei Hospital ..................................................... 36
Table 11 Projected aged related residential care (ARRC) (rest home and hospital level) beds required to match the growth in the 85+ population, assuming status quo is maintained .................................................. 40
Table 12 Projected dementia beds (as per modelling carried out by NDSA in 2006) ........................................... 40
Table 13 Percentage of enrolments in licensed early childhood education services, by territorial authority and age (2008) ........................................................................................................ 41
Table 14 Percentage of Year 1 students who attended early childhood education services, by territorial authority and ethnic group (2008) .............................................................. 42
Table 15 Percentage of registered ECE teachers, by territorial local authority (2008) ....................................... 43
Table 16 Retention rates at secondary school per 100 students to age 17.5 years, by territorial local authority (2008) .................................................................................................................. 44
Table 17 Standardised frequent truancy percentages, by TLA, gender and ethnic group (2006) ......................... 46
Table 18 Age-standardised exclusion rates per 1,000 students, by territorial local authority (2008) ............... 46
Table 19 EFTS (Equivalent Full Time Students) by year for tertiary students in the Whangarei District ........... 47
Table 20 EFTS percentages by level of award category 2007 .............................................................................. 47
Table 21 Whangarei District - recorded crime statistics 2008/2009 ................................................................. 59
Table 22 The number of people injured or killed in motor vehicle crashes per 100,000 of the total population in the Whangarei District .................................................................................. 59
1. Introduction

Objectives

The purpose of this report is:

- To assess the existing health of the district’s population and identify how the Whangarei District Council and other organisations can assist with improvements to future health.
- To highlight the current situation for education in the Whangarei District, and identify future training needs of the district.
- To identify the current safety issues in the Whangarei District, and the services available to improve the safety of our community.
- To outline the existing infrastructure for health care, education and safety in the Whangarei District and to determine the future need for increased infrastructure, given the projected growth of the district over the next 50 years, and also to predict the spatial distribution of that infrastructure, where possible.

This report begins with the population growth projections for the Whangarei District, and is then divided into three main sections – Health, Education and Safety. Although these three topics are discussed separately, in reality they are inter-related. Hence throughout the report some information may be repeated.

At the end of the report the three alternative futures proposed by the Whangarei District Council Sub-Regional Growth Strategy (Sustainable Futures 30/50) are described, and the infrastructure requirements for health, education and safety are discussed for each scenario.

Population Growth Projections

With advancements in healthcare, people are living longer and by 2061, life expectancy at birth is projected to increase to 84.5 years for males and 88.0 years for females. The total fertility rate is expected to decrease to 1.9 births per woman by 2026 and then remain constant. New Zealand is also expected to have a long-run annual net migration gain of 10,000 people per annum from 2010 (Statistics New Zealand, 2009).

As shown in Figure 1, the Whangarei District population is projected to increase from 74,430 in 2006 to around 110,000 in 2041, and to around 130,000 in 2061. This represents an average annual increase of 1.35% or 1,000 additional people per annum, and a total increase in population of 55,000 people (Whangarei District Council Demographic Profile, 2009).
Figure 1  Population Projections

![Whangarei District Population Projections](image)

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Figure 2 shows the population structure of the Whangarei District and the total New Zealand population. There is a noticeable shortage of the ‘20-35 years’ age group in the Whangarei District. In 2006, approximately 30% of those who migrated out of the district were in the ‘15-24 year’ age group (Statistics New Zealand, 2009).

Figure 2  Population age structure

![Population age structure](image)

Source: Statistics New Zealand
Figure 3 shows the current age structure (2006) and the projected age structure for the Whangarei District for the years 2041 and 2061. Like the rest of New Zealand, our population is aging, with the highest percentage increase occurring in the ‘over 65 years’ age group. It is projected that the ‘under 15 years’ age group will experience a decline in numbers in the future. At present, 22.8% of people are aged less than 15 years of age in the Whangarei District. By 2041, this could reduce to 18.68%, and in 2061 to 17.35%. Currently, the median age is 38.4 years for people in the Whangarei District (Statistics New Zealand). The median age is projected to be 41.5 years in the year 2041, and could be 50.1 years in the year 2061 (WDC Growth Model, 2008).

**Figure 3  Projected population pyramids for the Whangarei District**

As shown below, in 2006 approximately 15% of people in the Whangarei District were aged 65 years and over. By 2061 it is projected that nearly 30% of the Whangarei District’s population will be over 65 years old, and almost 5% of that group will be over 85 years of age.

**Figure 4  Population projections for the 65+ and 85+ age groups in the Whangarei District**

The rate of population increase is higher for the Maori population, so in the future a larger proportion of the total population will be Maori. For Maori, life expectancy at birth is projected to increase to 76.5 years for males and 80.6 years for females by 2026. Northland has a larger Maori population compared with other parts of the country. Due to their high fertility rates the Maori population has a greater proportion of younger people (Statistics New Zealand, 2009). This is shown in the graph below, and for the Whangarei District this is particularly noticeable in the '5-14 years' age group.

**Figure 5  Maori population age structure**

![Maori population (age group and sex) Whangarei District, 2006 Census](image)

![Maori population (age group and sex) New Zealand, 2006 Census](image)

Source: Statistics New Zealand
2. HEALTH

Public health is about keeping people healthy and improving the health of populations rather than treating diseases, disorders and disabilities in individuals. It uses a population health approach that involves taking into account all factors that determine health and then planning how these factors can be tackled (Northland District Health Board, 2009). The health of the community is therefore not the responsibility of the healthcare providers alone. A range of service providers need to be involved.

Factors affecting health include:

- Nutrition
- Shelter/housing
- Air quality
- Water quality
- Waste disposal/sanitation
- Education
- Employment opportunities
- Safety within the family and community
- Social and cultural networks
- Exercise and recreation
- Access to healthcare services
- Lifestyle choices – e.g. alcohol, drugs, smoking
- Deprivation/socioeconomic factors
- Access to transportation

An individual’s health is achieved through a combination of physical, mental, emotional, and social well-being.

The Social Report 2008 uses six indicators, which together provide a picture of the current state of the nation’s health and the likely trends in the future.

These indicators are:

1. Health expectancy/independent life expectancy (number of years a person can expect to live independently)
2. Life expectancy (how long people live)
3. Suicide (indicator of mental health and well-being of society)
4. Cigarette smoking
5. Obesity
6. Potentially hazardous drinking

Numbers 1-3 relate to the current state of the nation’s health (physical and mental) and numbers 4-6 are strong predictors of future health outcomes (Ministry for Social Development and Employment, 2009).

Figure 6 shows that independent life expectancy (health expectancy) is increasing for both sexes, with a noticeable increase for males between 2001 and 2006.
The life expectancy of New Zealanders continues to rise. Currently, a newborn girl can expect to live an average of 82.2 years and a newborn boy 78.2 years (Statistics New Zealand, 2009). The graph below shows that ethnic differences for life expectancy continue, although the gap is slowly closing. The life expectancy at birth for females of Maori ethnicity was 75.1 years in 2005–07, compared with 83.0 years for non-Maori females. For males, life expectancy at birth was 70.4 years for Maori and 79.0 years for non-Maori (Ministry of Social Development, 2008).

Source: Ministry of Health

(Note: Ministry of Health data has been used for 1980–1982 to 1995–1997. It includes an adjustment for the undercount of Maori deaths relative to the Maori population by linking mortality to census record)
Air Quality

Compared to other countries New Zealand has relatively good air quality. This is due to our low population density, close proximity to the sea, and remoteness from other continents and sources of pollution. However, there are some areas (mostly urban) where concentrations of air pollution are quite high, especially during low wind conditions where there is high traffic density and where home heating is mainly by open fires or wood burners (Ministry for the Environment - MfE, 2009).

Air quality monitoring carried out by the Northland Regional Council (NRC) since 1996 shows that air quality in Northland is generally good; however Whangarei is the area most likely to experience air pollution due to the higher population density. Results show that some areas do occasionally experience poor air quality, especially areas next to busy roads that are subject to traffic congestion (Northland Regional Council - NRC, 2008).

The pollutants currently measured by NRC are particulate matter (PM10) and sulphur dioxide (SO2), however carbon monoxide levels will also be monitored in the future (pers.comm R.Elliot, NRC). In addition, any activities with resource consent for air discharges have separate monitoring as part of their consent conditions (NRC, 2008).

**Particulate matter (PM10)** - this is a term used to describe very small solid or liquid particles less than 10 microns in diameter, such as dust, fumes, smoke and mist/fog. In Whangarei, the main source of PM10 during the winter months is solid fuel (coal/wood) burning for home heating (74%), followed by industry (11%), outdoor burning (9%) and exhaust emissions from transport (6%) (NRC, 2008).

The most common health effects of particulate matter are irritation of the eyes, throat and lungs. For people with existing respiratory conditions, such as asthma or bronchitis, breathing in particles can make the conditions worse. Groups that are most sensitive to particle pollution include: infants, people with asthma and other respiratory diseases, those with chronic diseases (e.g. heart disease), and the elderly (MfE, 2009).

**Sulphur dioxide (SO2)** - this is a colourless, soluble gas that is mainly produced by the combustion of fossil fuels containing sulphur (e.g. coal and oil), however it can also be the product of some industrial processes. In the Whangarei District, the main industrial source of SO2 is the New Zealand Refining Company at Marsden Point. The prevailing wind in this area frequently disperses emissions from the refinery towards Whangarei Heads. Since May 2008, NRC has been monitoring SO2 levels at Taurikura Bay and peak concentrations have not exceeded the national standards. Another industrial source of SO2 in Whangarei is Ballance Agri-nutrients, a fertiliser manufacturing company in Port Road. In addition to monitoring at this site, NRC is planning to monitor SO2 levels in the Whangarei CBD in the future (pers.comm R.Elliot, NRC).

Sulphur dioxide can cause respiratory problems, such as bronchitis, and can also irritate the nose and throat. It may cause coughing, wheezing and asthma attacks. The effects are worse when exercising, and those most sensitive to sulphur dioxide are: healthy children, adults with lung disease and asthmatics. SO2 deposition can also affect vegetation in areas near industrial discharges and in cities (MfE, 2009).

**Carbon monoxide** - this is a colourless and odourless, but highly toxic gas. The most common sources are: the incomplete combustion of fossil fuels, such as petrol used by cars; and wood and coal, used for home heating. Tobacco smoke and indoor gas fires are also common sources of carbon monoxide. Levels are usually highest along busy roads, and when winter smog traps discharges from domestic fires and vehicles (MfE, 2009).

Carbon monoxide reduces the amount of oxygen that the body tissues receive and low exposure can cause dizziness, weakness, nausea, confusion and disorientation. It can also cause a reduction in performance when exercising. The effects worsen as the level of carbon monoxide in the blood stream increases. Those most sensitive to carbon monoxide include middle-aged and elderly people with heart disease, and unborn babies (MfE, 2009).
Water Quality

Drinking Water

The availability of safe drinking water for all New Zealanders is a fundamental requirement for public health. Safe drinking water is essential to protect people from diseases or other harmful contaminants. The Drinking Water Standards for New Zealand 2005 set out the quality of water that water suppliers are expected to deliver for public consumption (Waikato District Health Board, 2009).

Drinking water contaminated by bacteria, viruses or protozoa (e.g. Giardia) can cause gastro-intestinal symptoms, such as vomiting and diarrhoea. Chemical contamination of drinking water can cause a variety of symptoms, depending on the chemical involved.

The Whangarei District Council captures and treats approximately 9 million cubic metres of water annually. This water is distributed to approximately 23,500 metered customers. The reticulated supply stretches from Hikurangi in the north to Langs Beach in the south, and from Mangakahia in the west to Urquhart’s Bay in the east. The supply is made up from four discrete networks: Whangarei City, Bream Bay, Maungakaramea and Mangapai, and these in turn are supplied from 9 raw water sources through 7 Water Treatment Plants (WDC, 2009).

Bathing and Shellfish Collection

Waterways are an integral part of many Northlanders’ daily lives. Our beaches, rivers and lakes are popular locations for recreational activities and are also an important food source. Unpolluted waterways are essential for maintaining public health.

Northland Regional Council monitors water quality at specified sites throughout Northland. As part of the Recreational Bathing Water Quality Programme samples are collected from popular coastal bathing sites in Northland. During 2007-08, samples were collected from 44 sites and were analysed for levels of illness-causing bacteria (Enterococci bacteria). Of samples collected, 94% complied with the Ministry for the Environment (MfE) Microbiological Water Quality Guidelines, and the sites were considered safe for swimming. In the Whangarei District, the following sample sites had more than 10% of samples exceed the recommended ‘safe’ level of bacteria: Ruakaka River, Matapouri Estuary, Wahanaki Estuary and Ohawini Bay. The remaining sites in the district had no samples or only one sample that exceeded the recommended guidelines during 2007-08 (NRC, 2008).

Water at 15 sites in Northland was assessed for its suitability for recreational shellfish gathering. The water samples were analysed for levels of faecal coliform bacteria. Using the MfE guidelines, only one site, Tinopai (in the Kaipara Harbour), had water quality that complied with the guidelines. The other fourteen sites did not comply with the water quality guidelines and were therefore deemed unsafe for shellfish collection (NRC, 2008).

Shellfish concentrate toxins and pathogens (disease-causing micro-organisms) from the environment. Any shellfish collected from contaminated water or water in which toxic algae are present may create a significant threat to the health of shellfish consumers. Consumption of shellfish containing high levels of faecal bacteria may cause symptoms of food poisoning, such as abdominal pain, diarrhoea and/or vomiting (NDHB, 2009).

During the 2007/08 summer season, 19 freshwater bathing sites in Northland were sampled. The results from nine sites indicated that they were ‘safe’ for recreational use; six sites had a ‘caution’ score, and four sites had results indicating that they were ‘unsafe’ for recreational use. The ‘suitability for recreation grade’ (SFRG) has now been calculated for the 16 freshwater sites that have sufficient data over the longer term. Of these sites, eight have been graded as ‘poor’ and eight have been graded as ‘very poor’ (NRC, 2008).

Pathogens found in beach and lake water usually come from human sewage, stormwater or rural run-off (which contains animal faeces). During swimming or water sports pathogens can enter the body through the mouth, nose, mucous membranes, and skin abrasions.
High levels of pathogens can cause:

- vomiting and diarrhoea (gastrointestinal illness)
- colds and flu (respiratory illness)
- skin, eye and ear infections.

(North Shore City Council, 2009)

**Waste Disposal/ Sanitation**

Liquid and solid wastes may contain hazardous materials and can provide a medium to support pathogens and disease vectors. Poorly managed liquid and solid waste collection, treatment and disposal systems can pose a threat to public health. A range of adverse health effects can occur from direct or indirect exposure to hazardous substances or from environmental contamination (Waikato DHB, 2009).

Sewage contains large numbers of potential pathogens and the unsatisfactory management of sewage collection, treatment and disposal can pose a significant threat to public health (Waikato DHB, 2009). Sewage overflows into the Whangarei Harbour after heavy rainfall events has been an on-going problem, and warning signs are erected at these times to warn the public against swimming and shellfish collection.

In addition, pollutants such as rubbish, heavy metals, pesticides and fertilisers are washed off roads and other hard surfaces into streams and harbours. These pollutants can affect fish, shellfish, plants and human health. There is currently no treatment of stormwater prior to being discharged into our waterways.

The next stage in the $13 million upgrade of Whangarei’s sewerage system is being planned, as the $4.5 million Okara to Kioreroa pipeline and pump upgrade nears completion. The pipeline and pumps will ensure peak wastewater flows during all but the most extreme storm events will be pumped from the Okara Pumping Station to Kioreroa Road Wastewater Treatment Plant for primary treatment. Council has also purchased a block of land in Kioreroa Road to extend the capacity to treat storm flows, with decisions yet to be made on whether the site will be used for increased storage or to extend the wetlands, which is the final stage of treatment.

**Behavioural Risk Factors and Lifestyle Choices**

This section focuses on the risk factors and lifestyle choices that increase a person’s chances of getting a disease. Poor lifestyle practices are associated with the emerging obesity epidemic, increased incidence of diabetes, and high rates of cardiovascular disease and cancer.

Many of the risk factors can be linked to several conditions. For example, smoking tobacco increases the likelihood of a person suffering from ischaemic heart disease, chronic obstructive pulmonary disease, stroke, lung cancer and other cancers (Tobias, 2004).

Selected risk factors and conditions are shown in Figure 8.
Figure 8  Selected causes of death cross-classified by condition within risk factor, New Zealand, 1997

(Notes: IHD = ischaemic heart disease; COPD = chronic obstructive pulmonary disease; BMI = Body Mass Index)
Source: Adapted from Table 3 of the ‘Looking Upstream’ report (Martin Tobias)

Nutrition and Diet

In New Zealand, it is recommended that adults eat at least three servings of vegetables and at least two servings of fruit each day (Ministry of Health 2009). Vegetables and fruit are highly nutritious and have been shown to protect against heart disease, stroke, diabetes and obesity (World Health Organization, 2009). In addition, after smoking, dietary factors appear to be the most important known preventable cause of cancer (in particular, cancer of the oesophagus, mouth, throat, stomach, lung, and rectum). It is the consumption of a variety of vegetables and fruit that is protective, rather than specific types (Cancer Society, 2004).

The Ministry of Health reports that two out of every five deaths each year (approximately 11,000 annually) are due to nutrition-related risk factors such as:

- High cholesterol (reflecting mainly saturated fat intake)
- High blood pressure (reflecting a range of factors but most notably high sodium intake)
- Overweight and obesity
- Inadequate vegetable and fruit intake

Of these 11,000 deaths a year, 8000 to 9000 are likely to be due to dietary factors alone, and the remaining 2000 to 3000 also due to inadequate physical activity levels (Ministry of Health, 2009).

Research has shown that over 60% of people within the Northland DHB area eat three or more servings of vegetables on average each day, which is similar to the national rates. Pacific and Asian people were found to be significantly less likely than the total Northland DHB population to eat three or more servings of vegetables on average each day (Northland District Health Board, 2008).
Physical Activity

Physical activity is a preventative factor for many chronic diseases, including cardiovascular disease, diabetes and many forms of cancer (Cancer Society, 2009). Physical exercise can reduce weight, help lower blood pressure and cholesterol, and provide a sense of mental well-being.

The New Zealand Physical Activity Guidelines state that adults should participate in at least 30 minutes of moderate intensity physical activity on most, if not on all, days of the week. In a recent survey, the percentage of adults in the Northland Region who achieved this over a seven-day period was 44.5%. This was lower than the national figure of 48.2% (Sport and Recreation New Zealand, 2008). Car dependency has contributed to physical inactivity. In the 2006 Census, only 5% of the population in the Whangarei District walked, jogged or cycled to work (Statistics New Zealand, 2006).

Table 1 shows the ten most popular sport and recreation activities that Northlanders participated in over a twelve-month period. Walking was by far the most popular activity for women, and for men it was fishing. Seven out of the ten activities were popular for both men and women (Sport and Recreation New Zealand, 2008).

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<td>Fishing</td>
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<td>Gardening</td>
<td>Swimming</td>
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<td>Swimming</td>
<td>Dance</td>
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<td>Equipment-based exercise</td>
<td>Fishing</td>
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<td>Hunting</td>
<td>Equipment-based exercise</td>
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<td>Golf</td>
<td>Cycling</td>
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<td>Diving/Scuba diving</td>
<td>Aerobics</td>
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<td>Jogging/Running</td>
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Table 1 Ten Most Popular Sport and Recreation Activities for Northlanders

The 2006/07 New Zealand Health Survey found that only 47% of children aged 5-14 years usually use active transport to get to and from school (walking, biking, skating or other forms of physical activity). Common reasons for going by motor vehicle included: living too far from school, busy traffic/main road, too dangerous for reasons other than traffic, and that it takes too long (Ministry of Health, 2009).

Smoking and Alcohol

Smoking harms nearly every organ and system in the body, causes 80% of lung cancer cases and is linked to many other cancers. It is a major cause of heart attacks, heart disease, stroke and respiratory diseases (e.g. emphysema and chronic bronchitis). Smoking has detrimental effects on children’s health through its direct effects during pregnancy and indirect effects in childhood. These effects include increased risk of serious respiratory tract conditions (e.g. croup, bronchitis and pneumonia) and middle ear infections (Ministry of Health, 2009).

As shown in the table below, the prevalence of daily smokers in Northland DHB is significantly higher than the national prevalence. It also shows that the smoking rates of Maori are significantly higher than the total rates for Northland DHB.

1 Based on information collected through the 2007/08 Active NZ Survey, this report provides an overview of physical activity behaviours among adults (aged 16 years and over) living in the Northland region.
Table 2  Age-standardised prevalence rates (per cent, with 95% confidence intervals) of current daily smokers, 15+ years, by ethnicity, 2006/07 NZHS

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<td>Northland DHB</td>
<td>59.1 (53.7–64.3)</td>
<td>51.1 (45.4–56.8)</td>
<td>5.7 (2.1–11.8)</td>
<td>22.9 (18.7–27.5)</td>
<td>24.0 (19.8–28.5)</td>
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<td></td>
<td>27.5 (21.9–33.7)</td>
<td>42.6 (36.0–49.4)</td>
<td>21.1 (16.0–27.0)</td>
<td>25.1 (20.9–29.7)</td>
<td>27.3 (23.1–31.8)</td>
</tr>
<tr>
<td></td>
<td>27.5 (21.9–33.7)</td>
<td>42.6 (36.0–49.4)</td>
<td>21.1 (16.0–27.0)</td>
<td>25.1 (20.9–29.7)</td>
<td>27.3 (23.1–31.8)</td>
</tr>
<tr>
<td></td>
<td>55.4 (50.6–60.1)</td>
<td>34.7 (29.6–40.1)</td>
<td>12.9 (8.7–18.1)</td>
<td>24.0 (19.9–28.4)</td>
<td>25.5 (21.6–29.9)</td>
</tr>
<tr>
<td>New Zealand</td>
<td>44.2 (40.8–47.6)</td>
<td>20.6 (16.6–25.1)</td>
<td>4.2 (2.6–6.5)</td>
<td>17.1 (15.5–18.9)</td>
<td>17.9 (16.4–19.5)</td>
</tr>
<tr>
<td></td>
<td>31.9 (26.7–37.4)</td>
<td>15.8 (12.4–19.7)</td>
<td>9.6 (7.7–11.9)</td>
<td>17.9 (16.5–19.4)</td>
<td>20.4 (18.8–22.0)</td>
</tr>
<tr>
<td></td>
<td>26.0 (22.7–29.5)</td>
<td>26.0 (22.7–29.5)</td>
<td>26.0 (22.7–29.5)</td>
<td>26.0 (22.7–29.5)</td>
<td>19.1 (18.1–20.1)</td>
</tr>
</tbody>
</table>

Source: Northland District Health Board

Heavy alcohol use can cause mental health disorders and chronic health problems involving the central nervous, gastrointestinal and cardiovascular systems. Alcohol also contributes to death and injury due to traffic accidents, drowning, suicide, assault and family violence (Alcohol Advisory Council of New Zealand 2009).

There is strong evidence that alcohol is a risk factor for some types of cancers, and that the risks generally get higher with increasing alcohol consumption. Alcohol is linked with cancers of the mouth, pharynx, larynx, oesophagus, liver and breast (Cancer Society, 2004). However, a low to moderate intake of alcohol has been shown to help protect against coronary heart disease for people middle aged or older (New Zealand Heart Foundation, 2009).

Binge drinking continues to be a problem in New Zealand. The figure below shows that Northland rates of hazardous drinking in 2001/2002 were similar to the national rates. The rates were higher for Maori compared to non-Maori in Northland.

Table 3  Hazardous drinking in adults (ages 15+), percentages based on age-standardised rates, Northland and New Zealand 2001/02

<table>
<thead>
<tr>
<th>Area and gender</th>
<th>Prevalence</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Maori</td>
<td>Pacific</td>
<td>Euro/other</td>
<td>Asian</td>
<td>Total</td>
</tr>
<tr>
<td>Northland</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>36%</td>
<td>30%</td>
<td>27%</td>
<td>--%</td>
<td>29%</td>
</tr>
<tr>
<td>Females</td>
<td>19%</td>
<td>6%</td>
<td>11%</td>
<td>--%</td>
<td>13%</td>
</tr>
<tr>
<td>All</td>
<td>27%</td>
<td>21%</td>
<td>19%</td>
<td>13%</td>
<td>21%</td>
</tr>
<tr>
<td>New Zealand</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>35%</td>
<td>31%</td>
<td>27%</td>
<td>7%</td>
<td>27%</td>
</tr>
<tr>
<td>Females</td>
<td>18%</td>
<td>6%</td>
<td>11%</td>
<td>--%</td>
<td>11%</td>
</tr>
<tr>
<td>All</td>
<td>26%</td>
<td>19%</td>
<td>19%</td>
<td>4%</td>
<td>19%</td>
</tr>
</tbody>
</table>

Source: New Zealand Health Survey 2002/03, Ministry of Health
Deprivation

The link between socio-economic status and health outcomes is being recognised. “People with low incomes, poor housing and few qualifications are likely to have disproportionately poorer health” (Howden-Chapman and Tobias, 2000).

One of the aims of the Northland District Health Board is to reduce inequalities in Northland. They state that ‘socially disadvantaged and marginalised groups have poorer health, greater exposure to health risks, and lesser access to health services than their more advantaged counterparts’. And that inequality can be measured according to:

- socioeconomic status (the poor are worse off than the wealthy)
- ethnicity (Maori, for example, are worse off than non-Maori)
- geographic area (Northland is worse off than New Zealand as a whole)
- age (the old are worse off than the young)
- sex (males are worse off than females)

(NDHB, 2009)

The New Zealand Index of Deprivation 2006 uses nine variables from the 2006 census to determine a numerical rating of the socio-economic status of a meshblock2. These variables are:

- Income (aged 18–64 years receiving a means-tested benefit)
- Income (low household income)
- Home ownership (not owning the home you reside in)
- Support (aged under 65 years living in a single-parent family)
- Employment (aged 18–64 years and unemployed)
- Qualifications (aged 18–64 years and without any qualifications)
- Living space (household overcrowding)
- Communication (no access to a telephone)
- Transport (no access to a car)

In Northland the rates of educational achievement3 were significantly lower than the national average for both genders and all ethnic groups, except Pacific people. Total rates of adults with low incomes were similar to the national rates, with significantly more women having lower incomes than men, both locally and nationally. In Northland, higher numbers of Asian people had low incomes, followed by Pacific, Maori and then European/Other. The unemployment rates in Northland were higher than the national rates, with Maori and Pacific people having double the unemployment rate than Europeans/Other and Asians in Northland (NDHB 2008). In December 2009, 8,374 people (aged 18-64 years) received income tested benefits in the Whangarei District, and there were nearly 18,000 recipients in the Northland region overall (Ministry of Social Development, 2010).

Poor quality housing can be linked to health problems, and accommodation costs often determine the overall standard of living. Many New Zealand houses are cold, damp and inadequately heated, and health problems such as asthma and other respiratory problems can be exacerbated. Generally home ownership is associated with better health status. In Northland the overall home ownership rates were similar to the national rate (NDHB 2008).

Household overcrowding4 can lead to a poorer health status and spread of infectious illnesses e.g. rheumatic fever and meningococcal disease. In Northland, Maori and Pacific people had more than double the household overcrowding rate of Asian and European/other ethnic groups. Overall, overcrowding rates in

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2 This is the smallest geographical unit for which statistical data is collected and processed by Statistics New Zealand. Where necessary, meshblocks have been joined together to create NZDep2006 ‘small areas’ with a population of at least 100 persons usually resident.

3 Based on achieving Level 2 or higher in NCEA.

4 This is measured by the ‘Canada Mortgage and Housing Corporation’ classification, which identifies a house as overcrowded if it does not have enough bedrooms for the people living in the house.
Northland DHB were significantly higher than national rates. The rheumatic fever notifications rate in Northland DHB was significantly higher than the national rate. In Northland DHB, Maori had significantly higher meningococcal disease and tuberculosis notifications rates than non-Maori (NDHB, 2008).

Access to a telephone and car is important for obtaining health care and advice. In Northland a significantly higher proportion of all ethnic groups did not have access to a telephone compared to the national rates. Overall, the rates of people not able to access a motor vehicle at home in Northland was slightly less than the national rate (NDHB, 2008).

Figure 9 (below) shows that the Far North has more areas of high deprivation than the Kaipara and Whangarei Districts. The most deprived areas in the Whangarei District are in the northwest (including Pikipiwi and Pakotai) and in the northeast coastal area (including Whangaruru/Punaru area, Oakura, and Helena Bay). There are also areas of high deprivation within Whangarei city, Hikurangi and Ruakake/Marsden Point.

Figure 9  New Zealand Index of Deprivation 2006

Source: Ministry of Health, 2008
Other Risk Factors

Ultra Violet Radiation

Skin cancer is the most common cancer in New Zealand, and our rates are among the highest in the world. This is due to a number of factors including the strength of the ultra violet radiation that reaches New Zealand during the summer months, low ozone values, our outdoor lifestyle and the high proportion of fair-skinned people in our population (Cancer Society, 2009).

The rate of malignant melanoma registrations in Northland District Health Board was not significantly different from the national rate. However the rate for Europeans/Other in Northland was about eight times that for Maori (NDHB, 2008).

Biological Risk Factors

Overweight/Obesity

The World Health Organization describes the prevalence of obesity as an epidemic. The 2002/03 New Zealand Health Survey showed that Northland had a similar proportion of its population overweight as New Zealand overall (Northland 35%, NZ 34%), but the percentage of obese people was higher. In Northland 26% of the population was considered obese, compared to 20% for New Zealand as a whole (Northland District Health Board, 2008).

As shown below, a higher proportion of Maori and Pacific Northlanders were obese, compared with Europeans. Maori and Pacific females in particular have higher percentages.

Table 4 Percentage of obese adults (ages 15+) by ethnicity, Northland and New Zealand 2002/03

<table>
<thead>
<tr>
<th>Area and gender</th>
<th>Prevalence</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Maori</td>
<td>Pacific</td>
<td>European/other</td>
<td>Asian</td>
<td>Total</td>
</tr>
<tr>
<td>Northland</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>29%</td>
<td>31%</td>
<td>24%</td>
<td>...%</td>
<td>25%</td>
</tr>
<tr>
<td>Females</td>
<td>32%</td>
<td>55%</td>
<td>24%</td>
<td>...%</td>
<td>26%</td>
</tr>
<tr>
<td>All</td>
<td>31%</td>
<td>40%</td>
<td>24%</td>
<td>7%</td>
<td>26%</td>
</tr>
<tr>
<td>New Zealand</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>29%</td>
<td>38%</td>
<td>18%</td>
<td>4%</td>
<td>19%</td>
</tr>
<tr>
<td>Females</td>
<td>28%</td>
<td>48%</td>
<td>20%</td>
<td>87%</td>
<td>21%</td>
</tr>
<tr>
<td>All</td>
<td>28%</td>
<td>43%</td>
<td>19%</td>
<td>6%</td>
<td>20%</td>
</tr>
</tbody>
</table>

Source: New Zealand Health Survey 2002/03, Ministry of Health

Being overweight or obese are risk factors for most serious chronic diseases, including Type 2 diabetes, Ischaemic Heart Disease (IHD), stroke and several common cancers (Ministry of Health, 2009).

The 2006/07 New Zealand Health Survey found that:

- One in twelve children, aged 2 to 14 years, was obese (8.3%).
- One in five children was overweight (20.9%).
High Blood Pressure and High Cholesterol

High blood pressure and elevated cholesterol levels are two of the main risk factors for cardiovascular disease, particularly Ischaemic Heart Disease and stroke. Risk factors for high blood pressure include: smoking, overweight/obesity, lack of exercise, excessive alcohol intake, and a diet high in salt. A diet high in saturated fat can cause elevated cholesterol levels (Southern Cross Healthcare, 2009).

The 2002/03 NZ Health Survey showed more Northlanders had high blood pressure (22%) than the national average (19%), but high cholesterol rates were similar. In addition, a higher percentage of Maori (27%) have high blood pressure than Europeans/others (20%), but high cholesterol exists in both groups at about same level (14%).
3. Current Health Status

Information in this section was obtained from the Northland District Health Board’s ‘Health Needs Assessment September 2008’.

Chronic Conditions

The three major chronic diseases in Northland are diabetes, cardiovascular disease and cancer. The hospitalisation rates due to these conditions, as well as chronic obstructive pulmonary disease, are significantly higher in Northland compared to the rest of the country.

Avoidable Mortality and Hospitalisation

The leading causes of avoidable mortality and hospitalisation in Northland DHB were similar to those at a national level. However the Northland DHB rates for both were significantly higher than the national rates. As shown on Table 5, the following were leading causes of avoidable hospitalisations: respiratory infections, angina, cellulitis, road traffic injury, ENT (ear, nose and throat) infections and dental conditions.

### Table 5 Leading causes of avoidable hospitalisations, 0–74 years, 2005–07

<table>
<thead>
<tr>
<th>New Zealand</th>
<th>Northland DHB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Causes</td>
<td>Rank</td>
</tr>
<tr>
<td>Female</td>
<td></td>
</tr>
<tr>
<td>Respiratory infections</td>
<td>1</td>
</tr>
<tr>
<td>Angina</td>
<td>2</td>
</tr>
<tr>
<td>Cellulitis</td>
<td>3</td>
</tr>
<tr>
<td>Asthma</td>
<td>4</td>
</tr>
<tr>
<td>Dental conditions</td>
<td>5</td>
</tr>
<tr>
<td>Male</td>
<td></td>
</tr>
<tr>
<td>Respiratory infections</td>
<td>1</td>
</tr>
<tr>
<td>Angina</td>
<td>2</td>
</tr>
<tr>
<td>Cellulitis</td>
<td>3</td>
</tr>
<tr>
<td>Road traffic injury</td>
<td>4</td>
</tr>
<tr>
<td>ENT infections</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>Respiratory infections</td>
<td>1</td>
</tr>
<tr>
<td>Angina</td>
<td>2</td>
</tr>
<tr>
<td>Cellulitis</td>
<td>3</td>
</tr>
<tr>
<td>ENT infections</td>
<td>4</td>
</tr>
<tr>
<td>Dental conditions</td>
<td>5</td>
</tr>
</tbody>
</table>

Source: Northland District Health Board 2008

As shown in Table 6, the leading causes of avoidable mortality were: ischaemic heart disease, cancers (lung, breast, colorectal), suicide and self-inflicted injuries, unintentional injuries (road traffic, other transport), stroke (cerebrovascular disease) and diabetes.
## Table 6  Leading causes of avoidable mortality, males and females, 0–74 years, 2003–05

<table>
<thead>
<tr>
<th>Causes</th>
<th>Rank</th>
<th>Causes</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Female</strong></td>
<td></td>
<td><strong>Northland DHB</strong></td>
<td></td>
</tr>
<tr>
<td>Neoplasms - Breast</td>
<td>1</td>
<td>Neoplasms - Lung</td>
<td>1</td>
</tr>
<tr>
<td>Cardiovascular diseases - Ischaemic heart disease</td>
<td>2</td>
<td>Cardiovascular diseases - Ischaemic heart disease</td>
<td>2</td>
</tr>
<tr>
<td>Neoplasms - Lung</td>
<td>3</td>
<td>Neoplasms - Breast</td>
<td>3</td>
</tr>
<tr>
<td>Neoplasms - Colorectal</td>
<td>4</td>
<td>Cardiovascular diseases</td>
<td>4</td>
</tr>
<tr>
<td>Cardiovascular diseases</td>
<td>5</td>
<td>Cerebrovascular diseases</td>
<td>5</td>
</tr>
<tr>
<td>Cerebrovascular diseases</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Male</strong></td>
<td></td>
<td><strong>Northland DHB</strong></td>
<td></td>
</tr>
<tr>
<td>Cardiovascular diseases - Ischaemic heart disease</td>
<td>1</td>
<td>Cardiovascular diseases - Ischaemic heart disease</td>
<td>1</td>
</tr>
<tr>
<td>Neoplasms - Lung</td>
<td>2</td>
<td>Unintentional injuries - Road traffic injuries, other transport injuries</td>
<td>2</td>
</tr>
<tr>
<td>Intentional injuries - Suicide and self-inflicted injuries</td>
<td>3</td>
<td>Intentional injuries - Suicide and self-inflicted injuries</td>
<td>3</td>
</tr>
<tr>
<td>Unintentional injuries - Road traffic injuries, other transport injuries</td>
<td>4</td>
<td>Neoplasms - Lung</td>
<td>4</td>
</tr>
<tr>
<td>Neoplasms - Colorectal</td>
<td>5</td>
<td>Nutritional, endocrine and metabolic - Diabetes</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>Northland DHB</strong></td>
<td></td>
</tr>
<tr>
<td>Cardiovascular diseases - Ischaemic heart disease</td>
<td>1</td>
<td>Cardiovascular diseases - Ischaemic heart disease</td>
<td>1</td>
</tr>
<tr>
<td>Neoplasms - Lung</td>
<td>2</td>
<td>Neoplasms - Lung</td>
<td>2</td>
</tr>
<tr>
<td>Intentional injuries - Suicide and self-inflicted injuries</td>
<td>3</td>
<td>Unintentional injuries - Road traffic injuries, other transport injuries</td>
<td>3</td>
</tr>
<tr>
<td>Neoplasms - Colorectal</td>
<td>4</td>
<td>Intentional injuries - Suicide and self-inflicted injuries</td>
<td>4</td>
</tr>
<tr>
<td>Unintentional injuries - Road traffic injuries, other transport injuries</td>
<td>5</td>
<td>Cardiovascular diseases</td>
<td>5</td>
</tr>
<tr>
<td>Cerebrovascular diseases</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Note: Neoplasms = cancer).
Source: Northland District Health Board 2008

### Children and Infants

- Compared with the national rates, Northland DHB had significantly higher rates of infant mortality and child asthma hospitalisation.
- Northland DHB had similar leading causes of hospitalisations to New Zealand as a whole – for children 0–4 years: respiratory infections, ear, nose and throat infections, disorders related to length of gestation and foetal growth, dental conditions; and for children 5–14 years: dental conditions, ENT (ear, nose and throat) infections, respiratory infections, falls, chronic diseases of tonsils and adenoids.
- Year 8 students in Northland DHB had a higher proportion of decayed, missing or filled teeth than New Zealand as a whole.
- In 2007, 66.2% of Northland children at the age of two years were up to date with their immunisations, compared with 71.2% of 2 years olds in New Zealand. In Northland, Asian children had the highest coverage rates, and Maori children had the lowest.
Mental Health and Suicide

- In Northland DHB, about 6% of males and 8% of females had a high or very high probability of having an anxiety or depressive disorder. Maori and Pacific people had significantly higher rates than the total population of Northland DHB.
- The suicide rate in Northland DHB was significantly higher than the national rate.
- In New Zealand, males have higher rates of suicides, particularly young males between 15-24 years of age.
- New Zealand has the highest rates of suicide in the OECD for youth aged 15-19 years (OECD, 2009).

Maori

- Avoidable mortality and hospitalisation rates were higher among Maori and Pacific people than European/Other people in Northland DHB.
- The rate for infectious disease mortality for Maori was over three times the rate for European/Other people.
- In Northland DHB Maori had a significantly higher rate of ischaemic heart disease and diabetes hospitalisations than the national Maori rate.
- The lung cancer registration rate for Maori in Northland DHB was almost three times the rate for the total Northland DHB population.

Older People

- Northland DHB had four of the same leading causes of hospitalisations for older people as New Zealand as a whole. These included ischaemic heart disease, chronic obstructive pulmonary disease, skin cancer, and falls.
- The leading causes of mortality for older people in Northland DHB were the same as those nationally: ischaemic heart disease, stroke, chronic obstructive pulmonary disease, diabetes, and lung cancer.
- Chronic conditions and disabilities occur at a younger age in Maori compared with non-Maori.

The Health of Older People Strategic Action Plan\(^1\) has drawn the following conclusions from data in The Older People’s Health Chart Book:

In general, compared with the 50-64 years age-group, people aged 65+ years have:

- higher prevalence of chronic conditions
- higher mortality from most causes, including chronic conditions, cancer and unintentional injury
- a greater number of cancer registrations (exceptions: breast cancer, cervical cancer)
- higher prevalence of disability
- higher prevalence of unintentional injury (especially motor vehicle accidents and falls)
- higher rates of hospitalisations (exception: intentional self-harm)
- higher usage of primary health services (exceptions: dentist or dental therapist, and alternative health practitioner)
- poorer self-reported health status

Maori had disadvantaged health status in a range of health indicators compared to their non-Maori counterparts.

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\(^1\) Health of the Older People Strategic Action Plan, September 2008, NDHB
The 2001 Household Disability Survey showed that the prevalence of disability among people living in households was markedly higher in older age groups than in those aged 45–64 years, and with increasing age, the rates were higher. As people got older, the prevalence of hearing, vision and memory disabilities increased markedly in both males and females.

**Health Service Utilisation**

Survey results showed that those aged 65+ years were significantly more likely to report that they had seen a GP in the last 12 months than people aged 50–64 years. Getting a routine check-up or health advice was the most common reason for their visit. Visits to specialists, community nurses and opticians/optometrist is generally higher for those in the 65+ age group. In contrast, visits to alternative health practitioners and dentists/dental therapists are generally lower for this group.

**Residential Care**

The following are the results from the 2002/03 New Zealand Health Survey, where people in residential care were surveyed from hospitals, IHC and rest homes.

- Of the people aged 65+ years in residential care, two-thirds were females (67.3%) and one-third were males (32.7%).
- Of the total population of older people in residential care, 14% were aged 65–74 years, 35% were aged 75–84 years, 43% were aged 85–94 years and 8% were aged 95+ years.
- The overwhelming majority of these older people were European/Other (96.4%). Other ethnic groups included Maori (2.7%), Pacific peoples (0.4%) and Asian peoples (0.4%).

Table 7 shows the distribution of the different age groups of older people across the different categories of care surveyed. Those aged over 85 years made up the highest proportions in hospitals and rest homes.

**Table 7 Distribution of older people (65+) in residential care, 2002/2003**

<table>
<thead>
<tr>
<th>Age (Years)</th>
<th>Hospitals</th>
<th>IHC</th>
<th>Rest Homes</th>
<th>Dependent persons</th>
</tr>
</thead>
<tbody>
<tr>
<td>65-74</td>
<td>5.6%</td>
<td>2.2%</td>
<td>4.9%</td>
<td>1.8%</td>
</tr>
<tr>
<td>75-84</td>
<td>18.3%</td>
<td>0.4%</td>
<td>15.6%</td>
<td>0.6%</td>
</tr>
<tr>
<td>85+</td>
<td>23.6%</td>
<td>0.1%</td>
<td>26.0%</td>
<td>0.6%</td>
</tr>
</tbody>
</table>

Source: 2002/03 New Zealand Health Survey
4. Existing infrastructure and Services

Northland District Health Board

Whangarei Hospital

Whangarei Hospital is Northland DHB’s main hospital. It is a secondary hospital providing specialist care to all of Northland. The hospital has 223 inpatient beds and 23 renal dialysis stations.

Services include:

- Surgical
- Seven Operating Theatres
- Intensive Care Unit and High Dependency Unit
- 24 hour Emergency Department
- Paediatrics - Paediatric Ward, Special Care Baby Unit and Intensive Care Unit
- Medical and Disability Support - two Medical Wards including Dialysis and Coronary Care
- Mental Health and Clinical Support - including 31 bed Inpatient Ward
- Maternal and Child Health - including Child Health Centre
- Maori Health Service
- Community Health Services - Dental, Primary Care Nursing, Allied Health and Public Health Services
- Radiology - Full Radiology Services (with the exception of Nuclear Medicine)
- Clinical Support Services - Pharmacy, Physiotherapy, Pathology, Occupational Therapy, Speech Therapy, Radiology, Social Work, Dietetics and Occupational Health

Training and Recruitment of Staff

In 2008 the ‘Pukawakawa-Northland Regional-Rural Medical Programme’ commenced. This is a partnership programme between the Northland District Health Board and the University of Auckland. Each year 20 fifth year medical students spend a year training in Northland, based primarily at Whangarei Hospital, but also spending seven weeks each at Kaitaia, Rawene and Dargaville hospitals, and with general practitioners in those areas. It is hoped that this experience will encourage students to return to Northland after completing their training. The University of Auckland’s Faculty of Medical and Health Sciences also runs a post-graduate nursing programme for Northland-based nurses.

The Northland District Health Board also liaises with North Tec, which offers the following programmes: Bachelor of Nursing (Registered Comprehensive Nurse), Certificate of Nursing (Nurse Assistant) and Certificate of Registered Nurse Competence (Return to Nursing Course). The students spend time at Whangarei Hospital gaining practical experience, and most are employed by the hospital upon graduation. North Tec also trains social workers, alcohol and drug counsellors and community support workers (NDHB, 2009).

The Northland District Health Board is also involved with the midwifery programme at the Auckland University of Technology (AUT). There is now a direct-entry midwifery programme for Northland students, as well as a midwifery programme for Registered Nurses. A small number of students work at Whangarei Hospital as part of their clinical training.

Whangarei Hospital is accredited to employ House Officers and Medical Registrars. Northland DHB continues to compete on a national and international basis for healthcare professionals across all disciplines.

The NDHB supports the Whakapiki Ake Programme, a Ministry of Health initiative for senior Maori school students with an interest in pursuing a health career at university. It is operated as a partnership scheme between the University of Auckland and selected secondary schools (including six Northland schools).

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6 District Annual Plan 2009/10
The Northland DHB is also part of a pilot scheme run by NZ Immigration, called ‘Business 2 Business’. This enables NDHB to administer work permits within days (instead of weeks) for suitable applicants already in New Zealand. Northland DHB continues to work with other district health boards in collaborative international recruitment campaigns, to target areas of recognised skills shortage (NDHB, 2009).

Public Health Services

In the Northland DHB region our public health services are mainly provided by the Public Health Unit and Health Promotion Unit, although local primary health organisations and other NGOs also provide some public health services. Services include: oral health, children and school health, sexual health, home health care, community nursing, cancer screening, smoking control, drinking water and other health protection services (NDHB, 2008).

Manaia Health Primary Health Organisation

Primary health care is the professional health care provided in the community and includes a broad range of health and preventative services, such as health education, counselling, disease prevention and screening.

Manaia Health is the Primary Health Organisation (PHO) operating within the Whangarei District and is funded by the Northland District Health Board. PHOs bring together doctors, nurses and other health professionals (e.g. Maori health workers, health promotion workers, dieticians, pharmacists, physiotherapists, psychologists and midwives) in the community to provide primary health care for their enrolled populations. Manaia Health also works closely with a number of other social services and agencies (e.g. Iwi, sport, housing, education, Whangarei District Council). First level primary healthcare is being provided by 19 General Practices and 2 Maori Health Organisations (Manaia Health, 2009).

Manaia Health also provides resources and expertise for providers. Clinical services are provided in the following areas: mental health, diabetes, immunisation, dieticians, youth health, and the Careplus programme. While many of the services provided by Manaia Health are directed towards individuals and illness, they also target issues that impact on the wellness of specific groups and communities within the enrolled population (which is currently about 80,000) (Manaia Health, 2009). Nearly all adults (97%) in the Northland District Health Board are enrolled with a PHO (NDHB, 2008).

Access to Health Services

Northland Health provides a free bus service on weekdays to transport patients (outpatients and inpatients) between Kaitaia Hospital and Whangarei Hospital, with many collection points between the hospitals.

Manaia Health has recognised the difficulty for some residents in the isolated community of Whangaruru to access health services. As part of its commitment to reduce the barriers for those with highest needs, regular transport is provided to bring Whangaruru residents to Whangarei for medical care. In addition, Manaia Health’s ‘Adolescent Health Services in Secondary Schools Project’ provides health services and education for high school students. Most secondary schools in the Whangarei District, including Alternative Education Groups/Teen Parent School, are involved with this project (Manaia Health, 2010).

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2 NDHB annual report
Health Professionals in the Northland District

The table below shows the number of health professionals with an annual practising certificate who were working in the Northland District in 2006/2007 (based on a workforce survey).

Table 8  Number and FTEs for selected health professional workforce groups, by year

<table>
<thead>
<tr>
<th>Year</th>
<th>Group</th>
<th>Unit</th>
<th>Northland DHB</th>
<th>New Zealand</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Number / FTE</td>
<td>Number / FTE per 10,000 population</td>
<td>Number / FTE per 10,000 population</td>
</tr>
<tr>
<td>2006</td>
<td>GPs</td>
<td>Number FTE</td>
<td>121</td>
<td>3,106</td>
</tr>
<tr>
<td>2006</td>
<td>Medical specialists</td>
<td>Number FTE</td>
<td>80</td>
<td>3,175</td>
</tr>
<tr>
<td>2007</td>
<td>Nurses</td>
<td>Number FTE</td>
<td>1,558</td>
<td>41,811</td>
</tr>
<tr>
<td>2007</td>
<td>Midwives</td>
<td>Number FTE</td>
<td>92</td>
<td>2,511</td>
</tr>
<tr>
<td>2007</td>
<td>Medical laboratory technologists</td>
<td>Number FTE</td>
<td>171</td>
<td>7,902</td>
</tr>
<tr>
<td>2007</td>
<td>Medical laboratory scientists</td>
<td>Number FTE</td>
<td>237</td>
<td>5,943</td>
</tr>
<tr>
<td>2007</td>
<td>Medical radiation technologists</td>
<td>Number FTE</td>
<td>51</td>
<td>1,155</td>
</tr>
<tr>
<td>2006</td>
<td>Psychiatrists</td>
<td>Number FTE</td>
<td>15</td>
<td>589</td>
</tr>
<tr>
<td>2007</td>
<td>Mental health nurses</td>
<td>Number FTE</td>
<td>118</td>
<td>3,906</td>
</tr>
<tr>
<td>2007</td>
<td>Psychologists</td>
<td>Number FTE</td>
<td>16</td>
<td>625</td>
</tr>
<tr>
<td>2006</td>
<td>Dentists</td>
<td>Number FTE</td>
<td>50</td>
<td>1,575</td>
</tr>
</tbody>
</table>

Source: Adapted from NDHB Health Needs Assessment 2008

General Practitioners

The Health and Disability Services Act 1993 sets out a minimum doctor to population ratio of 1:1400 (FTE per local population), and this ratio continues to be used by the Medical Council of New Zealand. This equates to 71.4 GPs per 100,000 people. However an ideal ratio of doctors per population for New Zealand conditions has not been formally established and a number of other factors should be taken into consideration, e.g an aging population, geographical variances and patient demographics (Fretter and Pande, 2008). With an aging population this ratio is unlikely to be adequate as older people use GP services more often than younger people and are more likely to have multiple conditions requiring more complex consultations. Though it is predicted that future generations of older people will have better health and lower rates of severe disability, it is unlikely that this will be sufficient to offset pressure on services from an increasing number of older people (NZMA, 2008).
New Zealand however does not compare well with other OECD countries in terms of numbers of General Practitioners per 100,000 people. In 2004, out of 29 OECD countries, only 5 countries had fewer GPs per 1000 population than New Zealand. In the last few years the number of GPs per 100,000 people had consistently been in the low 70s, whereas in 2001 the number was 83. Cities and towns generally continue to outdo rural areas in terms of doctors to population ratios (NZMA, 2008). In 2008, the Whangarei District had 73 FTE General Practitioners, which is the equivalent of 93 GPs per 100,000 people. This is considerably higher than the average for New Zealand, which is 76 GPs per 100,000 people (NZ Medical Council, 2008).

The GP workforce in New Zealand is slowly increasing; however the rate of increase is unlikely to keep up with the population increase. Another issue is that the GP workforce continues to age. There is a growing proportion of GPs nearing retirement age while the number of younger doctors entering general practice is not increasing at levels to offset this. There also continues to be significant shortages of doctors from Maori, Pacific and other ethnic groups compared with the general population (NZMA, 2008).

Please refer to Appendix One for a map showing the location of General Practitioners in the Whangarei District.

**Hospital Providers**

Below is a list of current hospital providers in the district.

| Table 9 Certified hospital providers located in the Whangarei District, as at June 2008 |
|---------------------------------|----------------------------------|
| **Provider name**              | **Premise name**                 |
| Charleston Residential Limited | Pururi Court Rest Home and Hospital |
| North Haven Hospice Society Incorporated | North Haven Hospice |
| Northland District Health Board | Whangarei Hospital |
| Primecare Services Limited     | Kensington Hospital              |
| Radius Residential Care Limited| Lester Heights Hospital          |
|                                | Oakhaven Hospital                |
|                                | Potter Home                      |
| The Selwyn Foundation          | Selwyn Park                      |
| The Ultimate Care Group Limited| Ranburn Rest Home & Hospital     |
| Ryman Healthcare Limited       | Jane Mander Retirement Village   |

Source: Adapted from NDHB Health Needs Assessment, 2008

**Mental Health services**

In March 2008 the total number of mental health workers (FTEs) for the Northland District Health Board was 137. This was 102% of the number of service level agreement FTEs. There were 22 NGOs contracted by the Northland District Health Board to provide mental health services.

**Complementary Services**

In the Northland DHB district, there are about 18 registered osteopathy practitioners and 14 registered chiropractic practitioners. There are also other types of complementary health practitioners who provide their services in the district, such as acupuncturists, medical herbalists, homeopaths and naturopaths.
Emergency Services

The main St John ambulance station is based in Whangarei, and a smaller station is located at Bream Bay. Another small station is due to be built on the Tutukaka Coast in 2010. There are currently 23 (FTE) ambulance officers employed at the Whangarei ambulance station and Bream Bay station employs 2 (FTE) ambulance officers. In addition there are 12 volunteer ambulance officers based in Whangarei, 16 at Bream Bay, and 6 at the Tutukaka Coast.

In addition to emergency ambulance services, St John also provides the following services:

- patient transport for arranged hospital admissions and outpatient appointments
- patient transfers between hospitals or from hospital to home
- provision of first aid and emergency care at community events
- monitoring of personal medical alarms
- first aid training (which are also provided by the New Zealand Red Cross)
- daily contact by phone for those who live alone or have medical condition (Caring Caller service)
- provision of education programmes in schools (St. John Safe Kids Programme)

St John also provides 2 (FTE) advanced paramedics to crew the rescue helicopters 24 hours/day. The Northland Emergency Services Trust (NEST) owns and operates the helicopters, which are dispatched via the St John communication centre.

Laboratories

Several laboratories across New Zealand provide diagnostic services for the people of the Northland DHB district, but the three main providers are: Northland DHB, Northland Pathology Laboratory Ltd and Auckland DHB.

Diagnostic Radiology Services

The registered providers of diagnostic/screening radiology services in the Whangarei District are: Kensington Hospital, Northern Radiology, Whangarei Hospital and Scan Med Ltd (ultrasounds). Some of these providers operate from various sites.

Family Planning

The Whangarei Family Planning Clinic offers a variety of services relating to sexual and reproductive health. Most of the services are free to people who are 21 years or younger.
5. Improvement of Current Health Status

Manaia Health

Manaia Health works closely with a number of social services and other agencies (e.g. Iwi, sport, housing, education, Whangarei District Council) to improve the overall health and wellbeing of our population. Health promotion initiatives include: Green Prescription (written physical activity advice and support), Northland Active Communities Project – Stepping Out (known as '10,000 Steps Northland'), Tai Tokerau Healthy Housing project, Gambling Action Group (GAG), and the Whangarei Child Poverty Action Group.

In addition, Manaia Health is involved with Community Hub Projects, which aim to establish community action groups in rural communities of Northland, and the Healthy Hikurangi Community Action Programme, which focuses on heart disease and diabetes. It is also responsible for the B4School Checks (B4SC) Programme. This is part of a public health strategy which aims to improve the health of all New Zealanders and reduce inequalities in health. All four year olds are offered a comprehensive health check by a Registered Nurse, who refers any concerns on to the appropriate service for further assessment (Manaia Health, 2009).

Northland District Health Board

The vision of Northland DHB’s Tai Tokerau Strategic Public Health Plan 2008-2011 is to create a healthier Northland. The goals are to improve the overall health status of all Northlanders, and to reduce inequalities in health between: Tai Tokerau Maori and other Northlanders, disadvantaged groups in Northland and other Northlanders, and Northland and the rest of New Zealand. (NDHB, 2009)


• Te Tai Tokerau Maori Health Strategic Plan 2008-2013
• Health of Older People Strategy

Te Tai Tokerau Maori Health Strategic Plan 2008-2013 seeks to address the underlying social and economic determinants of Maori health (poverty, employment, education, housing, natural environment and Maori leadership), in order to improve Maori health outcomes and reduce Maori health inequalities. Although all ages are included, there is a particular focus on the health of Maori children in our region (NDHB, 2008).

The aim of the Health of Older People Strategy is for older people to achieve equitable access to quality primary, secondary and community services, which are responsive to the changing needs of all older people, their family, carers and whanau across Northland (NDHB, 2008).

The Northland DHB has 6 health targets for the 2009/2010 year.

The following three targets focus on hospital performance:

• shorter stays in Emergency Departments
• improved access to elective surgery
• shorter waits for cancer treatment (radiotherapy)

The other three targets focus on preventive measures:

• increased immunisation
• better help for smokers to quit
• better diabetes and cardiovascular services

(Northland Health, 2010)
Northland Intersectoral Forum

Northland Intersectoral Forum (NIF) is a collaborative group made up of regional leaders from central and local government agencies. NIF seeks to reduce inequality by addressing the underlying causes and removing barriers to full community participation. By working together at a regional level, NIF members collaboratively support social and economic development in communities. Improving outcomes and living standards for individuals and families will contribute to the overall well-being of the community (NDHB, 2009).

Air Quality

To improve air quality the road network needs to be designed to reduce congestion, particularly in the central business district. Whangarei District Council plans to build a new harbour crossing link to Pohe Island, as part of a programme to improve traffic flows in the Whangarei CBD. There are also a number of other projects planned around the Whangarei CBD area to address congestion issues and improve traffic flow and safety.

However, for the long-term health of the population, the Council should focus on the promotion of measures that decrease reliability on cars. Suggested measures are outlined in the ‘Promotion of Physical Exercise’ section below.

In addition, to prevent adverse effects on human health, coordinated planning is required to ensure the appropriate location of industrial activities.

In order to improve air quality, all new wood burners in urban areas (on properties <2 ha) now have to meet the national emission standards. Building permits issued by the Whangarei District Council ensures compliance with this regulation.

Water Quality and Supply (Drinking Water)

One of the purposes of the WDC Water Supply Bylaw 2005 is to protect public health and the security of the public water supply. Our catchments for water supply dams are classified as Restricted Catchments, which means that no person can enter the catchment to undertake any of the stated activities unless they have written permission from the Whangarei District Council.

In addition, the National Environmental Standard for Sources of Human Drinking Water requires regional councils to consider the effects of activities on drinking water sources in their decision making. The purpose of this is to reduce the risk of contaminating drinking water sources such as rivers and groundwater.

In recent years Whangarei District Council has been working to increase the quality of water delivered to customers as well as increasing the security of water supply to all properties. An increasing population will put pressure on resources therefore it is the responsibility of Council to continue planning ahead to ensure it can meet the long term drinking water needs of the district. An upgrade of the Whau Valley Water Treatment Plant is planned for year six (2014-15) of the LTCCP11, and a new water source for Whangarei in years nine and ten of the LTCCP (2017-19).

The Drinking Water Assistance Programme (DWAP) is a ten year Ministry of Health-sponsored initiative designed to improve the quality of drinking water in small, rural communities. Assistance is provided to small drinking water suppliers to provide safe drinking water. The programme aims to help reduce inequalities in health between communities. The key agency involved with this programme is the Northland District Health Board.

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11 Long Term Council Community Plan 2009-2019
Wastewater, Stormwater and Solid Waste Disposal

Whangarei District Council has made a commitment to upgrade the district’s sewerage system and take measures to mitigate stormwater infiltration into sewer pipes. The increased expenditure ($13.8 million) is expected to reduce the risk of sewage spills from any point in the Council’s sewerage system during a storm event to one every five years.

The Northland Regional Council is currently working on a flood risk reduction plan to avoid further flooding problems (and associated sewage spills) in the CBD during major storm events.

Treatment of stormwater prior to discharge is also recommended to protect the health of the receiving environment, as well as recreational users and shellfish gatherers. A local environmental education initiative, the Drains to Harbour (DTH) programme, is run by ‘Experiencing Marine Reserves’ and supported by the Whangarei District Council. Following educational sessions with school children, ‘Drains to Harbour’ is stencilled next to stormwater drains to act as a visual reminder to the community that what we put down our drains eventually ends up in our harbour.

Currently our solid waste is transferred by road to Redvale Landfill in Auckland. Whangarei District Council has established a joint venture with a private operator to develop a regional landfill at Puwera (south of Whangarei) and to operate the current Re:Sort Resource Recovery Park (recycling, recovery of green waste, storage for hazardous wastes and waste disposal). This will commence operation in 2010.

Nutrition

Strategic planning is important to ensure our most fertile land remains available for horticulture, intensive cropping and orchards. In addition, campaigns encouraging people to buy local produce to support the local economy and reduce dependency on transported produce should be promoted. Local growers markets should continue to be supported, along with community ‘healthy eating’ campaigns (e.g. ‘Healthy Eating Healthy Action’ – an inter-sectoral and community strategy to improve nutrition, increase physical activity and reduce obesity).

Promotion of Physical Exercise

The Whangarei District Council currently has more than 600 parks, including 70 sports fields, 33 playgrounds, 33 scenic bush reserves and 21 tracks and walkways. The provision of a network of green open spaces in new urban developments is important to help promote an active lifestyle. A variety of parks/reserves are required to meet the different recreation needs of the local residents. In addition, the provision of recreational facilities (e.g. gymnasiums, swimming pools) which are affordable and easily accessible for the whole community, including those on lower incomes, will also contribute to improving overall fitness levels.

The promotion of measures that decrease reliability on cars is important for the health of our community – both in terms of air quality and for encouraging physical activity. Measures could include:

- An extensive network of safe walking and cycle tracks. A range of different levels will be required in the future, e.g. tracks suitable for pushchairs/wheelchairs/mobility scooters and close to residential areas or accessible by public transport, to more challenging tracks located further away. Rest areas, with seating, would need to be provided. In the LTCCP the council has committed to funding new footpaths and cycle tracks as part of the implementation of the Walking & Cycling Strategy. It also supports a coastal cycleway.

- Promoting alternative modes of transport to work/activities – e.g. walking, running, cycling, carpooling, and public transport (Even walking to the bus stop/meeting point contributes to daily exercise).

- Assessing the feasibility of ‘park and ride’ facilities in highly populated areas, e.g. from Ruakaka to Whangarei, if the population at Ruakaka/Marsden Point grows as projected.

- Supporting community fitness campaigns (e.g. ‘Healthy Eating Healthy Action’).
Smoking and Alcohol

Under the Sale of Liquor Act 1989, as the district’s liquor licensing agency, the Whangarei District Council has the responsibility to promote a reasonable system of control over the sale of liquor to the public. In doing this the Council aims to contribute to the reduction of alcohol abuse, and the associated social and economic costs to the community. A major review of Council’s liquor licensing policy is currently being undertaken to re-examine the rules relating to the sale of liquor in Whangarei.

The Liquor Management Bylaw 2008 restricts the consumption, bringing and possession of liquor within specified areas of the district of Whangarei, between stipulated hours and dates. This was introduced to help combat the binge drinking problem in our district and to provide a safer environment for the local community.

Community health campaigns (e.g. quitting smoking, discouraging smoking around children, sober drivers) should be promoted.

UV protection

The provision of shade in open areas is important to help prevent skin cancer. Most of our local schools and pre-schools provide shade areas/shade sails during the summer months to protect our children.

However out of 34 Whangarei District Council playgrounds, only 5 have shade sails. These are: Town Basin destination playground, Laurie Hall Reserve playground, Kensington Sports Park playground, Sherwood Reserve playground (Onerahi) and Ngunguru community playground.

The provision of sun protection measures should be considered for all council playgrounds, and also in other open areas where seating/rest areas are provided. Where possible, the natural shade from existing trees should be utilised.

Housing

As the population ages, the needs of the community will change. Private sector rental costs may be too high for some, resulting in an increased demand for affordable and appropriate housing. This includes low maintenance homes/units on smaller sections that are energy efficient and close to services (e.g. doctors, pharmacies, supermarkets and public transport). Infill housing may be an option, as existing infrastructure may need little expansion for utility and other services. In addition, infill residential development could help protect natural areas and our most fertile land from being developed.

Whangarei District Council currently owns 165 pensioner units, located at 16 separate sites throughout the district. They are close to all amenities and are managed by the Northland District Masonic Trust. With our aging population there will be more demand for pensioner units, retirement villages and rest homes in the future. The Council will need to liaise with the Positive Aging Advisory Group to remain aware of changing needs, as well as the Ministry of Housing and other relevant agencies. The housing needs of families, disabled, unemployed and disadvantaged people will also need to be considered.

Papakainga is a form of housing development that occurs on multiple-owned Maori or ancestral land. The increasing cost of living has already resulted in some Maori moving out of urban areas and returning to their ancestral land. Currently there are no rules in the District Plan relating to this type of housing, however a new policy is currently being developed by the Council to provide special provisions for Papakainga housing developments.

The Tai Tokerau Healthy Housing Project, which is jointly funded by several agencies, intends to insulate 800 Northland homes in the first year and 4000 homes over the next five years, with the aim of improving the health of the residents. Priority will be given to low-income families with high health needs, who own their own home (Manaia Health, 2009).
6. Future Infrastructure and Services

Whangarei Hospital

The Northland District Health Board (NDHB) has undertaken extensive modelling work to plan for the future use and development of the Whangarei Hospital campus. With the projected population growth and demographic changes the Board is planning ahead to ensure the appropriate services will be in place to cope with changing demands. The planning undertaken by the NDHB is for a 20 year period, and as the Whangarei Hospital campus will be expanded and remodelled, a new hospital will not be required.

The number of people in the 65+ age group is expected to increase significantly over the next 20 years, with the fastest rate of increase being in the 85+ age group. The number of 0-14 year olds, and to a lesser extent, the number of 15-44 year olds is projected to decrease. Our aging population will place additional demands on our health care services (NDHB, 2008).

The follow table shows the projections made by the Northland District Health Board for future patient volumes at Whangarei Hospital.

Table 10 Actual and projected numbers of patients using Whangarei Hospital

<table>
<thead>
<tr>
<th>Whangarei Hospital Patient Volumes</th>
<th>ACTUAL 2007</th>
<th>PROJECTED 2016</th>
<th>PROJECTED 2026</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inpatient discharges</td>
<td>18,516</td>
<td>21,306</td>
<td>24,048</td>
</tr>
<tr>
<td>Operating theatre sessions</td>
<td>2,901</td>
<td>3,621</td>
<td>4,626</td>
</tr>
<tr>
<td>Outpatient attendances</td>
<td>60,275</td>
<td>68,008</td>
<td>71,590</td>
</tr>
<tr>
<td>Emergency department presentations</td>
<td>28,501</td>
<td>42,416</td>
<td>65,707</td>
</tr>
</tbody>
</table>

Source: Northland District Health Board

It is anticipated that over the next 20 years around ninety more beds will be required at the Whangarei Hospital Campus to accommodate demographic growth. It is projected that the biggest demand will be in the medical, surgical and AT&R (Assessment, Treatment and Rehabilitation) services. Provisional plans have been made to allow for up to three floors of wards, with each floor accommodating three wards, to be built above the proposed new theatre block, when required.

Additional operating theatre sessions, recovery bays and day stay beds will be required to meet the increasing surgical demands. Further modelling work is required, but at this stage it is expected that an extra 3-4 theatres will be required over the next 20 years. A new theatre block is planned as part of the hospital’s redevelopment, however this is still subject to approval.

Stage 1 of the redevelopment has been approved. This involves the construction of a new Mental Health Inpatient Unit within the current hospital site, which should be completed by the end of 2011.
In 2006/07 there were around 28,500 attendances at the Whangarei Hospital Emergency Department (ED). ED attendances increased by nearly 5% per annum during the period 2004-2007, with the greatest growth being in Triage 5 patients. (Triage 5 means treatment is the least urgent, compared with Triage 1 which requires the most urgent treatment). The Emergency Department, Radiology and other diagnostic services will need to be expanded to cope with the projected increase in population. Stage 2 of the hospital’s redevelopment plans includes new Emergency and Radiology Departments, as well as new Maternity, Paediatric and Special Care Baby Unit. This new three-storey building will be located on the current hospital site and is also subject to approval.

In 2007 there were approximately 60,000 outpatient attendances linked directly to the Whangarei Hospital site. Around 63% of these were surgical consultations and 21% were medical. It is projected that an extra outpatient room would be required for each additional 1,500 to 2,000 outpatient attendances, however further modelling is required. Stage 3 of the proposed redevelopment includes a new Outpatients Department, Laboratory, Pharmacy and Audiology Department (NDHB, 200812).

The Site Master Plan for the Whangarei Hospital redevelopment was been adopted by Northland DHB in 2009. The plan was developed over a 12-month period and included extensive consultation with all stakeholders. The process has included:

- volume modelling and analysis
- models of care
- analysis of existing facilities

These streams have come together in the development of a number of options ranging from ”do nothing” up to “green fields”. The adopted option, while not the cheapest, allows progressive rebuilding on the existing site while minimising disruption to the continued operation of the campus.

With an estimated total cost of $180m the adopted Site Master Plan comprises 8 separate and discrete stages:

- Stage 1 Mental Health Inpatient Unit, Kitchen, enabling works
- Stage 2 ED, AAU, Imaging, Maternity, Paeds, Delivery, SCBU
- Stage 3 Outpatients, Laboratory, Pharmacy, Audiology
- Stage 4 Theatres, Intensive Care, Ward Block
- Stage 5 Fitout of former Medical Block
- Stage 6 Ambulatory Care Centre
- Stage 7 New front of house and demolition
- Stage 8 Multilevel carpark

The Site Master Plan (Figure 10) allows flexibility in the progressive rebuild of the hospital. For example the new Theatres in Stage 4 could, if required, be built prior to Stage 3. A business case for Stage 1 of the Site Master Plan was prepared and submitted for approval (NDHB, 2009).

12 Whangarei Hospital Site Master Plan 2008
Figure 10  Whangarei Hospital Concept Masterplan
SOURCE: Northland District Health Board, 2009
**Integrated Family Health Centres**

The Government is currently working with District Health Boards to promote the establishment of Integrated Family Health Centres. These centres would provide services from a range of health professionals, including General Practitioners (plus GPs with special interests), Primary Care Nurses, Visiting Specialists, Midwives, Pharmacists, Podiatrists, Oral Health professionals etc. Clinics run by Nurse Practitioners are another possibility, particularly as the number of chronic conditions increases with the aging population. Additional services may be provided such as small laboratory facilities, radiology, day-stay surgery, counselling and budgetary advice (Ryall, 2009).

The aim of these centres is to provide comprehensive primary care in one location. Consultations could be co-ordinated in order to reduce the number of visits required, which could be particularly beneficial for elderly and disabled patients. Integrated planning between health and emergency service providers, and local authorities, would be necessary to ensure the clinics were located in easily accessible areas e.g. on main roads and public transport routes (Ryall, 2009).

The Integrated Family Health Centres would be able to provide more diagnostic and outpatient services currently carried out in the hospital. This could help take the pressure off the hospital system, and shift the focus to health promotion and prevention of disease. The Government does not intend provide funding for building the Integrated Family Health Centres, therefore private providers will be required to raise funds themselves. However, the Government will consider funding some eligible primary care providers where significant work is to be carried out (Ministry of Health, 2010).

It is projected that the population of the Whangarei District will be approximately 130,000 by 2061. Using the current ratio of 1 GP per 1400 people, the Whangarei District would need at least 93 FTE GPs, which is an additional 20 FTE GPs. However, given the additional medical care required by an aging population this estimate is probably too conservative and the actual number needed would be significantly higher. Also, an increase in the Maori population is likely to create a greater demand for Maori Health Providers.

It is recommended that the Whangarei District Council liaise with the Northland District Health Board and Manaia Health on a regular basis to enable a co-ordinated approach to future health planning.

**Minor Surgery Initiative**

This NDHB initiative involves a review of secondary service waiting lists to identify patients whose conditions can be treated in primary care facilities instead of the hospital. Patients are then referred to GPs who have previously been identified as skilled and available for providing the appropriate surgery. The aim is that patients will be seen more quickly, hospital waiting lists will be reduced, and hospitals can focus on treating patients requiring more complex and specialised procedures. The new service will be provided free to the referred patients and the GPs providing treatment will be reimbursed (NDHB, 2009)\(^1\).

**Primary Options Programme**

This new programme is currently being set up, with the aim of meeting one of NDHB’s targets of reducing the number of avoidable hospital admissions. The programme is designed to enable community-based treatment of some acute, short term conditions. Representatives from the primary and secondary health sectors will oversee the Primary Options Programme.

Initially, the following conditions will be the focus of the programme: cellulitis, deep vein thrombosis, dehydration, asthma and some forms of pneumonia. There are strict criteria for patients to be eligible for the programme, and guidelines for the GP to follow. GPs will then be able to invoice for the work completed, and there would be no cost to the patient.

---

\(^1\)District Annual Plan 2009/10
Services that can be funded include (Manaia PHO, 2010):
- GP or Nurse consultations
- Nurse observation
- IV therapy, - either antibiotics or fluid replacement
- Private X-ray or scan
- Rest home stay – short term
- Home support
- Equipment hire services
- Transport support

Residential Care

The table below shows the projected increase in demand for rest home and hospital beds for the elderly. The Far North is projected to have the most significant shortfall by 2016, but the Whangarei and Kaipara districts are also likely to be short of rest home and hospital beds in the future.

Table 11  Projected aged related residential care (ARRC) (rest home and hospital level) beds required to match the growth in the 85+ population, assuming status quo is maintained.

<table>
<thead>
<tr>
<th>District Council area</th>
<th>ARRC beds 2008</th>
<th>Projected ARRC beds</th>
<th>2011</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Additional% of 2008 beds</td>
<td>Total</td>
<td>Additional% of 2008 beds</td>
</tr>
<tr>
<td>Whangarei</td>
<td>632</td>
<td>659 27 4%</td>
<td>820</td>
<td>161 25%</td>
</tr>
<tr>
<td>Far North</td>
<td>234</td>
<td>315 81 35%</td>
<td>408</td>
<td>93 40%</td>
</tr>
<tr>
<td>Kaipara</td>
<td>109</td>
<td>128 19 17%</td>
<td>162</td>
<td>34 31%</td>
</tr>
<tr>
<td>Northland</td>
<td>975</td>
<td>1102 127 13%</td>
<td>1390</td>
<td>288 30%</td>
</tr>
</tbody>
</table>

Source: NDHB - Health of Older People Strategic Action Plan 2008-2013

Table 12 shows the projected increase in demand for beds for dementia patients in the future. A lack of dementia beds in the Far North is already putting pressure on dementia services in Whangarei. This in turn has resulted in some Whangarei District residents having to use dementia services in Auckland (NDHB, 2008\textsuperscript{14}).

Table 12  Projected dementia beds (as per modelling carried out by NDSA in 2006)

<table>
<thead>
<tr>
<th>District Council area</th>
<th>2006 (base)</th>
<th>2008 beds</th>
<th>Projected beds</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Actual beds</td>
<td>Projected Need</td>
<td>2011</td>
</tr>
<tr>
<td>Whangarei</td>
<td>44</td>
<td>48 47</td>
<td>51  60</td>
</tr>
<tr>
<td>Far North</td>
<td>27</td>
<td>21 30</td>
<td>33  40</td>
</tr>
<tr>
<td>Kaipara</td>
<td>10</td>
<td>11 11</td>
<td>12  14</td>
</tr>
<tr>
<td>Northland</td>
<td>81</td>
<td>81 87</td>
<td>96  114</td>
</tr>
</tbody>
</table>

Source: NDHB - Health of Older People Strategic Action Plan 2008-2013

By 2061 it is projected that nearly 30% of the Whangarei District’s population will be over 65 years old, and 5% of that group will be over 85 years of age. It is likely that the demand for rest home, hospital and dementia beds will increase substantially in the future, and planning for this situation is critical.

\textsuperscript{14} Health of Older People Strategic Action Plan 2008-2013
7. Education

Current Situation

For 2009/10 the Government has identified priority outcomes for which the Ministry of Education will focus its resources and funding. These include:

- Every child has the opportunity to participate in high quality early childhood education
- Every child achieves literacy and numeracy levels that enable their success
- Every young person has the skills and qualifications to contribute to their and New Zealand's future
- Relevant and efficient tertiary education provision that meets student and labour market needs
- Maori enjoying education success as Maori

(Ministry of Education, 2009)

The community outcomes in our Long Term Council Community Plan (2009-2019) relating to education, are:

- A range of quality community programmes engages our young people in a positive way.
- There is a supportive and responsive learning environment and young people are encouraged to participate.
- There are strong links between businesses, schools and training providers to ensure we have a skilled workforce to support our district’s various industries.
- Varied tertiary education opportunities are provided so that the young people of the district do not have to move away.

Early Childhood Education (ECE)

Research has shown that time spent in quality early childhood education (ECE) enhances future learning. The quality of ECE is affected by a number of factors, including: the interaction between ECE staff and children, the ratio of trained adults to children, the number of books and written material provided, and the level of qualifications of the teachers. Studies have shown that students who have received quality early childhood education have, on average, higher scores for literacy, numeracy, and logical problem-solving skills, and that the benefits of ECE continue through to secondary school years (Wylie & Hodgen, 2007).

The table below shows the percentage of children enrolled in early childhood education in the Northland Region in 2008, by age group. For the Whangarei District, the percentage of enrolments is higher than the national figures for the Under-1 year, 1 year and 2 year age groups. The percentages are lower than the national average for 3 year olds, but similar to the national figures for 4 year olds.

Table 13 Percentage of enrolments in licensed early childhood education services, by territorial authority and age (2008)

<table>
<thead>
<tr>
<th>Territorial Authority</th>
<th>Local Authority</th>
<th>Under 1</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Total 0 to 4 year-olds (age-standardised)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Far North District</td>
<td></td>
<td>15.2</td>
<td>42.8</td>
<td>56.9</td>
<td>86.3</td>
<td>77.8</td>
<td>1.1</td>
<td>54.8</td>
</tr>
<tr>
<td>Whangarei District</td>
<td></td>
<td>15.5</td>
<td>45.9</td>
<td>59.1</td>
<td>86.6</td>
<td>97.1</td>
<td>0.7</td>
<td>59.7</td>
</tr>
<tr>
<td>Kaipara District</td>
<td></td>
<td>12.5</td>
<td>26.3</td>
<td>39.1</td>
<td>56.6</td>
<td>77.8</td>
<td>2.7</td>
<td>41.6</td>
</tr>
<tr>
<td>New Zealand Total</td>
<td></td>
<td>12.3</td>
<td>38.3</td>
<td>57.2</td>
<td>92.7</td>
<td>98.9</td>
<td>2.2</td>
<td>58.6</td>
</tr>
</tbody>
</table>

Source: Ministry of Education

Statement of Intent: 2009 - 2014
In New Zealand, the percentage of new school entrants who have participated in early childhood education has increased over the last nine years, although growth has slowed markedly over the last few years.

As shown below, in 2008 97.2% of European/Pakeha children and 93.3% of Asian children in the Whangarei District attended an early childhood service prior to starting school, compared with 87.7% for Maori and 88.9% for Pasifika new entrants. The percentages for Maori, Asian and European/Pakeha students in Northland were slightly lower than the figures for New Zealand as a whole.

Table 14  Percentage of Year 1 students who attended early childhood education services, by territorial authority and ethnic group (2008)

<table>
<thead>
<tr>
<th>Territorial Authority</th>
<th>Maori</th>
<th>Pasifika</th>
<th>Asian</th>
<th>Other</th>
<th>European/Pakeha</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Far North District</td>
<td>84.9</td>
<td>81.8</td>
<td>92.3</td>
<td>100.0</td>
<td>96.2</td>
<td>88.4</td>
</tr>
<tr>
<td>Whangarei District</td>
<td>87.7</td>
<td>88.9</td>
<td>93.3</td>
<td>100.0</td>
<td>97.2</td>
<td>93.2</td>
</tr>
<tr>
<td>Kaipara District</td>
<td>92.4</td>
<td>100.0</td>
<td>100.0</td>
<td>n</td>
<td>89.7</td>
<td>91.1</td>
</tr>
<tr>
<td>New Zealand Total</td>
<td>90.4</td>
<td>84.8</td>
<td>95.3</td>
<td>93.8</td>
<td>98.3</td>
<td>94.7</td>
</tr>
</tbody>
</table>

Source: Ministry of Education

New Zealand data has shown a relationship between school decile (the socio-economic mix of the school) and the proportion of new entrants that had previously participated in early childhood education. In 2007 86% of new entrants from low decile schools\(^6\) (higher socio-economic disadvantage) had attended an early childhood education service, compared with 99% of children from high decile schools\(^7\) (Ministry of Education, 2008).

In New Zealand there has been a marked increase in enrolments in education and care services, with almost three times as many enrolments in 2008 than in 1990. There has also been an eight-fold increase in enrolments with home-based services over the same period. In contrast, enrolments in Kindergartens and Te Kohanga Reo, which had been fairly static since 1990, have been slowly declining since 2004, and enrolments in play centres have decreased markedly since 1990. The increased demand for all-day care is most likely due to the growing number of working parents. Also, since July 2007, the Government has provided up to 20 hours a week of free early childhood education for children aged three and four years old who attend teacher-led services. This has resulted in the service being more affordable for low income earners (Ministry of Education, 2008).

In New Zealand, the proportion of ECE teachers who are qualified and registered with the New Zealand Teachers’ Council has increased from 34.7% in 2002 to 61.2% in 2008 (Ministry of Education, 2009). Before teachers can become registered with the New Zealand Teachers’ Council they must hold a qualification approved by the Council. One of the targets of the Early Childhood Education Strategic Plan is that all regulated staff in teacher-led early childhood education services are qualified and registered, or enrolled in an approved early childhood teacher education programme by 2012 (Ministry of Education, 2008).

shows the percentage of registered ECE teachers in the Northland Region. For all of the ethnic categories, except Pasifika, the Whangarei District has higher percentages than the total figures for all territorial authorities in New Zealand.

\(^6\) Deciles 1 and 2
\(^7\) Deciles 9 and 10

42
Table 15 Percentage of registered ECE teachers, by territorial local authority (2008)

<table>
<thead>
<tr>
<th>Territorial Local Authority</th>
<th>Maori</th>
<th>Pasifik</th>
<th>Asian</th>
<th>Other</th>
<th>European / Pakeha</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Far North District</td>
<td>35.1</td>
<td>50.0</td>
<td>0.0</td>
<td>100.0</td>
<td>56.7</td>
<td>46.1</td>
</tr>
<tr>
<td>Whangarei District</td>
<td>55.9</td>
<td>0.0</td>
<td>62.5</td>
<td>60.0</td>
<td>71.3</td>
<td>68.3</td>
</tr>
<tr>
<td>Kaipara District</td>
<td>66.7</td>
<td>n</td>
<td>n</td>
<td>n</td>
<td>68.0</td>
<td>67.9</td>
</tr>
<tr>
<td>Total</td>
<td>47.5</td>
<td>54.7</td>
<td>51.8</td>
<td>45.7</td>
<td>65.0</td>
<td>61.2</td>
</tr>
</tbody>
</table>

Source: Ministry of Education

Education in Primary and Secondary Schools

Some educators here and overseas feel that ‘e-learning’ and technology are going to radically change what happens in the learning environments and organisational structures within our schools (Ministry of Education, 2009). Stuebing (1995) points out that networking and distance learning can mean that 24-hour access to information and learning is possible, and interactive learning methods such as video conferencing systems can also be used. In addition, she mentions that accessibility of education can be enhanced by technology, and highlights the powerful role ‘assistive technology’ can play for disabled students.

However, Stuebing warns that technology should not be isolating and emphasises the role of schools as socially rich learning environments. She says that teachers will not be replaced by technology, and that they will need to be more skilled, not less. The ongoing professional development of teachers is emphasised. The cost of equipment, and health and safety issues, were other important factors to be considered with the move towards a technology-rich learning environment (Stuebing, 1995).

It is important that sound literacy and numeracy skills are developed during Years 1-8, as these are the building blocks for all other learning. Research has shown that there is a strong relationship between educational attainment and literacy, and that the increased proportion of students in senior secondary school (Years 12 and 13) appears to be associated with improving literacy levels in the population. Adult literacy is considered essential to the economic wellbeing of developed countries. Preliminary studies have shown that labour force status and income are related to level of literacy, with almost half of all unemployed in the study groups displaying the very lowest level of literacy skills. Students and employed people had the highest levels of literacy. The distribution of adult literacy skills within the New Zealand population is similar to that of Australia, the United States and the United Kingdom (Walker et. al, 2006).

Overall, New Zealand’s Year 5 students have a reading literacy achievement significantly higher than the international average. Like most countries, girls have a reading achievement significantly better than boys. At the senior secondary school level, New Zealand students are also doing well, with only two out of thirty OECD countries achieving significantly higher average scores than New Zealand (Ministry of Education, 2009).

The mathematics performance of Year 5 students in New Zealand has improved significantly from 1994-2006. However, although our students’ average performance in maths was significantly higher than 12 of the 36 countries tested, it was significantly lower than 19 countries (including Singapore, England, the United States and Australia). Fifteen per cent of New Zealand’s Year 5 students did not reach the lowest benchmark, meaning they couldn't demonstrate some basic mathematical knowledge (Ministry of Education, 2009).

Maori language is a key element of Maori culture. Since 2001 proficiency in Te Reo Maori has increased significantly, particularly amongst younger Maori. In the 2006 census, 25% of Maori aged 15-64 years could hold a conversation about everyday things in Te Reo Maori (Statistics New Zealand).

The Minister of Education believes that too many students are falling behind and has introduced new National Standards for literacy and numeracy for Year 1-8 students, which will come into effect this year in English-medium schools. Consultation and trialling of the Maori-medium standards will begin in Term One this year. The standards set well-defined expectations that students need to meet in reading, writing, and mathematics in the first eight years at school. The aim of the standards is to provide information about how
students are progressing, in order to identify problems early on and allow schools, teachers, and parents to make informed decisions about how to improve the students’ achievement (Ministry of Education, 2010).

Completion of upper secondary education (Years 12 and 13) is associated with the higher level of skills and knowledge required for effective participation in our knowledge-based society. Retention rates for 17.5 year-olds have been gradually increasing since 2002, however, marked differences still exist between genders and ethnic groups. Girls continue to stay at school longer than boys, and non-Maori students stay longer than Maori students. Asian and Pasifika students have the highest retention rates in New Zealand. Students at higher decile schools (lower socio-economic disadvantage) generally remain at school longer than students from low decile schools (Ministry of Education, 2009).

As shown below, the retention rates in the Whangarei District are poor compared with New Zealand figures, for both genders and all ethnic groups.

Table 16 Retention rates at secondary school per 100 students to age 17.5 years, by territorial local authority (2008)

<table>
<thead>
<tr>
<th>Territorial Authority</th>
<th>Total</th>
<th>Female</th>
<th>Male</th>
<th>Maori</th>
<th>Pasifika</th>
<th>Asian</th>
<th>European/Pakeha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Far North District</td>
<td>41.6</td>
<td>46.8</td>
<td>37.3</td>
<td>34.9</td>
<td>x</td>
<td>x</td>
<td>52.2</td>
</tr>
<tr>
<td>Whangarei District</td>
<td>45.6</td>
<td>48.3</td>
<td>43.1</td>
<td>34.6</td>
<td>31.6</td>
<td>82.8</td>
<td>50.3</td>
</tr>
<tr>
<td>Kaipara District</td>
<td>51.8</td>
<td>61.7</td>
<td>41.3</td>
<td>46.3</td>
<td>85.7</td>
<td>x</td>
<td>52.6</td>
</tr>
<tr>
<td>New Zealand Total</td>
<td>62.3</td>
<td>66.9</td>
<td>57.9</td>
<td>40.4</td>
<td>70.0</td>
<td>97.4</td>
<td>63.5</td>
</tr>
</tbody>
</table>

Source: Ministry of Education

Secondary education aims to expand the student’s reading, maths and science knowledge base, and teach important life skills, such as time management, problem-solving, and creative thinking. Formal school qualifications are basic pre-requisites for many entry-level jobs, as well as tertiary education courses (Ministry of Education, 2008).

In New Zealand, girls continue to outperform boys from Level 1 NCEA through to University Entrance level. The situation appeared to be changing for Level 1 NCEA, with the gap narrowing between 2002 and 2007, however, this gap increased slightly in 2008. Asian school leavers had the highest rates of attainment for all levels of NCEA in 2008, followed by European/Pakeha students. Pasifika and Maori students had the lowest rates. However, relatively higher rates of improvement for Pasifika and Māori students for all levels of NCEA since 2003/2004 means that the disparities between ethnic groups may be reducing (Ministry of Education, 2009).

As shown in the graph below (Figure 10), 83.8% of school leavers in the Whangarei District achieved NCEA Level 1 or above in 2008. This is slightly lower than the percentage for NZ as a whole (84.7%). However the Whangarei District doesn't rate as well for the higher NCEA qualifications. For NCEA Level 2 or above, 67.9% of our school leavers attained this qualification, compared to 70.9% of New Zealand overall. The percentage of school leavers with University Entrance was considerably lower in the Whangarei District (36.8%) than the national average (43.6%). Data has shown that in 2006, New Zealand school leavers who obtained University Entrance or higher were far more likely to enrol in a Level 7 Bachelor degree course than any other level course (Ministry of Education, 2008). These are the students that are most likely to leave Northland to attend Universities in other parts of the country.

The percentage of students in the Whangarei District that left school with little or no formal qualifications was higher than the national average (16% compared with 15%). Some of these students may go on to train with local education providers, however these students are considered less likely to seek further training and/or employment, and more likely to have lower incomes or rely on income support (Ministry of Education, 2008). School leavers with partial qualifications are more likely to seek further education and training from local education providers, particularly the trades-related programmes (Department of Labour, 2008).
Research has shown that students learn more from teachers with high academic skills than teachers with weak academic skills. When teachers have majored or done advanced tertiary study in the curriculum area taught, students gain higher achievement. This is particularly noticeable in mathematics and science (Ministry of Education, 2009).

The proportion of new primary and intermediate school teachers in New Zealand with a bachelor level teaching qualification continues to increase. Of over 15,000 secondary school teachers who taught Year 9 to Year 13 classes, 69% reported their highest non-teaching qualification as a Bachelor degree or higher. However, only a quarter reported this level of study in any subject that they currently teach (Ministry of Education, 2009).

In New Zealand, suspension rates are higher for males, students from low decile schools and Maori students. In 2007 more than twice the number of males were suspended from school than females, and three times more males were expelled than females. Maori students had the highest suspension rates and second highest expulsion rates. Lower decile schools (Decile 1 and 2) had 3-6 times greater suspension and expulsion rates than Decile 9 and 10 schools, as well as more truancy problems (Ministry of Education, 2008).

Truancy can affect a student’s educational achievement, which in turn can reduce their opportunities for the future. Students who deliberately miss school are at greater risk of dropping out of school and becoming unemployed. Research has shown there are linkages between truancy and crime (Ministry of Education, 2009).

The table below shows the data collected for the Northland area. Students who were unjustifiably absent (but not on an intermittent basis) for three or more days during the week of the survey were identified as frequent truants. In the Whangarei District, the rates for male, female and Maori students were higher than the national averages.
Table 17  Standardised frequent truancy percentages, by TLA, gender and ethnic group (2006)

<table>
<thead>
<tr>
<th>Territorial Local Authority</th>
<th>Total</th>
<th>Gender</th>
<th>Ethnic Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Female</td>
<td>Maori</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Male</td>
<td>Pasifik</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Asian</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>NZ European</td>
</tr>
<tr>
<td>Far North District</td>
<td>2.2</td>
<td>2.4</td>
<td>2.0</td>
</tr>
<tr>
<td>Whangarei District</td>
<td>1.6</td>
<td>1.6</td>
<td>1.6</td>
</tr>
<tr>
<td>Kaipara District</td>
<td>1.4</td>
<td>1.2</td>
<td>1.6</td>
</tr>
<tr>
<td>New Zealand Total</td>
<td>1.1</td>
<td>1.2</td>
<td>1.1</td>
</tr>
</tbody>
</table>

x = less than 5 frequent truants and/or students in the Territorial Local Authority area.
Source: Ministry of Education

Like truancy, exclusion and expulsion reduce the time spent at school, which can affect a student’s educational achievement. In New Zealand, exclusion and expulsion rates have continued to decrease and are now below 2000 rates. Continual disobedience, physical assault on other students, and drug-related incidents accounted for three quarters of the exclusion and expulsions in 2008 (Ministry of Education, 2009).

As shown below, the age-standardised exclusion rates for the Whangarei District were higher than the New Zealand averages for male and Maori students. In addition, the rates for students 15 years and older were more than double the rates for 10-14 year old students in the Whangarei District (Ministry of Education, 2009).

Table 18  Age-standardised exclusion rates per 1,000 students, by territorial local authority (2008)

<table>
<thead>
<tr>
<th>Territorial Local Authority</th>
<th>Total</th>
<th>Gender</th>
<th>Ethnic Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Female</td>
<td>Maori</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Male</td>
<td>Pasifik</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Asian</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Other</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>European/Pakeha</td>
</tr>
<tr>
<td>Far North District</td>
<td>2.8</td>
<td>2.0</td>
<td>3.7</td>
</tr>
<tr>
<td>Whangarei District</td>
<td>2.8</td>
<td>1.1</td>
<td>4.3</td>
</tr>
<tr>
<td>Kaipara District</td>
<td>2.2</td>
<td>x</td>
<td>3.6</td>
</tr>
<tr>
<td>New Zealand Total</td>
<td>2.2</td>
<td>1.2</td>
<td>3.1</td>
</tr>
</tbody>
</table>

x = less than 5 exclusions and/or students.
Source: Ministry of Education

The proportion of young people who are not engaged in employment, education or training (referred to as NEET) has been monitored as an indicator of youth engagement in training and employment. The young people categorised as ‘NEET’ are disengaged from both formal learning and work, and are potentially jeopardising their future opportunities. Those who are idle for extended periods have a higher risk of poor outcomes, such as: unemployment, lower earnings, long-term reliance on benefits, criminal offending, substance abuse, teenage pregnancy, suicide, homelessness, and mental/physical illness. In 2006, 16% of 15–19 year olds and 21% of 20–24 year olds in the Whangarei District were categorised as NEET (Department of Labour, 2008).

Tertiary Education

The International Adult Literacy Survey showed that in New Zealand, the major providers of adult training for those with lower literacy levels (Levels 1 and 2) were commercial providers, followed closely by universities/polytechnics. Those with literacy levels of Level 3 and above were more likely to enrol at universities/polytechnics for adult training. In addition, people with higher literacy levels were more likely to be involved in adult training or education of some kind than those of lower levels. In 2004 it was estimated that 35-40% of the population in the Whangarei District had Level 1 and 2 literacy proficiency (Ministry of Education, 2005).
Research has shown that on average, those people with higher levels of education have greater access to further training, are more likely to get a job, have a higher income, and have lower risks of unemployment. Statistics show that New Zealanders who have tertiary qualifications generally earn more than those who don’t (Ministry of Education, 2008).

In 2007, about 13% of the New Zealand population (15 years and over) was enrolled in tertiary education. Since 1999, the rate of Maori participating in tertiary education has increased at more than twice the rate of non-Maori, with about 18% of Maori participating. The number of industry trainees, including those in modern apprenticeships, has also increased dramatically. In 2007 about a quarter of all people in New Zealand undertaking formal tertiary training were industry trainees (Ministry of Education, 2008).

The table below shows that the Polytechnic (includes North Tec and the Open Polytechnic) and Wananga have the largest number of students (full-time equivalent) in the Whangarei District. (N.B. College of Education students were not included in these figures).

### Table 19  EFTS (Equivalent Full Time Students) by year for tertiary students in the Whangarei District

<table>
<thead>
<tr>
<th>Territorial Authority</th>
<th>Provider type</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whangarei District</td>
<td>Other Tertiary Education Provider</td>
<td>0.53</td>
<td>1.04</td>
<td>0.82</td>
<td>32.26</td>
<td>37.30</td>
</tr>
<tr>
<td></td>
<td>Polytechnic</td>
<td>1925.44</td>
<td>1660.27</td>
<td>1309.01</td>
<td>1404.49</td>
<td>1357.65</td>
</tr>
<tr>
<td></td>
<td>Private Training Establishment</td>
<td>607.25</td>
<td>595.94</td>
<td>509.43</td>
<td>483.18</td>
<td>491.60</td>
</tr>
<tr>
<td></td>
<td>Wananga</td>
<td>1423.45</td>
<td>1365.34</td>
<td>1143.53</td>
<td>1143.83</td>
<td>1221.34</td>
</tr>
<tr>
<td></td>
<td>TOTALS</td>
<td>3956.68</td>
<td>3622.59</td>
<td>2962.79</td>
<td>3063.75</td>
<td>3107.88</td>
</tr>
</tbody>
</table>

Source: North Tec

In 2008 North Tec had a total of 3,480 Equivalent Full Time Students (EFTS) enrolled throughout Northland. The table below shows the percentage of North Tec students (EFTS) awarded each level of qualification in the broad subject categories. In 2007, just over half the qualifications were Level 1-3 certificates, and just under a quarter were Level 4 certificates. Seven per cent of the qualifications were Level 7, which are Degrees/Graduate Diplomas. The majority of these (76%) were in the health category (Bachelor of Nursing).

### Table 20  EFTS percentages by level of award category 2007

<table>
<thead>
<tr>
<th>Award by broad category</th>
<th>Other (including community education)</th>
<th>Level 1-3 certificates</th>
<th>Level 4 certificates</th>
<th>Level 5-7 Diplomas</th>
<th>Level 7 Degrees/Graduate Diplomas</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural and Physical Sciences</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>100%</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>Information Technology</td>
<td>0%</td>
<td>79%</td>
<td>1%</td>
<td>15%</td>
<td>5%</td>
<td>100%</td>
</tr>
<tr>
<td>Engineering and related technologies</td>
<td>0%</td>
<td>95%</td>
<td>1%</td>
<td>3%</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>Architecture and Building</td>
<td>0%</td>
<td>7%</td>
<td>65%</td>
<td>28%</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>Agriculture, Environmental and Related Studies</td>
<td>1%</td>
<td>78%</td>
<td>13%</td>
<td>8%</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>Health</td>
<td>0%</td>
<td>6%</td>
<td>13%</td>
<td>6%</td>
<td>76%</td>
<td>100%</td>
</tr>
<tr>
<td>Education</td>
<td>0%</td>
<td>0%</td>
<td>10%</td>
<td>72%</td>
<td>17%</td>
<td>100%</td>
</tr>
<tr>
<td>Management and Commerce</td>
<td>0%</td>
<td>72%</td>
<td>10%</td>
<td>16%</td>
<td>3%</td>
<td>100%</td>
</tr>
<tr>
<td>Society and Culture</td>
<td>0%</td>
<td>35%</td>
<td>49%</td>
<td>15%</td>
<td>2%</td>
<td>100%</td>
</tr>
<tr>
<td>Creative Arts</td>
<td>0%</td>
<td>19%</td>
<td>15%</td>
<td>38%</td>
<td>28%</td>
<td>100%</td>
</tr>
<tr>
<td>Food, Hospitality and Personal Services</td>
<td>2%</td>
<td>58%</td>
<td>28%</td>
<td>12%</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>Mixed field programmes</td>
<td>48%</td>
<td>51%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>6%</strong></td>
<td><strong>51%</strong></td>
<td><strong>23%</strong></td>
<td><strong>13%</strong></td>
<td><strong>7%</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Source: North Tec

47
Statistics show that in 2006, within the Northland region, 60% of students (EFTS) were Level 1-3 (certificate-level), and only 8% were Level 7 (bachelor degrees). In contrast, at the national level in 2006, only 26% of EFTS nationally were studying at Level 1-3 and 41% were at Level 7 (North Tec, 2009).

North Tec currently offers six Bachelor degrees, and students may also undertake university studies extramurally through Massey University, the Open Polytechnic and Wananga. In addition, bachelor degrees in education are offered at the Whangarei-based University of Auckland - Faculty of Education.

North Tec has had a long-standing relationship with Massey University, particularly through the Albany campus. Massey and North Tec have a ‘memorandum of understanding’, which facilitates a pathway for North Tec students to transfer credits to the university. Both institutions have a strong focus on the health and social service sectors, and also undertake joint research projects.

Many school leavers elect to leave the Whangarei District to study at Universities around the country. Of the school-leavers who went to university in 2008, nearly half (47%) chose to study at Otago University, 20% went to the University of Canterbury, and 17% went to the University of Auckland (WDC\textsuperscript{18}). Many of these graduates do not return to the Whangarei District due to the lack of career opportunities and lower pay rates (compared to larger cities). The significant net outflows of people aged 15–24 over the past ten years is contributing to the shortage of the 20-35 year age-group in our population. Whilst the knowledge and new skills acquired at University is beneficial to the individual, it is only of value to the Whangarei district if our graduates return here to work and contribute to the professional workforce (Department of Labour, 2008).

Young people who migrate to the district from other parts of New Zealand can help boost our labour supply. In addition, those who migrate from overseas can also be a valuable resource for a region. In 2006, the Northland Region only had 8% of youth who were born overseas, compared with 22% for New Zealand overall (Department of Labour, 2008).

**Existing Infrastructure and Services**

**Early Childhood**

The Whangarei District has a range of early education providers, including:

- 14 free kindergartens
- 12 Te Kohanga Reo
- 18 play centres
- 8 community based childcare centres
- 24 private childcare centres
- 4 home based networks

**Schools**

The Whangarei District has a total of 54 schools, made up of:

- 19 Contributing schools (Years 1 – 6)
- 19 Full Primary schools (Years 1 – 8)
- 2 Intermediate schools (Years 7 – 8)
- 3 Secondary schools (Years 7 – 15)
- 3 Secondary schools (Years 9 – 15)
- 5 Composite schools (Years 1 – 15)
- 2 Special schools
- 1 Teen Parent unit

\textsuperscript{18} Socio-economic Profile of the Whangarei District
A private secondary school (Years 7-13) opened in Glenbervie in February 2010, and is enrolling students in Years 7-9 initially.

Planning for new schools needs to be carried out in consultation with the Ministry of Education. Draft projections from the Ministry of Education indicate that the existing schools in Whangarei have sufficient capacity to cope with the predicted increase in population over the next 10-20 years. In addition, the new private school at Glenbervie (Huanui College) will attract students from all over the Whangarei District, thus potentially reducing the pressure on some schools currently at or near capacity.

Some of our primary, intermediate and secondary schools have enrolment schemes to prevent school overcrowding. This means that only students living in the school’s home zone are guaranteed a place at the school.

**Transition from Secondary to Tertiary Education/Training/Workforce**

Youth Transition Services (YTS) is a free service which helps young people between 15 and 17 years of age move into further education, training or work.

Secondary Tertiary Alignment Resource (STAR) programmes are run through secondary schools and aim to facilitate a smooth transition from school to the workplace or further study.

The Gateway Programme offers senior secondary students structured workplace learning across a range of industries and businesses, whilst still at school. The students learn practical skills and knowledge, and gain NCEA unit and achievement standards, plus specific qualifications for that particular industry (Department of Labour, 2008).

‘Engaging Taitamariki in Learning’ is a long-term NIF (Northland Inter-sectoral Forum) project, which encourages young Maori, especially males, to stay in school/training and also to participate in learning activities outside the classroom. The goal of this project is to significantly increase Maori achievement in Northland schools within the next five years.

**Tertiary Providers**

**RuralTec Ltd** offers agricultural and horticulture courses, and apprenticeships for youth (16-21 years).

**The Regent Training Centre Ltd** provides foundation and vocational skill training for young people and unemployed adults. Programmes include: trades, primary sector, commercial and human services, services and employment skills. the centre can also provide training and coaching for young people enrolled in the Modern Apprenticeship Programme.

**Salvation Army Employment Plus** also offers a wide range of courses, from core subjects through to level four trade certificates. Life skills courses are also provided, as well as literacy, language and numeracy training.

**2 Meke Training** offers a 45-week hospitality course, literacy and numeracy training, and an alternative education programme for secondary school students.

**Northland Hairdressing Training Centre** is a private facility located in Whangarei, which provides tuition/training in the skills of hairdressing.

**People Potential** is a private tertiary provider that offers a variety of courses for school leavers and employed people wanting to improve their skills.

**Avonmore Tertiary Academy** offers computer network engineering, freight and warehousing, and office administration courses.

**One Double Five Whare Roopu Trust** offers computer and life skills courses.
Advance Training Centre Ltd offers computing and business administration courses.

G & H Training Ltd offers pre-trade carpentry training certificate, youth guarantee practical construction skills course, youth training (tertiary education commission), trades skill courses for secondary students, and Modern Apprenticeships.

TAFE College of NZ provides computing, office and customer services training.

North Tec

North Tec originally opened as the Northland Community College in 1978 and is the region’s largest provider of tertiary education, with campuses and learning centres in Whangarei and throughout Northland. In addition, some courses offer ‘flexible learning’, a combination of e-learning (on-line learning) and classroom teaching, with leading-edge technology (e.g. video conferencing). This means the student is able to study off-campus for much of the course.

North Tec is the only Northland-based Tertiary Education Institute (TEI) that provides programmes from foundation to degree level. Bachelor degrees currently offered are: Bachelor of Business Management, Bachelor of Applied Information Systems, Bachelor of Nursing, Bachelor of Applied Social Service, Bachelor of Applied Arts and Bachelor of Sport and Recreation (with Year 3 being completed at AUT).

The Future Trades Campus

Twenty per cent of students at North Tec are currently undertaking trades-related programmes. The Future Trades campus opened in July 2009 and is a purpose-built campus based in Whangarei’s industrial centre. It is closely linked with local industry, and can cater for over 1,000 students each year. In addition, it has a Modern Apprenticeship coordination programme available in selected industry areas.

The Future Trades campus provides a wide range of programmes, including:

- Automotive Engineering
- Electrical Engineering
- Boat Building
- Carpentry
- Safe Trades
- Fitting and Turning
- Fabrication and Welding
- Seafood Vessel Operations

University of Auckland – Faculty of Education: Tai Tokerau Campus

The Tai Tokerau campus was established in 1992 in Whangarei. It is the Northland site for teacher education programmes offered by the Faculty of Education, of the University of Auckland.

Programmes offered at the Tai Tokerau campus include:

- Bachelor of Education (Teaching) Primary
- Bachelor of Education (Teaching) Huarahi Maori
- Graduate Diploma in Teaching (Secondary)

- Early Childhood (off-campus learning option – flexible delivery)
  - Bachelor of Education (Teaching) Early Childhood Education
  - Diploma of Teaching (Early Childhood Education)

Wananga

Te Wananga O Aotearoa is one of New Zealand’s largest tertiary education providers, and has campuses throughout the country. It offers a wide range of programmes including certificates (Levels 1-4), diplomas
(Levels 5-6), and bachelor degrees (Level 7). At the Whangarei campus, courses are available in Te Reo and Tikanga Maori, social services, computing and business.

Te Wananga O Raukawa and Te Whare Wananga O Awanuiarangi also have students in Northland.

**Extramural Study**

Extramural study is offered by the Open Polytechnic of New Zealand and Massey University, plus a variety of private education providers.

**Adult and Community Education**

A variety of evening classes are provided at some of our secondary schools. Literacy and English language courses are also available in Whangarei, and Senior Net offers computing courses for older members of the community.

*Please refer to Appendix One for a map showing the location of pre-schools, schools and tertiary providers in the Whangarei District.*

**Future Training Needs**

A study by Engler (2009) indicates that the demand for formal provider-based tertiary study by domestic students in New Zealand will increase over the medium to long term. This is driven by the recession (people are opting to study rather than remain unemployed), long-term government goals for skill enhancement, and changes to the ethnic mix and age structure of New Zealand’s population.

Engler emphasises that for New Zealand’s productivity to increase, more people are needed with diploma-level and bachelor-level qualifications. He also acknowledges that the current levels of workplace literacy and numeracy ability need to improve, which highlights the importance of certificate-level study. Certificate-level study can be a stepping-stone to higher-level study (Engler, 2009).

Engler predicts that providers which offer certificate or diploma qualifications will see an increased demand for their courses over the next few years, as people choose to study at these levels during the economic downturn. Universities, on the other hand, offer mostly bachelor-level courses and will generally see a lower level of increase in demand than other providers. Demand for industry training is predicted to fall in the short term as unemployment increases during the recession. However this is likely to be mitigated by efforts to minimise job losses and promote industry training (Engler, 2009).

**Northland Employers Survey 2007:**

The following information has been obtained from the above survey of Northland employers, carried out by the Northland Labour Market Forum19. The employers surveyed were involved in pastoral farming, tourism, forestry/wood processing, marine construction, general construction, horticulture, aquaculture and retail.

Many employers felt that Northland schools do not prepare students well for the workforce in general or, in particular, for their industry. However, opinions about tertiary institutions were more positive. When asked what should be emphasised more in schools, work readiness skills (punctuality, reliability, and attitude) were at the top of the list. Next was basic literacy and numeracy, followed by work experience. For tertiary institutions work readiness was again at the top, followed by work experience, skills specific to the role, and then basic literacy/numeracy.

More employers are using external training for their staff than in 2004. This is mainly for full-time staff, but some part-timers, and to a lesser extent, seasonal employees are also included. The majority of employers preferred in-house training, particularly those from tourism, forestry/wood processing and horticultural

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19The Northland Labour Market Forum’s members are: Career Services, Northland Chamber of Commerce, Department of Labour, Enterprise Northland, Ministry of Social Development, NorthTec, Tertiary Education Commission and Te Punī Kokī.
organisations, and those who provide internal training only. Block courses were preferred by a smaller proportion (15%) e.g. farmers, marine construction and those providing external training.

Recruiting suitable people has been difficult for many Northland employers. The roles most difficult to fill were those requiring a higher level of specified skills e.g. skilled trades people, professional/technical roles, and management. About 70% of employers mentioned skills gaps, with the most common being problem-solving skills, followed by oral communication, management and team-working skills.

(Northland Labour Market Forum, 2008)

The Tertiary Education Commission requires Institutes of Technology/Polytechnics to take on a regional facilitation role, in order to maintain effective working relationships between stakeholders and tertiary education providers, and to increase collaboration between current providers. The overall aim is to provide a better match in the supply and demand of tertiary qualifications (North Tec, 2009). The Department of Labour will assist by making improved labour market information tools available (Department of Labour, 2010).

North Tec

In June 2009 North Tec produced a Regional Statement of Tertiary Education Needs, Gaps and Priorities in Tai Tokerau, as required by the Tertiary Education Commission. In consultation with other parties, North Tec has identified five key themes that will be the areas of focus over the next three to five years. These are:

1) Ensuring foundation education to improve literacy, numeracy, digital literacy and learning skills development is a high priority for the region.

Due to the current demand, around 60% of tertiary education in Northland is being delivered at Levels 1-3. Local employers have recognised the need for their staff to have better literacy and numeracy skills.

2) Current population and economic growth in Tai Tokerau supports the increased need for tertiary education provision in the region related to specific industry skill requirements, including developing leadership and management potential.

Future growth is anticipated in:

- tourism and service industries
- creative industries
- marine
- fishery and aquaculture (associated with Iwi treaty settlements)
- health industry (particularly aged care and social services)
- construction industry
- engineering
- boat building
- pre-trade, trade and advanced trade
- forestry and wood processing
- horticulture

Hence, there is a growing need for vocational education, especially trades and advanced trades training. There is also a demand for management training and leadership development.

3) Facilitating ways for people to engage with tertiary education by offering flexible modes of learning (including evening, block and online delivery) and short bursts of ‘just in time’ education.

There is a demand from employers and industry for training courses that better meet their needs. They want courses that are flexible, of short duration, self-directed and that include on-job training.

4) Build and maintain partnerships with Tai Tokerau Iwi, trusts and community groups to facilitate meeting their educational needs in line with their social and economic strategies.
5) Limited access to higher level education at diploma, degree and post-graduate level, combined with the limited range of higher level courses available identifies a need for providers to work together to offer more advanced qualifications. Northland has a higher proportion of tertiary qualifications at a lower level (Levels 1-3) than the national figures. It is recognised that higher-level courses, particularly post-graduate courses, are a priority too. However the problem in Tai Tokerau is having sufficient students to support courses at Level 4 and above. Even courses which could lead to sought-after and higher paid jobs are experiencing low demand. This includes science-based courses for industries identified for growth in the north (e.g. agriculture, aquaculture and water quality).

(North Tec, 2009)

Ministry of Social Development

At the regional economic summit, 'Keep Northland Working', the future growth in the forestry industry was discussed and the urgent need for skilled forestry workers was highlighted. The Ministry of Social Development will work with the owners of Northland’s forests to determine their workforce needs and identify training gaps. This is to ensure that jobseekers receive the appropriate training (Ministry of Social Development, 2009).

The Ministry of Social Development will also help young people to engage in education, training or work by implementing the Government’s ‘Youth Opportunities’ package. This will involve the Ministry working with employers and communities to find opportunities for 16 to 24-year-olds, to work, train or stay in education.

As part of this package, in 2009/2010 the Ministry will:
- fund entry-level jobs for six months, to build experience and confidence
- make 3,000 places for young people to work on community projects
- create extra job training placements through industry partnerships
- expand the Limited Service Volunteer Scheme by an extra 1,250 places.

The Ministry will help young Northland people specifically by:
- helping them get industry relevant skills
- finding workplaces where young people can work, learn and receive on-going mentoring, support and guidance
- helping them make informed decisions about school, training and work

In addition, the Ministry has industry and employer partnerships in Northland e.g. Straight 2 Work programmes and a youth-focused cadet scheme (Ministry of Social Development, 2010).

Economy

Whangarei’s most valuable industries, in terms of jobs and contribution to GDP\(^20\), are: retail trade, health and community services, construction, business services, education, hospitals and nursing homes, central government, and dairy and cattle farming. Important capital intensive industries in Whangarei are: oil refining, real estate services, electricity distribution, and finance (Infometrics Ltd, Sept 2009).

From a GDP perspective, the key industry clusters for the Whangarei District are:
- finance and business services
- mining, mineral processing (including cement production), and oil refining
- accommodation, retail and wholesale trade
- construction and real estate services

Apart from mining, mineral processing, and oil refining (which account for 2.1% of jobs), these industry clusters are also important sources of employment. Health services are also a major source of jobs for the district (Infometrics Ltd, Sept 2009).

\(^{20}\) Gross domestic product
Areas recently identified as having implicit growth potential in the Whangarei District are (in order) (Infometrics Ltd, 2009):

- Agriculture
- Tourism
- Textile and apparel manufacturing
- Non-metallic mineral products manufacturing
- Wood and paper product manufacturing
- Cultural and recreational services
- Local government administration
- Machinery and equipment manufacturing
- Metal product manufacturing
- Food, beverage and tobacco manufacturing
- Accommodation, restaurants and bars
- Furniture and other manufacturing

Enterprise Northland (the regional economic development agency) has identified the key focus sectors for economic growth in the Northland region as:

- ‘Value adding’ to primary production – including dairy and meat, food processing, wood processing, and aquaculture
- Manufacturing - that builds on existing strengths
- Tourism
- Mineral resources
- Business services
- Science and IT


The marine construction sector has been highlighted in the LTCCP as one of the industrial activities that provides major economic input into the area. Enterprise Northland is working with the sector to target larger ship projects through collective bidding and collaborative industry development activities, in order to help this sector grow.

In Northland there is a shortage of professionals, technicians and skilled trade workers. Employment growth has been greatest for people with more advanced qualifications and degrees. In contrast, for those with little or no qualifications, employment growth has been low (North Tec, 2009). Depending on demand, more bachelor and post-graduate degrees may be able to be offered by North Tec, the University of Auckland, Massey University, Te Wananga O Aotearoa and extramurally. In addition, there may be more opportunities for North Tec to teach Year 1, and perhaps Year 2 of a degree, with the third year being completed at a university. Obviously the courses would need to be closely aligned with the university in question for this option to be feasible.

Demographics

The aging population, combined with the reduced 20-34 year age group, could have major effects on our workforce in the future, with a shortage of employees a distinct possibility. The changing demographics could also affect the demand for certain products and services (North Tec, 2009).

As previously stated, the proportion of older people (65+ years) in our population is expected to increase significantly during the next 30-50 years. Assuming that the prevalence of disability remains the same, it is predicted that the number of disabled people in the 65-84 year age group will double by 2036, and more than treble for the 85+ age group. The Department of Labour estimates that we will need more than twice the current number of paid caregivers by 2036. In addition, the caregiver workforce is also aging, resulting in a rapid reduction of available caregivers due to retirement. The low pay rate is acknowledged as a reason

22 Regional Statement of Tertiary Education Needs, Gaps and Priorities in Tai Tokerau
23 These projections are based on 2006 figures
for staff recruitment problems. With higher wage rates for caregivers in Australia, there is a risk that some of our caregiver workforce will choose to leave New Zealand for better wages (Department of Labour, 2009).

North Tec currently offers a Bachelor of Nursing, Certificate in Registered Nurse Competence, and a Certificate in Nursing (Long term Care and Rehabilitation, or Medical/ Surgical Nursing). Expansion of all of these courses is likely to be needed in the future, and an Enrolled Nurse training programme might also be considered by North Tec at some stage. The New Zealand Nursing Council has recently agreed on an eighteen month training programme, with at least one third of the programme being at level 5 on the NZQA framework (NZ Nursing Council, 2010). Enrolled nurses will be in demand in the future as the number of aged care facilities increases. The higher pay rates of an Enrolled Nurse compared with a Nurse Assistant might attract a larger number of younger people into this field.

With our changing population there will also be an increased demand for medical and nursing staff with special interest in gerontology and Maori Health. Provision of advanced study and research opportunities in these areas should be considered in the future in order to attract staff to the Whangarei District.

Tertiary Education

It is unlikely that the Government will view the Whangarei District as a viable area to build a new university with Auckland being in such close proximity. Auckland already has two large universities, the University of Auckland and the Auckland University of Technology. Massey University also has a campus at Albany, which is even closer to Whangarei. In addition, the cost of building a university is substantial, and even though the population is projected to increase to 130,000 by 2061, about a third of that population will be in the over-65 age group. Universities generally have larger classes and offer a wide range of degrees. It is unlikely that Northland would have the critical mass to support the range of courses required to make a university viable. Consequently we will continue to lose a proportion of our school leavers to universities around the country.

However, that doesn't mean we can't have a high-class tertiary facility that will attract students from other parts of New Zealand and overseas. With a shortage of the '20-35 years’ age-group in the Whangarei District, attracting young people to the area should be one of the main areas of focus for the future. To do this, we need top-class facilities and sought-after courses. In addition, the provision of safe and appealing accommodation would be another drawcard for young people from other areas, particularly those from overseas.

The main North Tec campus in Raumanga is set in beautiful park-like surroundings, however many of the buildings need to be upgraded or replaced to make the campus more appealing to students. North Tec needs to be competitive with other technical institutes around the country, and able to market itself as a high-class facility. The provision of leading-edge technology, a variety of courses, and the opening of the purpose-built Future Trades Campus are all steps in the right direction. In addition, North Tec is able to offer a friendly learning environment, with small classes and professional tutors who get to know the students’ individual needs.
8. Safety

Current Situation

Crime and the Fear of Crime

The Social Report 2009 defines safety as ‘freedom from physical or emotional harm’, and security as ‘freedom from the threat or fear of harm or danger’. The types of threats range from deliberate violence to accidental injury. Violence and avoidable injuries can reduce the quality of life for the victim and their loved ones, and can also be life threatening. The psychological effects can be just as devastating and often last longer than physical effects. Victims of crime may suffer from depression or experience other mental health problems. Violence may repeat itself in families, with children who grow up surrounded by violence becoming violent adults themselves (Ministry of Social Development, 2009).

The effects of crime can be far-reaching, with a victim’s family and friends, and sometimes a whole community being affected. The financial costs to society can also be considerable, and include medical and legal expenses, and loss of victims’ ability to work. Property crime, such as burglary, can also have a major impact on the victim. Apart from losing personal possessions, evidence suggests the threat of burglary is a greater worry for many people than the threat of violence (Ministry of Social Development, 2009).

Crime, and the fear of crime, may affect how people live their lives and restrict their options. For example, they may decide to stay home at night rather than go out because of their fear of becoming a victim of crime. This fear was highlighted in the New Zealand Police Citizens’ Satisfaction Survey 2009. This research was carried out for the New Zealand Police using computer-assisted telephone interviewing, for the July 2007-June 2008 year (to give baseline results), and again for the period July 2008-June 2009.

Although there has been some improvement from the baseline figures, only 40% of Northland citizens feel safe in their city/town centre after dark. In their own neighbourhood 91% of respondents felt safe during the day, however after dark only 67% felt safe. This is shown in Figure 12.

Figure 12 Citizens’ satisfaction survey 2009 – comparison with baseline: public trust & confidence, perceptions of safety and police in the community – Northland District

Source: New Zealand Police
The survey showed that the most common reasons for feeling unsafe in their neighbourhood at night and in the city/town after dark were:

- People who make them feel unsafe because of their appearance, attitude and/or behaviour
- Youths, particularly those hanging around in groups
- Alcohol and drug problems in local area
- Fights/arguments/attacks on the street

The most common reasons for feeling unsafe in their neighbourhood during the day were:

- Burglaries/theft
- People who make them feel unsafe because of their appearance, attitude and/or behaviour
- Youths, particularly those hanging around in groups

An important note from this survey is that the proportion of respondents giving a negative rating (unsafe/very unsafe) for safety in their city/town centre after dark has decreased significantly for Northland (29%, compared with 37% in the baseline). This is a positive sign and is a reflection of the work being carried out by the Police and others, e.g. Maori Wardens, to improve the situation. However it is still unsatisfactory that a large proportion of respondents perceive that their safety is at risk. Feeling unsafe can lead to people avoiding going into the Central Business District at night, which in turn can have negative effects on local businesses (e.g. restaurants and bars).

**Indicators for Safety**

Four indicators for safety are described in The Social Report 2009. These are:

- Assault mortality
- Criminal victimisation
- Fear of crime
- Road casualties

The first three provide an indication of the level and impact of violence in the community.

**Assault mortality** - This indicator measures deaths resulting from violence, and is perceived to be the tip of the violence pyramid. Most at risk are young children and youth. In the five years to 2006, 307 people in New Zealand died as the result of an assault, compared with 284 people from 1997–2001. Death rates were highest for youth aged 15–24 years (2.2 deaths per 100,000), followed by adults aged 25–44 years (2.1 per 100,000). For children, the risk is highest at younger ages. For 2002-2006, the assault death rate for children under 5 years was 1.8 deaths per 100,000 - more than four times the rate for 5–14 year olds.

The data shows that males are more likely than females to die from an assault, and Maori are significantly more likely than non-Maori to die as the result of violence.

**Criminal victimisation** – This is a broad measure of personal safety and wellbeing. Determining the extent of criminal victimisation from police records is difficult, as many crimes are not reported to the police (particularly domestic violence, sexual violence and child abuse). Therefore the New Zealand Crime and Safety Survey 2006 was used to provide a more comprehensive picture of victimisation.

The survey data shows 39% of New Zealanders (aged 15 years and over) were subjected to some form of criminal victimisation in 2005. In addition, 30% of households were victims of a household crime in 2005, with the most common offences being burglaries (14%) and vandalism to household property (9%). Eighteen per cent of individuals had been victims of some type of personal offence, the most common being assaults and threats.

The data shows that young people are more likely to be victims of crime, with the likelihood of being victimised decreasing with age. The overall rate of victimisation did not vary by gender, with 39% of both men and women subjected to some form of criminal victimisation in 2005.
Rates of victimisation varied with ethnicity. Forty-seven per cent of Maori and Pacific peoples (15 years and over) experienced some form of criminal victimisation in 2005, compared with 43% of Asians and 37% of Europeans. Maori women had a higher risk of being assaulted or threatened by their partner. Others at higher risk of being victims were sole parents with children, students, and those living in a flatting situation.

Fear of crime – This is not necessarily always linked to the actual risk of becoming a crime victim, however it can cause distress and seriously affect the quality of people's lives. The perception of being at risk can limit a person's options and decrease their sense of freedom. The New Zealand Crime and Safety Survey 2006 showed that 40% of New Zealanders felt that fear of crime had a moderate or high impact on their quality of life.

In all age groups women were more likely to be affected than men, and people in the 25-39 year age group more likely to be affected than other age groups. Interestingly, the 60+ years age group were shown to be least affected by the fear of crime. Sixty per cent of Asian people reported that fear of crime affected their quality of life, compared with 47% of Maori and Pacific peoples, and 36% of Europeans.

People living in the most deprived areas of New Zealand were much more likely to report that fear of crime affected their quality of life than those living in the least deprived areas (49% and 33% respectively). In addition, previous victims of crime were more likely to report that fear of crime affected their quality of life.

Road casualties - The leading cause of avoidable injury and death is motor vehicle crashes. The social cost of motor vehicle crashes for our community is enormous. Young people aged 15-24 have more than twice the risk of dying in a motor vehicle crash than any other group, despite a marked decline in death rates for this age-group since 1986. Males are more at risk of being injured or killed in a crash than females. Maori are much more likely than other ethnic groups to die in motor vehicle accidents.

Deaths and injuries from motor vehicle crashes have declined substantially since 1986. With a rate of 10 deaths per 100,000 people (for 2005–2007), the New Zealand road death rate was lower than that of the United States; however it was still higher than Canada, Australia and the United Kingdom. Information about the number of people injured or killed in crashes in the Whangarei District is provided below in Table 22.

(Ministry of Social Development, 2009)

Police Statistics

The Whangarei Community Report 2008 highlights the following recorded criminal offences for the Whangarei District for the period 2003-2007:

- Dishonesty offences were the most common, making up just over half of all offences (52%). Of these offences, theft had the highest incidence, followed by burglary, car conversion and fraud.

- Drugs and anti-social offences accounted for 18% of the district’s offences. Disorder and cannabis offences were the most common in this category.

- Violent crime made up 14% of the total offences, with serious assaults being most common, followed by intimidation/threats, minor assaults and grievous assaults.

- Property damage accounted for 9% of total offences, property abuse 4%, administrative offences 3%, and sexual offences 1%.

Apprehensions in the Whangarei District for 2007:

For adults (17 years and over), the main reasons for apprehensions were: drugs and anti-social offences (41%), dishonesty (23%), violence (22%) and property damage (6%). In comparison, for under-17 year olds, 54% of the apprehensions were due to dishonesty, followed by property damage (16%) drugs and anti-social offences (13%) and violence (12%)

(Whangarei District LSM Steering Group, 2008).

24 The number of apprehensions is not the same as the number of individuals; a person can have more than one apprehension.
Table 21 shows that for the year 2008/09, dishonesty offences accounted for 44% of all offences, which is lower than the period 2003-2007. Drugs and anti-social offences had increased to 22%, and violent crimes were slightly higher at 16%. Nearly 95% of the drugs and anti-social offences were resolved, compared to 37% of dishonesty offences.

### Table 21 Whangarei District\(^25\) - recorded crime statistics 2008/2009

<table>
<thead>
<tr>
<th>Offence Category Description</th>
<th>Recorded Offence</th>
<th>% of total offences</th>
<th>Resolved Offence</th>
<th>% Resolved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Violence</td>
<td>1385</td>
<td>16.08%</td>
<td>1117</td>
<td>80.65 %</td>
</tr>
<tr>
<td>Sexual</td>
<td>95</td>
<td>1.10%</td>
<td>58</td>
<td>61.05 %</td>
</tr>
<tr>
<td>Drugs &amp; Anti-social</td>
<td>1904</td>
<td>22.11%</td>
<td>1799</td>
<td>94.49 %</td>
</tr>
<tr>
<td>Dishonesty</td>
<td>3822</td>
<td>44.38%</td>
<td>1413</td>
<td>36.97 %</td>
</tr>
<tr>
<td>Property Abuse</td>
<td>354</td>
<td>4.11%</td>
<td>248</td>
<td>70.06 %</td>
</tr>
<tr>
<td>Property Damage</td>
<td>911</td>
<td>10.58%</td>
<td>410</td>
<td>45.01 %</td>
</tr>
<tr>
<td>Administrative</td>
<td>141</td>
<td>1.64%</td>
<td>125</td>
<td>88.65 %</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td><strong>8612</strong></td>
<td><strong>100%</strong></td>
<td><strong>5170</strong></td>
<td><strong>60.03 %</strong></td>
</tr>
</tbody>
</table>

Source: Northland District Police\(^26\)

### Current Police Issues

The New Zealand Police Northland District Business Plan 2009/10 highlights the following major issues for Northland at present:

Organised crime groups are well established in Northland, and are associated with youth gang recruitment and a range of criminal activities. The impact of organised crime, in particular the supply and manufacture of illicit drugs, can be devastating for communities.

Along with illicit drug use, the misuse of alcohol is strongly linked to criminal behaviour in Northland. The police report that almost half of our recorded crime has alcohol as a contributing factor. Northland has one of the highest proportions (20%) of crashes involving alcohol as a contributing factor.

Road trauma remains an on-going problem in Northland. The table below shows that there were 292 people injured/killed in motor vehicle accidents in the Whangarei District in 2008.

### Table 22 The number of people injured or killed in motor vehicle crashes per 100,000 of the total population in the Whangarei District.

<table>
<thead>
<tr>
<th>Year</th>
<th>Number</th>
<th>Injuries Rate per 100,000</th>
<th>Deaths Rate per 100,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>180</td>
<td>255.3</td>
<td>18.4</td>
</tr>
<tr>
<td>2002</td>
<td>181</td>
<td>256.4</td>
<td>25.5</td>
</tr>
<tr>
<td>2003</td>
<td>270</td>
<td>378.2</td>
<td>29.4</td>
</tr>
<tr>
<td>2004</td>
<td>281</td>
<td>389.2</td>
<td>8.3</td>
</tr>
<tr>
<td>2005</td>
<td>286</td>
<td>392.9</td>
<td>8.2</td>
</tr>
<tr>
<td>2006</td>
<td>259</td>
<td>353.3</td>
<td>16.4</td>
</tr>
<tr>
<td>2007</td>
<td>233</td>
<td>300.6</td>
<td>14.2</td>
</tr>
<tr>
<td>2008</td>
<td>292</td>
<td>373.4</td>
<td>19.2</td>
</tr>
</tbody>
</table>

Source: The Social Report 2009 (Ministry of Social Development)

\(^25\) Note: This data is from the six police stations within the Whangarei District Council boundaries.

\(^26\) Personal communication N.Deveraux, Policing Development Manager, Northland District Police
Youth offending is also an issue in Northland, with ‘Under 17’ year olds comprising 20% of the district’s apprehensions. Victimisation of youth is also a problem in Northland.

In Northland a disproportionate number of offenders/suspects are Maori – this was shown for all crime (70% were Maori), family violence (73% Maori), traffic offences (58% Maori) and alcohol-related traffic offences (38% Maori). Maori offending, re-offending and victimisation is a major issue in Northland, with the proportion of Maori offenders having increased over the past 10 years.

The number of violence offences has also been increasing in Northland over the last four years. Family violence offences have been increasing by an average of 19% each year. This is largely a result of increased reporting (as a result of awareness campaigns) and improved recording practices, however it highlights the magnitude of this problem in our society.

(NZ Police, 2009)

Fire Service

In the period July 2007-June 2008, there were almost 3,000 incidents in the Northland Fire Region. This included 215 structure fires, 340 vegetation fires and 378 rescue/emergency/medical calls. There were 4 fatal fires in the Northland Region during this period, with one of these being in the Whangarei District.

As well as responding to emergencies, fire-fighters are involved with education programmes in our communities to prevent unwanted fires. The Northland Fire Region maintains close ties with partners in the community including local Iwi, local social services groups, other government departments and the local territorial authorities.

The Northland Fire Region initiated the Te Kotahitanga Smoke Alarm project in 2002, in response to a high number of fire fatalities in Northland over the preceding years. Since its conception, over 67,000 smoke alarms have been installed in high-risk homes in Northland, and this project is now operating in other parts of the country. Overall the number of fatal fires has decreased in these targeted areas.

(New Zealand Fire Service, 2010)

Whangarei Community Report 2008

The Whangarei District Local Services Mapping Steering Group identified five priority areas that need action for the overall wellbeing of the Whangarei community. These are:

1. Wellbeing of young people
2. Drug, alcohol and mental health services
3. Family violence
4. Emergency housing
5. Transport to social services

These priority areas are closely linked with the safety of people living in our community.

1) Wellbeing of young people:

The following factors were identified as risk factors affecting the well-being of young people:

- Truancy – As mentioned in the education section, research has shown there are linkages between truancy and crime. Boredom and the lack of structure associated with non-attendance at school are perceived to be one of the main causes of youth offending in the Whangarei District.
- Gangs – Gangs are thought to be recruiting young people, including early school leavers, resulting in criminal behaviour occurring at an earlier age.
- Anti-social behaviour – This includes tagging, alcohol and drug-related problems.
2) Drug, alcohol and mental health services:

One in five New Zealanders experiences a mental illness or addiction, and this affects not only the individual’s life, but also the lives of their family and friends, and the wider community. Alcohol and drug addictions are closely linked with mental health problems. Cannabis and methamphetamine are considered a significant problem in Whangarei.

Most people with mild-moderate mental illnesses are treated in primary health settings. There is a high demand for primary mental health services in the Whangarei District.

3) Family violence:

Family violence includes verbal, physical and sexual abuse, neglect, and damage to property. Police data shows that family violence is a major problem in our community. Service providers in the Whangarei District believe that this is just the tip of the iceberg, as most incidences of family violence go unreported. They also feel there is a general tolerance in communities of violence within families.

Serious assaults were the most common form of family violence in the Whangarei District, accounting for 36% of cases. Breaches of the Domestic Violence Act 1995, destruction of property and intimidation and threats were the next most common forms of violence.

Service providers in Whangarei feel that the current services are unable to meet the demand for family violence assistance in the community.

4) Emergency housing:

A shortage of affordable and appropriate housing results in a greater demand for emergency housing, particularly for those most vulnerable. These include: older people, women exposed to domestic violence, disabled people, ex-prisoners, ‘at-risk’ young people, single parents, families forced to live together, and people with drug/alcohol problems. The provision of sufficient emergency housing is essential for the safety and well-being of these people.

Whangarei Emergency Accommodation Response (WEAR) is a made up of representatives from various government departments, local government agencies and community providers. Reports commissioned by WEAR resulted in the opening of the ‘Link Centre’, which is run by the Whangarei Emergency Housing Charitable Trust, and provides food and shelter for those in need. The Trust manages two emergency accommodation facilities, but it is recognised that there is still a shortage of emergency accommodation in the Whangarei District.

There is also a considerable shortage of state housing in the Whangarei District at present. In November 2009 there were 437 people on the waiting list for a state house, of which 17 were classed as A priority – ‘severe housing need’, and 152 were B priority – ‘significant housing need’ (Housing New Zealand Corporation, 2009).

5) Transport to social services:

Access to social services is important for the safety and overall well-being of people. Those that rely on public transport include the elderly, disabled and low-income earners. In areas outside of city boundaries the public transport service is limited, which makes these people more vulnerable. Hikurangi, Bland Bay, Maungakahia and Pipiwi have been identified as communities with inadequate access to services.

(Whangarei District LSM Steering Group, 2008)
Safety Issues for Older People

Some older people, particularly women, can feel physically vulnerable and at risk of becoming a victim. As with other age-groups, the perception of the CBD being unsafe after dark may result in older people avoiding going into these areas and therefore curtailing their social activities. Fears about personal safety have also been reported as a major motivator for moving into a retirement village. Older people in rural/coastal areas can be particularly vulnerable to crime due their isolation from others. They are also more at risk if a natural disaster occurred, with many being unprepared for an emergency situation.

As mentioned previously, older people who are unable to drive can be isolated, particularly in rural/coastal areas. They can experience problems paying bills, buying groceries, getting to medical appointments, filling prescriptions, and seeing friends and family. This can lead to a number of problems, including nutritional deficiencies, health problems and depression.

Older people have a higher prevalence of unintentional injury, especially falls and motor vehicle accidents (NDHB, 2008). Uneven and slippery footpaths/paving, and footpaths without ramps and/or dropped kerbs, pose a risk for elderly pedestrians and wheelchair/mobility scooter users. Poor street lighting, lack of clear signage/maps and obscured access ways can also make areas unsafe. In addition, there is potential danger to other footpath users from mobility scooters.

(WDC, 2005).

Whangarei District Council

Keeping communities safe

Crime and disorder are not just matters for the criminal justice system. Many agencies in the community can contribute to crime reduction and helping people feel safer.

There are two fundamental approaches to community safety and anti-social behaviour:

1. Direct approach:
   - For community safety - additional policing, surveillance services, improved street lighting, CCTV and other crime prevention (e.g. home security).
   - For anti-social behaviour in both adults and young people - addressing the individuals who are causing problems, and mediation between individuals.

2. Indirect approach:
   - Focusing on the perceptions of local citizens, with the aim of facilitating more optimism about their neighbourhood.
   - Making improvements to the local environment to make areas feel less threatening and cleaning up graffiti, vandalised areas etc.
   - Diversionary projects that provide alternative activities to anti-social behaviour

Long Term Community Council Plan (LTCCP) 2009-2019

After community consultation, six community outcomes were identified for the LTCCP, including the following:

A district that is safe and crime-free -

- We have a clean, tidy and vibrant district with identity and spirit.
- People of all ages feel safe in our District.

• Graffiti is not tolerated in our District.
• Safe, convenient and well-maintained cycle ways and footpaths are available.
• Communities are supported to provide solutions to their individual issues.
• We have a greater Police/Maori Wardens/Dog Control presence in our community.
• Urban development and renewal activities take safety issues into consideration.

The indicators that will be used to monitor progress are:

• Number of pedestrian and cycle crashes.
• Perception of safety
• Total number of recorded offences per 100,000 population.
• Total number of recorded violent crimes that have occurred in a public place.
• The percentage of residents in the district who think that graffiti is a problem in the Whangarei District.

Except for the last indicator, which is new, baseline date from 2007/08 will be used to measure progress.

**Existing infrastructure and services**

**Emergency Services**

**Police**

The Whangarei District has six police stations. These are located at Kamo, Onerahi, Hikurangi, Ruakaka, Waipu, and the central city. In addition, the Community Safety Team now has dedicated premises in Otangarei, and Maori wardens are working with police to patrol known ‘hot spot’ areas.

The number of employees with constabulary powers (police officers) and employees without constabulary powers (loosely support staff) (FTEs) at each of the stations for 2009/2010 is:

- Whangarei Central – 135.13
- Kamo – 5
- Onerahi – 2
- Hikurangi – 2
- Ruakaka – 4
- Waipu – 2

In addition, there are staff employed in the areas of: Business Services, Policing Development, Human Resources, Operations, Road Policing, and Crime Management.

(NZ Police, 2009³⁴)

*Please refer to Appendix One for a map showing the location of the police stations in the Whangarei District.*

**Fire**

The Northland Fire Region team is made up of 17 regional management and support staff, 39 paid firefighters and 547 volunteer fire-fighters. In the Whangarei District there is the main Whangarei Fire Station, located in the central city, as well as 8 unattended stations in the following areas: Ngunguru, Hikurangi, Kamo, Onerahi, Whangarei Heads, Portland, Ruakaka and Waipu. These unattended stations are manned by approximately 170 volunteer fire-fighters (NZ Fire Service, 2010). The New Zealand Fire Service is responsible for management of the Urban Fire District.

³⁴ Northland District Business Plan 2009/10
The Whangarei District Council is the Rural Fire Authority for the Whangarei District. The district has three Volunteer Rural Fire Forces, located at Oakura (Whangaruru), Whananaki and Maungakaramea. WDC has contracted Forest Protection Services Trust for the delivery of fire management and Principal Rural Fire Officer (PRFO) services. The PRFO is responsible for carrying out the fire control functions of the district including response to fire incidents.

The New Zealand Oil Refinery, Department of Conservation and some of our commercial forests have their own fire-fighting resources and trained personnel.

Ambulance

The main St John ambulance station is based in Whangarei, with a smaller station located at Bream Bay. Another small station is planned to be built on the Tutukaka Coast in 2010. There are currently 25 (FTE) paid ambulance officers and 34 volunteer ambulance officers in the Whangarei District.

St John also provides 2 (FTE) advanced paramedics to crew the rescue helicopters 24 hours/day. The Northland Emergency Services Trust (NEST) owns and operates the helicopters, which are dispatched via the St John communication centre (Pers.comm. T.Devanney, 2009).

Coastguard Services

Whangarei Volunteer Coastguard owns and operates a 24-hour radio communications channel (Ch 64), which is manned by a team of volunteers. They have their own Dedicated Rescue Vessel (DRV), and cover the area from Bream Head in the north out to, and including, the Moko Hinau Islands, and down to Mangawhai Heads in the south. This area includes the entire Whangarei Harbour.

Northland Coastguard Air Patrol is one of the Air Patrol units in the Northern Region. Based at the Kerikeri airfield they can provide aerial assistance for search and rescue incidents from Whangarei up to Cape Reinga (Coastguard Northern Region, 2010).

Civil Defence Emergency Management

Civil Defence Emergency Management is a statutory function of all councils in New Zealand under the Civil Defence Emergency Management Act 2002. In Northland, we have the Northland Region Civil Defence Emergency Management Group, which plans and provides for civil defence emergency management. Members of this group include the region’s three District Councils, Northland Regional Council, emergency services (e.g. fire, police), voluntary agencies and other individuals.

Other Services

City Safe

The ‘City Safe’ programme was designed to increase awareness of what is going on in the community, to identify trouble quickly and to clear up problems before they escalate. The programme involves a variety of official agencies (e.g. police, councils, Northland Health), community groups, businesses and individuals who work on the streets every day (e.g. bouncers, taxi drivers, retailers). In addition to an upgraded CCTV network, ‘City Safe’ logos have been placed around Whangarei city, particularly in potential or known trouble spots, to show that people are keeping an eye on these areas. A 24-hour call centre has been set up to report any incidents.
Young people

There are 3 inter-agency Northland Inter-sectoral Forum (NIF) projects currently operating to assist young people:

- ‘Engaging Taitamariki in Learning’ – this is a long-term project which encourages young Maori, especially males, to stay in school/training and also to participate in learning activities outside the classroom. The goal of this project is to significantly increase Maori achievement in Northland schools within the next five years. Indirect benefits may include a decrease in truancy rates, anti-social behaviour, and youth offending.

- ‘Connecting Young People’ – this project involves a range of youth services working together to prevent young people getting involved in gangs, and helping those already in youth gangs.

- The ‘Otangarei Community Renewal Project’ – this complements existing initiatives in the Otangarei community, and includes a focus on youth. It aims to make Otangarei more connected and self-sufficient, and a safer place to live.

Other services in the Whangarei Community include:

- ‘Strengthening Families’ – this is a community-based initiative, which matches up families and appropriate services. The aim of this initiative is to shift the focus from crisis intervention to providing early support to families, in order to prevent difficult situations from escalating.

- ‘The Pulse’ (Te Hotu Manawa) also links young people to a variety of services, including education, health, police and social services. The Whangarei Youth One Stop Shop Charitable Trust runs this service.

(Whangarei District LSM Steering Group, 2008)

Older people

- Land Transport New Zealand offers ‘Safe with Age’ driving courses, which are organised by Age Concern. They prepare older people for re-sitting driving tests and increase their confidence, which can help with the overall safety of all road users.

- Another measure to improve safety for older people is the ‘falls prevention programme’ provided by ACC, in partnership with Sport Northland (WDC, 2005).

Drugs, Alcohol and Mental Health Services

Services include:

- Manaia PHOs primary mental health initiative, which provides assessments, treatment plans and referrals.

- Rubicon Youth Alcohol and Drug Support Service, which provides drug and alcohol counselling for 11-17 year olds, and operates out of eight secondary schools in Whangarei.

- Northland Health’s Mental Health Inpatient Unit, which offers acute 24-hour care. Northland Health also provides addiction services.

- Community Action Youth and Drugs (CAYAD) is a national initiative aimed at reducing the harm of drugs in our communities. It is run locally by the Ngati Hine Health Trust and Ki A ora Ngatiwai.
Facilitators work with local agencies and communities to address locally identified issues, raise awareness and to motivate positive change.

(Whangarei District LSM Steering Group, 2008)

**Family Violence Services**

Services involved with family violence include:

- Inter-agency case management forums – established by NZ Police to address issues raised by service providers and practitioners. This is a collaborative approach to reduce and prevent family violence.

- Northland Strategic Family Violence Group – representatives from family violence-related services connect frontline services and strategic decision-makers. They help resolve operational issues for the service providers.

- Everyday Communities (CY&F and Amokura) – provides community education on the prevention of child abuse and family violence. The EDC working party has members from a range of social services, youth, health, iwi, community, non-government and government organisations.

(Whangarei District LSM Steering Group, 2008)

**Emergency Accommodation**

- The Link Centre - this is run by the Whangarei Emergency Housing Charitable Trust and provides food and shelter.

- Te Puna O Te Aroha Maori Women’s Refuge – for women and their children

- Women’s Refuge – Tryphena House – for women and their children

**Transport to services**

Northland Health provides a free bus service on weekdays to transport patients (outpatients and inpatients) between Kaitaia Hospital and Whangarei Hospital. Manaia Health also provides regular transport for people in Whangaruru to access medical services in Whangarei.

Within the Whangarei City, the Northland Regional Council operates the Total Mobility Scheme, which offers a discounted taxi fare for those unable to travel by bus due to a disability. In addition, pensioners with a Super Gold Card have free bus travel during off peak periods.

(Whangarei District LSM Steering Group, 2008)

**Whangarei District Council (WDC)**

WDC has many responsibilities that contribute to the safety (and health) of the community. These include:

- Management of local infrastructure e.g. roads and footpaths (including street lighting), car parks, sewage and stormwater disposal, water supply, rubbish collection, flood and river control work.

- Maintenance of community infrastructure such as public playgrounds, parks, sports fields and reserves.

- Animal control (dogs, wandering stock) – WDC has contracted Environmental Northland Limited to provide this 24-hour service.

- Regulatory services – monitoring and enforcement functions under a range of statutes e.g. food safety in food premises, liquor licensing, permits for hairdressing premises, campgrounds, and mortuaries. Other monitoring includes swimming pool fencing and building warrant of fitness.
• Building permits - all construction, alteration, demolition and maintenance of new and existing buildings in New Zealand are subject to the processes and regulations, under the Building Act 2004.
• Resource consents (subdivision and land use) - any activity not permitted in the District Plan requires a resource consent, under the Resource Management Act 1992. This is to ensure they do not have harmful effects on the surrounding area or the environment.
• State of the environment – WDC monitors and reports on development trends and the state of the environment in our district.
• Community services – includes pensioner housing, public safety programmes (e.g. City Safe), and settlement support/advice for new immigrants.
• Gambling - WDC has a Class 4 Gambling Venue Policy, which relates to the management of pokie machines in the community. The aim of this policy is to control the growth of gambling and minimise the harm caused by gambling.
• Road Safety Programmes - a Road Safety Coordinator is contracted to Council through the Northland Road Safety Trust, to facilitate the delivery of education projects in conjunction with stakeholder partners in the Northland Road Safety Forum and wider community. Current projects include: promotion of sober driving, mobility scooter education project and walking school buses.

Northland Regional Council (NRC)

NRC also has responsibilities that contribute to the safety (and health) of the community. These include:

• Environmental planning and monitoring - any activity not permitted in the NRC Regional Plan requires a resource consent under the Resource Management Act 1992. A resource consent allows the use or taking of resources; discharges into air, water or onto land; or to carry out works in the Coastal Marine Area. Monitoring is carried out as part of the consent conditions to ensure there are no harmful effects on the surrounding area or the environment.
• Regular monitoring is also carried out to determine key changes in our air, land, water and coast. The State of the Environment Report provides updated information on the health of our region's natural and physical resources. Future changes can be measured against baseline data.
• Biosecurity - NRC has a regulatory role in pest management and weed control.
• Pollution control – NRC has an Environmental Hotline, which is a 24-hour phone service for members of the public to report any environmental incidents to the council. In addition, environmental assessments of industrial and commercial sites are carried out by the council, and a register of sites with hazardous industries or activities is maintained. NRC also responds to any oil spill incidents.
• Transport planning and management of the urban bus service. NRC has assisted in preparing for a rail link to Marsden Point Deep Water Port in an attempt to reduce the amount of heavy freight trucks on Northlands roads.
• Harbour navigation and safety.
• Management of waste hazardous substances (including storage, use, transportation and disposal).
• Natural hazard management, coastal hazard management and flood protection work.

D'Tag Graffiti Removal Programme

D'Tag Whangarei is a programme which uses volunteers to remove graffiti from the community, including residential and commercial areas. It is sponsored by the Whangarei District Council, Safer Whangarei and Te Ora Hou.
Future Infrastructure and Services

Due to insufficient information, it has been difficult to predict the future infrastructure needs for police, fire and ambulance services. However, some broad proposals have been provided in the ‘Comparison of the Three Futures’ section below. It is recommended that the Whangarei District Council liaise with the Northland District Police, St. John Ambulance and the Fire Service when planning any future developments to ensure their requirements will be met.

Police

In 2009/10, Northland Police will focus on the following priorities:

- **Organised crime** - preventing, combating and reducing organised crime (including supply and manufacture of illicit drugs).
- **Alcohol (misuse)** - reducing alcohol-related harm through a sustained, collaborative approach involving prevention, enforcement and community engagement.
- **Youth** - reducing the offending by and victimisation of young people.
- **Maori** - working alongside Maori to reduce Maori offending and victimisation.
- **Violence** - reducing the number of victims of violence in homes, schools and public places.
- **Road trauma** - reducing the number of victims of crime and crashes through effective policing of the roads.

The following ‘fatal five’ risk factors will be the focus of road policing activities for 2009/2010:

- Speed
- Drink/drugged driving
- Restraints (includes safety belts and ‘under-5’ restraints)
- Dangerous/careless driving
- High-risk drivers

It has also been recognised that the population growth and development occurring in the One Tree Point/Ruakaka areas may have an impact on police resources in the future. There may be a greater demand for police services in these areas, more opportunities for offending with new property developments continuing, increased traffic flows, and the possibility of more community reassurance activities being required.

(NZ Police, 2009)

Ministry of Social Development

Two of the priorities identified in the Ministry of Social Development 2009/2010 Northland Regional Plan, which will help improve the safety of Northlanders, are:

- **Keeping kids safe** – ensuring children have the best start in life. Parents (particularly young parents) are offered access to resources to build their parenting skills. Keeping children safe, especially at-risk under two-year-olds, is a priority for the Ministry.

- **Young people** - helping young offenders break cycles of offending and get back on the right path. To do this, the Fresh Start package will be implemented.
Fresh Start is a national programme for young offenders, which has recently been announced by the Government, and aims to stop young people from reoffending by:

- helping young people involved in low-level offending to get back on track
- holding serious and persistent young offenders to account
- addressing the root causes of offending

In Northland, the Ministry will work to reduce youth offending rates by putting multiagency plans in place to help Northland’s most serious youth offenders change their lives. In addition, a youth justice co-ordinator will be available on site at ‘The Pulse’ in Whangarei.

(Ministry of Social Development, 2009)

**WDC/NRC**

As the number of older people choosing to live in rural/coastal settlements is rising, more support will be needed to help them maintain their independence and social connectedness. In particular, the provision of some form of public transport for these areas will need to be considered in the future.

Another issue with the growing elderly population is that the number of mobility scooters is likely to increase. Plans for managing the competing needs of pedestrian and motorised travellers need to be considered for the central city area to avoid accidents occurring (WDC, 2005).33

Changing people’s perceptions of safety in their community may not be easy. However it is important that people are made aware of any initiatives being undertaken to improve their safety (e.g. the City Safe programme). In addition, any information that demonstrates improvements in their community or the CBD should be widely circulated. Awareness campaigns for crime prevention, injury prevention, emergency preparedness and safety in the home can also be provided. The promotion of Neighbourhood Support groups in urban and rural areas is recommended to foster cohesion and a sense of security within local neighbourhoods (WDC, 2005).

The WDC has adopted the use of ‘Crime Prevention through Urban Design’ (CPTED) principles in public and private developments in the CBD and suburban centres. The aim is to create safe and attractive public spaces which ultimately increase public safety and decrease people’s fear of crime.

An integrated approach across the many agencies, groups and communities is needed to address community safety needs.

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9. Comparison of the Three Futures

The Sub-Regional Growth Strategy is being prepared in order to manage projected growth in the Whangarei District sustainably over the next 30-50 years. This project ‘Sustainable Futures 30/50’ outlines three alternative futures for the Whangarei District over the next 30-50 years. The three futures are presented to stimulate debate as to the preferred future settlement pattern for the district.

Future One – Lightly Regulated/Market Led Development

Future One represents a lightly regulated, market led, approach to development and, in general, reflects land development in the district over the past 10-20 years. It is presented as a continuation of this lightly regulated, largely market driven approach to land development and can be seen as a baseline against which to evaluate the other two options, in addition to an alternative development path in its own right.

Future One will result in a widely dispersed settlement pattern with two discernable trends: 1) urban development will be dispersed throughout the district, with concentrations in Whangarei, Marsden Point/Ruakaka, other urban, rural and coastal locations and along transport corridors; 2) widely dispersed, sporadic rural residential development throughout the district, including both countryside and coastal countryside environments.

With this type of future development path, planning for new medical centres, schools, tertiary education facilities, police stations and other emergency services would be difficult. The provision of this type of infrastructure would be ad hoc and reactive, responding to development pressures as they occur. Urban and rural residential sprawl, and ribbon development along coast and transport corridors, would make it hard to determine the best location for this infrastructure. Being unable to plan ahead would make it difficult to ensure these services are in the best location to meet the community’s needs.

Setting land aside in advance is vital to ensure optimal locations are found to suit the needs of each service. This is particularly important for schools, which are often the hub of community. They require a larger amount of land (approximately 4 hectares for primary and 10 hectares for secondary schools), and need to be located in easily accessible areas and well away from industrial development. Careful planning of their location is important to minimise traffic congestion and maximise accessibility for the majority of students. They need to be near public transport routes and safe walking/cycling routes.

Draft projections from the Ministry of Education indicate that the existing schools in Whangarei have sufficient capacity to cope with the predicted increase in population over the next twenty years. However, if there is significant growth in the Marsden Point/Ruakaka area, it is likely that more primary schools and another secondary school would be required. The council needs to liaise with the Ministry on a regular basis in order to monitor the overall situation and to enable efficient planning for the 30-50 year timeframe.

It is unlikely that the Government will view Northland as a viable area to build a new university for the reasons stated earlier in the report (p.55). However, this will provide an opportunity for other tertiary providers to expand and to respond to the changing needs of the population over time.

Medical centres, police stations and other emergency services also need to be located in areas that are accessible to the majority of the local population. This would be difficult given the scattered nature of development in Future One. Medical centres are ideally located near main community centres, preferably with access to a pharmacy and close to public transport routes. The urban sprawl in Whangarei City, ribbon development in coastal areas, and widely dispersed rural residential development would mean that people without their own transport could have difficulty accessing these primary health care facilities.

If the population of the Whangarei District reaches the projected 130,000 by 2061, the number of General Practitioners required will increase significantly. Using the current ratio of 1 GP per 1400 people, the Whangarei District will need at least 93 FTE GPs, which is an additional 20 GPs. However, given the additional medical care required by an aging population this estimate is probably too conservative and the
actual number needed could be considerably higher. Also, an increase in the Maori population is likely to create a greater demand for Maori Health Providers.

Whangarei Hospital has begun expanding its current facilities to cope with the predicted increase in patient numbers over the next 20 years. The expansion programme is to be completed in several stages, most of which are still subject to approval. If further buildings are required for core services within the 30-50 year timeframe, one option might be to move outpatient facilities off-site, perhaps within the vicinity of the hospital or alternatively to suburban centres. The proposed Integrated Family Health Centres and Minor Surgery Initiative should help reduce the demand on the current hospital outpatient facilities.

With the increasing number of Triage 5 (least acute) patients attending the Whangarei Hospital Emergency Department over recent years, there appears to be a demand for community after-hours clinics that are both affordable and easily accessible. Having such clinics could significantly reduce waiting times in the Emergency Department and enable the hospital to focus on more urgent cases. A step in the right direction has been the reduction of fees for all children under six, who are registered with a Manaia PHO, to see a doctor after hours and on the weekend. However, the current charges for those over 6 years of age are prohibitive for many. The upcoming Primary Options Programme may help take some of the pressure off the hospital, and provide a free service to eligible patients.

With a growing population in the Marsden Point/Ruakaka area, it is likely that the police, fire and ambulance stations will need to be expanded at some stage in the future.

**Future Two – Twin City/Urban and Coastal Spread**

Future Two is an intermediate position between Futures One and Three. It represents a moderately controlled, partly consolidated development path based upon a three-tier settlement pattern. These tiers consist of:

- Twin cities at Whangarei and Marsden Point/Ruakaka, with both urban centres growing to around 25,000 people (greater Whangarei to around 75,000) and competing with each other for higher level service provision.
- Urban and coastal settlements, with some associated urban sprawl and ribbon development. The five urban villages within greater Whangarei would grow to around 10,000 people each, and nine coastal settlements located along the coastline from Waipu Cove in the south to Oakura in the north, would grow to around 2,000 people each.
- Rural urban development largely at village level with some sporadic development throughout the rural area. The three rural villages would grow to around 2,000 people each.

### Health

**Marsden Point/Ruakaka area:**

With a population of 25,000 and the close proximity to Whangarei Hospital, it is unlikely that a hospital would be built in the Marsden Point/Ruakaka area within the next 30-50 years. Napier's population was more than twice this size, yet the hospitals in Napier and Hastings were amalgamated in the late 1990s, resulting in the creation of the Hawke's Bay Regional Hospital (located in Hastings). The trend of centralising services indicates that it is unlikely the government would choose to have two hospitals so close together.

In addition, Whangarei Hospital is a regional hospital covering the whole of Northland and provides a range of specialist services. Having a second hospital would mean duplicating existing services and the two hospitals would be competing for staff.

An efficient public transport system or shuttle service would probably be needed however, to allow residents of the Ruakaka/Marsden Point area to access the facilities available at the Whangarei Hospital. In addition, a service providing 24-hour emergency care would be necessary, as many people (particularly older people) would be unable to travel to the hospital’s Emergency Department at night. This could be provided by individual GPs, however Integrated Family Health Centres could be a better option if they provided basic
diagnostic services (e.g. x-rays) and treatment. They could also provide emergency care for people from Waipu and other surrounding areas. Any serious cases would still need to be transferred to Whangarei Hospital immediately.

Using the current ratio of 1 GP per 1400 people, approximately 18 General Practitioners would be needed to provide primary medical care for a population of 25,000. In reality, that number would probably need to be higher than this as the proportion of older people in the population is likely to increase. Some outpatient services currently carried out in the hospital could be provided at Integrated Family Health Centres, or by other GPs who are involved with the new Minor Surgery Initiative.

Another option is to have a health centre/community hospital, which has a small number of in-patient beds for elderly/continuing care and low risk maternity patients, who are cared for by local GPs and midwives respectively. Outpatient clinics and a variety of community services could also be provided at this facility. An example of this is MidCentral Health's Horowhenua Health Centre in Levin, a town 50 kilometres from Palmerston North, with a population of approximately 20,000 people. This centre provides hospital and primary health care services, including GPs, pharmacy, laboratory and radiology care, in-patient beds, outpatient clinics, and community support services. Another example is the Kaipara Health Centre (includes Dargaville Hospital, Dargaville Medical Centre, and the Iwi provider 'Te Ha O Te Oranga'), which is jointly owned by the Northland District Health Board and local providers. Services include 16 inpatient beds (including 4 maternity), outpatient appointments with visiting consultants, and 24-hour emergency care.

However potential problems with these health centres/community hospitals include: funding issues, splitting of resources, duplicating some services, difficulty attracting GPs and midwives (willing to commit to this type of care), and competing for staff with the main Whangarei Hospital.

Other areas:

If the suburban nodes at Kamo, Tikipunga, Onerahi, Maunu and Otaika grow to approximately 10,000 people each, there will also be an increase in demand for medical care in these areas. Integrated Family Health Centres could be a suitable option for these larger populations, with the centres being the main providers of comprehensive primary care. Kensington could develop into a medical services precinct. By offering some of the services currently provided by Whangarei Hospital, these centres could relieve some of the pressure placed on the hospital by a growing population, and provide a healthcare service that is more accessible to the local community (particularly for the elderly).

If the rural and coastal villages grow to 2,000 people each, extra GPs are likely to be required at Hikurangi, Ngunguru, and Waipu. In addition, a small medical centre might be needed at Parua Bay to provide medical care for the north harbour, Whangarei Heads and Pataua areas.

Schools and tertiary providers

Marsden Point/Ruakaka:

Expansion of the current primary schools, One Tree Point Primary School and Ruakaka Primary School (just off SH1), would probably be the first step to accommodate the growing population in this area. These schools have reasonably small rolls, and have yet to reach their allocated capacity. It is estimated that up to four new primary schools are likely to be required in the future if the population reaches 25,000. The most likely location for the first new primary school would be the Ruakaka/Bream Bay area (possibly near Bream Bay College). In addition, more pre-schools and kohanga reo would be required throughout this area as the population increases.

The council would need to liaise closely with the Ministry of Education when reviewing/updating the Marsden Point/Ruakaka Structure Plan to determine the likely educational needs of the area. An area strategy would probably need to be considered by the Ministry of Education if Futures Two is chosen as the preferred option. An area strategy provides strategic planning across a network of schools, rather than planning for individual new schools on an ad hoc basis. A consultation process is carried out with the local community to
establish the educational needs of the area. An independent contractor, who provides a report for the Ministry of Education, carries this out.

Expansion of Bream Bay College will need to be considered in the future as the population grows and the school reaches its allocated capacity. With a population of 25,000 people, a new secondary school would also be required, with the most likely location being the One Tree Point area. Re-establishing a ferry service from the Parua Bay-Whangarei Heads area might be an option worth exploring for the existing and/or new secondary school, if the population increases as projected in those coastal areas.

Suitable areas of land would need to be set aside in advance of further development to ensure the necessary requirements are met. The minimum land size required for primary schools is approximately 4 hectares (which allows for own sports fields) and for secondary schools approximately 10 hectares is needed (including sports fields). Schools need to be situated near main public transport routes and safe walking/cycling networks. In addition they would ideally be located adjacent to the main open space in a community, and well away from industrial areas.

Even with a population of 25,000, Marsden Point/Ruakaka would probably lack the critical mass required for a North Tec campus. The population would not be large enough to justify duplicating courses and facilities in a location only 30 minutes away from the main campus. However, with modern technology, North Tec could continue to offer courses to small groups, and the type of courses offered would depend on the demand of the population. Small groups are feasible due to the use of e-learning and other technology. Currently students in other areas of Northland are able to receive lessons and support via video conferencing. In addition, tutors in other areas of Northland are able to travel to the area for larger groups of students.

Other areas:

Draft projections from the Ministry of Education indicate that the existing schools in Whangarei have sufficient capacity to cope with the predicted increase in population over the next twenty years. However, due to popularity of certain schools and population growth in some areas, the district has some schools that are close to or exceeding their allocated capacity. Some schools have introduced an enrolment scheme (zoning) to prevent school overcrowding, and others may have the option of expanding their rolls in the future, provided they have the room to add more classrooms. Other schools are currently well below capacity. The Council needs to liaise with the Ministry of Education on a regular basis to monitor the situation and to enable efficient future planning for the next 30-50 years.

North Tec’s presence in the five suburban nodes may also be needed when the population reaches 10,000 in these areas. These ‘urban villages’ would include Tikipunga, Maunu and Onerahi. Otaika already has the main campus in close proximity, and the existing facility in Kamo would possibly need expanding.

It is unlikely that the Government will view Northland as a viable area to build a new university for the reasons given earlier in the report. However this will provide an opportunity for other tertiary providers to expand, and to respond to the changing needs of the population over time.

**Police and other emergency services**

**Marsden Point/Ruakaka:**

The number of police officers/support staff required for Marsden Point/Ruakaka would increase significantly if the population reached 25,000. The station currently has four police officers/support staff to service a population of approximately 3,300\(^3\). A larger police station would be necessary at Ruakaka to accommodate the considerable increase in staff numbers.

It is very likely that the fire and ambulance stations will need expanding at Marsden Point/Ruakaka if the population increased to 25,000.

\(^3\) Estimated resident population for 2009, based on 2006 census figures (Statistics New Zealand)
Other areas:

With the Future Two option the number of police officers/support staff required at Kamo Police Station is not likely to be significantly different by 2061, as there would be little change in the size of the population. However, if the northern coastal villages grow to 2,000 people each, extra police officers/support staff might be required at Hikurangi Police Station by 2061.

Waipu Police Station would probably need additional police officers/support staff if the populations at Waipu and Waipu Cove/Langs Beach both reached 2,000.

Onerahi Police Station would also probably require extra police officers/support staff by 2061 to provide cover for the increased population at Onerahi and the Whangarei Heads. A police presence may need to be considered for the Pataua-Parua Bay-Whangarei Heads area, and the Matapouri-Tutukaka-Ngunguru area, if each of these coastal settlements ends up with a population of 2,000 people. It may be that this presence is only required during summer months when the populations are at their peak.

The new ambulance station on the Tutukaka coast will provide cover for the expanding population in this area.

**Future Three – Satellite Town/Rural and Coastal Villages**

Future Three represents a managed, consolidated development path based upon a structured five-tier settlement pattern. This hierarchical arrangement is as follows:

- Whangarei City as the primary district and regional urban centre with a strong, protected and enduring CBD. The greater urban area grows to around 75,000 people (25,000 in central city).
- A satellite town at Marsden Point/Ruakaka which complements (but does not compete with) Whangarei City. The town grows to around 15,000 people.
- Five urban villages within greater Whangarei, growing to around 10,000 people each.
- One rural (Hikurangi) and two coastal growth nodes at Parua Bay and Waipu, each with populations of up to 5,000 people.
- Two rural villages, and eight coastal villages located along the coastline from Waipu Cove in the south to Oakura in the north, with up to 2,000 people in each village.

**Health**

Marsden Point/Ruakaka area:

If the population at Marsden Point/ Ruakaka reaches 15,000 there is likely to be a demand for an after-hours emergency service, which would also provide emergency care for Waipu and other surrounding areas. With an increasing proportion of elderly people, an accessible after-hours service is particularly important. This could be provided by individual GPs, however an Integrated Family Health Centre is another option. If the centre provided basic diagnostic services (e.g. x-rays) and treatment, this could help take the pressure off the Emergency Department at Whangarei Hospital. However, any serious cases would be still need to be transferred to the hospital immediately.

Building another hospital at Ruakaka is an unlikely option for the reasons given above in the Futures Two scenario. Integrated Family Health Centres (or similar), which provide hospital and primary health care services, could be a good option for this sized population.

For a population of 15,000 it is estimated that a minimum of eleven GPs would be needed to provide medical care\(^2\). However, in reality, the number would probably need to be higher than this as the proportion of older people is likely to increase. The provision of an efficient public transport system or shuttle service between

\(^2\) Based on ratio of 1 GP:1400 people
the medical centres and Whangarei Hospital is something that also may need to be considered in order to provide access to services, particularly for elderly and disabled people.

Other areas:

Currently, the closest medical centre to the Parua Bay-Whangarei Heads area is located at Onerahi. However, with the projected growth in these coastal villages and the identification of Parua Bay as a growth node under the Future Three scenario, it is very likely that a medical centre would be required. Initially, medical care could be provided by one GP, however by the year 2061, up to six (FTE) GPs would probably be needed for a population of 5,000 at Parua Bay and a further 2,000 people at each of the two coastal villages. The number of GPs required would depend on many factors, including the proportion of young and elderly people residing in the area, and whether people who work in Whangarei choose to have a doctor close to their workplace. With the largest cluster of people living at Parua Bay, the community/commercial centre at Parua Bay Village would probably be the most suitable location for a medical centre.

Currently Hikurangi has one General Practitioner but this area is likely to need more GPs if the population increases as projected. Again, those who live in Hikurangi, but work in Whangarei, might choose to see a GP close to their place of work. However if the population has a greater proportion of elderly people, as projected, local doctors that are easily accessible will probably be required. For a population of 5,000 it is estimated that up to four GPs would be needed for Hikurangi, and this would also be the case for Waipu. However, if the coastal villages grow to 2,000 people each, extra GPs might be required at Hikurangi and Waipu by 2061. Integrated Family Health Centres may also be required at Hikurangi and Waipu if these are identified as growth nodes.

If the suburban nodes at Kamo, Tikipunga, Onerahi, Maunu and Otaika grow to approximately 10,000 people each, there will also be an increase in demand for medical care in these areas. Integrated Family Health Centres could be a suitable option for these larger populations, with such centres being the main providers of comprehensive primary care. By offering some of the services currently provided by Whangarei Hospital, these centres could relieve some of the pressure placed on the hospital by a growing population and provide a healthcare service that is more accessible to the local community (particularly for the elderly).

Schools and tertiary providers

Marsden Point/Ruakaka

The two main primary schools in the Marsden Point/Ruakaka area, One Tree Point Primary School and Ruakaka Primary School, currently have capacity for more students. Expansion of these schools is a possibility for the future as the population in the area increases. It is estimated that at least one (possibly two) new primary school(s), will be required if the population reaches 15,000. The most likely location for the first new primary school would be the Ruakaka/Bream Bay area (possibly near Bream Bay College). In addition, more pre-schools and kohanga reo would be required throughout this area as the population increases.

Expansion of Bream Bay College will need to be considered in the future as the population grows and the school reaches capacity. If expansion is limited, an alternative may be to build a new secondary school in the One Tree Point area. Re-establishing a ferry service from the Parua Bay-Whangarei Heads area might be an option worth considering for the existing and/or new secondary school, if the population increases as projected in those coastal areas.

The Marsden Point/Ruakaka area would definitely benefit from having a continued North Tec presence in some capacity if the population reaches 15,000. Given the close proximity to the Whangarei campus and the high-tech study options available, it is unlikely that a separate campus would be required in this area. As with Future Two, a population of this size would lack the critical mass required to justify building a new campus. The type of courses offered would depend on the demand of the population. Small groups are feasible due to the use of e-learning and other technology. Currently students in other areas of Northland are able to receive lessons and support via video conferencing. In addition, tutors may travel to the area for larger groups of students.
Other areas:

As mentioned previously, draft projections from the Ministry of Education indicate that the existing schools in the Whangarei District have sufficient capacity to cope with the predicted increase in population over the next twenty years. However, the council needs to liaise with the Ministry on a regular basis in order to monitor this and to enable efficient planning for the 30-50 year timeframe.

In the Future Three scenario, there is a possibility that a new secondary school might be required in Parua Bay or Onerahi by 2061. A population of 10,000 at Onerahi, plus a further 9,000 in the coastal area out to the Whangarei Heads\(^3\), is likely to be sufficient for a new secondary school. However this would need to be assessed in the future, in conjunction with the Ministry of Education, and with population figures and the capacity of other schools being taken into account.

North Tec’s presence in the five suburban nodes may also be needed when the population reaches 10,000 in these areas. These ‘urban villages’ would include Tikipunga, Maunu and Onerahi. Otaika already has the main campus in close proximity, and the existing facility in Kamo would possibly need expanding. If the populations at Waipu, Parua Bay and Hikurangi reached 5,000, small classes may also be feasible in these areas in the future.

It is unlikely that the Government will view Northland as a viable area to build a new university for the reasons given earlier in the report. However this will provide an opportunity for other tertiary providers to expand, and to respond to the changing needs of the population over time.

Police

Marsden Point/Ruakaka:

The number of police officers/support staff required for Marsden Point/Ruakaka would increase significantly if the population reached 15,000. The station currently has four police officers/support staff. A larger police station is likely to be required at Ruakaka to accommodate the increased number of staff.

In addition, the fire and ambulance stations will probably need expanding at Marsden Point/Ruakaka if the population increased to 15,000.

Other areas:

For the Future Three scenario, the number of police officers/support staff required at Kamo Police Station is not likely to be significantly different by 2061. However, if the population at Hikurangi reaches 5,000, the number of police officers/support staff required at Hikurangi Police Station will increase. In addition, extra police officers/support staff might be needed if the northern coastal villages reach a population of 2,000 each.

Waipu Police Station would need extra police officers/support staff if the population at Waipu reaches 5,000, plus a further 2,000 people at Waipu Cove/Langs Beach.

Onerahi Police Station is likely to require extra police officers/support staff by 2061 to provide cover for the increased population at Onerahi. The establishment of a police station at Parua Bay might need to be considered if the population in this area reaches 5,000, with a further 2,000 people at both McLeods Bay/Reotahi and Taurikura/Urquharts Bay.

The Matapouri-Tutukaka-Ngunguru area might also require a police presence if each of these coastal settlements grows to a population of 2,000 people. It may be that this presence is only required during summer months when the populations are at their peak.

The new ambulance station on the Tutukaka coast will provide cover for the expanding population in this area.

\(^3\) 5,000 people at Parua Bay, and 2,000 people at both Mcleods Bay/Reotahi and Urquharts Bay/Taurikura.
10. Conclusions

Health

Socio-economic conditions are a major determinant of the health of the population. Northland has large areas of high deprivation, particularly in the Far North. In the Whangarei District high levels of deprivation are present in the northwest and in the northeast coastal area, with pockets in Whangarei city, Hikurangi and Ruakaka/Marsden Point.

Poor lifestyle practices are central to the emerging epidemic of obesity, increase in diabetes, and high rates of cardiovascular disease and cancer. Over half of Northland’s adult population is overweight or obese, and less than half participate in the recommended amount of physical activity. We have a higher prevalence of smokers than the rest of the country, and whilst our hazardous drinking rates are similar to the national rates, at 21% they are still a concern. Like the rest of the country, hazardous drinking rates in Northland are higher for males (29%), than females (13%).

Overall the state of our population’s health is poor. Compared to the rest of New Zealand, Northland has higher rates of avoidable mortality and hospitalisation. The hospitalisation rates due to cardiovascular disease (including ischaemic heart disease and stroke) and for chronic obstructive pulmonary disease in Northland DHB were significantly higher than national rates. Cancer mortality and hospitalisation rates were also significantly higher in Northland than the New Zealand overall.

Northland has one of the poorest states of oral health in the country. In addition Northland has higher rates of infant mortality, higher suicide rates and lower immunisation rates than the rest of New Zealand. For nearly all measures of ill health, the rates are higher for Maori than for non-Maori in Northland.

Northland District Health Board and Manaia Health aim to reduce inequalities in health within the population and improve overall health outcomes for Northland. There are currently a number of community services and initiatives that focus on the prevention of disease and promotion of a healthy lifestyle.

Pollution is another factor that can affect our health. The air quality is generally good in the Whangarei District, except occasionally in congested areas of the central city. However, some places where we swim and collect shellfish are polluted at times, which could be detrimental to our health. Measures to mitigate this problem are currently being undertaken by the Whangarei District Council, including upgrading the district’s sewerage system and decreasing stormwater infiltration into the sewer pipes. The Northland Regional Council is currently working on a flood risk reduction plan to avoid further flooding problems (and associated sewage spills) in the CBD during major storm events.

The promotion of measures that decrease reliability on cars is important for the health of our community, both in terms of air quality and for encouraging physical activity. Recommendations include: creating an extensive network of safe walking and cycle tracks, promoting alternative modes of transport to work/activities, and supporting community fitness campaigns (e.g. ‘Healthy Eating Healthy Action’).

As so many factors influence the health of the population a collaborative effort is required to improve the overall health status of the district.

Education

Studies have recognised the significant contribution that quality Early Childhood Education (ECE) can have on future learning. The Whangarei District is doing quite well with the overall percentage of Year 1 students who previously attended ECE services being similar to the national level. However, differences between ethnic groups exist, with Maori and Pacific children having lower attendance rates than Asian and European children in the district. The Whangarei District has a higher percentage of registered ECE teachers (for all ethnic groups) than the average for all territorial authorities in New Zealand.

It is important that sound literacy and numeracy skills are developed during Years 1-8, as these are the building blocks for all other learning. A recent employer survey identified literacy and numeracy as an area
which needs more focus at both the secondary school and tertiary levels in Northland. At the primary school level (Year 1-8 students), the new national standards for literacy and numeracy will come into effect this year, with the aim of identifying problems early so that additional assistance can be provided.

The percentage of school leavers in the Whangarei District who achieved NCEA Level 1 or above is only slightly lower than the percentage for NZ as a whole. However, the Whangarei District doesn't fare as well for NCEA Level 2 qualifications, and rates poorly compared to the rest of the country at the University Entrance level.

The amount of time spent at school can affect a student’s educational achievement. Retention rates (to 17.5 years) in the Whangarei District secondary schools are low compared with New Zealand figures. In addition, our overall truancy rates and exclusion rates are higher than the national averages. The Whangarei District also has a problem with a proportion of our young people not being engaged in employment, education or training (‘NEET’). In 2006, 16% of 15–19 year olds and 21% of 20–24 year olds were categorised as NEET. Those who are idle for extended periods have a higher risk of poor outcomes for themselves, with possible flow-on negative effects for the community. There are currently several initiatives in the community trying to address this issue and help channel these young people into a more successful future. A new initiative is the Ministry of Social Development’s ‘Youth Opportunities’ package.

At the tertiary level, 60% of students (EFTS) in Northland were at Level 1-3 (certificate-level) in 2006, compared to 26% nationally. At Level 7 (bachelor degrees), Northland had only 8% EFTS, which was considerably lower than the national figure (41%).

There is currently a high demand from the community and employers for these lower-level courses. Many employers would also like work readiness training (punctuality, reliability, and attitude) and work experience to be provided by schools and tertiary providers. In addition, there is also a demand for courses providing skills in problem-solving, oral communication, management and team-work.

The importance of providing higher level courses is also recognised, particularly with the current shortage of people for professional/technical and management roles. Depending on demand, more Bachelor and postgraduate degrees may be able to be offered by North Tec, the University of Auckland, Massey University, and Wananga as the population grows. However there needs to be a ‘critical mass’ of students for these courses to be viable, and this has been a problem for some of the higher-level courses at North Tec in the past.

The regional facilitation role of North Tec aims to maintain effective working relationships between stakeholders and tertiary education providers, and to increase collaboration between current providers. A number of industries with growth potential have been identified in the Whangarei District. On-going dialogue and collaboration is important to ensure that tertiary education provision is closely aligned with specific industry skill requirements, and that future needs are anticipated.

Safety

The effects of crime can be far-reaching, with a victim’s family and friends, and sometimes a whole community being affected. The fear of crime, although not necessarily always linked to the actual risk of becoming a crime victim, can also cause distress and seriously affect the quality of people’s lives. Although there has been some improvement from the baseline figures, a recent police survey showed that only 40% of Northland citizens feel safe in their city/town centre after dark. In Whangarei this can lead to people avoiding going into the Central Business District at night, which in turn can have negative effects on local businesses.

For the year 2008/09, dishonesty offences accounted for 44% of all offences in the Whangarei District, which is lower than the period 2003-2007. Drugs and anti-social offences had increased to 22%, and violence crimes were slightly higher at 16%.

The major police issues for Northland at present are: organised crime groups; the misuse of alcohol and illicit drug use; road trauma; youth offending and victimisation of youth; Maori offending, re-offending and victimisation; and the increase in violence offences (including family violence).
Providers in the Whangarei District believe that most family violence goes unreported, and that the recorded cases are just the tip of the iceberg. It is also felt that there is a general tolerance in communities of violence within families.

Risk factors affecting the well-being of young people include truancy, gang recruitment and anti-social behaviour. Youths (Under-17 year olds) comprise 20% of the district’s apprehensions.

Alcohol and drug addictions have been closely linked with mental health problems. Cannabis and methamphetamine are considered a significant problem in Whangarei. There is a high demand for primary mental health services in the Whangarei District.

There is currently a shortage of emergency accommodation in the Whangarei District, particularly for those most vulnerable. There is also a considerable shortage of state housing, with 437 people on the waiting list.

Access to social services is important for the safety and overall well-being of people. Hikurangi, Bland Bay, Maungakahia and Pipiwha have been identified as communities with inadequate access to services. Older people in rural/coastal areas can be particularly vulnerable to crime due to their isolation from others. They are also more at risk if a natural disaster occurred, with many being unprepared for an emergency situation.

The leading cause of avoidable injury and death in New Zealand is motor vehicle crashes. Young people aged 15-24 have more than twice the risk of dying in a motor vehicle crash than any other group, with males being most at risk. Elderly people also have a high prevalence of unintentional injury, with falls and motor vehicle accidents being the major causes.

Northland Police and the Ministry of Social Development have identified priorities to improve the overall safety of our community. Fresh Start is a national programme for young offenders. The Ministry will work to reduce youth offending rates by putting multiagency plans in place to help Northland’s most serious youth offenders change their lives. In addition, a youth justice co-ordinator will be available on site at ‘The Pulse’ in Whangarei.

There is a range of other services and community initiatives in the Whangarei District that are all working towards improving the safety of our people. Community safety can only be addressed through an integrated approach across the many agencies, groups and communities that are involved.

Future infrastructure

With the projected population growth and demographic changes, Northland DHB is planning ahead to ensure the appropriate services will be in place to cope with changing demands. Planning has been undertaken for a 20 year period, and as the Whangarei Hospital campus will be expanded and remodelled, a new hospital will not be required during this timeframe. If further buildings are required for core services within the next 30-50 years, one option might be to move the outpatient facilities off-site, perhaps within the vicinity of the hospital or alternatively to suburban centres. The council needs to work with the Northland DHB to ensure that future planning takes their requirements into account.

An aging population and projected increase in the proportion of Maori means there will be more demand for General Practitioners and Maori Health Providers in the future. The government is promoting the establishment of Integrated Family Health Centres, which provide a variety of primary health and social services, as well as some of the outpatient services currently provided by the hospital.

It is likely that the demand for rest home, hospital and dementia beds will increase substantially in the future as the population ages, and it is important that planning for this situation commences soon.

Draft projections from the Ministry of Education indicate that the existing schools in Whangarei have sufficient capacity to cope with the predicted increase in population over the next twenty years. However, if there is significant growth in the Marsden Point/Ruakaka area, it is likely that more primary schools and another secondary school would be required. The council needs to liaise with the Ministry on a regular basis in order to monitor the overall situation and to enable efficient planning for the 30-50 year timeframe.
It is unlikely that the Government will view the Whangarei District as a viable area to build a new university with Auckland being in such close proximity. In addition, Northland lacks the critical mass required to make a university viable. However, with a shortage of the ‘20-35 years’ age-group in the Whangarei District, attracting young people to the area is important for the future. A recommendation is to replace/upgrade the older buildings at North Tec in order for it to be competitive with other technical institutes around the country. In addition, the provision of sought-after courses and student accommodation would be another drawcard for students from other parts of the country and overseas.

It is difficult to predict the future infrastructure needs for police, fire and ambulance services therefore it is recommended that the Whangarei District Council liaise with these organisations when planning any future developments to ensure their requirements are identified.
References


Department of Labour (2009). The future demand for paid caregivers in a rapidly ageing society. Report reviewed by Associate Professor Paul Callister (Institute of Policy Studies at Victoria University of Wellington). Department of Labour.

Devanney, T. (2009). Personal communication. District Operations Manager, St John Ambulance Northern Region.


Northland District Health Board (2009). District Annual Plan 2009/10


Organisation for Economic Co-operation and Development (2009), Doing Better for Children, New Zealand Highlights. OECD.


Appendix One – Map of Community Facilities